



CASE STUDY: Tennant Company Selects Antenna to Mobilize Its European Operations

BACKGROUND

Tennant Company is a world-leading manufacturer of indoor and outdoor cleaning solutions and specialty coatings. Tennant industrial and commercial sweepers, scrubbers, coatings, detergents, carpet cleaning equipment, vacuums, floor machines and burnishers deliver award-winning cleaning solutions to a range of demanding customers in various industries including industrial, healthcare, hospitality and public sector.

In order to optimize machine performance and therefore customer cleaning uptime, the company employs the industry's largest and only factory-direct support network. In the USA this comprises 400 locally-based, ISO-certified Tennant Company representatives who handle more than 110,000 planned maintenance and 90,000 unplanned breakdown calls per year. To achieve the same level of service in Europe, Tennant Company employs 180 engineers in 6 countries.

Tennant Company's engineers are justifiably proud of their reputation for high levels of customer service and the ability to trace and fix equipment problems either before they occur through scheduled maintenance, or quickly if called to a customer with broken equipment. Tennant Company's field technicians therefore represent a key competitive advantage to the company over other competing suppliers of industrial cleaning equipment.



OVERCOMING A MOUNTAIN OF PAPER

Historically, Tennant Company field technicians were managed by a purely paper-based system. Every month, regional office staff had to manually sort through information from their SAP system on customers who were due a service call and create work orders and mail them to technicians. For breakdown calls, customer service would send a text message to the field tech with basic information who then entered it onto a blank work order form at the customer site. Upon completion of service calls, techs mailed completed forms to the head office where the clerical staff entered the data into SAP to generate invoices. Field techs often had to augment their paper-based instructions with calls into customer service to order spare parts or check on scheduling.

“ServiceLINK’s intuitive and simple interface has meant that users, no matter what their technical ability, have responded well to the new system. One of the major benefits Antenna offers is its ability to tailor applications to specifically fit the way our field workers do their jobs. Antenna worked with us throughout the process to ensure that the European rollout of ServiceLINK was as quick and seamless as possible.”

Tennant's Antenna Mobile Solution

Although the system worked, it had a number of elements that were less than optimal. The major issues were those of time and accuracy. The use of paper forms required the re-keying of data by administrative staff, and with delays caused by the use of the postal system, the company was not able to invoice immediately upon completion of unscheduled maintenance work. The typical time from completion of a job to the issuing of an invoice was ten days.

The constant calling into customer service by technicians in the field had an adverse effect on the ability of their customers to call in and report broken equipment. And because the dispatch was entirely paper-based, the company could not always give accurate information to customers on the likely arrival of an engineer to fix their equipment.

“Antenna’s mobility solution has enabled our field workers to become a lot more efficient and productive. Lots of people talk about a truly global solution, but this one actually works, it’s very slick. By having a direct GPRS connection back to our servers in Minneapolis, we have eliminated an entire level of paperwork and job information is input directly into our SAP system. This connection also means that our engineers spend a lot less time on the phone asking about available inventory or their next job because that information is now literally at their fingertips.”

- Leo Suurmond, Service Development Manager, Tennant Company, Europe

The heavy burden of paperwork and the inability to answer basic customer questions was not aligned with the service culture at Tennant Company and undermined technicians’ expertise and their reputations with their customers. There was an appetite for a change. Automation was clearly the answer, but doing so in a way that helped rather than hindered the field technicians was going to be the key deliverable for the project.

THIRD TIME IS A CHARM

Against its paper-based backdrop, Tennant Company had made two prior attempts to improve its field service process without success. The first mobile solution failed because it was built as an extension of the back office SAP system and was incapable of matching the day to day work patterns of field techs. The second solution was abandoned because, although it was better for the field techs, it could not integrate with the SAP backend.

For its third attempt, Tennant Company’s management felt that it was important to involve both representatives from IT and from the business designing the system to guarantee that it would support the working style of field techs and leverage their existing SAP investment. Tennant Company’s senior management outlined the following deployment objectives:

- Mobilize customized SAP applications quickly and cost-effectively
- Achieve high levels of user acceptance/adoption

Tennant's Antenna Mobile Solution

- Implement a “future-proof” system that could adapt to changing business needs
- Eliminate paperwork and billing errors
- Decrease customer dependency on call centers for quotes, orders, and billing issues

Tennant Company used the Antenna Concert platform to create a custom field service automation solution named ServiceLink®. It communicates with the company's backend SAP system and easily enables the exchange of service orders with technicians' Panasonic ToughBook tablets equipped with wireless cards from various European providers.

To support Tennant Company's existing field processes and its customized SAP backend, Antenna proposed a configurable solution based on its Antenna Field Service mobile application. The application was linked to the backend using an Antenna SAP-certified intelligent adapter, which allowed the development of a business-facing workflow that matched the activities of the field technicians also integrated with Tennant's SAP system.

The mobile field service application does not require constant connectivity, which enabled Tennant Company to cost-effectively build a solutions around a single, centralized backend system housed at its Minneapolis headquarters that supports all field technicians globally. Because of the global view of its service situation and parts inventory, Tennant Company is able to gain valuable information about its business through the analysis of its repository.

CONCLUSION

Tennant began by piloting ServiceLINK system for 90 days with 20 selected field technicians in the US. The system was a success and the full rollout to its entire US field happened quickly over the subsequent four months. The process was helped by the positive word of mouth from technicians that had used the solution, a complete vindication of the company's inclusive approach to the design and delivery around the field force and their needs.

Tennant's ServiceLINK is being used in 15 countries, all connecting in real time to a single instance of SAP housed at their US headquarters. Thus far, the solution has been deployed to over 194 technicians in EMEA, to over 600 technicians globally, and supports seven languages: English, German, Dutch, French, Spanish, Portuguese and Italian.

Because the application and user interface were designed to support the work practices of the field technicians, and because it put technicians at the center of the service information, the implementation proved to be incredibly popular. Tennant Company's field technicians are now able to obtain dispatch orders, manage repairs and enter part orders using their mobile devices. By removing paper and the rekeying of information, Tennant now experiences fewer material ordering errors, billing mistakes and consequently fewer customer complaints. Because field technicians now have comprehensive information about the customers they visit at their fingertips, they are also better equipped to answer customer questions and provide on-site quotes to reduce customer reliance on the call centers.

Tennant's Antenna Mobile Solution

Tennant Company is also able to schedule appointments within two hours of a service request and ensure that technicians arrive on-site in as little as 24 hours. The ServiceLINK solution enables quick, efficient responses and ensures the service technician arrives with the right information and the right parts faster than ever before.

Additional measured results include the following:

- Tennant's billing cycle has been reduced from 7-10 days down to 1-2 days with significantly fewer billing errors
- Tennant now closes 91% of service orders and 82% of parts orders without back office staff intervention
- Tennant expects proportionate savings to those achieved in the US, which amounted to \$600,000 per annum or roughly 3 cents per share (based on 2006 annual report)
- Fewer errors on work orders mean that roughly 6% of jobs now result in improved master data in SAP

Because of the flexibility of the Antenna Concert mobility platform, Tennant Company has trained their own resources on their Antenna solution so they are fully capable of maintaining the system themselves and creating new updated versions of their mobile field service application. Antenna continues to provide training and mentoring on an as needed basis.

In the future, Tennant Company expects to take advantage of the flexibility afforded by adopting a strategic mobility platform from Antenna, as opposed to the numerous point solutions it evaluated, by extending the system's capabilities to include asset tracking of stock, and better visibility of the location of its engineers to improve the scheduling and dispatch of both scheduled and unscheduled service requests.