

great wide open

CASE STUDY | BACKCOUNTRY.COM

Backcountry.com is a small player in the outdoor sporting-goods market, but it's growing fast—and gaining market share—by betting on open source.

By Debra D'Agostino

It was the last week of December 2005,

the height of ski season in Park City, Utah. Visitors from around the country had converged on the tiny resort town, high in the Wasatch Mountains, to ring in the New Year and enjoy the top-notch slopes. But not everyone felt like celebrating.

In fact, Dave Jenkins, the normally laid-back CTO of Backcountry.com Inc., the \$52 million Park City-based outdoor-sporting-goods e-tailer, was in a downright bind—and not of the skiing kind. Jenkins needed to prepare for the company's annual sale in February, but things didn't look pretty. "The season change happens on February 15, when suppliers drop their prices on old merchandise," Jenkins says. For Backcountry, that means that more than 250 brands, and 25,000 products, have to be discounted on its Web site. But back then, the only way to do that was by hand, page by tedious Web page.

The previous year, just prior to Jenkins' arrival in March 2005, the sale had been a disaster. Backcountry had been short staffed, so it was unable to dedicate a team

PHOTOGRAPHY BY LORI ADAMSKI-PEEK

Dave Jenkins, CTO, Backcountry.com

company profile

Company

Backcountry.com Inc.

Corporate Headquarters

Park City, Utah

CTO

Dave Jenkins

Revenues

\$52 million

IT Budget

\$1 million

Number of employees

260

of employees to properly analyze which items should be discounted, and by how much. In the end, the company decided to apply the same discount to every item in its inventory. It was a costly mistake: Jenkins estimates the company missed roughly \$400,000 in sales. "We lost margin on the hot items that would have sold out no matter what, and lost again on the products that would have sold had they been discounted more heavily." Jenkins couldn't afford a repeat performance, so he turned to his engineers: "I asked them if they could put together a script that would automatically calculate the best discount price based on each item's sales history and current inventory."

They could—and did. Within six weeks, Jenkins' team had designed a new program to automate the entire process. "The script cut the time it took our programmers to input the discounts from four weeks to four days," Jenkins says. The February 2006 sale was a success, generating \$1 million in purchases. And as a bonus, the new program enables Backcountry to adjust prices monthly, daily—even hourly.

What was the secret to putting such a complex script together in such a short period of time? Open source. At Backcountry.com, nearly every system runs on it, from ERP to e-mail to e-commerce. And while using open source requires Jenkins to keep a small army of developers on staff, it's also the key to Backcountry's success, keeping the company agile and innovative enough to compete in an industry dominated by brick-and-mortar retail chains. Also, it doesn't hurt that the company's strategy, philosophy and corporate culture all align perfectly to the ethos of open source. "We're really all just a bunch of ski bums and river rafters," says Jenkins, who hits the slopes at least once a week. "It's all about open source, open ideas, and an open marketplace where the best ideas win." Groovy.

On the Cheap

Backcountry.com began in 1996 as a home-based Web site that quickly turned into

full-time careers for two nontechie outdoors enthusiasts. President John Bresee had taught skiing in Stowe, Vt., while Jim Holland, now Backcountry's CEO, had been a member of the U.S. Ski Team. The two cobbled together some Web pages and a simple shopping-cart script and convinced a few suppliers to sign on—all with just \$2,000 in startup money.

By 2000, the company was netting \$3 million a year, and Bresee knew that he needed a more comprehensive e-commerce system. "We looked at WebSphere, Oracle and others, but we just didn't have the money," he says. Then he came across Red Hat Inc., which was developing an open-source e-commerce platform called Interchange. Because the dot-com world was showing signs of deterioration, with software startups quickly going out of business, Bresee realized he'd need a system that would allow him to control the source code. "Otherwise we could get stuck," he says. The cost to install Interchange and set up Backcountry with the necessary open-source architecture: \$100,000. Jenkins estimates similar proprietary systems would have cost at least five times as much. Thus began the company's love affair with open source.

Unlike proprietary systems, which place customization restrictions on users and often require heavy license fees, open-source software allows users to make and distribute copies of applications, share source code freely and improve or customize software as needed—at a fraction of the cost of proprietary software. And Backcountry.com isn't the only company that's taken notice. Gartner Inc. predicts that 90 percent of the Global 2000 will have formal open-source management strategies—including assessment of risk, total cost of ownership and return on investment—by 2010. According to a *CIO Insight* research survey published in November, 81 percent of companies have deployed or are considering deploying open-source applications, and 67 percent of companies say that open source has helped lower IT costs.

So what does an open-source enter-



THINKING OUT LOUD | DAVE JENKINS

ski bums welcome

David Jenkins is a self-professed open-source evangelist. But to run a truly open-source shop requires a big commitment to IT. In the year since he joined Backcountry.com as CTO, Jenkins has hired 16 new engineers, bringing the total to 22—and counting. Considering the company employs just 260 people, that's a lot of resources dedicated to programming. Jenkins recently spoke with *CIO Insight* about his IT recruitment strategy.

CIO INSIGHT: Most small companies wouldn't take the approach you've taken, hiring such a large IT staff and assuming responsibility for your own programming.

Why did you go that route?

JENKINS: We have a slogan here: The risky way is the safe way. If you're going to make your mark, you have to take risks and do things other people aren't doing. That means we have to be able to tinker with anything and everything we touch. We want to try crazy ideas, hack things ourselves.

But doesn't having so many programmers increase your risk on some level? It's a lot of responsibility to take on.

It does increase the complexity to have so many programmers, but I think that's the price of being an e-commerce company. Amazon has thousands of developers. This is a very entrepreneurial company that rewards innovation very strongly. Everyone here is encouraged to come up with

their own ideas, and sometimes the biggest challenge for us is to pick which ideas will work, out of the 100 harebrained schemes we've got running around. That's the advantage of having an in-house development team. Open source lets us react quickly.

Is everyone who works at Backcountry.com an outdoors enthusiast?

Yes. Everyone here is a skier, snowboarder or mountain biker. Even the engineers, and that's the really interesting part. Normally IT people are a pretty geeky lot. They usually collect *Star Wars* figures and quote *Star Trek*.

How do you find qualified people?

You ask the right questions in an interview. Most companies don't think that hobbies matter, but I disagree. For me, hobbies are 45 percent of the interview; the other 55 percent is all about skill. If your hobbies include rock climbing, hiking and a two-week trek through Peru last summer,

come on in. If you just enjoy reading books and watching movies, you won't get hired here. That sounds cruel, but the fact is if you don't fit into the culture here—if you don't socialize, don't love the gear—you won't enjoy working here.

Is it difficult to find engineers who fit the Backcountry.com culture?

Not at all. There are plenty of geeks out there who hate that *Star Trek* stereotype, who want to be something else. Every time I post a job opening, that's the biggest sell. That's worth \$10,000 in salary to them. I can't pay programmers as much as they might make at a big company, but qualified people will come here for the entrepreneurial culture. If someone is waiting around for orders, they get let go. I don't have the time or patience, or even the tools, to micromanage someone. And our engineers give me incredible performance, because on any given day they know they can take off and go skiing. —D.D.

“Open source is a great way for a small, hungry company to build on a sophisticated platform and get a competitive edge—far more cheaply than it could with proprietary software.”

—Eric Von Hippel,
professor,
MIT Sloan School
of Management

prise look like? Jenkins, who worked for Red Hat where he was Backcountry's sales rep before he was hired away to become the company's CTO, says the company operates a hybrid of what's known as LAMP architecture: Linux for the operating system, Apache for the Web servers, MySQL for the databases (though Backcountry works on PostgreSQL), and Perl for the application scripts. The firm uses Firefox for its Web browsers and manages e-mail with open-source software from Zimbra Inc. “With an open-source product like Zimbra, we can do things like tie e-mails directly into our order management system,” Jenkins says.

For example, customer order numbers in Zimbra e-mails are linked directly to the order management system, so customer service reps don't have to open separate applications. Jenkins estimates that “gearheads”—Backcountry's affectionate nickname for its CSRs—save three hours a week as a result, translating to roughly \$150,000 in savings a year. “It wouldn't be possible to do something like that with Microsoft Outlook or some other proprietary system,” he says. “Plus, it's one-tenth the cost.” And while Jenkins admits that some copies of Microsoft Word and Excel still exist, he also says, “We are following a policy of attrition. We will not buy any more Windows licenses—only open source.”

Free Spirit

While cost is a large part of the equation, Jenkins says that it's not the only reason Backcountry.com is committed to open source. “At the end of the day, the most important thing to this company is innovation. We want to do crazy, kooky things in retail.”

Not surprising for a company that seems full of crazy, kooky people. The corporate atmosphere at Backcountry is nothing if not iconoclastic. Like many dot-com companies, there are no dress codes, no set hours and no offices, except for those of Bresee and CEO Jim Holland, who share a simple, unadorned workspace. Like his IT staff, Jenkins works in a six-by-six-foot cubicle made of particleboard and brushed aluminum. Staff-

ers test and retest all equipment and clothing the company sells—and most spend as much time as possible outdoors. The irreverent culture makes open source a perfect fit, Jenkins says. “Everyone is encouraged to come up with their own projects. The company can only benefit by the free, unfettered exchange of information and ideas, and we preserve that entrepreneurial culture by allowing everyone in the company to share ideas.”

Those ideas are tracked on a companywide knowledge management system called “The Goat,” which Bresee calls “the heart and lungs of the company.” The intranet, named after the company's trademark, is actually a wiki—open-source software that lets any user create or edit content regardless of which browser they use (think Wikipedia). Backcountry's wiki has already grown to more than 6,200 pages. “Every process, every piece of institutional knowledge shows up on The Goat,” says Jenkins, “and any employee can edit any page they choose. It's our way of creating a true idea factory.” Nearly all the company's initiatives spring from The Goat, Bresee says.

Case in point: SteepandCheap.com, a Web site the company originally set up as a means to flush out stale inventory (“the dusty stuff in the corner,” Jenkins says). Taking a cue from Woot.com—a site that sells just one discounted electronics product per day—SteepandCheap.com took just three weeks to build and launch after the concept was approved in February 2005. Now, it has 100,000 unique visitors each week, a figure that is growing 15 percent a month. Backcountry.com sells one item each day on the site—and it almost always sells out. “It's great for us,” says Dustin Robertson, Backcountry's director of marketing. “Our high-end suppliers don't want to see their products out there on sale with discount retailers, so this is a great way for them to let us take unsold inventory and get rid of it all in one day.” It's also a quick way to make a buck—on a good day, SteepandCheap.com rakes in as much as \$26,000 in sales.



Open source also helps the company closely track its advertising spend. Backcountry.com uses Atlas Search (formerly Atlas OnePoint) from a Seattle-based company called aQuantive Inc. to oversee its keyword bid management—a crucial tool for online retailers reeling in shoppers through Web searches. Jenkins estimates that keyword-search marketing leads to 30 percent of the company's revenue. But it's not easy to manage. "Backcountry has close to 80,000 SKUs, with lots of keywords," Jenkins says. "If you're not careful, you'll pay for those keywords even if you don't have the product to sell anymore."

To keep that from happening, Jenkins' team created an open-source Perl script that monitors inventory so that keywords drop away from the bidding pool when stock supplies run out. The script saves the company hundreds of thousands of dollars each quarter out of an advertising budget of several million, says Jenkins, and is a prime ex-

ample of how open source creates value. zia, an analyst at Bala Cynwyd, Pa.-based Susquehanna International Group LLP, agrees. "E-commerce isn't a real focal point for most sporting-goods businesses. Most of the big players—like Cabela's, Sports Authority and Dick's Sporting Goods—are focusing on branching out their physical retail operations."

Jenkins admits that Backcountry.com cedes lots of business to brick-and-mortar competitors—the company has only one retail store, at its warehouse in Salt Lake City. But Backcountry finds innovative ways to overcome that inherent limitation. Jenkins says the company has an open-door policy with customers. "We count on our customers to share their experiences with us and with each other," he says. The company pays close attention to customer service—in fact, every employee spends one day every eight weeks answering customer calls via telephone, e-mail and instant message. Backcountry also rewards loyal customers who

"It's all about open source, open ideas, and an open marketplace where the best ideas win." —Dave Jenkins, CTO, Backcountry.com

ample of how open source creates value. "When we decided to do this, there was no off-the-shelf product that could handle it," Jenkins says. "It would have taken Accenture or IBM months to put something like this together for us."

Growth Spurt

"We want to become the Amazon of sporting goods," Jenkins says. Of course, selling books and CDs online is entirely different from selling clothing and outdoor gear—most people want to test out the equipment before they buy it. "I don't know if it's really possible for an online sporting-goods retailer to gain significant market share without some physical retail stores," says Edward Weller, a managing director with ThinkEquity Partners LLC, a San Francisco-based analyst firm. Christopher Sve-

write product reviews for the site with discount coupons.

Though still a tadpole compared with some of the brick-and-mortar bullfrogs (e.g., Sidney, Neb.-based Cabela's Inc., and Kent, Wash.-based cooperative Recreational Equipment Inc., both of which took in more than \$1 billion in sales in 2005), Backcountry.com is content to mine the online vein, and has even enjoyed some pretty healthy financial success of its own. In 2005, revenues nearly doubled, to \$52 million, from \$27 million in 2004. And the company just opened a new 210,000-square-foot warehouse in Salt Lake City, about a half hour drive from corporate headquarters. Last year, the company doubled its workforce, from 130 to 260—nearly 10 percent of whom are open-source engineers devoted to in-house programming.

How cheap is free?

Contrary to popular belief, not all open-source software is free. But it is cheap. Here is Backcountry.com CTO Dave Jenkins' cost-comparison worksheet, estimating one year's expenses. Totals are based on 260 employees.

	OPEN SOURCE	TRADITIONAL SOFTWARE
e-Mail	Zimbra COST: Free, plus support at \$500/seat	Outlook, Lotus Notes COST: \$900/seat
Knowledge Management	Mediawiki COST: Free	PeopleSoft COST: \$100,000
e-Commerce Platform	Interchange COST: Free, plus \$150,000 for consulting	IBM WebSphere, Microsoft .NET COST: licensing \$500,000; consulting \$300,000
Relational Databases	MySQL COST: Free PostgreSQL COST: Free, plus \$50,000 for consulting	Documentum COST: \$100,000 Sybase, Oracle COST: \$600,000-\$2 million
Operating System	Red Hat Enterprise Linux COST: \$50,000	Microsoft, Solaris COST: \$130,000-\$200,000
TOTAL	\$380,000	\$2m-\$3.4m

SOURCE: BACKCOUNTRY.COM

often see the success of Google and assume they can do it, too,"

Driver says. "The difference is that Google hires every Ph.D. out of Berkeley, and can maintain a skills level that most

IT shops can't."

Jenkins knows he can't compete with Google for developers. But what the company lacks in salary, it makes up for in lifestyle, he says. "On any given day, my guys can say they are taking off to go skiing or hiking, and it's no big deal. We want our people to spend time out of the office. It's our biggest sell, and frankly, if you don't love the gear, it's no fun working here." Because of the company's laid-back atmosphere, Jenkins says engineers are willing to work for far less than they'd be paid at Google Inc. or Amazon.com.

As a way of offsetting some of the costs of all the custom development, the company may consider selling some of its customized software. But Bresee says the company will remain steadfastly focused on the firm's primary objective—selling outdoor gear. "I didn't imagine we would have this many programmers," says Bresee. "We never set out to be a technology company, we always aimed to be a retailer. But we didn't have a choice. No one was making the products we needed." +

Please send questions and comments on this article to editors@cioinsight-ziffdavis.com.

RESOURCES

Books

Open Sources 2.0:

The Continuing Evolution

By Chris DiBona, Mark Stone and Danese Cooper
O'Reilly Media, 2005

The Success of Open Source

By Steven Weber
Harvard University Press, 2004

Web site

www.opensource.org

Site of the Open Source Initiative

Open source is a strategy that helps level the playing field, says Eric Von Hippel, a professor and head of the innovation and entrepreneurship group at the MIT Sloan School of Management. "Open source is a great way for a small, hungry company to build on a sophisticated platform and get a competitive edge—an edge that's precisely tailored to their specific needs—far more cheaply than it could with proprietary software," he says.

But along with any growth spurt comes the pain of maturity, and Backcountry.com is no exception. While it may be cheaper to create code in-house than to buy proprietary licenses, managing such a large team of in-house developers is a responsibility many companies hesitate to undertake—especially in an age when so many companies are outsourcing IT development, or opting for hosted software models. "To be honest," says Bresee, "we wouldn't be doing the development we do if someone had an offering that brought everything together as cost effectively."

One of the biggest risks of devoting so much of a company's resources to customizing software is that "you effectively become your own software company," says Mark Driver, an analyst at Gartner. "People