

Siemens Uses Dolphins to Read Meters

Overview

Industry: Utilities

Application: Meter reading

Product Solutions (Hardware and Software): Codegate's Adaptive Technology Software, Codegate's mobilesafeguard™ software, Dolphin® 9500 mobile computer

Hardware Partner: Hand Held Products



Executive Summary

Automated wireless data capture technology is constantly changing. The latest handheld devices are far more powerful and more versatile than those produced just a few years ago. Many companies, such as Siemens Energy Services, are therefore upgrading their systems. Siemens has opted for a mobile enterprise solution from Codegate. This leverages Dolphin® 9500 mobile computers, made by Hand Held Products and supplied by Codegate. The solution includes the hardware, bespoke software and maintenance.

Company Profile

Siemens Energy Services Limited (SES) is based in Nottingham, and employs some 2,200 people across the UK. One of the company's main business activities is data collection: it reads meters both manually and electronically, through some 150,000 home visits each day. The data is used in billing and settlement processes.

The Business Challenge

SES recently decided to replace its existing data capture devices. They were over ten years old and were becoming obsolete. They only supported dial-up communications and were using DOS operating systems. The units had a poor battery life and due to their age, had started to fail regularly. Project Manager, Pradeepan Periyannen, explains: "They no longer had the functionality our field staff needed so that we could satisfy our customers' demands."

In September 2004, the company started looking at alternatives. At the same time, SES's Transformation Change Manager, Nigel Weeds, met Adam Dykman, Managing Director of Codegate, at the SME Exhibition held in Birmingham's National Exhibition Centre. Codegate specialises in end-to-end mobility solutions based on its Adaptive Technology, leading hardware and comprehensive professional services. It also provides a broad range of off-the-shelf software solutions.

SES wanted a solution that would be rugged, and with a low failure rate of less than 3% per annum. The device should have an IP rating of at least IP64, and a battery life that would support a full working day. Good screen visibility and an ergonomic design were also important criteria.



Case Study

Pradeepan continues: "Codegate were keen to deliver the best solution for our business needs." The field-based Data Collectors subsequently chose their favourite mobile device from a shortlist of four. They evaluated each unit for its ruggedness, water ingress, screen visibility, ergonomics, and usability.

The Solution

The users opted for the Dolphin® 9500 mobile computer from Hand Held Products, the world's leading provider of image-based data collection systems. The 9500 is a versatile imaging device incorporating the latest technology, including an industry-leading, triple wireless radio design and GSM/GPRS technology. It is extremely rugged; has an IP rating of 64; is powered by lithium-ion battery technology; and has a backlit ¼ VGA colour display. Its imaging engine also enables the capturing of both pictures and barcodes and would enable SES to obtain evidence of meter tampering.

Meanwhile, Codegate developed suitable bespoke software for SES to provide the added security and active monitoring of its mobile devices out in the field. "They offered us a comprehensive support package," recalls Pradeepan, "as well as a product called mobilesafeguard™. This provides us with full visibility of our mobile devices in the field and enables us to upload changes on the move rather than recalling all the devices back to base. We have the added reassurance of being able to securely lock down a device if it gets lost or stolen, safeguarding our valuable data and the Siemens network."

Name	Reference	Comments	Edit	Delete	Add Device	Serial	Last Ping	Touch	Move Device
Adam Broadhurst	3207	Coventry			+	000084222	3rd-May-06 14:05:37		
Adam Spick	1168	Leicester			+	000087212	5th-May-06 14:01:20		
Adrian Harling	4310	Nottingham			+				
Adrian Newbury	3267	Coventry			+	000090481	5th-May-06 14:16:58		
ALAN Churms	6027	Derby			+	000087179	5th-May-06 13:54:46		
Alan Hall	4187	Nottingham			+				
Alan Johnson (4075)	4075	Lincoln			+				
Alan Jones	5134	Lincoln			+	000084282	5th-May-06 13:57:41		
Alan Perkins	3022	Coventry			+	000084228	5th-May-06 13:36:14		
	2190	Northampton			+				
	1160	Leicester			+	000087180	5th-May-06 10:07:21		
	2235	Northampton			+	000088657	5th-May-06 14:00:25		
	5017	Lincoln			+	000084269	5th-May-06 11:33:48		
	5122	Lincoln			+	000089391	5th-May-06 13:04:03		
	4321	Nottingham			+				
	2275	Northampton			+				
	1129	Leicester			+				

Screenshots from PC & Client Device

Siemens purchased 1,200 Dolphins, with the roll-out taking place between June and December 2005. Codegate's Adam Dykman says: "Our mobilesafeguard software provided the specific functionality that Siemens needed. When combined with the highly reliable Dolphins, it has already delivered massive cost savings compared to Siemens' previous expenditure, including service and maintenance. We now provide Siemens with a 24 hour advance swap-out service to replace a device in the field within 24 hours."

Case Study

The Dolphins are used to collect gas and electricity meter reading information. At the start of the day, jobs are sent via GPRS to the Data Collector, who uses the address information on the mobile computer to visit every house in order. The Dolphin can sort the work in a number of different ways, enabling each Data Collector to adopt the most flexible way for them to do their work. Each time a meter is read, the data is entered into the mobile computer.

After every 50 completed reads, the data is sent back to the host system via GPRS, where they are collated and a field performance report produced.

The accuracy of each meter reading is then checked automatically, although some suspect reads are investigated further by a dedicated team. Following validation, the readings are aggregated and the data is sent back to the relevant customer.

The Benefits

Pradeepan Periyannen comments: "So far the Dolphin has been much more reliable than its predecessor, even though it costs less! The communication platform has been running very well, with failure rates of less than 1%. We are consequently spending less on repairs. Codegate's mobilesafeguard device management solution provides us with far greater visibility of our hardware, enabling us to support our field staff better and protect our data."

"The use of GPRS has reduced our communications costs, and the unit's ability to receive and send data throughout the day has boosted our efficiency in sending data back to our customers. Ultimately, the solution from Codegate meets all of our Data Collectors' requirements and improves their working day. This leads to a happier workforce, which in turn leads to improved performance and increased revenues."

The new Hand Held Products units are extremely flexible, and provide SES with the capacity for increased functionality in the future. Pradeepan concludes: "Both Codegate and Hand Held Products have been responsive to our needs throughout, and nothing has been too much trouble for them."

"There has been an overwhelming 'vote of confidence' for this new solution from the users. Strategically, Siemens have been able to implement a slick and sophisticated mobile solution that will allow us to take advantage of the improving mobile software technology that the Dolphin can support (such as scanning, photo capture, data via radio frequency, etc.). This now enables us to provide our customers with more innovative data capture services."



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