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How Companies Prove IT

By *Mel Duvall*

In the fall of 2001, pressed by dwindling revenues, cutthroat rivalry and a full-blown technology recession, Montreal-based Bell Canada needed to cut costs—and fast. CIO Eugene Roman knew the telecom could save millions of dollars in customer service costs each year if it could tie together four different service-troubleshooting networks and give customers access to them. The idea: reduce Bell's payroll costs by letting customers, not high-priced service reps, check whether service complaints were being resolved—and how quickly.

Trouble was, vendors were telling Roman such a system would cost Bell as much as $10 million to buy the needed software and equipment. At first, Roman was discouraged: Even in good times, such a price tag would be a hard sell, but in the spending backlash, he knew approval would be even tougher to get.

Then Roman had an idea. Why not see if Bell could do the project more cheaply in-house? Roman would develop a pilot to prove the business payoff—before asking Bell's executive board to commit to full funding. Sure, a pilot could fail. But what if it could instead produce cold, hard numbers about benefits to the bottom line? Roman would not only boost his own credibility as CIO before the board, he'd also get the backing he'd need to roll out the project companywide.

Roman's strategy worked. As a pilot, there was less risk of cost overruns. But Roman did better than keep costs down. The pilot delivered a workable, homegrown prototype, and did it in roughly 60 days—nearly a third of the time that many full-blown projects take. Further, the final cost amounted to about $1.9 million, a fraction of the $10 million Bell would have had to pay an outside vendor.

But better still, the pilot helped to establish a new and more permanent proving ground at Bell for all kinds of information technology projects. Called exCITE!, the new IT development lab has since tried, tested and proven the business merit of dozens of new IT initiatives that, all tolled, have resulted in more than $15 million in savings and some $10 million in new revenues for the company. "When you can tell a senior executive that, in no later than three months, he will get a solution—and know exactly what the payback will be, it's very different from saying, 'I'm going to deliver a project in 18 months,' and 'trust me,'" says Roman. Agrees Guy Marier, president of Bell Quebec: "The lab is a way to develop ideas and get results faster."

Skunk Works

Bell Canada isn't the only company setting up testing labs to prove the business potential of proposed tech projects. Firms from Yellow Corp., a Kansas-based trucking firm, to Ford Motor Co. and Webcor Builders, a West Coast building construction company, also are starting to manage risk this way.

In a recent *CIO Insight* survey about IT spending, 25 percent of computer and communications manufacturers and 21 percent of government IT executives said they are starting to require more pilots before committing to new IT spending. "These labs do two things," says Wharton professor Eric Clemons. "They defer the big investment until you know more, and they hide the project from the guys who would stop it."

Unlike old-fashioned "skunk works" idea labs, which author Tom Peters in his book, *In Search of Excellence*, defined as "a band of eight or 10 zealots off in the corner," these new IT proving

grounds tend to be led by CIOs and other IT executives, and staffed by business people as well as technologists.

Another key difference? Rather than expect geeky tech brainiacs to dream up fresh ideas that may or may not result in any solid business initiatives, these new IT labs demand business results—and most within 90 days or less.

Yellow Technologies President Lynn Caddell, also the CIO of Yellow Corp., says the labs bring increased discipline to IT projects. She says that 95 percent of projects done at Yellow's lab come in on time and at or under budget. "The movement to create these new labs has just begun across industries, and should improve IT-business alignment and the CIO's ability to support the business," Caddell says. The majority of the projects go forward, but not all of them. At Yellow, about 20 percent of them don't pass final muster, Caddell says.

But the new IT labs can present challenges of their own. Jerry Luftman, a professor with the Stevens Institute of Technology, says they can be tough to manage. First, he says, "if these labs are started and run by the systems (IT) folks, they're more likely to fail. These labs must be run by both IT and business to succeed." Second, he says, there's a risk of having too many projects in the pipeline at once, and advises companies to limit each project to strict, 90- to 120-day timeframes.

Perpetual Beta

Sunil Subbakrishna, president of Information Economics, an IT consulting firm, says there's also a risk that if you don't stop to properly engineer the technology, "it ends up in perpetual beta." Further, he says, while the new labs may promote business alignment and lower the risk of new projects, "the flip side is, can the solution scale once out of the lab? It might work small but face all sorts of new problems outside the lab once the project has to get bigger and roll out throughout the corporation."

To help prevent all that, ideas at Yellow are brought before a monthly meeting of the Technology Prioritization Committee, comprised of nine vice presidents, each representing a line of business within the company. Pitches must pinpoint how projects align to the company's business strategy and how well they would scale.

Usually, some 10 project proposals get presented each month. "Everyone has to build the business case for these projects," says Cheryl Pieper, Yellow Technologies' vice president of information solutions. "Does the project have to do with revenue generation? Cost savings? Cost avoidance? Customer satisfaction? Is it a mandatory regulatory project that we'd have to do, regardless?" Once that's determined, a case is made for the ROI. Those seen as having the best chance for a quick and significant payoff are tested immediately.

Projects also vary by application. For example, Yellow recently received a request to develop and then test new software that would help drivers pinpoint, at any given time, the exact loading docks they would need to use at client companies. Caddell says drivers, upon arriving at a customer's loading dock area, were losing valuable time searching for the precise dock at which to unload or pick up each shipment. "You could have hundreds of doors at a specific facility, and a shipment could come in one door and need to be loaded at a totally different wing of a company's dock facility," says Caddell. When Yellow switched recently to a business strategy that would offer customers express shipping, that kind of haphazard searching was no longer acceptable, Caddell says. The result? "This system helps move the shipment to the right dock so we can load it onto the correct trailer, and so that it actually ends up in the right location faster," he says. The projected benefit? A savings of hundreds of hours of time and thousands of dollars per month in payroll and logistics costs, Caddell says.

In most cases, the key to project success is getting—and keeping—IT and business leaders aligned around common business goals. Most IT labs are places where such teamwork is not only encouraged, it's mandatory.

Similar to the lab at Yellow Technologies, projects at Bell's exCITE! are first nominated by an executive, business unit or individual employee and evaluated by a team that includes business and technology managers. Once given the go-ahead by that alignment team, all projects are developed under strict guidelines. Business-side staffers who stand the most to gain by the new technology must work full-time on development. This can sometimes be a source of conflict, Roman says, because project nominees may not realize the commitment involved. "They can't just dedicate an hour or two a day or week to the project," says Roman. "Once they're on board, they're on board full-time."

Other people, whether systems analysts, database engineers, designers or developers, also must be committed. "Our goals are simple," says Roman. "Cut the time of development on anything we run through the center in half, and reduce the cost of projects by 20 percent or better." Pay incentives also can help sustain IT-business cooperation on projects, "but the idea is that we're all working together to make the corporation more successful as an entire entity," Pieper says.

Increasing Revenue

At Webcor Technologies, the lab is both a testing ground and a source of new revenue. In May 2001, Webcor acquired Hayward, Calif.-based BridgeNet Information Systems Inc. and turned it into Webcor Technologies, which tests, evaluates and develops technology for the parent company, and also does technology consulting for clients in the construction industry.

One recent development was an online time card system, which allows employees to "punch in" from remote construction sites and lets managers keep better track of worker productivity and safety data. The system ties into Webcor's Timberline accounting system, and speeds the time it takes managers to process time cards and site safety data required by federal labor regulations. Webcor plans to sell the application to outside construction firms this spring. Director Gregg Davis says the cost of developing the virtual time card project was minor compared with the results. "Superintendents used to spend four to five hours a week just processing time cards and safety data, and project assistants were spending about six hours a week doing this," Davis says. Now, he says, it takes less than an hour. Davis says he expects the new system to pay for itself within nine months.

Learning By Example

Bell Canada CIO Eugene Roman says that while contemplating the idea of creating an IT proving lab, his project team studied what other consulting organizations and companies were doing, and went on field trips to technology incubators.

It was during one such visit in November 2001, to Ford Motor Co.'s iTek Center in Dearborn, Mich., that the ideas for Bell's lab began to gel. What Roman and his team saw at Ford was a cross between a joint application development (JAD) and a rapid application development (RAD) approach to new projects. But here, too, IT-business alignment was the secret sauce. Ford, which has invested about $80 million in the iTek facility, brings together teams from the business, design and technology divisions to work on initiatives. Their goal is to plan, develop and test a process or a technology application within a 90-day window.

Roman took the ideas he saw at Ford, combined them with strategies and input gained from other companies such as IBM and outsourcing partner CGI, and came up with the plans for what is now Bell's IT lab, called the Centre for Information Technology Excellence, or exCITE! for short.

Barely 60 days later, in February 2002, the lab was launched and now has branches in four Canadian cities—Toronto, Ottawa, Montreal and Mississigua. Roman describes the Toronto workspace as "serious California"—friendly and functional. Every available piece of wall space, he says, has been covered with "wall talkers," essentially whiteboards that run from floor to ceiling. Participants are encouraged to use the boards in lieu of paper, and add comments or thoughts to their colleague's ideas. But the lab is results-oriented, too. "It's like a living classroom, but it's like a living delivery room as well," he says.

So far so good: Since February 2002, 34 projects have run through the center, including a community portal application that was developed for Bell to sell to municipal governments. ExCITE! was asked to create a prototype that could be easily adapted by different cities and showcase the various Web businesses run by Bell, including Sympatico (Internet access provider) and GeoSolutions, Bell's satellite-mapping service business. ExCITE! developed the prototype in four weeks at half the cost informally bid by outside vendors. An additional 17 projects are in progress, and nine more are in the pipeline.

Roman, along with Yellow's Caddell, Ford's iTek director Greg Moran and Webcor CEO Andy Ball, is pleased by what's been achieved by these IT labs so far. Bell Quebec President Guy Marier says Bell's exCITE! center is a welcome relief to the "black hole" approach Bell used to develop technology projects during the IT boom years. "Show me the money in three or four months, or move on," Marier says. "Projects start to cost a lot of money when they derail."

But the biggest payoff so far? "Now, people know where to go when they have a good idea," Marier says. Indeed, done right, IT labs not only can help to institutionalize innovation, they can help to make innovation pay for itself.

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Problems, Challenges, Solutions

Webcor Technologies
Structure: A unit of Webcor Builders
Top Executive: Gregg Davis
Size: 19 employees

Business Problem Webcor was fighting an ongoing battle to get daily safety checks done faster and more accurately. It also needed more accurate time card data from workers in the field.

Technology Challenge To develop a technology that could be used by people with varying technical skills—and could be integrated with a database and link to Palm Pilots used at construction sites.

Lab Solution A safety check application for Palm Pilots and virtual time card software were created for construction workers and also for sale to other companies in the industry.

Yellow Technologies
Structure: unit of Yellow Corp.
Top Executive: CIO Lynn Caddell
Size: 325 employees

Business Problem Yellow was being pressed by rivals and customers to offer express delivery services that could be backed by customer service guarantees—and it had to be workable in 30 days.

Technology Challenge Modifications to various processes had to be made simultaneously, versus the traditional method of mapping business processes first, then wrapping solutions around it.

Lab Solution Simulated information flow to provide a feel for how the system would work and validate or disprove assumptions. Daily IT- business interaction was key to the project's success.

Bell exCITE!
Structure: operates within Bell Canada
Top Executive: CIO Eugene Roman
Size: 120 employees

Business Problem To develop a community-based portal to include in Bell's eCommerce product portfolio, and to help municipal governments in Canada work more efficiently.

Technology Challenge Lab technologists had to create a prototype in less than four weeks—and do it at half the cost of what outside vendors were bidding to do the same job.

Lab Solution The exCITE! team was able to meet the challenge, and Bell's sales teams are now using the prototype to bid on new business opportunities within the municipal sector.

Resources

BOOKS

Software for Your Head: Core Protocols for Creating and Maintaining Shared Vision
By Jim McCarthy and Michele McCarthy
Addison Wesley, 2001

Engines of Tomorrow: How the World's Best Companies Are Using Their Research Labs to Win the Future
By Robert Buderi
Simon & Schuster, 2000