



Standardize Service Management To Maximize Efficiency

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Deploying an iPad-based service management solution across subsidiaries boosts productivity by 25% for APi Group.



Companies upgrading an older field service automation with new technology face slightly different challenges from those that are moving from manual, paper-based processes to mobile computing. But what about a company that has to do both, simultaneously? That was the challenge facing APi Group, Inc., a contracting, fire protection, and security/alarm system conglomerate that operates 40 subsidiaries. The company is deploying a mobile field service automation solution to standardize operations across its various divisions (some of which were highly automated, some of which had no automation at all). In the process, the company will increase the number of calls each technician can service per day, improve invoicing, and enhance its field inventory operations.

APi's 40 subsidiaries have nearly 9,000 employees operating independently across the U.S., Canada, and the United Kingdom. The subsidiary companies provide everything from mechanical contracting and industrial insulation to energy conservation and overhead door installation, fire protection, security and alarm systems.

Each of these subsidiaries had different levels of field automation. Some still used paper-based processes, while others had deployed mobile computing solutions. "Each company really took a different approach," says Julius Chepey, CIO of APi Group. "Some used paper and clipboards, some had in-house solutions, and others used third-party solutions."

In an effort to standardize operations and improve field service performance, APi decided to deploy a cross-company service management and mobile solution. First, however, the company had to map out its own service delivery operations, which varied from company to company. APi formed a team of service managers and staff from 15 subsidiaries that perform inspection and service to develop a blueprint for a consistent way to deliver service. "It was a very collaborative cross-functional effort to map out what the business processes would be, end to end, not just on the field side but also in the back office," Chepey says. "We wanted to find out what the most productive environment would be for the technicians, how we could maximize and streamline the way we get the back end processing done, and provide world class customer service."

Once that process was complete, APi identified some 200 potential field service solutions. Using the work processes as a template, the team created a list of solution requirements and then whittled the list of vendors down to five through website investigation, reference calls, WebEx sessions, and phone calls.

The final five solutions providers were invited for on-site demonstrations. "We gave each one a list of scripts and sample data that they had to show the selection

team. All five presented, using production software (no vaporware, no PowerPoints)," Chepey says. "The selection team had scoring sheets that came directly from the solution requirements."

When the team voted later, the unanimous choice was the Astea Alliance solution, which API felt best fit the business requirements. The Alliance suite includes field service, work order management, contact center, dispatching, and field inventory functions. The vendor also had the best presentation, was able to demonstrate an alignment between senior leadership at Astea and API, had the strongest technical features and road map, and provided the best cost/benefit value based on the presentation.

One of the other selling points of the solution was that technicians responded well to the application. "The technicians really like the flow of the solution on the device," Chepey says. "That's the response we always get from them. They say this feels like it was designed by a field technician. And it was. We started the project with their input."

The company is deploying the Astea solution on iPhones and iPads (protected with a variety of rugged cases) in part because of their lower cost and their familiar user interface. While the Astea solution also supports Android, Chepey says that "the larger variety of Android flavors makes it difficult to maintain quality control and version control. The ecosystem hasn't sorted itself out yet. It's very difficult to do a North American deployment with Android and maintain consistency."

During the pilot of the deployment, technicians chose whether they wanted to use an iPhone or an iPad. "Most of the technicians doing mechanical work preferred the iPhones, while some of the folks doing alarm and detection systems wanted more screen real estate for the schematics and went with the iPad," Chepey says. "It really depends on what makes them more productive. Both devices are very friendly for both the technicians and the customers."

Pilot Evaluates A Variety Of Mobile Deployment Scenarios

API launched a full-scale pilot project during the first quarter of 2012 involving 80 field technicians at two of its subsidiaries. The pilot concluded in June, and based on the positive results, the company decided to move forward with the full rollout.

For the pilot, API deliberately selected a division that already had existing technology, as well as one that was paper-based. Minnesota-based mechanical contractor Jamar (one location) did not have any existing mobile technology in place, while the fire protection and alarm services divisions of Vipond in Canada (two locations) were already using another solution.

Because the technology experience among the technicians was so different at these subsidiaries, API took different approaches with each pilot location. In the case of Jamar, the company put the smartphones in the hands of the technicians well ahead of go-live to make sure they were comfortable with using the phones. "We just wanted them to get used to the phone and not worry about the application at that point," Chepey says. "It was a big step going from paper to a smartphone. That's a daunting challenge. We spent a lot of time talking about the role of leadership, employee attitudes, and openness to change to prepare for that."

At Vipond, the challenge was different. Technicians had to be retrained to learn the new processes and technology that would replace the existing system. "From a time perspective, both sets of field technicians picked this up very quickly," Chepey says. "That was true regardless of the age of the technicians."

All employees also had to be trained on the new processes developed during the mapping phase of the project. "We did conference room pilots where we had people go through simulations using the new processes so they could understand and get that training before we went live," Chepey says. "There's always a temporary loss of productivity when you launch a new solution like this. We wanted to make that productivity dip shallow and short."

The company spent the third quarter of 2012 preparing for the full rollout and expects to complete the project within 18 months. Once completed, between 800 and 1,000 mobile devices will be in use in the field.

The Benefits Of A Flexible Solution Platform

The mobile solution provides engineers with access to service history, equipment repair records, service contracts, inventory information, parts availability, and driving directions. Although the goal of the project was to standardize service technology and processes, the solution was designed with a certain amount of flexibility, given the differences in the individual businesses. "We purposely built the platform to be 80% common and 20% localization," Chepey says. "Alliance is very flexible. Each company can have its own inspection forms, local invoicing, and reports. The escalation rules are also configurable."

What is common among all divisions is that work orders will be completed on the mobile device, eliminating manual data entry, paperwork, and errors. When a customer calls for a service appointment, the employee scheduling the service call can pull up the entire customer record in Astea. "We can see everything related to the customer, all open calls, the customer history, so it's very efficient from a customer standpoint in terms of requesting service," Chepey says.

The service calls are dispatched to the employees' mobile devices, where they can enter all service notes, request parts inventory, close out work orders, and generate invoices. Customers can receive the invoices via a customer portal or have the invoices emailed to them in a matter of minutes. "We can invoice same day or a little later, and that's had a very positive impact on our customers," Chepey says.



Visibility will be improved for the field technicians, which will increase productivity. "Everything the technician needs about the site and the job is on the device, so they can see the last five visits, they can see what parts are on the service truck, and if necessary they can swing by a supply house on their way to the site so they have the materials before they get there," Chepey says.

So far, the work history available in the solution only includes recent calls, but each location is building highly accurate customer history databases, which will help improve repair performance in addition to overall efficiency. "We made the decision not to load previous work order history into the system," Chepey says. "We are capturing great work order history as we go, and the longer we use the system the deeper the history becomes. We do anticipate an increase in customer satisfaction, increase in field tech efficiency, and faster first-time fix rates as the system matures."

According to Chepey, the new processes, supported by the Astea software and handheld devices, have virtually eliminated paperwork at the initial pilot locations. "This has resulted in a drastic reduction of time spent by field technicians picking up tickets at the beginning of each shift and dropping off completed field tickets at the end of the shift so they can be processed and invoiced," Chepey says. "We already see an uptick in calls executed per day, up to 25% at one location that went live six months ago."

Because the processes for customer setup, scheduling, dispatch, field execution, customer signature, and invoicing are not only integrated (back office to/from field) but visible to all involved, Chepey says there has been a great improvement in information awareness. "Gone are the phone calls asking for status and the hunting for lost paperwork," Chepey says. "The system was designed to complete the entire life cycle process (from initial customer request to invoice) in less than a week. We are seeing a reduction in the time required to produce an invoice — and a very accurate invoice, at that."

Improved Field Inventory Management

For some companies in APi Group, inventory was another important feature. Those that carry van stock needed a way to improve inventory replenishment and reordering. "We have specific procedures in the solution so they can see if a part is available and allocate it to the job from their location using the mobile device," Chepey says. "If we don't have it in stock, they can back-order it, and that is immediately transmitted to the back office. Technicians can also go to a supply house, allocate a part to their van, and consume it, all in the same transaction."

Eventually, the mobile inventory functionality will lead to warehouse management improvement at the depots. "Once you know your consumption, then there are things you can do in terms of reducing turns and total inventory count," Chepey says. "But we don't have the scale of information from the pilots to do that yet. It's part of what we plan on doing moving forward."

The company is also evaluating mobile device management (MDM) solutions to help with management, application updates, and device provisioning and expects to select a solution within a few months. On the administrative side, Chepey says he expects that the company will be able to expand field operations without having to increase the size of the administrative staff to keep up with paperwork. "The efficiency the solution has provided is going to let us grow without adding support people in the back office," Chepey says. "Having accurate, timely invoices sent out with minimal staff is going to help us keep growing our customer base with minimum support staff."

APi has been able to design a mobile solution that meets the needs of the wide variety of field service operations within its company, thanks in large part to its efforts to include managers and technicians in the design and selection of the solution. More importantly, the company was able to map out improved service processes in advance of the deployment, to avoid automating flawed processes that could have negatively affected the new solution.

"Our approach going in was that this was not about technology," Chepey says. "It's about improving field service capability, which we define as a combination of people, processes, tools, and attitude. We wanted to provide a world-class customer experience, from the initial call to service delivery through to invoicing, while finding the most efficient approach for the field technician experience and the back end processing. That's what we've done here."

Flexible Solution Essential For A Mixed Service Environment

APi Group's 40 subsidiary companies provide a wide range of services, from fire protection and security to mechanical contracting and overhead door installation. So when the company began looking for a companywide field service solution, flexibility was critical. APi needed a solution that could easily be rolled out to various subsidiaries and provide value in every application.



With the Astea Alliance suite, APi found just that — a system that it could deploy universally, using standard processes, but that could address different service categories: break-fix, meter reading, equipment installation, maintenance, etc. With Astea Alliance, technicians arrive at calls armed with customer- and product-specific information and the inventory needed to resolve issues, which can dramatically improve first-call resolution. A self-refreshing task queue indicates prioritized open jobs, with click-through access to greater detail and seamless integration to knowledge stores for workload management. Real-time visibility to warranties, contracts, and service histories ensures capture of billable time and materials and identification of potential sales leads. Status and priorities of open calls can be constantly monitored to enable exception management based on user-defined triggers. APi chose to roll out Astea Alliance on iPhones and iPads.

Having the technology at the point of service enhances the technicians' "professional look and feel," says Julius Chepey, CIO of APi Group. "They can generate a work order summary on the screen before the customer signs for the work. They can scroll through and show the customer what they found and what they did." For more information on Astea International, visit www.astea.com.