OPCON

SMA TECHNOLOGIES

RDW

IT Modernization: From Mainframe to Microsoft with OpCon

Legacy Challenges Ultimately Lead to Modernization

When the cost of maintaining legacy technologies exceeds the cost of replacing them, it might be time to modernize. This conversation started at RDW, the Dutch Vehicle Authority, around 10 years ago. While their operations were running smoothly with OpCon, they lacked flexibility due to legacy constraints. With more digital initiatives and increased volumes, the pressure was mounting on the application and operations teams. Modernization projects are challenging operations and are rarely transparent to the business, often carrying significant risks. Fortunately, SMA was already the automation partner of RDW that already had modernization experience and understood the value that automation could bring to a such a large-scale initiative.

RDW

RDW is the transportation licensing authority in the Netherlands responsible for the licensing of vehicles and parts, supervision and enforcement, vehicle registration, information provision and issuing documentation.

- Windows environment
- 6,000 applications
- 70 servers
- 13 IT staff members
- 90,000 automation processes

CHALLENGE	SOLUTION	BENEFITS
Throughout the migration continuous availability was essential.	A phased delivery enabled testing and deployment of over 6,000 OpCon workflows in manageable groups. Go live followed the same principle, thus avoiding any business outages.	The business maintained SLAs at 99.9% throughout the entire migration.
Migrate legacy mainframe processes and JCL without loss of function, loss of service or interruption to the business.	OpCon adopted existing JCL workload on the mainframes first. Then in the Windows environment tasks were redefined and transitioned seamlessly.	Customer service was not affected despite a significant technology shift. The same team was able to manage a radically scaled up environment with no need to re-skill.
Greater operational efficiency and agility.	OpCon managed the entire process and took control of legacy processes and file transfers to unify the process and save time.	OpCon provided a scalable, flexible solution that can be expanded to other areas of the business.

Migrate While Active

During the migration project, both independent systems were working in parallel and linked by a bridge. OpCon was deployed in the existing mainframe environment and took over responsibility for all jobs and workflows and stayed fully operational for all customers. This allowed the existing IT team and application specialists to gain familiarity with OpCon and get comfortable with the technology. By re-configuring OpCon job definitions, the same workflow could be transposed to run in the new environment and provide the same business outcome. This is a very powerful technique for managing complexity, enabling repetitive testing and removing the potential for human error. Automation also reduces the need for training and re-skilling because the workflows run in the new environment as they did in the old.

File Transfer

Much of RDW's day-to-day activity is driven from external requests, and this is managed internally by using file transfer to move requests and information around. Maintaining high volumes of secure and managed file transfers was a critical success factor which OpCon managed both on mainframe and then seamlessly moved over to Microsoft servers.

> "We have experienced only 2 issues with OpCon since 1999."
>
> RDW

During the migration, RDW maintained 99.9% availability and met all their SLAs including one that requires incoming files to be received, checked and processed within 5 seconds. Today RDW processes over 500,000 file transfers every month with OpCon acting as the central hub for all transfers across 8 different domains.

Mainframe-to-Windows Migration

The migration project was led by RDW's IT department with the cooperation of Microsoft and SMA Technologies. JCL was converted to PowerShell or processed via emulation. Other critical considerations included:

- Functional 1 on 1 migration. No impact for our customers.
- Migration of applications on two mainframes to rewritten applications on Microsoft servers
- The migration of over 6,000 processes to the new environment
- A need for continuous application availability during migration
- A phased transition using standard development procedures through Dev, Test, Acceptance and Production
- The requirement for a new, secure and compliant IT environment

New IT Configuration

The new environment runs with separated, secured system areas using Active Directory security boundaries. Those areas are maintained, managed and linked using a suite of single-point administration products composed of:

- OpCon, automating workflows
- Microsoft System Center Operations Manager (SCOM) for system monitoring and handling the error alerts coming from OpCon
- Microsoft System Center Configuration Manager (SCCM) for versioning, patching and updating systems automated by OpCon

OpCon and Microsoft's solutions complement each other and allow RDW to run their environment successfully. They now run 130 million transactions per month and more than 60k (batch) jobs per month, and they are 100 percent automated with OpCon in the new Windows environment. Management is completely confident in the IT team's ability to be agile to run new projects, like Microsoft Azure cloud services, for their customers.

Future Plans

RDW has plans for deeper automation in the future that will embrace digital technologies as well as new business opportunities. They expect to support growth in self-driving technologies, and ever-increasing volumes and changes in vehicle testing. Confident in SMA Technologies as their automation technology partner, RDW can explore growth strategies.