

## REAL WORLD CASE

# 2

## GE Energy and GE Healthcare: Using Information Technology to Create Strategic Customer Relationships

When the global network that is the Internet arrived on the scene alongside rapidly advancing capabilities for large-scale storage and data analysis, most companies in the world were not aware of the strategic impact of the confluence of these information technologies. But a few proactive IT-savvy companies did spot the shift in the economics that these new IT developments provided. Now their products could be networked and accessed at their customers' sites, and this connectivity was cheap enough to permit continual monitoring of them anywhere in the world. Even a company like General Electric, already the premier model for downstream service expansion, saw unprecedented opportunities for strategic relationships and returns.

Look at GE's power turbine business, for instance. Its customers are major utilities, and they have good reason to hate equipment failures. At the least, any downtime creates huge opportunity costs for these customers; often it means they have to pay hefty regulatory compliance fines. To reduce that risk, GE (and its competition) invests heavily in information technologies for remote monitoring and diagnostics so it can deploy a technician or engineer ahead of a failure, as opposed to doing so based upon a planned schedule, or assumptions about the maintenance needed by each type of turbine, or, even worse, after a turbine fails and the power has gone off.

This strategic investment in IT has a dramatic effect on the profitability of GE's maintenance services. Most manufacturers cannot charge more than \$90 to \$110 per hour for their technical support because of price and benefit pressures from local competitors. But GE Energy, because of its

efficient network-enabled remote servicing, can charge \$500 to \$600 per hour for the same technician. Even more important, the information generated by its continual monitoring allows GE to take on additional tasks, such as managing a customer's spare parts inventory or providing the customer's and GE's service and support personnel with complete access to unified data and knowledge about the status of the equipment.

Customers now look to GE not just for high-quality energy equipment but also for help in optimizing their ability to supply consistent and high-quality power to their customers. So in fact, GE has created a significant amount of customer dependency for its services. This has allowed GE to tie its pricing to the business benefits it provides ("power by the hour"), for instance, rather than the products themselves.

The same kinds of economics are at work at GE Healthcare. Its typical customer is a medical radiology clinic in the market for a new MRI (magnetic resonance imaging) machine. But these customers have not purchased such machines in years. Given the rapidly obsolescent technology involved and the quirks of hospital finances, they've tended to lease the machines. Now even conventional leasing has gone by the wayside as companies like GE offer to install the equipment at no up-front cost, and instead charge for its ongoing upkeep and use. Think, for example, of all the activities associated with the life cycle of an MRI scanner:

1. Determining requirements and whether having a scanner is justified
2. Financing the scanner
3. Installing the scanner
4. Testing, calibrating, and validating the scanner
5. Maintaining and replacing parts
6. Replenishing materials (gases and imaging media)
7. Training personnel to use the scanner
8. Determining a patient's need for a scan (preliminary diagnosis)
9. Preparing the patient for a scan
10. Scanning the patient
11. Interpreting the scan
12. Updating the software
13. Upgrading the hardware

FIGURE 2.8



Networking and data storage and analysis technologies enable companies like GE Healthcare to gain a competitive advantage by becoming the sole provider of MRI scanners and all support services to their medical radiology customers.

Source: Phanie/Photo Researchers, Inc.

Because of the high value, complexity, and cost of MRI scanning, most of these activities represent a business opportunity for a scanner manufacturer. (Only activities 8, 9, 10, and 11 are primarily medical matters and not the province of a manufacturer.) But that still leaves nine activities that are

economic opportunities for scanner makers. This is precisely the situation GE Healthcare has stepped into, positioning itself as a complete solution provider for its customers.

The strategic business result is a longer-term relationship than a traditional product sale would have yielded. Under the old model, a customer buys or leases a product and gets some kind of warranty and support package with it. Then a salesperson comes back within a predictable amount of time to try to sell an upgrade or extension to the product or support services. Under the new model, the customer simply signs up, typically for a five-year-plus relationship with a major asset. All the support and replenishables related to that machine are handled, through individual transactions, as part of the managed service. By analogy, imagine not buying or leasing the car of your choice but instead paying for its use by the mile.

GE's ability to price those "miles" right is critical to its ongoing competitiveness. For an MRI machine, GE must estimate the number of images that will be required over the

life of the contract based on the demographics of the customer's service area. Again, the company can make such estimates because of its investment in information technology for network monitoring, diagnostics, and data analysis of the use of its products at customer sites throughout the world.

Not long ago, we met with managers in GE's industrial capital equipment leasing division. These are the people responsible for those leased trailers you find at practically every construction site on earth. We were incredulous when we heard how much self-awareness the trailers have; even down to the number of times a particular door or window is opened in a given period. Why collect data on such seemingly minor events in the life of each trailer? "Because," we were told, "the business is actuarial science now."

Source: Adapted from Glen Allmendinger and Ralph Lombreglia, "Four Strategies for the Age of Smart Services," *Harvard Business Review*, October 2005, and Peter Weill and Sinan Aral, "Generating Premium Returns on Your IT Investments," *MIT Sloan Management Review*, Winter 2006.

## CASE STUDY QUESTIONS

1. What are the business benefits of using information technology to build strategic customer relationships for GE Energy and GE Healthcare? What are the business benefits for their customers?
2. What strategic uses of information technology discussed in this chapter and summarized in Figures 2.3 and 2.5 do you see implemented in this case? Explain the reasons for your choices.
3. How could other companies benefit from the use of IT to build strategic customer relationships? Provide or propose several examples of such uses. Explain how each benefits the business and their customers.

## REAL WORLD ACTIVITIES

1. Use the Internet to discover if GE Energy and GE Healthcare are expanding or strengthening their uses of IT to build strategic customer relationships. What benefits are they gaining for themselves and claiming for their customers?
2. Use the Internet to discover other companies whose products are networked, monitored, diagnosed, and managed at customers' sites like the GE companies in this case. Alternatively, choose other companies you can research on the Internet and propose several ways they could implement and benefit from similar uses of information technology.
3. What business control and security concerns might a business customer have with the extent of their dependency on GE for the use and maintenance of assets that are vital to the operation of the business? Break into small groups to discuss the rationale for these concerns, and what measures both the business and GE could take to reduce any security threats and improve a customer's secure control of the business assets it obtains from GE.