



# BCG IT UPDATE

BURGER CONSULTING GROUP

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Information Systems Consulting to the Construction Industry

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## NOTE

### New Address for BCG!

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## BCG On a Growth Spurt

*A Message from Christian Burger*



The last few years have seen remarkable growth in the US construction market, and evolution in construction technology has been staggering. Software and hardware improvements have together invited companies worldwide to improve efficiency and financial oversight, better act on information, and improve client service. And there are a number of developments relative to the new ownership of some "old-line" software companies.

Burger Consulting is enjoying the rapid change—and the commensurate flurry of activity. With more consultants and staff than ever before—amid a move to new, expanded offices—we hardly have time to catch our breath. And don't ask about my cycling! We're doing all we can to keep up: As engagement size increases and the client list lengthens, we're reviewing and improving business processes, client management, core technolo-

gy solutions, and productivity. Our entire team met for a two-day strategic review in Chicago this April to discuss progress and BCG's future.

I am energized by the challenge of upholding our culture at Burger Consulting amid this growth—a challenge I'm sure many of you faced as your own companies expanded. Holding on to a valued culture as personnel join, the clientele broadens, and the need for infrastructure increases is daunting. But it's a great challenge to have!

As usual, I will attend CFMA's annual conference in May, in Scottsdale, AZ. I am delivering a special talk for the Heavy group, focused on new trends and developments in technology for equipment, field measurement, trucking, plant control and scale ticketing and reviewing case studies. The Heavy group is a subgroup of the membership made up of highway contractors and aggregate producers—anyone with a lot of heavy equipment. If you're already a member, by all means plan to attend. Not "Heavy" but still interested? Just come on by.

## Spotlight on IT at Panattoni

by Ben Westendorf

Panattoni Development is a commercial real estate development company specializing in industrial, office, and retail projects. The company develops, owns, leases, and manages properties in more than 150 cities in the U.S., Canada, and Europe for over 500 clients. Panattoni Construction, with 21 offices nationwide, specializes in design-build construction for commercial, industrial, office, and manufacturing facilities. With 60+ years of construction management expertise, its national presence and local market knowledge allow Panattoni to provide the best available building methods and materials at a competitive price.

Comprised of these two growing sister companies, Sacramento-based Panattoni has a challenge common to many companies with multiple business units: Separate information systems evolving in different directions with different applications and technologies. Panattoni retained BCG to do an

overall IT assessment encompassing their real estate development and design-build construction organizations. We began by evaluating the current IT organizations and performed analysis based on best-in-class models. We were also asked to identify important IT initiatives and explore the advantage of centralized resources. On successful completion of this engagement, Panattoni is positioned to develop efficient and productive solutions that fit their evolving strategic vision.

Our involvement included Burger Consulting's latest core service offering—the Contract CIO. This proved particularly valuable to Panattoni during their search for a permanent CIO, allowing the company to pair Panattoni's own resources with guidance from an experienced IT executive placed by us. Challenges still lie ahead, but BCG is committed to supporting the execution of Panattoni's broader IT strategy and plan.

## Vendor Visit: ET ALIA

SAP is clearly targeting the U.S. construction industry, with preconfigured solutions for construction and a new model for smaller businesses. And Burger Consulting is committed to keeping up with developments at SAP—having seen other large ERP players (including SAP) commit to this industry before. We know our clients want to be sure the commitment and products are real before they venture any deeper. To that end, Christian recently visited et alia, one of a new breed of business partners for SAP.

Et alia (trans., “and others”) has approximately 20 people, mostly in Milwaukee, and a number of clients in construction or similar businesses. Et alia seems to have the support of SAP as the German company struggles to gain a foothold here in the U.S. construction market—one they dominate in Europe and the Middle East.

Tad Bungener, Director of Marketing for et alia, talked openly about the challenges et alia faces, why they think their approach has appeal, and how they are marketing to contractors. It seemed clear that the “All in One” solution SAP is marketing and their fixed-bid approach to implementations would appeal to contractors. But there are concerns that SAP is still better suited to larger, more diversified contractors and industrial contractors. Without an integrated PM application, the pure GC or CM might not find SAP compelling.

Christian also recently met with Peter Hill, a long-time friend and former director at J.D. Edwards, in Denver. Hill is now a market sector leader for SAP, with responsibility for some of SAP’s push into the industry. His 15 years of experience doing just that for JDE and then Oracle should be most helpful. Hill described the strategy SAP is using, confirming what et alia said, to go after the middle market in construction, and talked specifically about some of the “all in one” solutions that are suited for contractors.

Hill also discussed the EPC market, where contractors are heavily involved in the engineering and procurement functions. The needs of these companies extend beyond what traditional contractors require and the breadth and value of SAP’s suite of applications becomes valuable.

## Jennifer Stastny Joins BCG

We’re pleased to announce the addition of another friendly voice at BCG: Jennifer Stastny joins us as an Administrative Assistant at BCG’s new headquarters offices in Glen Ellyn, Illinois, working closely with Lauri Reeves to keep projects running smoothly. Jennifer began her career at a mid-sized paving company in Chicago, and has experience organizing trade shows. She honed her communication and organizational skills in various managerial positions at several other firms. Many of you will meet Jennifer over the next few months as she is integrated into existing projects and gets started on new projects. She has already made a big difference, not least was packing up boxes and helping with the move! Jennifer is a welcome addition, bringing a smile with her every morning.

## BCG Completes Konover Implementation

Burger Consulting recently completed an implementation management engagement for Konover Construction, a large construction management and GC firm based in Connecticut. Initially engaged to assist with software selection, we also assisted in managing a software implementation.

Konover chose ViewPoint software for their accounting, job cost, change management, and procurement applications. Previously, Konover had used Prolog software for document management and change management. Prolog was working well for document management, and the PM team saw no compelling reason to change. The change management function was viewed differently. To eliminate dual systems in project management and accounting, this function was migrated from Prolog and implemented in the new ViewPoint software.

Konover also simultaneously choose workflow and imaging software from Paperless Environments. While ambitious, it made more sense to introduce this change concurrently and re-engineer processes just once for both software packages. BCG assisted in this re-engineering process, conducting a series of workshops on best practices designed for this purpose. Congratulations to the Konover team for their outstanding effort on a successful implementation.

## Our Professionals Present

BCG professionals are presenting at several upcoming industry conferences, including:

May 22, 2007

CFMA Heavy Committee, Phoenix, AZ

- C.R. Burger, “Special Topics in Automation and Technology for Heavy/Highway/Aggregate Companies”

June 12, 2007

ACEC and Northwestern University Continuing Education course, “Project Management for Project Leaders”

- C.R. Burger “New Developments in Technology for Project Management”

Recent Articles

- C.R. Burger “IT Ambition for the Contractor,” *Construction Executive*, Jan 2007
- C.R. Burger “IT Staffing” *CFMA Building Profits*, May/June 2007

## Recent Wins & Selection Results

Client	Location	Engagement
Panattoni Construction	Sacramento	Contract CIO
Panattoni Development		Inner Ring/Outer Ring analysis
F.L. Blum	Winston-Salem	Software selection
Boh Bros. Construction	New Orleans	Software evaluation and selection
Brasfield & Gorrie	Birmingham, AL	Software selection support
Aker Kvaerner Songer	Cannonsburg, PA Burlington, ON	Software selection
Haines & Kibblehouse	Skippack, PA	Implementation support
Pinkard Construction	Lakewood, CO	Existing system evaluation
Donley’s, Inc.	Cleveland	Existing system evaluation
Tellepsen Builders	Houston	Implementation support

## A Focus on Excellence *BCG's Professionals*

Burger Consulting Group's highly qualified professionals have joined us at varying times in the past few years, all bringing with them impeccable credentials in various disciplines: information technology management, software development and procurement, large-scale project implementation work, contract CIO engagements, and more. Too, every BCG professional has a wealth of experience in the construction industry on which to draw.

In this issue, we thought it would be worthwhile to include a brief summary of the credentials of our client-facing professionals—to give you a sense of the growing breadth of our expertise and to allow you to familiarize yourselves with BCG consultants whom you may not yet have had a chance to meet.

**Angus Frost** joined Burger Consulting Group in December 2005 as a Senior IT Consultant; he concentrates on IT organizational and infrastructure planning and management. Frost also supports BCG's other consultants with software selections and technical implementations. Prior to joining BCG, he was the Chief Technology Officer for management and technology consulting firm Bridger, a subsidiary of Wight & Company, one of Chicago's largest A/E/C firms. Before joining Wight & Co., Frost was an Information Specialist with top-five worldwide executive search firm Spencer Stuart. Frost holds a BSc. in Information Management from Thames Valley University in London, England, and a BSc. and B.A. in Business & Finance from Kutztown/Brunel University, in Gerrards Cross, England. He can be reached at [afrost@burgerconsulting.com](mailto:afrost@burgerconsulting.com).

**John Patridge** came to us in December 2005 as a Senior IT Consultant on software selection and implementation. He has also been involved in industry research on various products and technologies for BCG. Previously, Patridge was a Senior Project Manager at Activant Solutions, managing application implementations; before that, he was with Profitool, serving for seven years as Director of Client Services and overseeing implementation projects, customer service, and client relation initiatives. Previous work experience includes roles at SNC Lavalin, Fischbach & Moore, Stone & Webster, Kodak, Baltimore Gas & Electric, and Pacific Gas & Electric. Patridge earned his B.S. in Electrical Engineering at the University of Alabama. He can be reached at [jpatridge@burgerconsulting.com](mailto:jpatridge@burgerconsulting.com).

**Mike Dow** has been affiliated with BCG since June of 2004, helping construction industry clients with information systems planning, software selection, and implementation project management. Dow's operations experience and knowledge of the industry is invaluable to BCG's engagement teams. Before joining BCG, Dow led Cianbro, the new data services subsidiary of Data Services Corporation, where he was responsible for developing sales and marketing strategy and relationship management with existing and new customers, and had P&L responsibility for CDS, which builds on IT infrastructure project management competencies as well as construction vertical market consulting. Dow earned his B.A. cum laude at Middlebury College in Vermont. He can be reached at [mdow@burgerconsulting.com](mailto:mdow@burgerconsulting.com).

(continued on p.4)

# WHICH way?

**Feel like your IT department is headed in a different direction? One not in line with your strategy?**

At Burger Consulting Group, we know managing IT at construction companies presents numerous challenges—and some complex decisions. Since 1993, we've provided strategic and tactical advice as well as hands-on expertise to large GCs, industrial contractors, heavy/highway firms, and a full range of specialty contractors.

Burger Consulting Group can help you assess infrastructure, identify appropriate technologies, and implement systems and internal processes that improve performance. We understand industry best practices and work closely with clients to find solutions that fit their specific goals.

And because we're independent of software developers or hardware vendors, we can give objective advice on charting the best course for your organization. Get things in line. Visit [burgerconsulting.com](http://burgerconsulting.com) or call (630) 510-1875.



**BURGER CONSULTING GROUP**  
*Information Systems Consulting to the Construction Industry*



IT Strategy

Infrastructure Assessment

Software Selection

Implementation Management

## Construction Imaging Systems: An Update by Doug Nichols

As part of our continuing efforts to keep current with imaging and workflow vendors, Burger Consulting Group was recently invited to a vendor update with Construction Imaging Systems (CIS)—the largest and most prominent provider of such software to the construction industry. CIS's mature product line includes applications for AP workflow and routing (Invoice Router), project management workflow and routing (Construction Document Manager), billing backup to CD (Cost Plus Collector), and human resources (HR Manager). Many supplemental applications assist in data and index management functions.

One powerful new feature now being rolled out is the "Reverse Screen Scrape". This addition to the Invoice Router product allows invoice and coding information accumulated during the routing process to be entered automatically into the vendor's AP entry screen. Other significant new items include automatic update of integrated tables (such as vendors and

jobs) and an application dashboard for use with the Invoice Router product. The dashboard is currently in the final stages of development and testing. CIS offers integration options for most major construction accounting software vendors as well as construction project management vendors. The type of integration offered depends on whether or not the vendor offers an API (Application Program Interface). CIS has developed tools and methodologies to work with software packages using either approach.

CIS has been in business for 13 years and has grown to over 200 construction customers; revenues grew 15% last year. Staff has been added to handle the increased volume, and CIS now employs a total of 35 employees. Last year, a new Vice President of Technical Operations joined the firm to solidify management of the technical staff and development processes. CIS departments have grown to include five full-time developers and four full-time trainers. For more information, visit [construction-imaging.com](http://construction-imaging.com).

## PM Vendor Update by John Patridge

2006 marked a turning point for the three leading commercial construction project management software vendors. Primavera, Meridian, and Constructware—all closely held, announced or completed deals that transferred majority ownership to larger software vendors in complementary markets and/or to equity investors. The near-simultaneous move by the three companies will almost certainly trigger aggressive competition and development in the project management market.

Autodesk, maker of Buzzsaw and other collaborative software for the homebuilding, retail, and hospitality markets, announced in February its intent to acquire Constructware, whose online product is marketed to owners, GCs, and subcontractors in commercial construction. The acquisition gives San Rafael-based Autodesk project management software offerings in adjacent markets and more complete coverage of the construction market.

The founders of Primavera Systems (formerly Expedition)—maker of the Contract Manager and the industry's leading CPM scheduling software—sold approximately 75% of their shares to Francisco Partners of San Francisco and New York-based Insight in a deal estimated at more than \$150 million. Founders Joel Koppelman and Richard Farris will continue to guide the company under the new

ownership. The acquisition culminates a year-long process to identify a suitable investor and close the transaction.

Meridian Systems, maker of Prolog Manager, announced in October its acquisition by Trimble, a leader in GPS/positioning and wireless technologies for the construction industry. Trimble's stated goal is to bolster its Connected Construction Site initiatives with Meridian's offerings, to increase efficiency through tighter integration of construction process information. As with Primavera, Meridian's key management will, by all accounts, remain in place to steer the company. Though details were not disclosed, the acquisition appears to have precipitated settlement in the long-standing legal dispute between Meridian and construction ERP vendor Computer Methods (CMiC) related to the development of CMiC's integrated project management module. This removes uncertainty and is good news for customers and prospects of both vendors.

These acquisitions give each of these vendors increased access to capital and development resources that should benefit users in the commercial construction industry in the years to come. While it is still too early to tell, the customers of these vendors are waiting to see if the service they received from their closely held software supplier remains as they have known it or if it will fade with the transition to the new organization. Only time will tell.

## A Focus on Excellence (continued from pg. 4)

Doug Nichols has been a Senior Consultant on software selection and implementation projects since May 2005. Focused on helping large and mid-sized contractors install and implement enterprise-wide software systems, Nichols has extensive experience in construction systems and specialized knowledge in imaging and workflow solutions. He has taken a leadership role on a number of BCG engagements. Before joining BCG, Nichols was a Principal of DCN Information Services for eight years, working with construction companies around the country to develop system strategies, select software, and implement new software solutions. Nichols began his career as a CPA with Arthur Young & Co., and then spent 16 years working in construction industry support services as a CFO. He earned a B.S. in Accounting at the University of Wisconsin, and passed the CPA exam in 1978. Nichols can be reached at [dnichols@burgerconsulting.com](mailto:dnichols@burgerconsulting.com).

Ben Westendorf joined BCG in August 2006 as a Senior IT Consultant, working with clients on IT organizational and infrastructure planning and management. His experience includes IT strategy, cost/benefit analyses, service quality, and business development; he has been involved in planning for ERP, CRM, document and knowledge management, and technology infrastructure. Westendorf also provides technical support to our other consultants on software selection and implementations. Previously, Westendorf was CIO for St. Louis-based Clayco, one of the nation's largest, private real estate, A/E and design/build construction firms. He is also founder and CEO of The Hilt Network, an executive technology consulting firm based in St. Louis. Previous roles include executive positions as Healthcare Strategic Initiatives, MegaPath Networks, and Phoenix Networks. He began his career with Cap Gemini America. Westendorf earned his B.A. at Denison University in Ohio. Westendorf can be reached at [bwestendorf@burgerconsulting.com](mailto:bwestendorf@burgerconsulting.com).

## JWS Corporation Acquired

During a R&D phone call to Scott Killough, former VP of Sales for JWS, BCG learned that JWS, in Shawnee Mission, Kansas, had been acquired by ready-mix giant Command Alkon last September. The merger makes good sense. JWS, formerly privately-held, is a market leader in scale ticketing systems for aggregate and asphalt material providers; but did not have the requisite software for Ready-mix. Command Alkon, based in Birmingham, AL, has long been the plant control and ticketing software for Ready-mix companies. They also have a dispatching application which utilizes GPS to control truck movement throughout the day. But Command Alkon was not ideally suited for asphalt or crushed stone. These are complementary competencies, and the newly merged companies will surely leverage each other's strengths and technologies. At the same time, BMG-Seltec, another industry leader, might be looking over their shoulder.

## Maxwell Acquires Cheetah

In February 2006, Maxwell Systems was acquired by LLR Partners; in March, Maxwell acquired Cheetah Holdings and its subsidiary, Cheetah Advanced Technologies. Dave Bennett and Bruce Greiner, both long-time friends of BCG, remain on staff at Maxwell, and BCG's Christian Burger recently met with Jim Flynn, the new President and CEO of Maxwell Systems, to discuss the company's long-term direction and their plans for Cheetah. With Cheetah's StreetSmarts product in the portfolio, Maxwell Systems now offers comprehensive construction solutions for general, specialty, and heavy/highway contractors. Maxwell also owns the American Contractor and Maxwell Management Suite. If a customer's business needs change or their company grows, they now have a product available to move to if they need additional functionality.

## Remember Irrational Exuberance?

Less than ten years ago, technology was being purchased right and left with a frenzy only matched by the dizzying heights of the stock market. Companies in many industries would get sold on a particular technology and commit resources without understanding what their organization was capable of. Those days are gone. All software solutions require some level of ambition or energy on the part of the company to implement, but some are far more demanding, requiring dedicated personnel, more IT resources, and a willingness to accept change.

Burger Consulting helps clients make good IT decisions. We know it means more than understanding the technical pros and cons of a given software solution. Organizational dynamics enter into the decision as well, including gauging the appropriate level of ambition. This is not to suggest that being more ambitious is wrong or inappropriate. It means that an organization should first decide that being more ambitious in IT has value, and secondly that its personnel are prepared for the more ambitious solution or strategy. At times, BCG has been in advisory role on technology projects where we've steered a client away from a solution that looked good on paper, but that would have been too demanding for the company that we had come to know.

The table below describes different characteristics of all systems, and some ways in which you can measure the level of effort—and ambition—that will be entailed by adoption of any one particular technology.

Less Ambitious	More ambitious
Well-tested, proven, lots of users	New, beta, only a few instances
Predefined processes, less configuration	More configuration & customization
Less process change	Considerable process change
Phased in approach, one initiative at a time	All at once, "Big Bang"
Not much IT support required	Considerable IT support required

When evaluating alternatives, it helps to evaluate both a moderately ambitious solution as well as a more demanding one. Then you have a better understanding of the options and a context for the decision. By scoring on even a simple grid like this one—at the same time taking into account the time a project will take, its direct and indirect costs, its impact on operations, personnel, and efficiency—an executive considering a technology migration has a tool for examining alternatives and making the right decisions.

## Austin Lane Technologies

by August Frost

Along with imaging and workflow, field data capture is another area where technology continues to offer promise to companies in the construction industry. Many companies still rely on a manual, paper-based solution requiring multiple routing, approval, and re-entry just to input data into back-office systems. Burger Consulting recently viewed an interesting product at a demonstration by Austin Lane Technologies, a relatively new vendor in the marketplace whose products, developed in 2000, include ALMobile, ALPay, and ALTrac.

Like many other products in this space, Austin Lane's solutions aim to improve how timesheet data, equipment usage (including service), and productivity tracking are captured in the field, validated, and communicated to the office. Instead of using paper forms to capture data, a handheld device or a tablet/laptop PC is used. Using Austin Lane's simple point-and-click technology, and projects and codes pre-selected by the user, data is entered, validated, and then transmitted via hot-sync cradle, modem, or the Internet (whichever is available from the device) back to the main AL server and from there via XML to the core back-office system. A newly released addition captures signatures and handles approvals directly on the handheld—useful for companies in states with new labor law requirements.

Austin Lane's handheld application is based on the Palm OS but also runs on Pocket PC, Windows Mobile, and Smartphone devices. Application updates, including projects and codes, are pushed to the handheld every time it is synchronized. Austin Lane supports integration with back-office applications from Timberline, GEAC, Peachtree, Computer Guidance Corporation, Computerease, and J. D. Edwards. The company has approximately 30 customers. For more information, visit [austinlane.com](http://austinlane.com).

## Facing the Challenge *How a Construction CIO Can Improve IT* by Mike Miller & Christian Burger

Historically, construction companies viewed information technology as a burdensome necessity, but that perception is changing as companies recognize the potential value of their IT organizations. But to realize that value, companies must upgrade management of the function, not just buy more hardware and software. One way is by hiring an IT Director or Chief Information Officer (CIO).

In many other industries, the CIO or IT manager position is more mature and better integrated with the upper-management team. The CIO is a trusted member of the management team, involved in integrating technology with the overall operation, meeting business objectives, and ensuring the user community is well served.

In construction, the CIO position is newer and is only now beginning to evolve away from the manager of the “IT department,” whose traditional role and responsibility was to ensure that all IT personnel are working on the right tasks, to respond to user questions and issues, to plan for the future (with a six-month horizon or so), and to negotiate with vendors of new products and services. However, this is a much more reactive position: The person in this role has little interaction with upper management.

A construction CIO has a truly high-value role to play, ensuring that the company is well protected and getting good value from their investment in technology. This is an important distinction from the historical role of being an IT manager.

### Before the Hire: The Challenges

A newly appointed construction CIO typically faces one of two distinct situations: either the company has not traditionally valued the function or trusted its IT personnel and has therefore generally under-spent on IT, or the company has over-spent on IT because management lacks the knowledge to question spending decisions.

In the former case, the new CIO inherits an inadequate IT infrastructure, a department without appropriate technology resources and limited IT project management skills, few applications that allow for efficient business process automation, and incomplete or non-existent work processes and procedures. As a corollary, the CIO likely faces a skeptical senior management team and a dissatisfied or disenfranchised user community.

The case of over-spending is even worse, presenting all the challenges of under-spending with the added burden of having to reduce IT spending to reassure senior management. Evidence of this case often appears when a poor software decision was made and the company must spend considerably to “customize” the system to make it work.

### Trust is the Prerequisite

All the above scenarios have serious side-effects and unintended consequences. Surprisingly, though, while remedies are not easy to achieve and require much hard work, identifying the CIO’s objectives remains relatively straightforward.

One of the most important assets for any CIO is trust. Creating, building, and reinforcing trust with all constituents, from the employees in

the IT department to senior management, from the user community to vendors, is paramount.

Since senior management enables all that follows, the new CIO must quickly understand their “hot button” issues, articulate and prioritize them, and develop a clear, concise, and thoughtful IT plan. It is also vital to communicate: since all IT initiatives, priorities, and spending depend on management’s approval, all must be regularly validated with the management team.

A satisfied user community is equally vital, since one supports the other. That entails three steps: first, listening to users’ needs, frustrations, and wants; second, explaining what can or can’t be done to address them; and, third, executing on the commitments.

One of the ways a good CIO achieves this is through visibility—being available to project personnel, accounting staff, and others in the organization, and seeing how they use their respective systems. Further, a good CIO should maintain “pace”. Most organizations get too enamored with new technologies and tools and don’t really understand some of the broader implications. The CIO must avoid the traps associated with the glamour of new tools and technology and provide a more pragmatic, business-based approach to purchasing and implementing systems.

Earning the trust and support of staff in the IT department is also critical; without their support, no CIO can deliver on commitments made to users and senior management. Recognizing that change is necessary but difficult for many makes communication vital. Delivering on commitments to the IT organization is equally so. Often, the CIOs most valuable skill is his/her communication skills, not necessarily their technical ability. They need to straddle the difficult ground between the technical world of IT and the pragmatic ROI-based world of management.

With so many companies choosing outsourcing and third-party products, the dependence on the vendor/supplier community is significant. Negotiating with and managing those resources is also an important part of the CIO’s job. Ensuring that the suppliers are able to deliver as promised and have proper protections built into their agreements is something the CIO should be comfortable with.

### Summary

For some companies, having a full-time CIO is not practical. For those companies that need the advanced level of management and oversight but cannot afford the full-time position, contract CIO positions are becoming increasingly popular. Whatever the choice: full-time CIO or contracted position, today’s construction CIO faces the same challenges as his or her counterpart in any business: to be an effective member of the executive team, to increase the position’s contribution, and to exert pressure on the IT organization to both prompt and support positive change in the business.

**Christian Burger** is the founder and principal of Burger Consulting Group. **Mike Miller** recently accepted a position as the Chief Information Officer at Panattoni in Sacramento, after performing project work with BCG including as a Contract CIO.