N. V. NEDERLANDSE GASUNIE

SAP NETWEAVER® MOBILE BRINGS NEAR REAL-TIME DATA COMMUNICATION TO FIELD MAINTENANCE OPERATIONS

"The user interface we were able to build for our solution based on SAP NetWeaver Mobile speaks the language of our users."

E. W. Renkema, Chief of Department BIS, N. V. Nederlandse Gasunie

gasunie

QUICK FACTS

Company
- Name: N. V. Nederlandse Gasunie
- Location: Groningen, Netherlands
- Industry: Oil and gas
- Products and services: Gas transmission and sales
- Revenue: €1.25 billion in 2006
- Employees: 1,500
- Web site: www.gasunie.com
- Implementation partner: SAP® Active Global Support organization

Challenges and Opportunities
- Lower data maintenance costs
- Improve data consistency between offline mobile data system and back-office IT system
- Acquire a mobile data solution that is easy to support

Objectives
- Develop a future-proof mobile solution
- Assist field technicians through the maintenance process in near real time based on accurate back-end system information
- Provide mobile employees with access to back-end SAP software
- Improve gas transport by improving the quality of maintenance data

SAP Solution and Services

SAP NetWeaver® Mobile component running on Intel architecture–based notebooks and Intel Xeon processor–based servers

Implementation Highlights
- Provided over 250 users with live mobile data access
- Required only 2 administrators to support the live scenario

Why SAP
- Seamless integration with existing SAP software
- Lower total cost of ownership
- Technology to access data in near real time
- Reduced complexity, risk, and operating costs on the Intel mobile platform

Benefits
- Lower IT system maintenance costs due to fewer interfaces
- Long-term system viability and support due to established SAP solutions
- Improved service-level reporting due to increased field-data quality
- Improved safety and reliability of pipeline operation due to better field maintenance

Existing Environment
- mySAP™ ERP application
- SAP NetWeaver Business Intelligence component

Third-Party Integration
- Database: Oracle
- Hardware: Hewlett-Packard/Compaq; Intel architecture–based notebooks and Intel Xeon processor–based servers
- Operating system: Microsoft Windows 2000

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The principal operational task of N. V. Nederlandse Gasunie of Groningen, Netherlands, is the construction and maintenance of a critical European gas grid. Data communication between the company's field maintenance operations and its back-office systems is crucial to the success of these operations. By 2004 the company's existing maintenance information system was coming to the end of its useful life, its demise hastened by the bankruptcy of the vendor that had been providing support. Conversion to the SAP NetWeaver® Mobile component and integration with Gasunie's existing back-office SAP® software resulted in a substantial improvement in the company's maintenance performance across the board.

12,000 km of Pipeline

Gasunie is a gas infrastructure company that owns one of the largest high-pressure gas pipeline grids in Europe, consisting of around 12,000 km of pipeline, dozens of installations, and approximately 1,100 gas receiving stations. In 2005 gas throughput totalled more than 95 billion cubic metres. The company employs 1,500 people and had 2006 revenue of approximately €1.25 billion.

Key to market success in Gasunie's business is the quality of its transportation system, which serves as a differentiator and establishes the company's reputation for reliability. To maintain its competitive advantage, Gasunie's strategic approach is to ensure high quality in its field maintenance activities and apply additional emphasis to the quality of the associated data collected in the field. Quality assurance is thus crucial across the pipeline infrastructure and at the pipeline stations, which serve either local gas suppliers or industry users such as electric power plants. Around 500 employees are currently engaged in the construction and maintenance of these company assets: half of them are focused on stations while the other half maintain the pipeline itself.

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> **P. Jousma,** Architect of MOVE, N. V. Nederlandse Gasunie

Bankrupt System Vendor

But by 2004 Gasunie's information system for field maintenance had come to the end of its useful life. A custom system developed by a third party, it was expensive to operate and inconsistent in its results. It functioned offline with no connection to the company's existing back-end software, which includes the mySAP™ ERP application and the SAP NetWeaver Business Intelligence (SAP NetWeaver BI) component. Worse, the vendor had gone bankrupt, bringing support of the solution to its end.

Gasunie decided to find a mobile solution to actively assist field technicians through the maintenance process. Its objectives were to provide technicians with a mobile device capable of accessing the most accurate back-end information available and reporting maintenance information from the field back to SAP NetWeaver BI.

Ultimately, the idea was to enhance the gas transport system itself through the improvement of maintenance data. The solution Gasunie chose to accomplish these objectives was the SAP NetWeaver Mobile component.

Future-Proof Solution

SAP NetWeaver Mobile is the foundation for enterprise mobility within the SAP NetWeaver technology platform and it powers SAP applications for mobile business. The software provided the future-proof mobile runtime environment Gasunie needed, based on open and flexible technology standards and a powerful development environment for building integrated mobile solutions with native or browser-based user interfaces.

At the time of the implementation, SAP NetWeaver Mobile was not yet available in a form that met Gasunie's requirements. Accordingly, Gasunie

POWERED BY SAP NetWeaver

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decided to use the development environment provided in SAP NetWeaver Mobile to build an application to its own specifications. As part of the new solution, Gasunie's technicians would be equipped with laptops running on Intel architecture, which proved to be the ideal platform for Gasunie's portfolio of applications. Given the number of different kinds of applications required to run on a technician's mobile device, a PDA was deemed insufficient for the task. The entire project was dubbed MOVE.

> "All of the company's objectives were met and we are now looking forward to profiting from the better data quality in the near future."
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Process-Driven Application

The application currently in use is totally process driven. The software presents technicians with a comprehensive user interface and actively guides them through the maintenance process. By focusing on the usability of the application, Gasunie was able to hold input time for data capture on a laptop to 15 minutes per 3-hour intervention.

Once a maintenance task is complete, the data is sent directly from the technician's laptop to the back-end SAP software via General Packet Radio Service. This ensures minimum reaction time to the information transmitted; for example, if technicians determine that equipment requires replacement, the appropriate purchase order can be processed immediately. In addition, technicians can keep abreast of progress made on each job in near real time, as the progress of one tech on a specific piece of equipment is visible to the next tech that follows up on the job.

More than 250 mobile users who require live access are supported by a team of just two administrators who use the monitoring framework SAP NetWeaver Mobile provides for keeping track of activities on mobile devices. In the event that problems arise, they can provide remote support to users in the field. Says P. Jousma, architect of MOVE at Gasunie, "The result of MOVE, the mobile solution for our maintenance workers, is a success."

Detailed View of Maintenance Activities

One of the drivers behind Gasunie's tightly integrated mobile solution was the need to make information available for the company's business intelligence process. SAP NetWeaver BI gives Gasunie a detailed view of maintenance activities, which facilitates the provision of service-level reports to customers. In addition, the information is used to optimize preventive and corrective maintenance activities.

Given the complexities of the landscape, creating and deploying a mobile solution usually calls for the involvement of implementation partners. In this case, the SAP Global Active Support organization served as a major resource, providing assistance as required to the Gasunie implementation team whenever challenges arose in the project. By offering review sessions on the projected implementation, SAP consultants also were able to convey best practices to Gasunie's MOVE team.

Gasunie currently runs MOVE for more than 250 technicians working on pipeline maintenance. "All of the company's objectives were met and we are now looking forward to profiting from the better data quality in the near future," says E. W. Renkema, chief of department BIS at Gasunie. Over time, MOVE will be extended to new user groups with new functionality. For example, the company is preparing to expand the scope of its MOVE application beyond maintenance to safety inspectors and installation activities.

Today, Gasunie can operate safely, efficiently, sustainably, and profitably. Partly due to the reliability and strategic location of the Gasunie transport network in relation to growing international gas flows, the Netherlands may well grow to become the gas junction of northwestern Europe. SAP software is helping Gasunie bring this vision to reality. Renkema says, "We are pleased with our decision to implement SAP software for our mobile operations and are optimistic that it will help sustain our gas transport system for the long term."

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