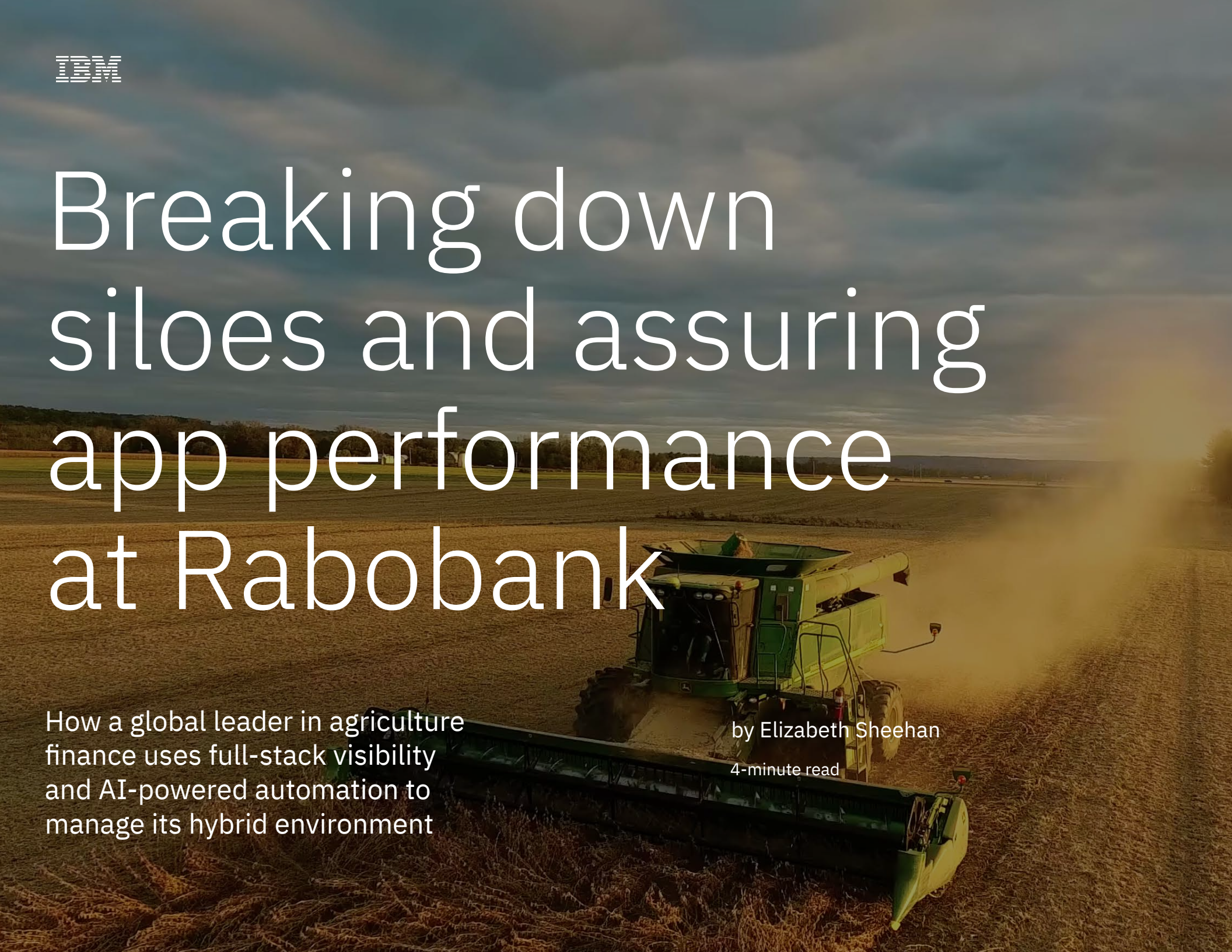

Breaking down siloes and assuring app performance at Rabobank

How a global leader in agriculture finance uses full-stack visibility and AI-powered automation to manage its hybrid environment

by Elizabeth Sheehan

4-minute read

Rabobank's highest goals are to create wealth in the Netherlands and help resolve food insecurity worldwide. Achieving these goals depends on delivering an excellent end-user experience. A key element of this commitment to customer experience is assuring application performance.

When they began exploring AI-powered hybrid cloud cost optimization technology, the Rabobank IT team was managing an already complex VMware-Hyper-V hybrid environment in a rapidly evolving landscape. They needed to optimize the performance of 20,000 existing virtual machines (VMs) while maintaining the capacity to innovate down the road. Ever-changing demand within their current environment was inevitable and overprovisioning was not a sustainable option. Even though they were a high-performing team, Rabobank IT could not maintain target response times manually. Moreover, as they relied on disparate tools to monitor their environment, they could not be 100% certain of the implications of a resourcing decision before it was implemented. Resource allocation was a problem beyond human scale.

By implementing IBM Turbonomic's full-stack visibility, Rabobank achieved a

15% – 23%

hardware reduction

With hybrid cloud cost optimization technology, Rabobank assures the performance of

20,000

VMs

Assuring performance through full-stack visibility and automation

In order to assure application performance across its on-premises environment, Rabobank first needed a comprehensive view of its entire environment. It needed to be able to understand the relationships between its applications and infrastructure so that it could see where resources needed to be redistributed.

By collecting data from Rabobank's entire stack (application, infrastructure and network), the IBM® Turbonomic® hybrid cloud cost optimization solution helps Rabobank correlate data from various siloes into a single common data model. This holistic insight allows Rabobank to proactively prevent application delays and ensure that any resourcing changes implemented do not simply move the bottleneck to another layer. It also drives efficiency and consistency when it comes to capacity planning. Pre-built workflows enable the operational and financial implications of any configuration changes to be

determined in minutes rather than days or weeks, reducing time to market and improving the accuracy of hardware investments.

Once their implementation was underway, Rabobank used Turbonomic to model hardware consolidation on Test and Production environments. Once executed on, this consolidation exercise translated to a 15% – 23% hardware reduction, equivalent to 276 virtual CPUs (vCPUs). Hardware cost avoidance alone was in excess of EUR 4 million. Since Turbonomic proved so successful at consolidating workloads onto fewer machines without adversely affecting performance, the team implemented software license ring fencing using Turbonomic and VMware tags. This proved as financially beneficial as the hardware consolidation exercise, all without harming performance.

> "IBM Turbonomic's full-stack visibility has not only helped us achieve a 15% – 23% hardware reduction. It has also allowed us to enhance our customer experience by reducing our time to market and improving application response time."
>
> **Colin Chatelier**, Manager of Storage and Compute, Rabobank

Breaking down siloes to enable DevOps

Additionally, IBM Turbonomic has helped the Rabobank team to break down siloes between their application owners and the infrastructure operations team and enable DevOps. They were able to bridge this gap because with Turbonomic they had a new level of insight into their environment and the impact of their resourcing decisions. Because Turbonomic integrates with Dynatrace, Rabobank had clear evidence that it was improving application response time when it chose to fully automate vMotion and Live Migration decisions.

The team also uses Turbonomic's resizing capabilities on a more manual

basis during approved change windows. Additionally, they have been able to match application behavior changes following events such as monthly patching or release cycles. This allowed the infrastructure operations team to build trust with the application owners. They had plenty of data demonstrating

that driving efficiency and reducing cost would not compromise application performance. Instead, it contributed to a more performant environment overall, as evidenced by the improved application response times, and it freed up the team to focus on innovation.

As it moves forward, Rabobank remains committed to its mission of delivering exceptional end-user experience while continuing to innovate. Integration with tools such as IBM WebSphere® Application Server will deliver further insight to identify and resolve bottlenecks and maximize both customer experience and business value. The team are looking into enabling a VM to grow or shrink according to the resources needed. When managing more than 20,000 VMs in a dynamic and demanding environment, the team have grown accustomed to let Turbonomic take the strain.

> “When managing more than 20,000 VMs in a dynamic and demanding environment, we know from experience that we can trust IBM Turbonomic to ensure our applications have the resources they need when they need them.”
>
> **Colin Chatelier**, Manager of Storage and Compute, Rabobank

About Rabobank

Founded 125 years ago, Rabobank (external link) is a cooperative bank headquartered in the Netherlands that offers private and commercial customers a wide variety of financial products in areas including real estate, mortgage and leasing solutions. Since the beginning, Rabobank has been dedicated to creating a future-proof society that can overcome important social challenges.

Solution component

- IBM® Turbonomic®