



Aberdeen Group

OnSite

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Engineering Excellence: A Successful Implementation in CRM & Services Management

This Aberdeen OnSite is included in the report *What Works: Ten Significant Implementations in Services Management*, Aberdeen's latest research in the areas of customer relationship management, services management, and customer service and support. It is a collaborative research initiative undertaken jointly by Aberdeen and the Association for Services Management International (AFSMI), the leading industry association for services management.

The report provides actionable, current, and real-world information on the rapidly changing — and challenging — area of services management. *What Works: Ten Significant Implementations in Services Management* is not a "think tank"-level report with overly optimistic growth projections and blue-sky ideas about leveraging technology. Instead, Aberdeen interviewed and profiled 10 significant services management implementations submitted from the more than 1,500 AFSMI member companies. Case studies selected by Aberdeen have been compiled into this report in an attempt to provide insight into some of the more notable, significant, and unique implementations of field service and service management technology.

About AFSMI

The Association for Services Management International (AFSMI) is a nonprofit professional organization dedicated to furthering the knowledge, understanding, and visibility of executives and managers in the services industry. The Association provides a global platform that enables its members to exchange experiences and opinions, thereby advancing services leadership and creating successful s-business growth. Founded in 1975, AFSMI enables managers to grow in professional competence through education, training, research, and networking opportunities. Its goal is to provide leadership and direction that helps its individual and corporate members expand their capabilities to meet the growing complexities and challenges of the rapidly evolving services industry. Thousands of members represent-

ing more than 1,500 organizations around the world rely on AFSMI as their communications bridge to growth. More information is available at www.afsmi.org.

Executive Summary

Engineering Excellence, Inc. (EEI) is a fast-growing provider of heating, ventilation, and air conditioning (HVAC) repair, installation, and maintenance services. A privately owned company, EEI services the commercial and industrial markets in the Cincinnati, Columbus, and Dayton, OH and Lexington, KY areas. EEI has focused on superior customer service and front-line management, a newly implemented design build construction department, and a customized customer service and preventive maintenance programs to differentiate itself in this highly competitive business.

EEI's strategy of expansion — by opening satellite, branch offices — has been successful, but it has also brought with it its own challenges and limitations. The administrative, financial, and management resources required to open a new branch office were substantial, and EEI was forced to reevaluate its business model.

Its solution was to establish a national network of service providers – well-run mechanical and engineering firms that that would act as subcontractors for EEI within their own local markets and communities. The new business model would enable EEI to focus on providing and managing service and preventive maintenance products to larger, national accounts throughout the U.S.

This *OnSite Profile* examines the issues EEI addressed during the transition to a new business model and a new technology infrastructure and examines how its technology partner, Data-Basics, Inc., helped it address these issues.

The Situation

EEI initiated its National Accounts division in 1995 and was successful in its objective of using business partners and engineering firms to provide service at a local level. This strategy enabled EEI to leverage its own expertise and knowledge of the HVAC and commercial refrigeration business by selling its preventive maintenance programs into these national accounts throughout the late 1990s.

However, as the company grew, it realized that its business software applications and information infrastructure were not able to support its expanding business needs. In order to continue to grow its business, Engineering Excellence needed to solve several essential business and technology problems:

- The current back-office applications that supported EEI's construction business and operations and its maintenance service business systems and applications were not fully integrated. That resulted in problems such as the lack of job costing detail for startup work performed by service for construction.

- The company's outdated database technology was limited in its ability to provide a single repository and view of customer and back-office information: Client information existed in one database, service history resided in another database, billing and collections in yet another. That led to inadequate reporting capabilities, which, in turn, produced outdated sales information, longer sales cycles, missed opportunities, and a lengthy collection process.
- The national accounts division depended on labor-intensive telephone and fax communications to control its subcontractor network and communicate with its client base.
- Finally, EEI's overall technology infrastructure needed to be improved. Performance over the network was sluggish at best, and the system of backup servers was inadequate.

Because of these limitations, EEI's ability to grow and effectively manage its business was limited. Client work order cycles averaged three to five weeks from inception to billing. Complex preventive maintenance agreements were particularly difficult to administer. Too much reliance was placed on the (human) dispatcher's ability to coordinate all the details. Clients, EEI personnel, and service providers were all challenged to find a better system.

Goals for the New Solution

As Engineering Excellence began its search for a new IT solution, the following goals were of critical importance:

- Establish a robust technology infrastructure, concentrating on improved network performance and updated application, database, and backup servers
- Integrate all back-office systems and service and purchase orders, eliminating double entry and increasing work throughput
- Standardize on an ODBC-compliant, centralized database to support real-time information reporting for EEI personnel, clients, and service providers
- Automate national accounts system to reduce EEI labor cost and missed opportunities and to increase customer satisfaction

Solution and Partner Approach

After evaluating several alternatives and talking to reference customers with similar challenges, EEI decided to replace its existing systems with an integrated services management/business management package from Data-Basics. Data-Basics is a Cleveland, OH- based supplier of applications and solutions for manufacturing, service management, construction, engineering, and industrial organizations.

Data-Basics' primary application product, SAM Pro Enterprise, provides several segments of integrated functionality (Figure 1).

A five-phase process was developed for the EEI project implementation, including an initial, Phase 1, consulting and modeling segment that assessed and documented the needs of the three EEI divisions — National Accounts, Construction, and Regional Service. Deployment in each of the three divisions was completed as follows.

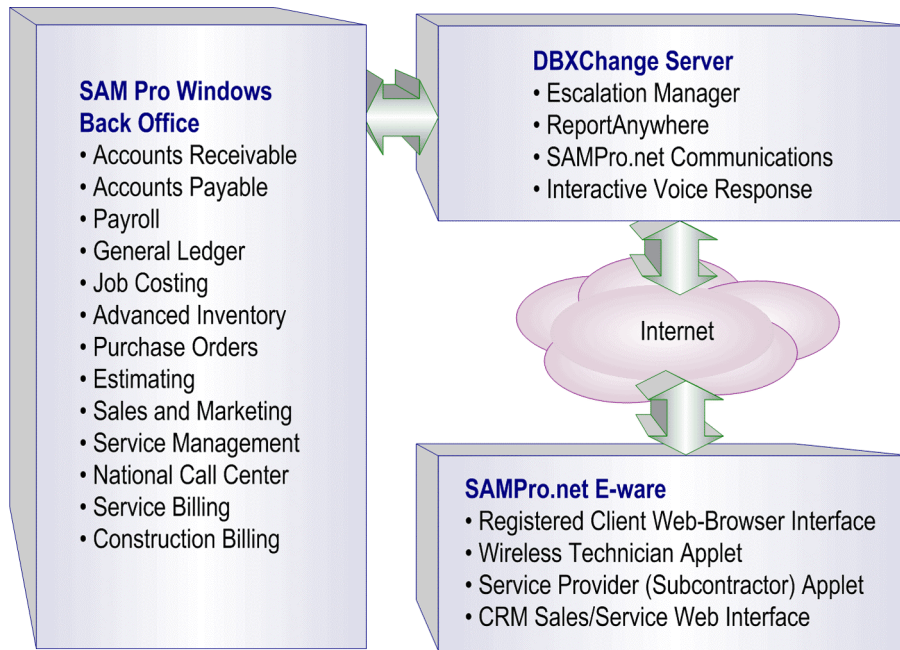
Phase 2: Deployment of National Accounts Division

Because its need for automation was most critical, the decision was made to implement SAM Pro in the National Accounts Division first. This deployment consisted of the following steps:

- Final conversion of all National Accounts data
- Web-enable National Accounts clients and service providers
- Install interactive voice response system (IVR) to enable service providers to update the status of their work orders and add time and materials, etc.
- Implementation of Escalation Management Profiles
- Integration with SAM Pro Back Office modules
- Train EEI personnel on all appropriate modules
- Initial live run with Data-Basics consultants onsite
- Ongoing support with online access to EEI data, telephone, e-mail and Web-based support

Phase 3: Deployment of Construction Division

- Final conversion of all Construction Division data
- Implementation of reporting agendas
- Integration with SAM Pro Back Office and Service modules
- Train EEI personnel on all appropriate modules (Invoicing, Payables, Receivables, Purchase Orders, etc.)
- Initial live run initially with Data-Basics consultants onsite
- Ongoing support with online access to EEI data, telephone, e-mail, and Web-based support

Figure 1: Data-Basics' SAM Pro Enterprise Functionality

Source: Data-Basics and Aberdeen Group, October 2002

Phase 4: Deployment of Regional Service Division

- Final conversion of all Regional Service data
- Web-enable clients
- Implementation of Escalation Management Profiles
- Integration with SAM Pro Back Office modules
- Train EEI personnel on all appropriate modules
- Train regional technicians on IVR system
- Initial live run with Data-Basics consultants on site.
- Ongoing support with online access to EEI data, telephone, e-mail and Web-based support

Phase 5: Deploy Wireless Tech Devices for Regional Service Division

In the final phase of implementation, which has not yet been completed, all EEI regional technicians will be brought online with wireless Windows CE devices.

Key Results

Results of the migration to an integrated business application suite included the following.

Rules-Based Management (RBM™)

With the inclusion of Escalation Manager and ReportAnywhere as part of an RBM service management strategy, EEI realized several important benefits. For example, as National Accounts clients became Web-enabled, they were able to enter work order requests, approve work order items, review current open work orders, and review work order history. Information was available, instantaneously, and usually without the involvement of an EEI support or administrative person.

Management of work order processes could now be monitored on an exception display board showing all alert conditions. In this scenario, “problem work orders” (work orders that failed to be completed within a target period) triggered alarms and notifications that were automatically sent to the appropriate personnel.

Escalation Manager, coupled with the traditional dispatch and scheduling boards:

- Greatly reduced the response time to customer problems
- Ensured that critical customer issues rapidly escalated to the appropriate internal personnel
- Greatly improved customer satisfaction

Benefits of IVR

The IVR system closed the real-time loop by allowing both subcontractors and technicians to report work order status and description of work performed directly to the database. That meant that clients could now view current work order status changes as they occurred via the Web Client Interface. This process not only increased customer satisfaction but also greatly decreased the number of telephone calls between dispatcher and customer, resulting in reduced staffing requirements for EEI.

Benefits of the Client Web Interface

As soon as National Accounts clients became Web-enabled, Engineering Excellence was able to provide real-time service information to them via the Internet. The Client Web Interface reduced the volume of telephone calls to EEI’s Call Center by making all work order status information readily available to the customer. In addition, the time and effort required to take a work order from inception to billing was greatly reduced. The Client Web Interface also proved to be a powerful competitive sales advantage for Engineering Excellence; this feature impressed their national accounts prospects.

Benefits of Automatic Purchase Order Generation

An important outcome of evaluating the workflow for national accounts was the electronic generation of purchase orders from EEI to its service providers. Prior to this implementation, Engineering Excellence personnel would fax or call the sub-

contractor with the request for service. This process was lengthy, time consuming, and very inefficient.

With RBM, the use of the Internet, Escalation Manager, and electronic generation of purchase orders, the work order flow from inception to billing was completely automated and maintained by the software for any pre-programmed alert conditions. Direct labor and cost savings were realized by greatly reducing both the time to bill and the billing labor itself. This unique RBM management process should provide an ROI on the software purchase price in less than two years.

Aberdeen Conclusions

It is not unusual for a successful services company to outgrow or outpace its infrastructure. It is less common, however, for a growing company to take the time to re-evaluate and re-engineer its internal processes and systems and to do so successfully. EEI has managed to continue to evolve its business into new areas, and while doing so — possibly, as a result of doing so — has also successfully adopted new systems and new procedures for getting things done. EEI's success with a new business model and a new application suite — Data-Basics' SAM Pro Enterprise — shows how service management can evolve with and (in some cases) lead, an evolution to new ways of doing business.

To provide us with your feedback on this research, please go to www.aberdeen.com/feedback.

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October 2002*

Aberdeen Group is a computer and communications research and consulting organization closely monitoring enterprise-user needs, technological changes and market developments.

Based on a comprehensive analytical framework, Aberdeen provides fresh insights into the future of computing and networking and the implications for users and the industry.

Aberdeen Group performs projects for a select group of domestic and international clients requiring strategic and tactical advice and hard answers on how to manage computer and communications technology. This document is the result of research performed by Aberdeen Group. It was underwritten by Data-Basics, Inc. Aberdeen Group believes its findings are objective and represent the best analysis available at the time of publication.