



For the few who haven't heard of it, *Survivor* is a "reality" TV show in which 16 strangers are stranded in a remote location, where they compete to "outwit, outplay, and outlast" each other for a \$1 million prize. The show's contestants are forced to band together and carve out a new existence, using their collective wits to make surviving in their rugged environment a little easier. Day by day, the harsh elements and threatening indigenous animals test the endurance of the survivors. Watching a recent episode, a thought occurred to me: Deprived of basic comforts, exposed to the harsh natural elements, with your fate at the mercy of strangers...who would you become? Stretching this thought a little further, the environmental, health, and safety (EH&S) software marketplace is itself a lesson in survivorship. The global economy and technological advances have created a new market environment. This column examines the market and what it takes to survive.

THE SOFTWARE MARKET

Market Realities

There are hundreds, even thousands, of EH&S software solutions designed to do everything from managing operational data to modeling groundwater or air emissions to managing compliance tasks. Some software works on a standalone PC, other software works on a client/server network, and newer EH&S software is deployed over the Internet. Some software has a single purpose while other software covers many media (e.g., air, water, waste). This wide array of software offerings creates a lot of market confusion. The market is harsh and, with growing competition and price pressures, tests the endurance of software vendors. This is evident if you examine the number of companies entering and exiting the EH&S software market each year.

If you ask 10 people the names of the leading EH&S software packages, you will probably get 10 different answers. In contrast, if you ask the same people to name the leading word processor, e-mail package, or spreadsheet software, you will get fairly consistent answers. There are one or two leaders in each of these markets. What is missing in the EH&S software market is a clear leader. There are a handful of very good solutions out there, but there are not one or two "must-have" software packages.

Market Consolidation

Beginning in the mid-1980s, industry in general has seen much consolidation through mergers and acquisitions. In the EH&S sector, some of the "name brand" consulting firms, like Radian, Dames & Moore, and Woodward-Clyde, that were market leaders in the 1980s and 1990s have disappeared. They have been gobbled up as business has gone global. More recently, the EH&S software market

Survival in the EH&S Software Market



has undergone a bit of consolidation: Environmental Support Solutions announced its acquisition of Essential Technologies in April and Blue292 announced its acquisition of Caribou Systems in January. Neither of the acquiring companies is a startup; they and their newly acquired companies have been in business for five to 10 years or more. And Essential Technologies itself was the result of the consolidation of two companies founded in the 1970s.

Why the consolidation? The obvious answer is to provide better products, strengthen market position, and increase shareholder value. But there must be some deeper reasons. Software vendors are consolidating to provide broader offerings, to complete their “footprint,” and to acquire new technologies. New market drivers result in the need to adopt new software features and functions. Compliance with U.S. federal air permitting requirements has led software vendors to focus on task management. Greenhouse gases, emissions trading, and sustainability are three areas that the newer generation of software is starting to address. Knowledge management, decision support, and key performance indicators are also becoming areas where automation is seen as a benefit.

MARKET SURVIVAL

Survivors Must Be Attuned to the Market

To survive, software companies must be in harmony with the ever-changing market. Let's examine some of the forces in the EH&S software market.

- Many organizations no longer distinguish between “management systems” and “management *information* systems.” Today's market demands more than a calculation tool or a repository for environmental data. Software is now an integral part of many environmental management systems (EMS) that once were paper-based.
- Solid technical professionals ran first-generation “point-solution” software companies. They focused on EH&S issues, paying little attention to the “business end” of the business. They believed that the software sold itself on technical merits. The new generation of software companies is more business-savvy and more focused on customer needs. If software today sells itself, it is because the vendor has done adequate marketing to identify user needs and/or to fill a niche.
- First-generation point solutions and enterprise software were often clumsy, not very user-friendly, and lacking in documentation and/or user support. Today, the market expects a user-friendly product that is well supported.
- With many organizations outsourcing the information technology (IT) function, new software applications are attractive if they require little maintenance. This is one reason that application service provider (ASP) offerings are so appealing.

- The market is beginning to question the value proposition (i.e., what type of return will I get if I implement this software package?).
- Organizations see the power of using software to gain strategic benefits and market advantage over their competition, in terms of hard dollars or nonfinancial benefits (see “Business and Technical Motivations for Implementing an EMIS,” *EM* June 2002, p 14).
- Many buyers expect software to deliver *business* value beyond managing EH&S data. Examples of business value include process optimization, knowledge management, task management, collaboration, intelligence, decision support, and integration.

Characteristics of Survivors

What gives a software company staying power? The ultimate survivor(s) will be companies that

- provide software with ease-of-use features and functionality appropriate to their market niche;
- can stay a step ahead of the competition in identifying the next trends in terms of features and technology;
- are nimble and flexible enough to respond to the marketplace;
- are shrewd in leveraging technology without disrupting business;
- work in close partnership with stakeholders, including customers, end users, recipients of data, and the marketplace, to develop the next generation of software;
- make it easy for customers to adopt new technologies;
- know their core business and their limitations;
- collaborate with others to provide a total solution to their customers;
- provide knowledgeable support staff;
- show clear business advantages of using the software; and
- demonstrate longevity and sustainability.

How will software vendors band together and carve out a new existence? Is it possible to make a rugged environment a little easier? And who will be the ultimate survivor? The opportunity is ripe for a handful of companies to step in and dominate the EH&S software market. The successful survivors must be well versed in EH&S and information technology issues, as well as be shrewd business people. As this new breed of software companies evolves, I believe that all parties—software vendors, end users, management, and other stakeholders—will benefit. ☺

About the Author

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