Large Scale IT Transformation Increases Power to Innovate at CBS

Statistics Netherlands (CBS), located in the Hague, is an innovative knowledge institution that ensures people have debates on social issues, on the basis of reliable statistical information.

Industry
Government

Strategic priorities
• Anywhere Workspace

Partner
ITQ is driven to deliver the most innovative IT solutions and infrastructure with a focus on the entire VMware product portfolio. The partner helps customers from strategy to execution on solutions closely aligned with VMware.

VMware footprint
• VMware® Tanzu® Application Service™

• VMware Tanzu Service Mesh™, built on VMware NSX®

• VMware NSX® Advanced Load Balancer™

• VMware Cloud Foundation™

• VMware Workspace ONE®

• VMware Horizon®

In a society in which the amount of information is growing explosively, the availability of validated information and data is crucial for social debate, policy development and decision-making. To guarantee data quality and optimally fulfill its social role, Statistics Netherlands (CBS) continually invests in the latest innovative technologies. This requires an agile application development environment, a scalable data center infrastructure, and a modern and secure workplace environment. With VMware as its strategic IT transformation partner, CBS remains the authority in the field of innovative statistical insights.

Founded in 1899, Statistics Netherlands provides insight into social issues based on current, accurate, and reliable statistical information and data. Over its century-long history, CBS has become a modern knowledge organization that uses data science, artificial intelligence (AI) and machine learning to continue its work for the Netherlands. The organization employs more than 2,000 people.

Data-driven working and innovating

CBS is a statistical office that uses the latest IT technologies. The combination of data-intensive activities and the use of new technologies requires a good balance between the technical and the human side. CBS consciously decided to invest in streamlining the development method and hiring experts to tackle various challenges. This includes improving a common platform and providing developers with the right resources to properly shape the modernization and development of applications so that employees deliver what is expected of them.

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> Bas van Essen, IT Director, CBS

In order to remain relevant and lead in the future, CBS needed to update its IT environment. "Our IT environment was not sufficiently scalable to meet the growing demand for statistical data," says Bas van Essen, IT director at CBS. "New projects were slowed down, new developments were delayed, and the performance of the IT landscape lagged behind." Furthermore, the development environment was fragmented, and teams had limited resources to create a common platform with a corresponding approach.

Van Essen explains, "It took too long for the infrastructure team to make the necessary capacity available. This had an impact on the development of the applications the business needs to keep innovating."

Accelerate application development and integrated security

A big advantage of modernizing the digital infrastructure is that it enables CBS to attract high-skilled IT professionals and developers eager to work with leading-edge technologies. Of course, this did not happen overnight, but progress is being made to embrace the advanced technologies.

CBS opted for multidisciplinary teams of experts who work agile and use agile development methods. This allows the company to manage its IT challenges inhouse. CBS is currently working on optimizing its environment to support, improve and accelerate application development in a secure way. Steps are being taken together with VMware, and VMware Tanzu Application Service will eventually accelerate app development, testing and deployment at CBS. "With this platform, developers do not have to wait long for capacity. They can independently roll out a development or test environment within a minute. They are also able to independently link microservices or containers to support agile development across multi-cloud environments," says van Essen. This enables developers to anticipate questions from the business more quickly.

Data security is also important because CBS works with privacy sensitive and confidential data. That is why security is integrated in the environment and in app development. VMware Tanzu Service Mesh and VMware NSX Advanced Load Balancer speed the development-to-production process. Van Essen explains, "Privacy and security are in our DNA and are an integral part of our entire IT environment. VMware offers us speed, agility and security in one foundation."

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Multi-cloud strategy and modernized data center

CBS decided to modernize its complete stack and approached VMware to carry this out. This also simplified the move to multi-cloud. Though the traditional focus has been on the on-premises infrastructure, CBS consciously opted for a multi-cloud strategy. Van Essen says, "The goal is to take advantage of the freedom and space that the public cloud offers. It was clear that we needed to improve and simplify the entire environment." The compute and storage components of VMware Cloud Foundation now offer CBS the same familiar foundation in every cloud. In addition, the networking and security components offer the necessary flexibility, scalability and security.

The data center is the digital foundation for all CBS activities. To offer continued support for this foundation, CBS updated its data center using VMware Cloud Foundation. Working with VMware and implementation partner ITQ, CBS created a Software-Defined Data Center (SDDC) in less than eight months. "The replacement and expansion of compute, storage and network not only offers more capacity and performance, but the scalability has also increased considerably," says van Essen. "VMware software makes us less dependent on hardware and ensures we can always scale up quickly and securely."

Thanks to efficiencies introduced by VMware NSX, the new solution has reduced management activities. "Last but not least, the renewed data center provides enormous energy savings," van Essen says.

Grip on the complexity of working from home

To perform core tasks effectively, employees need access to the right tools anytime, anywhere. But with 2,500 employees using more than 650 applications in a diverse workspace environment, this can be difficult to manage. CBS engaged VMware to implement VMware Workspace ONE in addition to VMware Horizon. Van Essen says, "Workspace ONE is the CBS cloud workspace, with it, we can secure laptops and unlock services. Previously, we could carry out a workspace update about once every three weeks. Workspace ONE enables us to carry out the update overnight. Patching and updating can also be done faster, which ensures everyone works with the latest versions and is fully protected."

By implementing Workspace ONE and Horizon, everyone has access to relevant applications anywhere, anytime. As a result, individual employees are more productive, and they can collaborate much more easily. Logging in is much faster thanks to single sign-on. Van Essen says, "Everything was ready, but when a Citrix leak became known, we accelerated the migration. Instead of the planned 1.5 years, we deployed the environment within a few months. It was impressive how quickly we were able to switch. This was successful because the building blocks in the data center were already in place to be rolled out."

Respond to dynamic needs

The amount—and the diversity—of the data that CBS stores, processes and makes available continues to grow. The subsets are becoming larger and more complex, placing extremely high demands on the high-performance environment. In addition to publishing data, CBS also interacts more and more with stakeholders by making open datasets available. Thanks to its infrastructure, the organization can implement innovative technologies such as machine learning and AI. "The flexibility of our environment offers plenty opportunities to do so. We can easily support and integrate new applications in our offerings," says van Essen. Thus, with the VMware solutions, CBS can respond to the dynamic needs of today and future needs, such as technological innovation.

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Data as the backbone of society

The right for CBS to exist depends on guaranteeing data quality and demonstrating how data and statistics are created. Together with VMware and ITQ, a flexible foundation is being set up which enables CBS to continue to fulfill that promise. Like CBS, VMware continuously anticipates developments and continues to innovate. The robust ecosystem, knowledge, experience and technology VMware offers allows CBS to carefully choose and coordinate each building block in its transformation.

"This combination helps CBS, especially during a pandemic, when reliable data is indispensable for making effective policies. To maintain that trust, we must remain innovative and flexible enough to always provide an answer to the questions of tomorrow," van Essen says. This way, CBS can maintain its position as one of the world's leading statistical institutes.

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