Momentum Metropolitan pioneers global adoption of cutting-edge fintech software

Murex's partner, Elenjical Solutions, in collaboration with Momentum Metropolitan, has achieved a significant milestone by completing the world's first pilot upgrade of the Murex (MX.3) financial software platform to a new technology called Kubernetes.

Source: Supplied.

This upgrade specifically applies to the software used for trading, treasury management, risk analysis, and post-trade operations. By successfully implementing this pilot upgrade in early May, Elenjical Solutions and Momentum Metropolitan have demonstrated their innovation and leadership in adopting cutting-edge technologies.

Kubernetes is a portable, extensible, open-source platform for managing containerised workloads and services. It has a large, rapidly growing ecosystem and reduces the need and expense of maintaining permanent always-on servers.

This is because once the calculations are complete, the cluster nodes – which are a logical grouping of tasks or services – and the associated costs of running them, are terminated. Clusters, in this context, refer to a way of organising and managing tasks or services together. They can also be utilised to isolate applications, providing a separate environment for different software components.

Adaptable containers

Murex's latest version of MX.3, its trading platform, now includes a Kubernetes module option that is compatible with technologies like Amazon Web Services (AWS) Fargate and Elastic Kubernetes Service (EKS)-managed node groups that deliver high performance on critical calculation and aggregation services.

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To price complex derivatives, the Kubernetes module can execute calculations over a grid of central processing units CPUs

or graphics processing units (GPUs). For the most computationally intensive workloads—market risk and reporting—the MX.3 module leverages Kubernetes and containers to benefit from the scalability, flexibility and pay-as-you-go model of the cloud.

Modernising the software technology

In preparation for the upgrade, the Elenjical Solutions integration team had access to early versions of the software. The official MX.3 module was then incorporated into a wider Murex system upgrade at Momentum Metropolitan. After an extensive period of testing the system was ultimately installed over a long holiday weekend, ready to go live by the start of the next business day.

An important aspect of the installation – and a particular strength of Elenjical Solutions – was the company's ability to create 'infrastructure as code', allowing the automated deployment of the Kubernetes module.

Source: Supplied

Infrastructure as code (IaC) is the process of managing and provisioning computer cloud resources through machine-readable definition files, rather than configuring the data manually. It eliminates the risk of human error, is remarkably stable during the implementation and allows future redeployment of the module at a press of a button.

Leveraging elasticity and scalability

Elenjical Solutions' IaC skills are part of its wider expertise in continuous integration (CI) and continuous delivery (CD).

"We have a close and supportive relationship with Murex, and were pleased to be asked to conduct the first global installation of the company's new Kubernetes module," says Colyn Van Zyl, the lead executive on the project.

"Using the Kubernetes module makes sense: if you are moving operations to the cloud, you should make use of as much elasticity and scalability as you can, otherwise you have a like-for-like 'lift and shift' mentality from old physical servers.

With that in mind, with the new Kubernetes module you only use resources when you need them, and they disappear the moment your calculations are complete. It's less expensive, more secure, just as accurate and no slower. We are confident that this module will become a normal part of the Murex system in the future."