



## Solution Boosts Field Services Work with Rich Data Access, Both Online and Offline

### Overview

**Country or Region:** Sweden

**Industry:** Professional services — Software engineering

### Customer Profile

RemoteX Technologies is a Swedish software company focused on mobile work-order management systems. The Stockholm-based company has 25 employees.

### Business Situation

RemoteX sought technology that could provide greater flexibility and scalability for its field service customers yet still make it possible for the company to compete in multiple European countries.

### Solution

RemoteX adopted a software-plus-services approach employing Microsoft® technologies to create RemoteX Applications. The solution uses a combination of Web-based services and locally installed software.

### Benefits

- Flexibility for field service companies
- Rich functionality, whether online or disconnected
- Compelling business model for solution provider

*“The software-plus-services business model lets us add customers exponentially without adding a lot of staff, because the tools are so efficient. It makes us a highly competitive company in our industry.”*

*Stefan Multing, Marketing Director, RemoteX Technologies*

RemoteX Technologies, based in Stockholm, Sweden, is a solution provider that specializes in software and hardware for field service workers in a variety of industries. Supplying field service workers with the rich information they need to do their jobs—and with easy access to online information—is always a challenge, due to the fact that field work often occurs in places without wireless connectivity. RemoteX solved this challenge by taking a software-plus-services approach that incorporates Microsoft® technologies when building its new suite of software called RemoteX Applications. With the software, field service workers have access to both Web-based and client computer-based information that can be used for accessing and entering customer data, parts lists, invoices, and more. The result is greater efficiency for companies and a compelling product offering for RemoteX.

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Stefan Multing, Marketing Director,  
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### Situation

Field service workers bring any number of specialties to the job as they ply their trades in diverse industries such as facilities maintenance, telecommunications, utilities, and security. Regardless of their particular skills, however, they all have one thing in common: the need for access to a lot of information, all of the time. Workers need basic information, such as the service address or task that led to the dispatch call. They need to know about customer histories and the parts needed to perform their work. They need easy access to manuals, schematic diagrams, and other resources.

The ability to provide field workers with computer access and automated tools has come a long way in the past decade. Paperwork has been largely replaced by custom software, and workers commonly access that software through ruggedized laptop PCs and other mobile devices. But challenges remain for companies that need to get information out to field service employees efficiently and cost-effectively. Organizations continually look for ways to reduce the cost, size, and complexity of their field service systems. And they want systems that are flexible enough to work well both online and offline.

"In addressing our customers' needs, we've gone through many different technologies—for example, rich applications, pure Web-based tools, and different types of mobile devices—to find the right combination to fit the information needs, resource requirements, online and offline scenarios, and budgets of our customers. IT was difficult to deliver a solution that fits all of those needs," says Stefan Multing, Marketing Director for RemoteX Technologies, a Swedish systems integrator that provides field-service automation solutions.

"For example, accessing information from a traditional, PC-based database might require a mobile employee to go online through a virtual private network connection. But what if he's working in a basement, where there is no connection?"

Ideally, field service solutions need to include applications that can handle highly detailed data, be used easily online or offline by a range of devices, and efficiently deliver information over-the-air without being hobbled by bandwidth limitations or connectivity.

### Solution

To continue providing powerful and cost-effective solutions for its customers, RemoteX Technologies made a strategic decision to adopt a software-plus-services approach using Microsoft® products and technologies. The result is RemoteX Applications, a suite of products that combines the familiar user environment of Windows®-based applications with Web technology to work across a wide range of mobile networks and devices, including Windows-based laptops, PCs, and wireless personal digital assistants (PDAs).

Designed with software such as Microsoft SQL Server® data management software and the Microsoft .NET Framework, RemoteX Applications can be easily modified for specific industries and business situations. For example, a company that maintains heating and ventilation systems needs different software tools than a firm that repairs office copiers.

RemoteX Applications is also available in different editions to address the needs of different size companies. These range from an edition for small organizations with relatively basic needs, to medium size and large organizations that need comprehensive work order processing features for

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mobile employees. An enterprise-level edition is designed for companies with complex requirements such as multi-language capabilities, national or global operations, and advanced business processes that may include many different partners and suppliers.

The software, which is hosted by RemoteX, provides service professionals with immediate access to all critical job information, including customer contact information, service history, site details, work description, equipment data, and pricing. Field personnel can use the RemoteX technology to manage technical and material resources, so they can resolve issues through the creation, delegation, and tracking of projects and tasks, and can modify pricing at job sites along with adjustments to specific contracts.

RemoteX Applications uses Web services to synchronize data between the client devices in the field and the company's server computers, using the best connections available. These connections can include GPRS, broadband Internet, WiFi, or UMTS (Universal Mobile Telecommunications System) technologies.

In the event of interrupted or no wireless coverage, however, a technician still has access to all previously stored data. In fact, RemoteX software is designed to be highly functional even when users do not have a network connection, and it can be integrated with other locally based applications such as the 2007 Microsoft Office system and Microsoft Dynamics® business management solutions.

RemoteX Applications also uses Microsoft ClickOnce, a deployment technology that enables the creation of self-updating applications that can be installed and run with minimal user interaction.

## Benefits

For RemoteX Technologies, the software-plus-services approach is delivering compelling benefits that are boosting the solution provider's position in the European market. The company's customers are finding that RemoteX Applications delivers rich information into the field and provide enormous flexibility to fit particular markets and business models. The solution makes both local and online data available so that mobile field technicians have the most up-to-date information at their disposal. For RemoteX, the software-plus-services approach makes its solution affordable, easy to support, and scalable enough to support a wide range of businesses.

## Great Flexibility for Field Service Companies

RemoteX used the development expertise it has acquired over nearly a decade to deliver a rich, highly flexible solution for field service companies. The individual modules within RemoteX Applications address broad work categories and workflow, such as preventive maintenance, service contracts, and document management. The modules provide the basic functions and options typically needed in field service work, such as job assignments, resource dispatching, parts checklists, invoicing, customer histories, and barcode scanning.

RemoteX solutions are used across the breadth of job roles in field service tasks, including service desk, administrative, field technician, and management personnel. The solutions can be deployed on desktop PCs; mobile PCs, including laptops and tablet PCs; and wireless PDAs.

“Because the Microsoft technologies and the software-plus-services approach offer great versatility, we can integrate our RemoteX Applications into every custo-

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mer's specific business model," says Multing. "Our solution is designed to work seamlessly with the technology that the customer has on site. For instance, we currently provide prepackaged integration for about 20 different enterprise resource planning systems. So, if a customer is using a particular enterprise planning or accounting application, our solution will likely integrate with that software."

The RemoteX solution, which includes a small piece of software that customers install quickly and easily, lets users take advantage of an array of online and locally installed software tools. For example, they can download a small plug-in for Microsoft Office Excel® spreadsheet software to create graphs and PivotTable® views from information stored by their company on a central database hosted by RemoteX.

#### **Rich Functionality, Whether Online or Disconnected**

Field service technicians are frequently working at job sites where connectivity is limited or nonexistent. In the past, this could create obstacles to getting work done quickly and efficiently. But with the software-plus-services model used in RemoteX Applications, technicians have access to most of the information they need, even when they cannot connect to their home base.

"We rely a lot on the compact version of the Microsoft SQL Server database, which allows even very small PDAs to carry a lot of information that can be used by field service technicians when they cannot get an Internet connection," says Multing.

He notes that the architecture of RemoteX Applications delivers a powerful hybrid of offline and online information that goes beyond the traditional Web-based approach offered by many hosted services providers, in which large volumes of information need to move over the Internet

even when a user needs to see or change a small piece of information.

"With the software-plus-services approach and the Microsoft tools, our solution sends and receives only the data that has been changed during a job or transaction," Multing says. "This dramatically improves bandwidth usage. Perhaps there is a job where a technician uses a single part to fix a furnace in a building. He can just make a simple note of this in his RemoteX software installed on his PDA. When he's in an area with an Internet connection, the solution automatically connects to his company's database, notes that one change on the customer's record, and the transaction is done. It's fast and efficient."

#### **Compelling Business Model**

The software-plus-services model employing Microsoft technologies is proving beneficial for RemoteX as well as for its customers. The scalability enabled by the model allows RemoteX to meet—and even exceed—its service level agreements with customers. This puts RemoteX in a highly competitive position as the company expands across Europe.

"There is so much flexibility when you combine the software-plus-services approach and the Microsoft technologies," says Multing. "It helps us deliver a powerful but also very cost-effective solution that lets us perform the big IT tasks such as running server hardware and operating databases. That way, our customers can focus on their own businesses."

He notes that the software-plus-services model allows RemoteX to make quick changes and updates in software, and to make more of its solution functionality available if a customer's business grows. "This business model is highly scalable for our customers, but also for our own

## For More Information

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For more information about RemoteX Technologies products and services, visit the Web site at: [www.remotex.com](http://www.remotex.com)

company," Multing says. "We want to be a huge, successful company, and are pursuing business growth across Europe. The software-plus-services business model allows us to add customers exponentially without adding a lot of staff, because the tools are so efficient. It makes us a highly competitive company in our industry."

## Software + Services

Software-plus-services is an industry shift driven by the fast-growing recognition that combining Internet services with client and server software can deliver exciting new opportunities. Microsoft is dedicated to helping individuals and businesses take advantage of these opportunities. By bringing together the best of both software and services, we maximize capabilities, choice, and flexibility for our customers. The broad software-plus-services approach unites multiple industry phenomena, including software as a service, service-oriented development, and the Web 2.0 user experience, under a common umbrella.

For more information about software-plus-services, go to: [www.microsoft.com/softwareplusservices](http://www.microsoft.com/softwareplusservices)

### Software and Services

- Microsoft Visual Studio
  - Microsoft Visual C#
- Microsoft Server Product Portfolio
  - Microsoft SQL Server 2005

### Technologies

- Software-plus-services
- Microsoft .NET Framework
- Web services