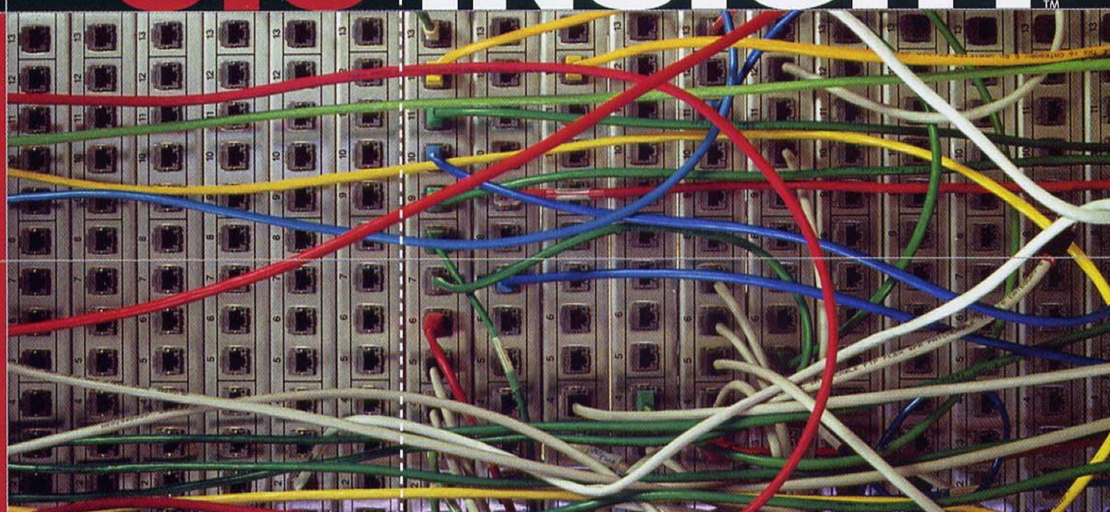
Strategies for IT Business Leaders

February 2003
Number 23

ZIFF DAVIS

CIO INSIGHT™



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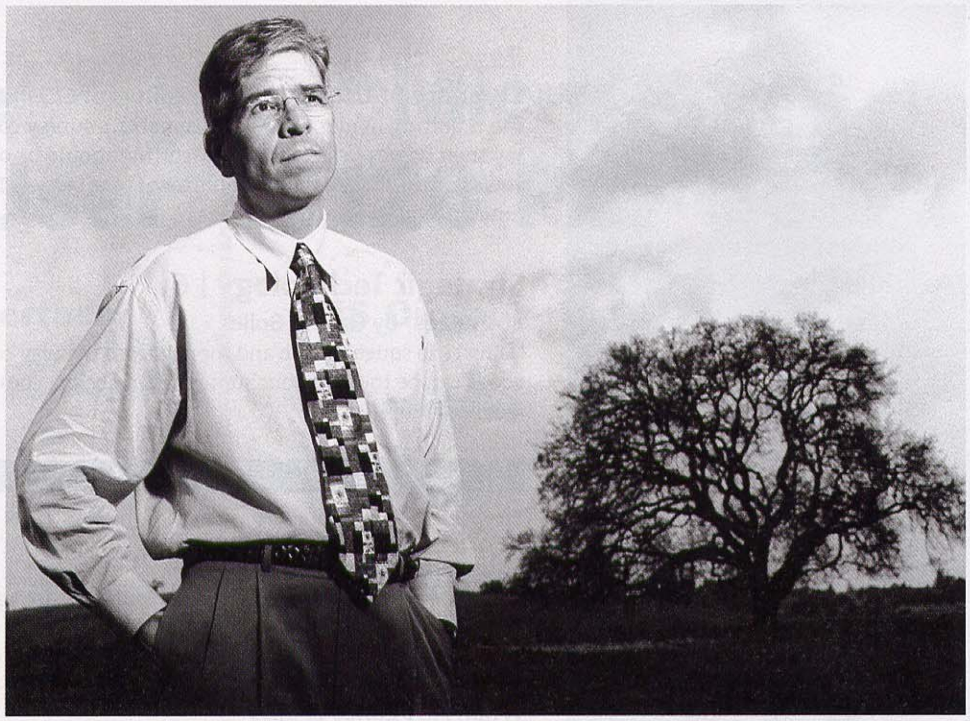
"IT investment will return to a sustainable level, something like it was in the 1980s and early 1990s, and it will continue to have a big impact on how the economy operates."

Paul Romer
Professor of Economics
Stanford University



Parkway Corp. CIO John Bryer says business intelligence technology is helping to cut costs and boost profits.

CASE STUDY | PARKWAY CORP.

FOCUS ON | BUSINESS INTELLIGENCE

DATA GARAGE

Replacing instinct with data is helping a mid-sized, family-run parking company boost profits, cut costs—and make employees more accountable for results. **By Dave Lindorff**

ON THE 10TH FLOOR OF PARKWAY CORP.'S PHILADELPHIA headquarters building—nine floors of parking spaces topped by one enclosed floor of nondescript office cubicles—CEO Joseph S. Zuritsky has built an enormous atrium. In the middle of it, he has installed a landscaped series of plaster ponds and waterfalls and stocked them with 20 brightly colored Japanese koi, large gold and orange carp that resemble giant goldfish. Bred by Zuritsky on his fish farm outside the city, the koi, symbols in Japan of wealth and longevity, are known to live for up to 75 years—and in some rare cases, even longer.

The symbolism isn't lost on Parkway executives or its rivals. Founded more than 75 years ago by Zuritsky's father and uncle to demolish old buildings and turn them into parking lots to accommodate America's growing new love affair with the automobile, Parkway, now Philadelphia's largest parking garage operator and third-largest landowner, is today facing one of its toughest business cycles yet.

Traditionally cutthroat, the $29 billion parking industry in recent years has become a story about the survival of the fittest. Heavy consolidation in the industry, driven by Wall Street in the economic boom of the late 1990s, has gobbled up dozens of mid-size firms in recent years, while stiff price wars and soaring liability insurance costs—up 30 percent to 50 percent, on average, during the past year—have forced most companies in the industry to compete more heavily by cutting costs rather than lowering prices, and compelling executives to scramble for ever more elusive efficiencies.

According to Jennifer Childe, a parking industry analyst for Bear, Stearns & Co. Inc., the health of any one parking firm tends to be tied most closely to commercial building occupancy rates, which depend largely on employment rates. When occupancy rates go below 90 percent in major cities, such as during the current economic downturn, parking companies like Parkway feel the pinch. Childe says that as a result, many garages have been cutting prices in recent months and weeks to stay competitive. But companies which stand a lasting chance of success, she says, will be those that can better eke out continuing efficiencies in operations and provide extra value to customers to keep them coming back for more.

That's where Parkway has gotten lucky. Many smaller firms have bitten the dust, but not Parkway—not yet. For most of its history, Parkway's edge was based on its expertise in acquiring real estate and developing it, a skill that gave Parkway, among other advantages, lots situated in some of the best locations in various cities: those next to high-traffic or soon to be high-traffic destinations. But now Zuritsky, to stay competitive, is having to add technology to the mix.

During the technology boom of the late 1990s, Parkway, which owns and manages 30,000 parking spaces and 100 garages in nine East Coast cities, from Toronto to Jacksonville, Fla., saw its growth surge, partly due to a modest recovery in Philadelphia's downtown business climate. Revenues were up 6 percent in 1997, up 13 percent in 1998, up 15 percent in 1999 and up 11 percent in 2000. But as growth increased, so did Parkway's costs. Indeed, in some cases, costs were seriously eroding gains, and suddenly, it seemed, the old-fashioned way of running garages—on intuition, wits and experience—wasn't cutting it anymore. The company's mostly paper-based reporting systems, at the time merely inconvenient, were suddenly no longer accurate enough, broad enough or fast enough to let executives manage costs as well as before. "We'd exceeded our ability to manage things by ourselves," Zuritsky recalls. "We needed technology now to help us." With growth came more data, "and executives had increasing difficulty making sense of what was happening," adds Doug Krauss of RCG Information Technology, a business intelligence consultancy familiar with Parkway.

56%

Of companies calculating the ROI for data warehousing, 56 percent say the technology is paying off as expected, while 21 percent say the ROI is greater than expected.

SOURCE: *CIO INSIGHT* ROI SURVEY OF 378 IT EXECUTIVES, TO BE PUBLISHED IN MARCH 2003 IN *CIO INSIGHT*

DATA-BLIND

So Zuritsky decided to hire a CIO, for the first time in the company's history, to develop software that would make it possible for executives to better understand and cut costs and to segment and cultivate its customers. Parkway has two types of customers: garage owners who hire Parkway to help them manage their lots, and drivers who park their vehicles in one or more of Parkway's 100 surface lots or garages.

In 2000, Zuritsky chose John Bryer, a former software applications developer familiar with business intelligence systems, both for the Pentagon's satellite program, in nuclear engineering, and more recently for health insurance giant Cigna Corp.

What Bryer found when he got to Parkway surprised him. "We were antiquated," he says. "The company was not generating the kind of information that the owners and managers of our facilities could use to help them understand what was really going on." How bad was it? For example, he says, one garage owner might call one lot by one name, but Parkway executives back at headquarters might refer to it by another label, making simple cross-tabulations of operating reports nearly impossible.

Further, individual lots might be measured, but executives couldn't easily get a fast, single view of how all lots were doing in total or compared with each other, across the Parkway network. There simply wasn't the capability. And strategic information, such as which lots worked best, which garage designs were most profitable, which customers were the most profitable and which employees were driving the most damage claims and overtime costs, was information that was scarce or anecdotal, if available at all. "Intuition, gut instincts and experience had ruled for too long," Bryer recalls, while hard data remained difficult to compile. Acknowledges Zuritsky: "It was my lifelong quest to try to control a difficult business to control. The frustration of trying to do it manually, with all the holes and problems you ran into doing it that way, had finally become intolerable."

Today, 18 months into the rollout of Parkway's new BI system, Bryer is already starting to cut costs and turn Parkway's old business culture on its ear. Thanks to a new business intelligence and data warehousing system he began phasing in during 2001, Parkway profits have gone up 4 percent, overtime costs have gone down 65 percent across Parkway lots, employee embezzlement—a problem in cash parking operations throughout the industry—is down nearly 15 percent, revenues are up between 5 percent and 10 percent, and car damage claims can now be tracked by employee, garage and time of day. Further, the number of empty spaces per lot per time period are also on the wane, thanks to improved yield management strategies that enable garage managers to manipulate price and customer mix and better keep parking spaces filled. In addition, monthly operating reports, which used to take up to a full week to prepare cross-enterprise, now take just hours. "It's been sort of like having the scales lifted from our eyes," says Bryer.

While many companies are still plodding along trying to get business intelligence to help them make better, faster decisions—IBM says in a recent survey that most businesses actively use only 7 percent of their data to inform strategic business decisions—Parkway is one of business intelligence technology's early success stories, both with the lots it owns and with those it manages for others.

"Technology in the parking industry is a pretty big deal because it saves money," says parking industry analyst Childe. "In an industry that's been slow to implement information technology, it certainly can give a company a competitive advantage." Especially, she says, if like Parkway, the business model depends in part on how well you manage properties for others.

PARKING MORE PROFITS

Parkway's business intelligence strategy has boosted profits 3% to 4%—for starters.

DAMAGE COST CONTROLS	NEW REVENUE INCENTIVES	OVERTIME MANAGEMENT	ACQUISITION STRATEGY	TRAFFIC FLOW
PROBLEM: Parkway's legal fees and insurance premiums were rising due to increased claims from customers reporting damage to their cars while in Parkway lots	**PROBLEM:** High customer turnover at some garages.	**PROBLEM:** Overtime costs for parking employees could spike suddenly, causing lower-than-expected profits per earnings cycle.	**PROBLEM:** Some guesswork was used to decide which types of garages and lots should be managed or acquired.	**PROBLEM:** Long lines at exit windows and gates.
SOLUTION: Claims analyzed by location, type of garage, employee and lot caused managers to redesign some garages and automate others.	**SOLUTION:** Web site that gives top customers the best rate, at any given time, for a particular lot, location, time period and payment option from among Parkway-owned or managed lots in a given city or region.	**SOLUTION:** BI helped to pinpoint where overtime costs were highest—and why.	**SOLUTION:** BI shows which lots make the most money—and why, and what types of contracts and locations are most profitable, or likely to be, over time.	**SOLUTION:** Automated payment machines that take various forms of payment simultaneously and, for monthly customers, sensor-equipped ID cards that activate open-close gates and bill customers for exact length of stay.
PAYOFF: In some spots, claims have dropped an estimated 15%.	**PAYOFF:** Pending; in pre-rollout and pilot phase.	**PAYOFF:** Parkway can now hold managers more accountable for cost and budget overruns.	**PAYOFF:** Smarter decisions on which types of facilities to buy, which to sell and which to manage—and how.	**PAYOFF:** Faster entry and exit times at high-use lots during rush hour and faster turnover with lower vacancy rates.

THINKING OUT LOUD

DATA IN THE FAST LANE

Parkway CIO John Bryer discusses the risks and rewards of building a data warehouse.

CIO INSIGHT: What did you find when you got to Parkway?
BRYER: We were not generating the kind of information that the owners and managers of our facilities could use to help them understand what was really going on. In some cases, the data was there but nobody was taking full advantage of it to manage the business, because they didn't have the ability to analyze it at a speed or on a scale that could make a difference.

What were some of the toughest challenges?
Setting up a data warehouse that works. The term "data warehouse" is misused a lot. People use it to mean just a big reporting repository, so if you have data from your accounting systems, people say that's a data warehouse. But a true data warehouse takes data from numerous, disparate sources and normalizes it so that you can look at, say, a number of locations and compare payroll, claims, budgeting, revenue, traffic data—all types of different information that has historically existed, in islands across the organization. One of the biggest impediments to a successful warehousing project, in my view, is existing technology. Often, when you go to a company that has been using technology for a while—and you tell people you're going to build a data warehouse—you'll get answers like, 'Yeah, that sounds really cool, but we still want to get the same information we're getting right now.' There's a resistance to change, a fear in some cases of the higher accountability that a true data warehouse can force onto an organization. There's also a tendency to hold on to the status quo. In the kind of organization that's large and sophisticated enough to endure the investment that a data warehouse and business intelligence require, there tends to be some territorial and political issues that can block real progress, like if one department defines a term one way and another defines it another, and they use the attempt to build a new technology capability as an excuse to fight rather than to change.

Active involvement and buy-in is needed from everyone, but that only happens if you have very strong leadership from the top that says, 'Hey, we're spending millions of dollars on this thing. It will work, and your performance review next year is going to take into account your department's ability to contribute to it.' I had, pretty much, a clean slate and a boss who knew what he wanted and made sure everyone went along.

What has Parkway learned from BI?
Profitability from location to location. We can spot management problems or new trends in demand. The beauty of this stuff, done well, is that it can help you see things you never saw before, and help you to solve problems far more effectively. As for strategy, it's invaluable. Parkway acquires a lot of real estate. We can now make better decisions on what we want to buy and which new lots we might want to manage because we now know better which types of locations do better for us by region, size, location and other factors. People talk a lot about trying to do this; some say they're doing it. But few actually pull it off. For us, it's already being proven as a business strategy tool, and we're just getting started.

Adds Mark Yedinak, cochair of the technology committee of the International Parking Institute, an industry trade group: "Most parking companies still don't know what they need to automate. Only a handful of people in the industry even know what the technology is all about. Not Parkway. In that respect, Parkway—and Bryer—are pioneers."

SMALL IS GOOD

Bryer credits much of his success so far to the fact that Parkway is small and family run: there was virtually no prior technology when he came on board to tangle up or torpedo his efforts. (See "Thinking Out Loud," this page.) Second, Bryer wasn't under immediate pressure to succeed or prove ROI in the first year. "A public company never could have done what we did, because we do things that do not return on a quarterly basis," says Zuritsky. "Our board would have retired all of us long ago otherwise." Third, top management was squarely behind the initiative: "I didn't have to convince Joe [Zuritsky] to do BI; he hired me to help him implement it," says Bryer. And finally? Not having anything like it before made even the smallest results at first look amazing, convincing executives to line up behind most other BI-related initiatives.

So how has BI made Parkway smarter? (See chart, "Parking More Profits," page 45.) Consider damage claims, for starters. Complaints filed against parking lot owners for nicks and scrapes to cars while parked is a major cost to all garage owners and operators, and in recent months, liability insurance premiums have been soaring. According to the National Parking Association, commercial liability insurance rates for parking facilities are rising—and by as much as 80 percent for some members last year, says NPA Executive Director Martin Stein. According to the American Insurance Association, insurers see parking garages as high auto damage targets, and since Sept. 11, also as potential terrorist targets, chiefly those in urban facilities.

While not much can be done about the terrorism risk, BI software can help pinpoint the cause for claims increases by letting managers compare claims per employee, garage design and cost data by garage or across the organization. This way, managers can spot anomalies and, therefore, intervene to ask questions, minimize problems and keep premiums from increasing even further, Bryer says. (In one of Parkway's garages, for example, Parkway has been able to cut damage claims nearly in half just by altering the mix of signage and employees on duty.)

And there are other pluses to BI at Parkway. Consider revenues per garage site. Using its new data warehouse and analytics software, Parkway can now analyze revenue by type of garage (automated, self-service or valet parking), length of stay, rate structure and percentage of total use over time, and find ways to help managers rejigger prices and garage spacing so as to run their facilities more profitably and efficiently. For example, a manager might offer higher prices for shorter terms in high-volume lots to earn better revenues per space at a particular location. Parkway says that where it has applied new warehouse analytics to customer lots, revenues per site can go up by as much as 35 percent.

BI is also helping Parkway cut employee theft, another problem in the parking industry, especially in lots where cash is still taken from customers to pay for parking. Automating payment systems, says Bryer, can "keep hands away from money." Indeed, "gaming the system," Bryer says, is such a problem in the industry that Parkway and other firms are moving to develop digital payment systems that employ credit card, digital scanning devices and smart card and sensor technology to charge customers for parking.

Parkway won't divulge how much it loses from theft each year, but analyst Childe of Bear Stearns says the nation's No. 1 parking company, Central Parking Corp.—with 1.5 million lot spaces nationally compared with Parkway's 30,000—has been able to boost revenues 10 percent to 15 percent, just by preventing theft alone.

Switching to digital payment systems, she says, has additional benefits in the parking industry. "When you put in a machine to replace humans, revenues go up—and you don't have to pay a machine benefits or overtime," says Childe. Adds Zuritsky: "You also don't have to pay compensation claims."

SMARTER STRATEGY

BI is also letting Parkway, itself, get smarter at overall business strategy. What's the best mix of monthly, valet, daily and weekly parking in a particular city? Check the BI system. Want to acquire a new lot similar to one that used to be a moneymaker at Parkway, but then failed? Check the BI system to help determine whether to draw up a more favorable contract or business plan. Workers' comp claims on the rise? Analyze which sites and employees have the most claims over a period of time, then see if new management rules or design changes are required in particular sites.

But most significant to Parkway is being able to know who its most profitable customers are. That knowledge, says Bryer, gives Parkway an opportunity to retain good customers, either through special prices, loyalty programs or other means. Parkway, in a pilot of its new customer Web site, is offering, for example, some top customers access to data from the warehouse—namely, up-to-the-minute reports on which lots are full, which lots have the best prices at any given time of day and maps helping to show customers how to get to them. In addition, some monthly customers can visit the site to get their personal account data, as well. "Say I'm going to be in the West End of the city later this week. What's the best lot I can go to? The whole point of this Web site is to provide Parkway with a way to boost its profitability

JOHN BRYER CAREER HIGHLIGHTS

PARKWAY CORP.
- VP and CIO, 2000-present

INTRACORP
(subsidiary of Cigna Corp.)
- AVP, Technology Services, 1999-2000
- Director, software development, 1994-1998
- Project manager, 1990-1993

CONSULTANT
- Software developer, Intracorp and Carto Mapping, 1988-1989

GENERAL ELECTRIC CO.
(Space Systems Division)
- Senior programmer and analyst, 1986-1987

PRINCETON UNIVERSITY
(Plasma Physics Laboratory)
- Software engineer, 1982-1985

UNIVERSITY OF MAINE, SCHOOL OF FOREST RESOURCES
- Software programmer and analyst, 1980-1981

EDUCATION
- Research Fellow, Norwegian Forest Research Institute, Aas, Norway
- M.S., Forest Resources, University of Maine, 1981
- B.S., Forest Products Business, University of Idaho, 1979

and add revenues," says Anil Dilawri of Cognos Inc., the company that has been working with Bryer to set up his Web initiative. "Being able to offer extra services to its customers, Parkway can help to do that."

To be sure, one big complaint about data warehousing and business intelligence in general has been that few companies have yet to figure out how to put their executives in front of this data, directly—and, by extension, in front of customers. But managers at lots both owned and managed by Parkway also have access to their own Web site and can track progress on earnings or strategy goals and compare the cost of operations at a particular garage with similar locations around the city or in another city altogether.

HARDER TO HIDE

But BI technology isn't easy stuff. Bryer says rollout has been slow—some garage owners unfamiliar with the Web have been reluctant to use the site. "Use rates reflect cultural changes that have yet to occur around this technology at Parkway," he says. Bryer recalls even more cultural resistance to change when he first came on board, chiefly among some garage operators who didn't want software to "second guess" their experience running garages the old-fashioned way. "With BI, it's harder to hide," says Bryer. "It demands a new kind of accountability that can make people uncomfortable."

Take overtime costs, for example. Before, executives back at headquarters would sometimes be caught off-guard by a spike in overtime costs. Now, though, Parkway executives are able to compare overtime costs across a variety of locations, and senior operations managers back at Parkway's 10th-floor headquarters can intervene when costs go awry. It might be a bad manager at the helm at a particular garage. But it also might be that a new business just opened up nearby and there's suddenly a surge in business. Whatever the explanation, Parkway's new data system can help managers spot anomalies as they crop up. But Zuritsky and Bryer are just getting started. Down the road, says Bryer: completely cashierless garages equipped with smart cards that let customers get charged precisely for the time they park and give them loyalty rewards for frequent visits. Also on the horizon? Vehicle identification chips that allow customers to enter a garage and leave it without stopping their cars at the gate. Monthly parkers already have this option in some locations.

Zuritsky acknowledges Parkway is betting big on BI. Fifteen percent of Bryer's annual IT budget is set aside just for the data warehouse with much of the rest earmarked to set up the system and keep it running. "We've invested heavily in technology and we've placed a lot of our anticipation on it, businesswise," says Zuritsky, who declines to cite specifically how much Parkway has spent so far on its BI initiative, except to say it's "in the multimillions." Technology, he says, "has not been heavily utilized by other operators in this industry, and it's a real departure from our past."

But the way Zuritsky sees it, ever-smarter use of information technology, combined with Parkway's expertise in parking acquisition and development can go a long way toward helping secure Parkway's place in the industry—at least through his son's generation, as a niche player with an edge. Or so he hopes.

For now, though, at least when it comes to information technology, Parkway is no longer a fish out of water. Says Bryer: "BI technology can allow companies, for the first time in our history as an economy, to really understand productivity and the factors that make one profitable or unprofitable. It's radical stuff for us. It's radical stuff for any industry."

DAVE LINDORFF *writes frequently about business and technology issues. His worked has appeared in* CIO Insight, *the* Atlantic Monthly *and* BusinessWeek. *Comments on this story may be sent to* editors@cioinsight-ziffdavis.com.

RESOURCES

Books

Data Mining and Business Intelligence: A Guide to Productivity
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By Bernard Liautaud
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Articles

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By Susan Osterfelt, October 2002
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