



ABN AMRO: leaping into the future of the FSI sector with the Azure cloud

Case Study

Dutch bank ABN AMRO is determined to embrace digitalization to improve its operations and provide better services for its customers. To do this, it has embarked on a digital transformation program – called Apollo – which includes adopting new technologies, moving applications to the cloud and embracing a new DevOps working culture. Crucial to achieving this has also been migrating its trading and treasury front-to-back-to-risk platform Murex MX.3 from on-premises to Microsoft Azure. All while shifting from Oracle Exadata to Oracle database on Azure NetApp Files. This is part of a key initiative that's giving ABN AMRO greater flexibility, scalability and an improved time to market. The migration is helping ABN AMRO provide more stable, securer services – all while driving efficiencies and improving its working culture.

"This project is not just a mere platform migration: it's a completely new way of working that relies on automation, new tools, technical features to manage new challenges."

Kees van Duin, IT Integrator at ABN AMRO, is describing his organization's digital transformation journey and the cultural shift this has led to.

"Technology is revolutionizing the banking and financial services industry," says van Duin. "As one of the leading banks in the Netherlands, we at ABN AMRO believe in embracing this phenomenon to provide better services for our customers and be even more efficient."

It's a mission that ABN AMRO has recently embarked on through its multi-year Apollo initiative – a program of digitalization and optimization of its services that is centered around embracing cloud technology to become more flexible, automated and scalable.

The project recently culminated in the migration of ABN AMRO's flagship trading and treasury front-to-back-to-risk system Murex MX.3 from its previous on-premises legacy infrastructure to the public cloud. This is already proving transformational for ABN AMRO, who see it as the first step in their overarching goal to become tech pioneers in the FSI sector.

"As a bank, we are committed to playing a pivotal role in our society," says van Duin. "At the same time, we're also heavily regulated and run mission-critical applications that our customers rely on.

"Moving to the cloud is helping us to mitigate all of these challenges while providing better, more seamless services both internally and for our clients."

Finding a new environment for the MX.3

Founded in 1991, Amsterdam-based ABN AMRO is present in 20 countries and employs more than 22,500 people worldwide. Its banking services cater to individuals, small- and medium-sized enterprises, and corporates.

Under the leadership of Kees van Duin and his IT team, the organization is currently working on phasing out part of its legacy infrastructure and moving to the cloud. "The Apollo program is all about taking practical steps – or leaps, as we call them internally – towards becoming a tech-driven company," says van Duin.



This decision can be traced back to the early days of the Apollo program, when ABN AMRO was looking at ways to manage its Murex MX.3 platform in a more flexible and agile way. "Murex MX.3 is the central trading and treasury front-to-back-to-risk platform supporting ABN AMRO's global markets activities," explains Arnaud de Chavagnac, Head of cloud, technology and services marketing at Microsoft ISV partner Murex.

"Thanks to its extensive product coverage, pricing and risk analytics, and integrated trade processing capabilities, MX.3 supports front-office, risk and post-trade operations across treasury and trading in a streamlined and cost-optimized manner."

Until then, the platform had been running on ABN's on-premises data center, parts of which were no longer performing as needed. "We reached a point where we simply could no longer run our platform as we had been," says Kees van Duin. "But instead of remaining on-prem, we realized we had an opportunity to try the cloud and use it to be more scalable and efficient."

A mission-critical lift-and-shift

When ABN AMRO first drafted its business case for a cloud provider, they had a clear idea of what they were hoping to get out of the successful candidate.

"Murex MX.3 is the mission-critical platform on which we run our capital markets activity," explains Irwin Oppenheim, Murex Domain Expert at ABN AMRO. "This is a fundamental and highly sophisticated system that needs to be as flexible and stable as possible.

"Why? Because volumes are changing and growing every day. Regulators are issuing new rules every day. Traders are coming up with new financial instruments every day. That means that the Murex system must cope with changes very frequently."

Equally, he continues, the platform needs to be available at all times, constantly producing results such as profit and loss, and risk figures in a timely and accurate matter. It's used globally by hundreds of ABN AMRO employees including traders, sales, quants, risk managers, back-officers and accountants with hundreds of systems connected to it. This makes it even more critical.

"Murex is arguably one of ABN AMRO's most critical platforms. I honestly don't think that's an overstatement," comments ABN AMRO CIO Mel Jacobs. "All our financial trading takes place via Murex. The financial proposition of our bank depends on the stability of Murex."

"We invested a lot of time in discussing all the requirements and setups that we needed to have, especially when it came to performance and regulation," Irwin Oppenheim continues.

"A bank is a heavily regulated institution and we have a lot of critical regulatory requirements. On top of this, we needed an environment with high security and performance credentials that would give us peace of mind both during the migration and upon its completion.

"Within that framework, Azure was the logical choice."

A giant leap for ABN AMRO

Following a proof of concept, ABN AMRO, Microsoft and Murex moved on to migrate the MX.3 platform in 2022. The system is now entirely operational on the Azure cloud.

"The key focus for us was always to make sure that we could automate most processes while preserving its operational excellence and key features," says Kees van Duin.

"Thanks to Microsoft, we were able to preserve nearly 90% of our original design and move our platform to the cloud, while in-production, as efficiently as possible."

Flexibility, agility and time to market have also all significantly improved since shifting to the cloud. Meanwhile, enterprise-grade performance has also been enhanced since ABN has moved from Oracle Exadata to Oracle Database on Azure NetApp Files.

"We couldn't be happier with the result," he continues. "We have been able to automate all deployments of infrastructure, application, middleware, and more. This is giving us much greater flexibility since our developers can now spin up new development instances of MX.3 on Azure automatically and quickly, and it's helping to cut down on our carbon emissions by getting rid of on-prem infrastructure."



He explains how automating processes – using Azure DevOps – is proving crucial in becoming more stable and reliable, as well as better equipped when it comes to allocating or deploying environments.

"Before moving to the cloud, this would be a really lengthy process," he adds. "Now, we're able to deploy completely new environments in half a day. It is also easy to scale up and scale down fully automatically."

Echoing his words, Mel Jacobs explains how speed and ease of change have both improved too. "Now that we landed on Azure, the capacity allocation becomes scalable," she says. "We have enough capacity available for peak trading moments, but we don't have to keep that level up on other days of the months when that is not necessary."

Getting into the DevOps culture

MX.3 now running in-production on the cloud, ABN AMRO is currently moving several other applications to Azure, allowing it to decommission its legacy environments. "We are glad to have become frontrunners when it comes to adopting this application, as well as bringing it to Azure," says Kees van Duin.

Increasingly, ABN AMRO is looking at changing the way its staff approach cloud technology and digital transformation.

"We need to remain relevant in the marketplace, both for our customers and as an employer," he says. "From the moment we started, we realized that having people who understood these technologies would be fundamental to our success.

"That's why we started building a completely new team of skilled personnel and training our people alongside via the Microsoft Enterprise Skilling Initiative."

This, he says, is helping to give ABN AMRO end-toend ownership and control of the Murex application, its interface and functions. "That's crucial for us," he concludes. "With the help of Azure, we now have both the knowledge and the people to make the best of the entire platform."