



## Ensuring Highest Level of Patient Care with a Service-Oriented Architecture and Progress®

### CHALLENGE

Rotech needed a reliable and efficient way to connect and share data between heterogeneous systems to ensure the highest quality of customer service.

### SOLUTION

Rotech adopted a service-oriented architecture (SOA) and replaced traditional batch transmission processes with Progress® Sonic ESB® and Progress® Sonic™ Orchestration Server®.

### WHY PROGRESS® SOFTWARE

Progress Sonic solutions automate Rotech's order management process, enable near-real-time views of patient information and support complex data flows.

### BENEFIT

Rotech's flexible SOA is capable of meeting the company's demanding data management challenges today while evolving quickly and easily to accommodate future initiatives to improve patient care.

## CASE STUDY

### PRESCRIPTION FOR DEPENDABILITY

Customers depend on Rotech for far more than products and services—they entrust their health and well-being to the Rotech network of home healthcare companies. By building an infrastructure that supports near-real-time information sharing between systems and efficient business process management, Rotech is helping provide patients with the highest level of care.

### PROVIDING QUALITY PATIENT CARE

For the more than 4,500 employees of the Rotech family of companies, delivering quality service and patient care is more than a job—it's a calling. Since its inception in 1981, Rotech has become a national leader in helping patients manage their health and medical treatment at home so that they can live more comfortable and productive lives. Specializing in the care of patients with respiratory disorders, the company works with physicians to serve patients through a network of nearly 470 coast-to-coast locations, offering a comprehensive set of services that includes home medical equipment rentals and mail-order medication delivery.

Once a patient's physician initiates an order for medication, equipment, or both—either over the phone or via electronic data interchange (EDI)—Rotech becomes the patient's information and services hub, coordinating doctors, pharmacies, and medical equipment suppliers. This single-source approach to home medical care offers significant convenience for patients.

For Rotech, however, the logistics involved in the patient care process are anything but straightforward. "Rotech operates two very different business models, but we wanted a common IT infrastructure that could automate and support our various business processes," says Albert Prast, CIO of Rotech. "Our traditional equipment rental business is almost like a cable company. We get a patient, we get them set up, and we bill every 30 days until the equipment is picked up—it's an annuity stream. The pharmacy business is a sale that has to happen every month. If patients don't call in or we don't contact them to find out what additional medication they need, we don't get the sale."



The company must use multiple, disparate applications, including an order-entry system to input orders from each patient's physicians, a clinical system to track equipment and medication delivery details, and a mail-order pharmacy system.

Customer orders and information need to be shared across the company's systems so that Rotech can ensure that medications are refilled, new equipment is delivered, and existing equipment is serviced on schedule and without fail. Rotech found that information sharing between its systems was not as fast or reliable as the company wanted it to be.

"On average, we suffered a 15-day lag time before a transaction was loaded throughout our different systems," says Prast. "As a consequence, we lacked a single, unified view of the customer throughout the company. If a patient called to discuss medication, we might not know that the same patient was going to have a wheelchair delivered that week. We needed to overcome this limitation to provide the highest possible level of service."

### **CREATING BUSINESS PROCESS EFFICIENCIES**

Rotech needed a reliable and efficient way to connect and share data between heterogeneous systems. They decided to adopt a service-oriented architecture (SOA) across the company and needed software infrastructure to support their transaction and reliability requirements. For Rotech, Progress Sonic ESB (enterprise service bus) and Progress Sonic Orchestration Server were just what the doctor ordered.

"The Sonic architecture allows us to conveniently migrate our transactions in incremental steps," Prast says. "We have already completed a couple of initiatives that required near-real-time movement of transactions between systems. Gaining such immediate access to full, complete patient information is helping us increase our efficiency, which is very important for the patients who rely on our services."

For example, an order for medical equipment might travel to both a back-end fulfillment system and the billing system. The fulfillment system returns an acknowledgment or tracking number, which in turn is routed to the clinical system and call center application. As a result, orders are processed more efficiently—eliminating manual data reentry—and Rotech customer care representatives have access to critical, current information when working with patients. Those same customer care representatives can now also proactively call patients to coordinate deliveries, service, and additional treatment.

### **ON THE ROAD TO RECOVERY**

Sonic ESB has reduced complexity in Rotech's overall infrastructure, which is helping the company enhance IT manageability and cost-effectiveness by increasing the modularity of its IT systems.

"In the past, if I needed a certain function in two different systems, I had to code it twice," Prast says. "Progress saves us time and money by allowing us to move business intelligence out of applications and implement the logic just once—in the enterprise service bus. This is a different way of thinking—one that can really add long-term value."

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CIO

Rotech can also help improve customer care by having up-to-date patient information available to its call center. As a result, representatives can proactively call patients to coordinate deliveries, services, and additional treatments. The SOA also supports efficient transaction routing and a high level of transaction integrity, helping Rotech provide reliable information and service to patients while complying with the Sarbanes-Oxley Act.

“Using Sonic ESB, Rotech now has a flexible SOA that is capable of meeting the company’s demanding data management challenges today while evolving quickly and easily to accommodate future strategic initiatives to improve patient care, enabling Rotech to provide the very highest level of customer service,” Prast says.

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#### **ABOUT PROGRESS SOFTWARE**

Progress Software Corporation (Nasdaq: PRGS) provides application infrastructure software for the development, deployment, integration and management of business applications. Our goal is to maximize the benefits of information technology while minimizing its complexity and total cost of ownership.

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