The State of the EH&S Software Industry Insights from Five Top Executives

For this month's *IT Insight*, I interviewed five executives in the environment, health, and safety (EH&S) software solution business to get their insights on the nascent industry and their advice for those considering implementing EH&S systems. As you will see, their answers to my five broad questions reveal that although the EH&S software market is still young, it is evolving and has a lot to offer, and that new Web-based technologies allow EH&S systems to more easily communicate with other systems, generating real-time, on-demand data.

What is your "take" on the state of the EH&S software industry?



Alexander B. Long, President, Environmental Software Providers (*www.esp-net.com*): We're bullish. We recently had a really good user group meeting with 70 companies from the United States and abroad. We are seeing a lot of interest in environmental software at this time, driven not only by regulatory concerns, but also by issues like

sustainability, environmental annual reporting requirements, greenhouse gas initiatives, and spin-offs from the Sarbanes-Oxley Act. [The 2002 Sarbanes-Oxley Act mandates more rigorous corporate governance practices, expands public companies' disclosure obligations, and imposes fines for certain federal securities law violations. Under the Act, environmental liability assessments and disclosures will be subject to unprecedented scrutiny.]



Robert Johnson, CEO and Director, Environmental Support Solutions Inc. (*www.environ.com*): It is very healthy; we are seeing a strong up-tick. The market has continued to improve over the past 14 months. Based on the research we have done, the industry growth rate should be in the range of 5–10% per year. The overall market has had

somewhat of a purge after the dot-com explosion. The choice is much clearer for customers as to what the offerings are.



John E. Niemoller, President and CEO, Perillon Software Inc. (*www.perillon.com*): I see the market making a transition from reactive to proactive. A new driver causing more managers to pay attention to the details is the Sarbanes-Oxley Act, which is driving the need to more effectively manage EH&S risks and liabilities at a corporate

level, at the lowest possible cost. At the same time, corporations are cutting IT [information technology] resources used to support an array of homegrown systems. These homegrown EH&S systems are being replaced by more flexible systems because they are too costly to support and maintain and do not provide the visibility needed to effectively manage EH&S risks and liabilities. New and significantly less expensive Internetbased solutions that integrate with other enterprise systems beyond EH&S are starting to be adopted at leading corporations.



Lawrence Goldenhersh, President and CEO, Enviance Inc. (*www.enviance.com*): I think there's a reformation and a transformation of the industry. New technology has fundamentally changed the game. Software companies founded on old technology are scrambling while companies like Enviance are leveraging their technology advan-

tage. But it is important to recognize that—for "old technology" software companies—redeveloping their product line on the leading technology platform costs millions of dollars, involves long development cycles, and requires significant expertise. John R. Platko, II, Vice President, InteGreyted International LLC (*www.integreyted.com*): It remains fragmented and probably will stay fragmented for some time. This may have more to do with the demand side than the supply side. People who are interested in the systems have a difficult time articulating value to those that can approve funding. While the market can understand the value that robust tools can provide, articulating ROI [return on investment] is a problem. [*Editor's Note:* Unfortunately, a photograph of Mr. Platko was not available in time for publication.]

What's currently missing in the EH&S software market?

Long: I think that most of the tools that are out there are reactive tools. Most of the focus has been on reporting. The real value will come from people that use tools for planning proactive tools for decision-making. Greenhouse gas credits are a clear example. We are excited about tools that go beyond reporting and tracking to help people manage their business and improve the bottom line.

Johnson: There are some things missing in the areas of integration, performance management, and data collection tools. There is not a lot of industry market buzz in the area of analysis of the market. It still remains a nonmarket in terms of Wall Street, compared to the CRM [customer relationship management] market. I believe that it is a timing issue. As the market continues to consolidate and companies get larger, with companies passing the \$10 million mark, there will be more interest.

Niemoller: Until now, there has been a lack of attention from the highest levels of management. What has been missing is a compelling driver for EMIS [EH&S Management Information Systems] because no clear ROI has been defined. Systems installed in the past were designed to solve specific, narrow problems delivering a relatively low ROI, rather than automating workflows across the enterprise. Today's technologies enable EH&S software to be developed for significantly less cost, yielding flexible tools that can adapt to a broader range of business processes and tie to other systems such as financial.

Goldenhersh: Industry, in general, has recognized the need to strip to core competencies and outsource other needs. In EH&S, companies have not fully embraced outsourcing. If they did, companies would not be writing their own software, they would be turning to companies like Enviance—enabling them to concentrate on their core business whether it's generating, transmitting, and distributing electricity, processing chemicals, refining oil and gas, or manufacturing pharmaceuticals. Companies that do not seek out expertise in noncore areas

end up with stove-piped applications. This happens at a dramatically increased expense.

Platko: You can probably find a piece of software that can do just about anything you want it to do. The market is plagued by overcapacity. There are no clear leaders. There has been no clear consolidation. While interest is high, the spending is not there. Unlike finance, legal, or human resources, no one has been able to articulate how much one has to spend to do these things properly. There is not a lot of industry market buzz in the area of analysis of the market. The key thing that is missing is a value proposition that interested customers can articulate to those that provide the funding.

We know that "one size fits all" does not always work with software. In a small or medium enterprise, is it better to choose a powerful and technically advanced EMIS or buy a functional-fit product?

Long: If you are a smaller company you should find something that addresses current needs, as well as something that can meet future needs. Find something that can show a nearterm success, but don't buy something that leads you to a dead end. Look for a product that has demonstrated sustainability and won't leave you behind as technology evolves. Find a solution that can handle change; company needs will change and technology will evolve, so you need something that will be flexible enough to accommodate your changing business needs as well as changes in technology.

Johnson: The choices are not limited to these two answers. The organization must choose a solution based on who will be working with the system. It is better for a small-tomedium enterprise to focus more on functional fit and the people and skill sets. We focus on a broad suite of products on a couple of different platforms to solve the problem. Some companies have a solution/product set and ignore the rest of the market, eliminating options that may work better for some organizations.

Niemoller: If you have very specific business process issues, then a functional-fit product would work for you. If you foresee that you have a range of business processes and problems to solve, you need a more flexible foundation to build upon.

Goldenhersh: I am amazed that people still think they have to choose. The beauty of the Enviance system is that it is so powerful and flexible—it scales from the largest facilities to a family-owned dry cleaner. You can leverage the millions of dollars collectively spent on development and get on-demand compliance technology solutions that fit your exact needs. We are able to price the product for value, to allow smaller customers to use it as well as larger customers.

Platko: Our approach at InteGreyted is to put out a robust application, minimize the IT interaction required by users, and deliver functionality as users need it—start with something understandable and build upon it. If the company is a small or medium enterprise, I would assume that they want to become larger. You would want something scalable that can grow with you. We have seen organizations struggle for months or years with internally built applications, when they could have bought a solution that solves the problem quickly for a much lower total cost.

Tell me about the changes you expect over the next three to five years. What new technologies are on the horizon?

Long: Environmental issues and concerns will continue to grow. If you are in a distributed company you will face different requirements in different countries. You'll need a solution that supports multiple protocols and techniques. Technology will be greatly simplified by XML [extensible markup language]. I also expect to see changes in the overall process of delivering a solution. We will see better and better tools for streamlining the implementation process, as well as improvements in the underlying tools that will result in a significant reduction in the overall cost.

Johnson: We see utilizing XML technologies in the area of data and information interoperability. We continue to see organizations attempting to exchange information and have their EH&S systems become part and parcel of the ERP [enterprise resource planning] and accounting systems. We expect to see a lot of changes in the area of interoperability improvements—data reporting, exchange with agencies (e.g., states using electronic waste reporting). I believe we will see continued consolidation, that's good for the industry. We see growth opportunities. Several companies have received substantial capital over the past six months.

Niemoller: We are going to see more proactive attention from senior-level executives as EH&S departments consolidate and gain more attention in the corporation. Sarbanes-Oxley will have influence, but an increase in attention from regulatory agencies and programs like the National Environmental Achievement Track also will create positive reinforcement. Integration with disparate systems and workflows will enable an instant roll-up of critical information so people can make quicker decisions. New user interface tools will enable any user to configure his or her desktop and tailor the software to meet their specific needs. Wireless handheld devices will be used and supported for applications such as audits and inspections, as people rely more and more on mobile information.

Goldenhersh: (1) Mobility: someone could do inspections using wireless handheld technology, then seamlessly sync ultimately [with a database]. (2) Massive data integration: there is a lot of demand in the market for software providers to get databases to talk with each other. SOAP [simple object access protocol] and XML have really changed the cost and the time required to integrate other systems with our system. For the first time, tools can make integration very quick and very cost-effective. (3) Voice technology: voice has been around for quite some time, and it is much quicker than keyboard data entry.

Platko: I see three areas of change, two technological and one nontechnological: Offline capability—for times when users do not have access to the Internet; Web services—the reality of people needing to exchange information among different systems (e.g., share employee lists, facility lists); and globalization—take information management systems and make them scalable globally. Not just the language, but also content issues. Most who are able to invest in these systems are global organizations.

What advice do you have for someone considering a new management information system?

Long: It is important to look for an early win, and then have additional growth capabilities. Plan to phase the rollout. Before you invest in a solution, do your due diligence—check references to ensure that the company has a track record of successful EMIS customers. To protect your investment, look for a company with longevity. Know your vendor well. Look at case studies. Find a solution that can grow with you. Once you've chosen a solution, make sure you have enough resources and internal buy-in to make the implementation a success. Work with a good implementer. Many issues are not softwarerelated, but are business-related.

Johnson: My advice is, evaluate your options, understand your needs, and look around. Don't buy the first thing that's presented to you as the only option. It is important for organizations to evaluate several different products. Evaluate what realistically represents the best solution and is appropriate for your needs and requirements. I can't overestimate the value of getting an implementer or consultant involved in the evaluation process.

Niemoller: We find that many companies don't know how to get started. They are afraid to stop what they are doing and make a change. The first step is to truly understand the pain

in the business process across functional areas and assess the cost of this pain, including determining the true cost of developing, using, and supporting homegrown systems. Large enterprises will be astounded by how much they are spending each year on these systems. The next step is to get a dedicated team together, including executive sponsorship, IT, and various functional representatives, to set clear objectives and set priorities based on ROI. You need a dedicated team not only during the selection process, but also throughout the deployment. Narrow the software vendor field to a maximum of three of vendors and focus the evaluation beyond the user interface and make sure that the underlying architecture is flexible enough to meet current and future needs. Select the vendor who will be the best partner over the long term because you can influence the direction of the software for competitive advantage.

Goldenhersh: Utilize Web-based products so that you can leverage the experience of industry leaders. Separate screenshots from reality. Make sure that experts sitting around the table can recognize a screen shot from a real product. Avoid the isolation of a stove-piped system. Absolutely demand quality customer references and seek out information. Don't delay. Unlike in the client–server world, where there was a risk of obsolescence and a career risk, with the Web world you have protection from obsolescence because we are constantly innovating and passing innovations on to the customer. With Web technology, you can see and use the product before pushing it throughout the enterprise.

Platko: Conduct a literature review—people often jump in before they understand what the playing field looks like. Review columns, books, and other resources to understand where you are. Understand that this is a long-term proposition—find some pain points and a solution that can solve them quickly. Early wins clearly provide value that can support a business case. Select an application that solves your problems, but does not limit you going forward. Have a short-term focus and keep your long-term goals in mind.

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