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Patent Protection

Protect And Serve

It's important to protect your company's intellectual property. But are some businesses going too far?

A six-person firm called Shortpath Inc. that develops and licenses a portal for managing office buildings recently applied for two patents—the first involving a way to manage a building's infrastructure needs, the second a way to collaborate with the companies that service the building—based on its unique method of combining a database with a Web application. CIO and executive VP Jeffrey Friedman holds no illusions about the social importance of Shortpath's pending patents, but he's steadfast in his belief that there's significant business value in the intellectual property behind his 2-year-old company's products.

"Shortpath is no cure for cancer, but it can sure make life in a building better," he says.

Shortpath is one small soldier in the constant battle for companies to protect their intellectual property. A virtual arms race exists among technology vendors such as Hewlett-Packard, IBM, and Microsoft to patent as many technology inventions as they can. And high-profile lawsuits involving the ownership of computer-enabled processes, such as a recent patent suit brought against eBay Inc. over its online-auction process that's scheduled for trial early next year, are a reminder that the legal rules around IT and intellectual property haven't all been written.

As the deft use of IT continues to drive business innovation, and companies look to protect their most valuable assets, business-technology managers at times must lead the way. "IT supervisors need to get educated about IP [intellectual property]," says James Kalyvas, chairman of the E-business and IT practice at law firm Foley & Lardner. "Because they are the translators [of technology] for the business people, they need to have the best understanding of IP. It's an asset of the company, it needs to be recognized, and it needs to be protected, whether it's coming in or going out."

Business-technology managers need to know how to recognize ideas and inventions for the potential intellectual property they are. They also must know how to keep key assets from walking out the door with vendors, third-party consultants, or ex-employees. And they must know the issues and potential liabilities concerning patented IT.

Are IT managers ready? "It's quite possible that IT professionals are unaware of the patent protection that's available to them," says Bruce Lagerman, a former patent attorney who's now president of DE Technologies, which was recently granted a controversial patent for automating the paperwork involved in international commerce. DE Technologies' patent, like the one owned by MercExchange LLC, which is suing eBay over the process of online auctions, is what's commonly referred to as a business-method patent. Business-method patents, which involve a process rather than a device or a formula, proliferated in the late 1990s along with the Internet business boom. Such patents protect obvious or vague descriptions of standard business processes, critics say, and they've pressed the U.S. Patent and Trademark Office to be more careful with its approvals. Partly as a result, it took DE Technologies five years and more than \$200,000 to get its patent approved.

Applying for a patent is only one way companies can protect their intellectual property. There are also copyright, trademark, and trade-secret protections (see story, p. 33). But a patent, with its promise of a 20-year monopoly over an area of technology, is often the most potent weapon. "Applying for a patent is like buying a lottery ticket, only with a bigger payoff," says Bradley Wright, a patent attorney at Banner & Witcoff.

There are good reasons to pursue patents despite the difficulty involved, says John Ferrell, a patent attorney and head of the intellectual-property practice at Carr & Ferrell. Most obviously, they can become revenue generators: IBM got \$1.2 billion in licensing fees last year from its patents and other intellectual property. Patents provide a tangible measure of return on investment for a company's research and development dollars, and they help prevent inventions from leaving the company. If a company has a large number of patents, it can use them as "defensive bargaining" in case of patent litigation by a competitor-sue me, and I'll sue you.

For those reasons, patent protection is an important element of an overall asset-management strategy, says John Cronin, CEO of ipCapital Group, an intellectual-property consulting firm. Cronin has spent the past four years working with clients to develop methods for creating, capturing, and documenting intellectual property, and he's seen a lot of companies ignoring what are potentially their most valuable assets. "There are almost always opportunities to apply their technologies in novel ways," Cronin says.

Procter & Gamble Co. is an intellectual-property machine. The \$40 billion-a-year maker of consumer packaged goods holds 28,000 U.S. patents and continues to be granted patents at a rate of more than one a day. It also has 300 trademark-protected brands and an undisclosed number of "know-how" trade secrets, some aspects of which are among the patents it holds.

Many of P&G's patents fall into the formula category, but some are IT related. A recent example came out of a specifications-management application that P&G created by customizing software from product life-cycle management vendor MatrixOne Inc. Developed during the past few years, the app is used to apply a workflow to a complex

process of managing specifications for everything from packaging design to the mix of materials in product formulas. The tool, referred to as the corporate standards system, supports 8,000 users and stores 400,000 specs.

In June, the company licensed the customized app back to MatrixOne so the vendor could sell it to other packaged-goods manufacturers. While P&G gets a piece of the revenue that results, that wasn't the driver behind the decision. Rather, it was the promise of regular upgrades to the application from MatrixOne and the possibility of enhancements suggested by other companies that use the software, says Dan Blair, director of worldwide technical systems and standards. "If this tool gets used broadly in the consumer packaged-goods industry, then we'll get the benefits," he says.

Procter & Gamble has filed patent applications to protect several elements of the customization work it did. The decision to apply for them was made by P&G's patent division, which adheres to the company's global objectives in determining what intellectual property should be protected, and when. "That way, we're not out patenting every little thing," says Martha Depenbrock, manager of external business development and global licensing.

Companies would be wise to follow P&G's example and take a hard look at their patentable assets. "You don't always know you have something unique," says Jim Block, director of global software product architecture at Diebold Inc., the \$2.5 billion-a-year developer of automated teller machines and other self-service technology. Diebold has "a very active program that encourages the exposure of ideas that could be patentable" from the company's 300 global-development personnel, Block says. This year's goal is 100 ideas for potential applications. They'll be pored over by the company's intellectual-property investigators, who will select three or four to turn into patents. The company has "a very overt culture" of developing patentable ideas, Block says. "We run metrics quarterly to see how we're doing."

When Security Benefit Group, a retirement-services company, decided to apply for a patent two years ago on a methodology for offering an annuity feature, "it was more of a deterrent," CIO Dave Keith says, "something to give us a little bit of lead time" over competitors. Keith says the company's product-development group came to IT with the new feature and asked them to make it work. Keith had the methodology designed into the benefits-administration software it licenses from a third-party vendor, then made sure the vendor agreed to alert Security Benefit if another customer expressed interest in using that feature. None has yet, but "we believe it's leverage for us for the long run," Keith says.

Black & Veatch, a \$2 billion-a-year privately held construction and engineering firm, brings ideas considered to be valuable intellectual property before its investment review board. The board, which acts like an internal venture-capital organization, nurtures the ideas, determines their value, and decides whether they're candidates for the patent process. The company invested \$1 million in three ideas during 2000, and the pace of idea development has remained relatively consistent.

Investments are expected to reach \$1.5 million this year, chief knowledge officer John Voeller says.

While litigation around business-method patents has yet to play out, the lesson for business-technology managers is simple: expand the scope of what's considered patentable intellectual property. "They should look for things that give them a competitive advantage, a process that makes something more efficient, more cost-effective, more pleasing to an end consumer," says Banner & Witcoff attorney Wright. Amazon.com Inc.'s patented One-Click online-buying process is a good example of a customer-oriented invention. That patent was the subject of controversy when Amazon sued Barnes & Noble Inc. in 1999 to stop it from using a similar online process. The two companies recently settled out of court.

Companies should be able to protect the expertise they've built even if a patent isn't the appropriate tool, says Bob Jackson, director of product-development methodology and knowledge management at Montgomery Watson Harza, an \$856 million-a-year environmental engineering firm. "The value any one company puts into systematizing a business process easily matches the product investment a product company would make," he says. Montgomery Watson Harza, which specializes in energy, infrastructure, water, and wastewater projects, has formed an asset-management startup group that will provide consulting services to utilities looking to deploy work- and maintenance-management systems. The company is beginning to look at how it develops intellectual property around that.

Montgomery Watson Harza has figured out that most of the costs utility companies incur deploying off-the-shelf software aren't licensing fees but rather the hours employees and consultants spend making the best use of those applications. In other words, the firm's extensive knowledge of the utility industry, the applications designed for it, and the market forces that influence it are its greatest assets. The company will probably use methods such as copyrights and trademarks to protect knowledge-based intellectual property, Jackson says.

Not all patent-worthy candidates should be acted on, Black & Veatch's Voeller says. His company isn't pursuing two business processes that might be considered patentable inventions because Voeller has serious objections to business-method patents. "I suspect that over time, the rest of the world will look at this as a comical patent form that's only possible in the United States," Voeller says. "We don't hold any business-method patents, and we probably never will."

And at least one executive cautions against equating intellectual property and IT. Paul Hoogenboom, CIO of RPM Inc., a \$2 billion-a-year maker of specialty materials, says the value of his company's IT system isn't in intellectual property but in execution. "It's not about any special proprietary knowledge. It's about discipline," Hoogenboom says. "What we do better than anyone else is execute."

THE UPSHOT

- High-profile cases involving E-commerce patents and a patent race among vendors show the need for protection of intellectual property
- Business-technology managers should be more aware of their companies' efforts-and policies-concerning intellectual property
- Working with vendors or consultants can be a mixed blessing-they can spur intellectual property or walk out the door with it
- Business-technology managers need to consider the wisdom and ethics involved in patenting business methods