



# at your service

*Service-oriented architecture is about aligning business processes with discrete Web services. Those services can often be delivered via Software as a Service. What else do you need to know? [P.3](#)*

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October/  
November  
2008  
Volume 3

## Editor's letter

# What's Essential in Turbulent Times



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IT'S BACK TO BASICS.

As I write this, the economy is taking a nosedive from the crash of financial titans. This is hardly the first sign of economic trouble; many of you have been preparing alternative budgets in case of cutbacks for some time now. Preliminary results of our latest survey confirm that for most of you, IT budget cuts are at least somewhat likely if the economy doesn't improve in the first half of 2009. They also confirm that nonessential projects will be the first to go. (Watch SearchCIO.com and SearchCIO-Midmarket.com for full results in mid-October.)

Which brings us to our issue. You won't find any nonessential projects here—our coverage this month shares how midsize organizations are achieving the goals of two largely enterprise-size initiatives—SOA and MDM—with manageable, practical approaches.

Our take on service-oriented architecture (SOA) and Software as a Service (SaaS), "[At Your Service](#)," shows how you can leverage either or both models to meet your near-term and strategic needs. The merits of SaaS have been well proved for point applications (even mission-critical ones), and now companies like Bosley Med-

ical are extending their impact in a SOA environment. Initiatives like these are not likely to end up on any cutting-room floor.

Ditto for data quality initiatives, which our package on master data management (MDM) digs into. Pure MDM projects, with their complexity and expense, might well be tabled—but most of you aren't pursuing those. Rather, companies like The Hillman Group and National Instruments are delving into data cleansing initiatives or custom MDM buildouts that have a clear business impact. Read about their choices beginning [here](#).

Finally, you'll also consider our salary report to be essential information. And most of the news is actually good. Bonuses are going up, raises are holding steady, and many of you are optimistic about your career prospects—findings that complement what recruiters are saying. That's not to say some of you don't or won't face some cutbacks, but keeping your eye on the business value prize is what makes you an essential business player. And today, that's basically the bottom line. ■

**ANNE MCCRORY**

*Editorial Director*

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# at your service

*What you need to know about  
service-oriented architecture, Software as a Service,  
and how the two work together to drive flexibility  
and meet business needs.*

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# SaaS Shines in Supporting Role on SOA Stage

*Flexibility, lower costs and faster integration make SaaS a good fit for service-oriented architectures.* **BY SARAH VARNEY**

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IF YOU'RE CURRENTLY in the early stages of discussing the implementation of a service-oriented architecture (SOA) with the CEO and CFO, make sure your IT manager is in the loop. He may quietly inform you that the SOA approach is already working smoothly in the data center, using applications licensed via the Software as a Service (SaaS) model.

Midmarket companies are moving quickly to incorporate the fundamentals of SOA, a loosely coupled enterprise architecture model that allows for applications to be easily modified, integrated and reused.

SaaS, a software delivery model, is also being eagerly adopted by mid-market organizations and is finding a niche within SOA deployments. The SOA focus on a business function, such as general ledger, makes the SaaS model a good fit. For example, a company might pay a monthly fee to a SaaS vendor for a general ledger application instead of customizing or adding on to a legacy system such as ERP. SaaS modules plugged into middleware on the back

end of a mission-critical system simplify the service focus.

Mark Davenport, IT director at Bosley Medical, a hair restoration company based in Beverly Hills, Calif., uses a customer relationship management (CRM) tool from Siebel Systems Inc. but recently went to a SaaS ven-

**"With SOA, the idea is to avoid re-creating the wheel every time you need to augment or replace a system."**

**—MARK DAVENPORT**  
IT DIRECTOR, BOSLEY MEDICAL

dor for the scheduling module his company needed. The reason? It fit the SOA model Bosley had already decided to use.

According to a 2007 study authored by Frank Kenney, managing director at Gartner Inc. in Stamford, Conn., 50% of new mission-critical operational applications and business

processes were designed that year around SOA. The study predicted the number will jump to 80% by 2010.

Scheduling is the bedrock application for Bosley Medical. The company,

which has 20 surgical offices around the country, uses scheduling for marketing purposes as well as for setting up hair transplant procedures.

Bosley looked at Siebel's scheduling

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## SaaS Growth, Satisfaction on the Rise

**IN FALL 2006**, The Warranty Group Inc.'s CIO, Tony Jackovich, had a sudden problem. Jackovich had just four months to replace the back end of the company's ERP system. The Chicago-based company was being sold by its corporate parent to a private equity firm—and losing much of its IT infrastructure.

The Warranty Group—which provides extended service contracts on everything from electronics to homes—looked at investing in Oracle Corp.'s traditional PeopleSoft product. Ultimately, it decided to go with the vendor's on-demand version instead.

"It didn't seem realistic to try to do that ourselves," Jackovich says. "We didn't have all the talent in-house. We didn't feel there was time for a long vendor selection process."

More and more midmarket companies like The Warranty Group are turning to such on-demand, or Software as a Service (SaaS) products, particularly in light of pressure to respond to business needs faster and cheaper.

### SAAS APPS SPREADING FAST AT MIDMARKET COMPANIES

In a survey last year by Cambridge, Mass.-based Forrester Research Inc., results showed that the use of SaaS applications at small to medium-sized businesses has increased by 50% over 2006.

And in May, a survey conducted by consulting firm Saugatuck Technology Inc., based in Westport, Conn., found that 95% of IT execs at midmarket companies were satisfied with SaaS programs, higher than the overall satisfaction rate of 84%.

The SaaS model continues to win adopters because of its speed and ease of deployment. The most popular applications continue to be human resources, collaboration and customer relationship management.

"There are areas where it's a no-brainer," says Bill McArthur, vice president of information services and technology at Scientific Games Corp. in New York. "Why buy if you can rent? It reduces your TCO and your footprint."

—MICHAEL YBARRA

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module, but tweaking it to fit the company's needs would have been too expensive. Instead, Davenport and his colleague Jesus Arriaga decided to hire TimeTrade Systems Inc., a SaaS vendor with a scheduling module that closely suited the company's needs.

For about \$50,000, the SaaS vendor built an open software bus that links to the Siebel application programming interface on one end and to the TimeTrade application via XML on the other. The bus gives Bosley the flexibility to integrate any SaaS application with its Siebel CRM software.

"Configuring TimeTrade was simple. It required zero customization. It worked right out of the box, and it does exactly what we need for the business," Davenport says.

Davenport and Arriaga didn't necessarily set out to use SOA. "But coincidentally, that's the way we're structuring things around here. We stepped away from the technology at the beginning, and came up with

a set of business processes that we compartmentalized," Davenport explains.

### PLANS CALL FOR MORE SAAS TRANSPLANTS

In the future, Davenport plans to use the same method to lower costs and increase efficiency for other business processes. Putting in place a SaaS vendor for the distribution of electronic medical records is also on the drawing board. Again, the reusable bus will save Bosley Medical time and money. "With SOA, the idea is to avoid re-creating the wheel every time you need to augment or replace a system," he notes.

Davenport says he hopes that one day this SOA/SaaS approach will enable Bosley to get rid of Siebel's applications altogether. Every CIO has to have a dream, right? ■

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In 2007, 50% of new mission-critical operational applications and business processes were designed around SOA, according to a Gartner Inc. study.

# CIO's SaaS Goal: Kill the Data Center

*Plans to obviate on-premise applications  
take shape, one application at a time.*

BY ZACH CHURCH

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**B**UILD AN IT shop without servers. That's the ultimate concept behind Software as a Service (SaaS). Doug Harr subscribes to that idea. As CIO at Ingres Corp., which makes open source database management software, Harr is a SaaS adherent. His stated goal: an IT department built 100% on SaaS and open source applications.

"This is something that I started to anticipate years ago in my last job when we went through the last economic downturn," Harr says. "We were looking for ways to make IT spend more flexible. At the same time, we were noticing new software offerings coming to the market that were better than their legacy counterparts.

"We found in each application there were viable SaaS alternatives on the market," he notes.

After moving from the lead IT position at Portal Software about two-and-a-half years ago, Harr huddled with his new management and got to work on his master plan.

"I found that the others on the man-

agement team were very amenable to utilizing SaaS and open source as a 100% goal," he says. "I think everybody agreed that this was a good way to go. It needs to be in partnership with the business, so we set about starting with Salesforce.com."

And off he went. Next came an Intacct Corp. product for financial management. Then human resources applications were switched out for SaaS ones. Next was hosted email using BlueTie Inc., hardly an industry heavyweight.

## PLENTY OF SAAS OPTIONS

Meanwhile, the rest of the IT world was catching on. SaaS may have been just a buzzword a few years ago, but the success of Salesforce.com gave the model credibility. And for the mid-market, SAP AG offers Business By-Design, a hosted ERP solution. Dell Inc. purchased MessageOne, a SaaS email continuity application. Microsoft now pushes its Live series of Windows and Office products, which incorporate a heavy SaaS presence.

The list goes on, and to top it off, major tech companies are banding

together to take advantage of the SaaS onslaught. In July, Yahoo, Hewlett-Packard Corp. and Intel Corp. joined forces to advance cloud computing research that could expand the capabilities and reliability of SaaS applications.

A survey conducted earlier this year by Saugatuck Technology Inc. in Westport, Conn., found that mid-market CIOs are adopting the SaaS model faster than their enterprise-sized counterparts. Saugatuck researchers note that midmarket CIOs are attracted to the quick deployment and potential cost savings of SaaS programs.

"The move to SaaS seems pretty incontrovertible," says John Brody, vice president of marketing at Tri-Cipher Inc., from which Harr recently purchased a SaaS single sign-on service.

"I would say five or six years ago the model was looked at dubiously: 'Can I trust it?'" Brody says. "I think people are rapidly getting over their concerns because the model works for them."

Harr says employees at Ingres have taken to the SaaS applications he is using. And he dismisses two major concerns about SaaS: security and connectivity.

"The people that tend to be afraid of it are people that are sometimes, I think, much more focused on their masterful running of their data centers and their infrastructure than they are on the solution itself," he explains.

Liz Herbert, a senior analyst at Forrester Research Inc., said other CIOs are attempting to implement a large

number of SaaS applications. A 2007 Forrester survey found 47% of small and mid-sized businesses using three or more SaaS applications.

How well a multi-application SaaS strategy works depends on a variety of factors, Herbert says. Chief among concerns is integration. Business unit leaders will sometimes go around IT to make a SaaS purchase. But if the product doesn't mesh properly, it could lead to disaster or, at the least, a lot of point-to-point coding.

Security remains a concern, Herbert adds, and due diligence is in order. Of course, some SaaS vendors might offer better security than a company would conduct on-premise, she points out, adding that Forrester has not come across any "serious" security problems with the SaaS model.

Reduced total cost of ownership won't happen automatically either, Herbert notes. With the SaaS market so fragmented—some tools may handle only a single task—CIOs need to plan ahead, lest they be left with a tangled mess of applications and service contracts.

Harr, the SaaS pioneer, says he isn't worried. Ideally, he'd run a business where "roughly, the infrastructure of the office is a wireless router and connection to the Internet." But he would continue to host his own intranet and internal report-writing applications. The end goal? "One rack in a closet," he says. ■

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# Navigating the Compliance Minefield

*The legal issues underlying SaaS contracts can pose risks. Here's what to watch out for.*

BY JEFFREY RITTER

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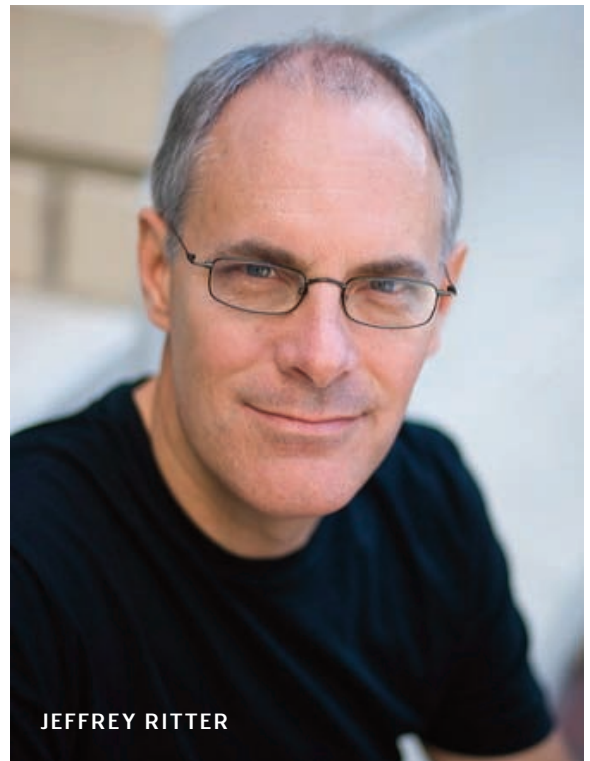
**T**HE SOFTWARE AS a Service (SaaS) business model may be a great fit for your company, but you shouldn't overlook the risks and costs of making sure your partner's technology and business practices keep you in compliance with the necessary regulations and controls. You don't want any unpleasant surprises popping up after you have your SaaS vendors in place.

SaaS offers CIOs impressive options to reduce internal resources and expenses devoted to application maintenance, version updates and patching. These "activity-based costs" are appealing targets for reducing overall IT spending—once an existing application is moved to the vendor, the availability of internal staff and devices improves.

Within midmarket companies—a high-priority market segment for SaaS vendors—business activities must comply with varied legal regulations. That responsibility usually remains with your company even if an outside vendor hosts your applications. Those making the SaaS business case often

overlook the risks and costs of ensuring that the vendor's creation, management and storage of information and records comply with applicable regulations and controls.

With SaaS, your legal costs are also likely to increase due to the need for negotiating appropriate controls and overseeing vendor compliance and reporting.



JEFFREY RITTER

To avoid those higher costs, many companies assigning formerly in-house applications to SaaS vendors settle for standard, vendor-developed SaaS contracts—and this is where those ugly surprises can pop up later

## Those making the SaaS business case often overlook the compliance-driven risks and costs.

on. These “surprises” can add significant compliance risks that the CIO never evaluated at the front end of the process. Compliance problems that crop up may then create new ongoing costs in oversight and incident response that can reduce the actual economic value of the deal.

### CHARTING THE PATH FORWARD

What to do? For both existing and future SaaS services, here are some useful steps a CIO can take to manage compliance risks:

- ▶ Create a map relating to the application or service that identifies the data each application or service creates or manages. This map should contain the known compliance duties that relate to the data.
- ▶ Evaluate and communicate the risks the company faces if the compliance duties are not performed.

- ▶ Define the services the SaaS vendor must provide (through the application or other services) to enable the CIO's company to meet its compliance duties and avoid those risks.

- ▶ Assure that all service agreements contain legal terms that impose responsibility for the required services on the SaaS vendor. Involve your lawyer in this step—many CIOs avoid doing so, often creating more problems than they solve.

- ▶ For new vendors, identify the necessary compliance terms in the request for proposal or request for information so the vendor can't later add on premium pricing to deliver required compliance services.

- ▶ Establish within the contract vendor monitoring and audit and reporting controls (often modeled on internal audit and security control structures) to ensure compliance services are performed.

Regulators are now reviewing SaaS service agreements in detail, to ensure the deals do not diminish a company's compliance posture. Finding—and eliminating—these potential problems can help a CIO better achieve his SaaS ROI and promote a better culture of compliance. ■

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*The Real Niel*

# What Mass Customization Can Teach Us About SOA

*SOA is no silver bullet, but its promise to provide a set of services that can be assembled as needed is attractive.* BY NIEL NICKOLAISEN

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HAVE SEEN IT-proclaimed silver bullets come and go, so I'm skeptical about claims of newfound breakthroughs. But the service-oriented architecture (SOA) model seems to be something that can deliver on its promise. I have hopes for SOA because it just might deliver to IT what mass customization has delivered to manufacturing.

With mass customization, we hold an inventory of a small number of standard, nearly finished products that we assemble as close to the customer as possible and as late as possible. From this inventory of standard parts, we can build a nearly infinite combination of products to meet changing customer demands. As an analogy, think of how a small set of Lego blocks can be used to create an amazing variety of "products." Imagine what we smart IT types can do with a well-designed set of services that we assemble as needed.

If SOA is our version of mass customization, it makes sense that we learn what manufacturers have learned when implementing mass customization. Good manufacturers

learned that they needed to revise their practices before they could exploit mass customization. For us to take advantage of SOA's technical promise, I expect we will also need to clean up our methods. Fortunately, we can go to school on what manufacturers have already learned. I have found that by borrowing the 5S system from lean manufacturing princi-



NIEL NICKOLAISEN

ples I can improve IT performance. The five S's are:

- ▶ Sort
- ▶ Set in order
- ▶ Shine
- ▶ Standardize
- ▶ Sustain

Of these five, sort seems to be the most important. To properly sort, we define criteria and then use the criteria in everything we do. Applied to IT and SOA, this means that rather than transitioning our entire code base to a service, we should first define meaningful criteria and then sort our code according to the criteria. For example, we might sort based on usage or architectural standards or some combination.

If we have not used some portion of our code base for several months, it might not be worth our time to SOA-ize it. Or we might think twice before we invest in wrapping our COBOL code elements as a service.

With the criteria in place, we do an initial sort to clean up what we have in inventory. I usually sort into three "piles":

- ▶ Things I know I need.
- ▶ Things I know I don't need.
- ▶ And things I am not sure about.

For the things I am not sure about, I put them in a holding tank. If after a few weeks or months something is still in the holding tank, I move it to the passive management/discard pile and get on with my life. Thus, I clean

up my inventory and invest in SOA-izing only the things that deserve the effort. In addition, 5S provides collateral simplification benefits. How many of my precious IT resources are supporting systems that don't deserve a high level of attention?

We cannot define the sort criteria by ourselves. We need to work closely with the business and teach it the reasoning behind our sort. The first time I tried to use 5S for IT, I made the mis-

**I have hopes for SOA because it just might deliver to IT what mass customization has delivered to manufacturing.**

take of sorting without first collaboratively defining the criteria. When I asked which of our current systems were essential, the answer was, "Everything." I then retraced my steps and we decided that something was "less than essential" if it had not been used in at least 18 months. As it turned out, almost 20% of those initially essential systems fell into the new category.

When we make our SOA plans, we can optimize our work if we focus our attention on the pieces of our code base that will benefit from the investment. ■

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Special Report:

# 2008 salary survey

*Cautious optimism rules  
as midmarket IT executives weigh in on salaries,  
bonuses, raises and more.*

inside:

WHAT'S IN YOUR WALLET? [P.14](#)

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# What's in Your Wallet?

*Despite an uneasy economy, most CIOs and IT managers continue to make six-figure salaries and remain confident about future job security.*

BY KATE EVANS-CORREIA

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**H**OW MUCH DO you make? You're thinking: Not enough. But here's something that may surprise you: You're better off than most.

According to the 2008 CIO Decisions Media survey of nearly 400 CIOs and IT managers, respondents from both large and midmarket organizations are confident they will get a raise next year—and a bonus. They also say they have increased job flexibility and feel confident enough in their skills (and the market) that they'd just as soon leave their job than put up with a bad boss.

Despite an uneasy economy, IT professionals are refreshingly optimistic. And why not? Compensation for midmarket CIOs and IT managers remains solid, with average pay

increases for both segments at about 4.5%. In addition, technology spending is up and opportunities are plentiful for managers with the right skill set (just ask a recruiter).

The survey also found:

- ▶ Roughly three in four execs expect to get a raise for 2009, most in the 3% to 4% range.
- ▶ Three in four also get some sort of bonus as part of their compensation; this increases to nine in 10 at the largest companies.
- ▶ Bonuses are expected to increase the most at companies with 100-499 employees (by 60%). Elsewhere they are expected to increase by roughly 25% to 40%.



**MORE ONLINE:** Find complete coverage of **CIO Decisions Media's 2008 Salaries and Careers Special Report** at [SearchCIO-Midmarket.com](http://SearchCIO-Midmarket.com):

- ▶ [CIO salaries: Holding on to what you have](#)
- ▶ [Could you hate your boss that much?](#)
- ▶ [Telecommuting a luxury](#)

► Bonuses typically range from \$20,000 to \$35,000.

► Roughly 14% of survey respondents said their companies have implemented a salary freeze due to the economic downturn. In the mid-market, 12% of respondents did not get a raise at all this year and the same percentage expect no raise next year. At companies with more than 5,000 employees, 6% didn't get a raise this year—but 26% expect nothing more next year.

For the most part, these findings reflect what independent industry observers are saying: It's good to be the CIO. Certainly, there's still

progress to be made. Salaries in some organizations are not commensurate with other C-level executives in other departments. And while getting to the head of the table is attainable, it is not yet a given.

So in this issue we get to the core issue of salaries and compensation and examine how CIOs fare in a shaky economy and deal with changes in management and increased work hours. And when things don't work out, how to land that dream job.

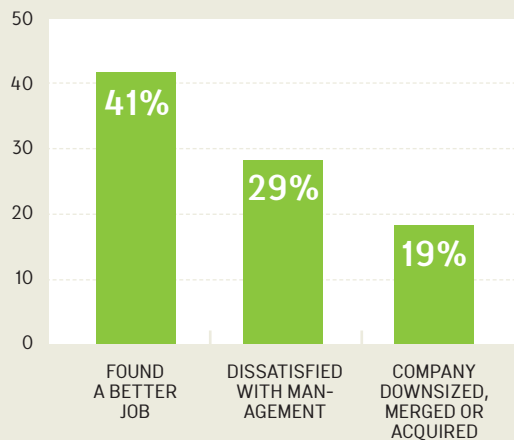
Here's to optimism. ■

**Kate Evans-Correia** is Executive Editor of CIO Decisions Media, which publishes SearchCIO.com and SearchCIO-Midmarket.com as well as this ezine. Write to her at [kevans@techartarget.com](mailto:kevans@techartarget.com).

### Here's Why You Head for the Door

The top two answers show senior IT executives are taking their careers into their own hands.

#### ► Why did you leave your last job?

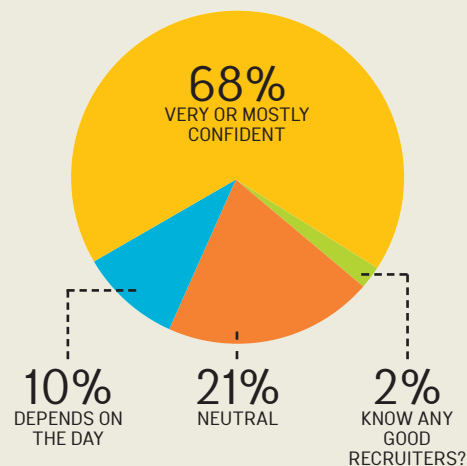


N=215 MIDMARKET IT EXECUTIVES. TOP THREE ANSWERS FROM LIST OF 10. MULTIPLE RESPONSES ALLOWED. SOURCE: CIO DECISIONS MEDIA SALARY STUDY, JULY 2008.

### No Job Fears Here

Despite the sluggish economy, most CIOs feel confident that their jobs are safe.

#### ► How confident do you feel about job security?



N=234 MIDMARKET IT EXECUTIVES; EXCEEDS 100% DUE TO ROUNDING. SOURCE: CIO DECISIONS MEDIA SALARY STUDY, JULY 2008.

## Salaries: Bigger Companies Often Mean Bigger Salaries

The salary curve shifts to the right as company size increases, with fewer respondents at the low end of the salary range.

Company size (by number of employees)	Less than \$75,000	\$75,001- \$105,000	\$105,001- \$145,000	\$145,001- \$200,000	More than \$200,000
100-499	20%	28%	25%	25%	3%
500-999	6%	27%	32%	22%	13%
1,000-2,499	5%	30%	30%	23%	11%
2,500-4,999	3%	27%	42%	24%	3%

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## Raises: Holding Steady

Though roughly one in 10 companies currently has a hiring freeze, three in four IT execs at midmarket companies expect a raise next year of about 4%.

Company size (by number of employees)	Median raise 2008	Median raise 2009*	Average raise 2008	Average raise 2009*	Salary freeze	% getting raise in 2009*
100-499	4%	4%	4%	4%	10%	84%
500-999	4%	4%	4%	4%	16%	77%
1,000-2,499	4%	3%	5%	3%	15%	77%
2,500-4,999	4%	3%	5%	4%	9%	76%

\*EXPECTED; N=234

## Bonuses: On the Rise

Some three in four execs at organizations of all sizes get some sort of bonus as part of their compensation. Bonuses for 2008 are expected to be significantly higher than 2007 for most organizations.

Company size (by number of employees)	Median 2007	Median 2008	Average 2007	Average 2008	Yr.-over-yr. change (avg.)	% getting bonuses
100-499	\$15,000	\$20,000	\$19,295	\$30,828	60%	77%
500-999	\$16,830	\$25,000	\$24,550	\$34,147	39%	73%
1,000-2,499	\$28,000	\$23,750	\$32,383	\$32,479	0%	73%
2,500-4,999	\$20,000	\$31,000	\$38,468	\$49,096	28%	79%

N=234



# Ready for MDM?

*It's hardly ubiquitous, but master data management  
and its one version of the truth does have midmarket adherents.  
Here's what they, and the rest of you, are doing  
to drive data integrity.*

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DATA INTEGRITY TRUMPS MDM [P.18](#)

MDM SYNCs PARTS CATALOG [P.21](#)

MDM'S STRONGEST BUSINESS CASE [P.23](#)

# Data Integrity Trumps MDM in Midmarket

*Improving data quality for better sales*

*leads comes first for now.* BY SARAH VARNEY

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MIDMARKET CIOs MAY secretly yearn for the holy grail of the “golden record,” but at most mid-sized companies, data quality and not master data management (MDM) is a more realistic goal. The motivation: the need for clean and consistent data.

MDM is a cross-company approach that links all critical data to one master file that serves as a repository for the “golden record”—i.e., a set of consistent, accurate, redundancy-free data that is sometimes dubbed “one version of the truth.” On the enterprise level, an MDM project can take years, cost millions of dollars and involve a battalion of consultants to build master data hubs and supporting infrastructures.

Perhaps because of this complexity, MDM projects are far from ubiquitous, even at enterprise-level companies. A 2008 report from IT consultancy Aberdeen Group Inc. found that 26% of 1,075 companies with more than \$5 billion in annual revenues are using or plan to use MDM, and 10% have plans to adopt MDM “in the future.”

In the survey, 20% of companies

with revenues between \$50 million and \$500 million are using or plan to use MDM, while 21% said they had no plans to adopt MDM. (For one midmarket company that does use MDM, see [“MDM Syncs Distributor’s Supply Catalog.”](#))

But even the nonadopters are probably taking steps toward improving the quality of their data, according to Michael Dortch, senior analyst at Boston-based Aberdeen Group. Adopting tiered storage and building structured document repositories are two methods that companies are using to improve data quality, he adds.

“At the midmarket level, MDM is typically a combination of high aspirations and base motivations,” Dortch says. “Customers tell us they want all of their data integrated, and they want all of their customer data to be accurate and consistent—that elusive one single truth. That’s fine, but in reality their problems are more basic, like: ‘We’ve got eight different copies of information about customer John Doe. Which one is right?’”

However, just because midmarket companies aren’t undertaking full-blown MDM projects doesn’t mean

they don't understand the underlying value of their data in relation to customer knowledge and increasing revenues, Dortch emphasizes. Sometimes a data quality issue can be as simple as fixing and standardizing the way customer addresses are stored.

### A MATTER OF CONTROL

For Rajeev Kumar, CTO at Boston-based database marketer Intellidyn Corp., the data quality issue came down to control. In 2000, the company decided to take its data operations in-house. Intellidyn, a privately held company with yearly revenues of \$5 million to \$10 million, wanted more control over its data and a higher accuracy rate. At the time, the company had no IT infrastructure at all, so Kumar set out to build one.

Unlike other smaller companies, though, Intellidyn started out with the goal of using MDM. The company

buys consumer data from credit bureaus, compiles and cleans it, and then sells it to banks, retailers, insurance companies and mortgage firms. "Data integrity is a business strategy for us," Kumar says. "In a sense, our business is master data management."

Each day, Intellidyn generates a billion match codes from 250 million records. To handle the data load, the company uses a combination of tools from Cary, N.C.-based data quality vendor DataFlux Corp. and its parent, SAS Institute Inc. The tools reconcile address and name differences and discard duplicate records. The clean data is then loaded into the SAS Business Intelligence software for in-depth analytics, Kumar says.

DataFlux CEO Tony Fisher acknowledges that MDM is far from ubiquitous at companies of any size. "We're not seeing any large-scale adoption of MDM in the enterprise right now. It'll probably be three to five years before

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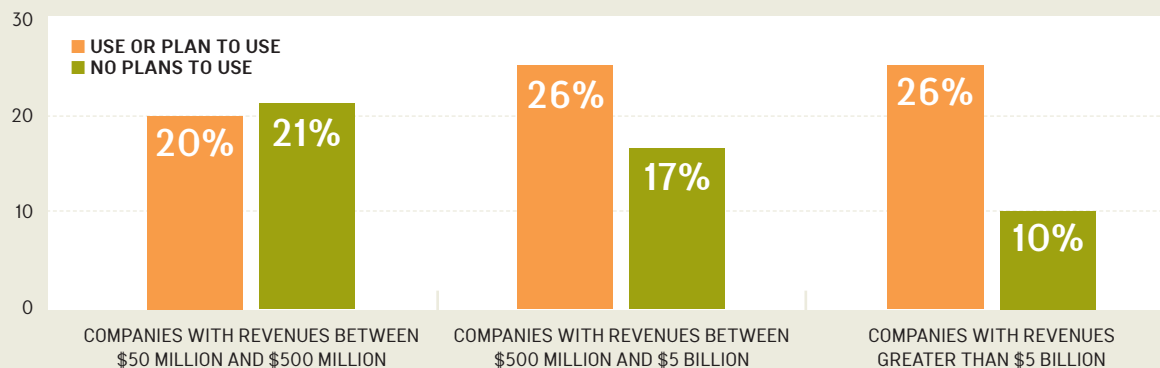
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## Midmarket MDM Use Rising Slowly

One in five midmarket companies has no plans to use MDM, double the rate of holdouts among the largest enterprises.



N=172 OF THE 1,075 RESPONDENTS. SOURCE: ABERDEEN GROUP INC., MARCH 2008

that happens,” Fisher says. And on the midmarket side, insufficient IT staff and a lack of business analysis talent pose significant stumbling blocks. “MDM is not a shrink-wrapped solution by any means, and it probably never will be.”

### COMPLEXITY IS A CONSTANT

National Instruments Corp. had both the IT talent and the resources to undertake MDM. For this Austin, Texas-based maker of measurement and test equipment, the issue of improving data quality and implementing MDM came up in 2000. The company does business in more than 40 countries and has yearly revenues of more than \$740 million.

Problems with customer data integrity were the prime motivation, and duplication was the main culprit. Analysis of customer data was shaky, and sales leads were proving unreliable, according to Deepa Srinivasan, applications manager at National Instruments. Getting buy-in from the business groups in the company was fairly easy, she adds. Keeping expectations reasonable in terms of “time to use” was the main problem.

In 2006, the company deployed Initiate Systems Inc.’s customer data integration hub in tandem with its central Oracle database. Since beginning the project, the company has seen a 20% improvement in the accuracy of customer data, and the rate keeps improving, notes Christine McClary, customer data manager.

The need to make customer data

more reliable and, hence, more useful for sales is also a motivation at Monster Cable Products Inc. in Brisbane, Calif. CIO Oded Haner is in the early planning stages of a proposed MDM project that will start with an analysis of data quality issues. The goal is to use the data for business intelligence purposes.

“I am preparing a plan to discover and correct data quality issues as well as monitor when they occur, and I hope to go through it before the end of the year,” Haner writes in an email. The project will require some skill building within the existing 30-person IT team, particularly in the area of customer management. A cross-functional team will then work with the sales analysis team to understand the reporting requirements, he adds.

The decision whether to build or buy an MDM solution will be based on this groundwork, Haner says. His initial inclination is to build the MDM application in-house, but that may change in the months to come.

Those same months may bring additional changes in the MDM space that could make both data quality improvements and entry-level MDM more accessible, according to Aberdeen’s Dortch.

By Christmas, he says, SaaS versions of some MDM products could be in the announcement stage—which could make a nice holiday gift for some midmarket CIOs. ■

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# MDM Syncs Distributor's Supply Catalog

*Midmarket company develops system in-house to save money and ensure flexibility.* **BY MICHAEL YBARRA**

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**F**OUR YEARS AGO, CIO Jim Honerkamp was hired to transform The Hillman Group Inc.'s usage of its IT department. Data management was part of a larger program to make that transformation. Today, the master data management (MDM) system helps the hardware supplies company control its burgeoning product catalog and standardize data to meet the demands of customers like Wal-Mart Stores Inc.

Ironically, it was the company's success that necessitated the master data project. The Hillman Group, which distributes fasteners and other hardware items nationally and internationally, has grown rapidly in recent years. Too rapidly, in fact, to keep up with a ballooning product catalog that through growth and acquisitions topped 70,000 SKUs, spread across four different data sets.

Then big-box customers, such as Bentonville, Ark.-based Wal-Mart, began pushing for global data synchronization, requiring suppliers to standardize their product information. Suddenly, Cincinnati-based Hillman Group was using spreadsheets to cre-

ate a master product list.

"It became a nightmare," Honerkamp says. "We had no single truth for item information. We were using spreadsheets, which introduced a fifth data depository. There was no consistency between the data. We decided we needed a master data management approach as the ultimate solution."

The Hillman Group, which does about half a billion in sales a year, is typical of a growing interest in MDM among midmarket companies.

Last year, New York-based management consulting firm Accenture Ltd. surveyed 162 CIOs and found that only about a quarter had any sort of real MDM program—although the survey also found CIOs almost unanimous in planning to beef up MDM over the next three years.

## **PARTS PILEUP REQUIRES SPEEDY SOLUTION**

Honerkamp says the company didn't have the luxury of time.

"There was no way to physically meet the demand," he says. "We'd have had to hire a bunch of people to

maintain a massive amount of spreadsheet information. This was something that we had to do.”

In January 2007, Honerkamp proposed to Hillman’s top executives that the company create a data management group, with a director-level position reporting to the CFO. By March the concept was approved and a director named.

Honerkamp says that from the beginning, he thought the department should not be part of IT, which has a staff of 27 people.

“I didn’t want people to think I was trying to build an empire,” he says. “It was done for political reasons. Since it was my idea to create the department, I didn’t want people to think it was a move to increase the influence of IT. We took that issue off the table right away. It made for an easier approval process.”

By June the department was staffed with half a dozen people and began to work on a MDM solution.

“We looked at a couple of packages,” Honerkamp says. “IBM had a good package, but it was very expensive. We couldn’t afford it.”

So the company partnered with consultants to build its own tool, which it began deploying in fall 2007. The project was finished by the following summer.

“I think we actually have a better product than we could have off the shelf,” Honerkamp says. “We have a very flexible, agile environment. We’re ahead of the curve. We can very quickly respond to demand from a big customer.”

## IN-HOUSE A BETTER STRATEGY

Called iSPOT (item, single point of truth), the system contains all SKUs and attributes of the company’s product line, which then feeds into the transactional systems.

“As our customers become more demanding for more selective information, we can very quickly respond to that,” Honerkamp says.

The MDM program works in sync with a business intelligence margin reporting application, which ranks each SKU on its profitability and signals the company when it needs to adjust prices.

“This makes our lives much simpler,” Honerkamp says. “We sell steel nuts and bolts. The cost of raw materials is going up dramatically; it forces us to get very good at passing along price increases. We’ve become very efficient. We no longer have to wait to see the bottom line before knowing where our exposure is and when to change prices.”

The CIO says the company didn’t bother to run ROI calculations on the project. “It was always justified as a cost of doing business,” Honerkamp says. “I don’t have a large staff, but we’re using some pretty sophisticated tools. We have 1,200 user IDs, 700 of whom are remote, connected via an internal portal. We use BI, collaboration tools. We have a new ERP platform. We didn’t have any of that four years ago. We’ve totally reinvented IT.” ■

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# MDM's Strongest Business Case: Compliance

*Designed correctly, the system can reduce your legal risk and compliance costs. Here's how to make sure that happens.*

BY JEFFREY RITTER

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COMPLIANCE MAY NOT be the first thing that pops into your head when you think about master data management (MDM), but it's actually its strongest business case. An MDM system can significantly reduce your company's exposure to legal risk and lower the cost of legal and compliance services if designed and implemented correctly.

How can you ensure this happens? Put a lawyer on the project team, use compliance to build your business case, then ensure that your new single version of the truth delivered via MDM meets compliance objectives.

Of course, that's not as easy as it sounds. Companies are learning that project teams often overlook the need to align MDM data to existing compliance controls during the system assessment and design process. Remediating this omission downstream adds costs and runs the risk of a late-stage veto by the legal department.

By contrast, emphasizing compliance and resulting cost savings as a business driver for the MDM program ensures alignment from the begin-

ning. The key is to ask: "How can MDM reduce the cost of compliance?"

To do this, the CIO needs to look at the compliance costs of working with status quo data that is inaccurate or in conflict with other internal records as well as the costs of audits, inspections or legal actions associated with finding the right data. Another part of the justification is avoiding any potential legal penalties stemming from an inability to find data in a timely fashion. One midsized investment management firm, for example, recently confided it cost nearly \$5 million to respond to a routine Securities and Exchange Commission "sweep" review.

## AN IT RISK ASSESSMENT

Next, to embed compliance into MDM initiatives, the CIO needs to conduct a thorough risk analysis of how the MDM services affect the existing configuration of the organization's compliance framework and controls.

This assessment has several steps:

- ▶ Account for all of the existing sources of rules to which compli-

ance and source data are mapped, such as statutes, regulations, trade industry rules, business procedures and contract controls.

► Evaluate the compliance implications of migrating original source data into the MDM database. For example, the IRS and others have rules requiring that original records be preserved, so in the absence of a disciplined chain of custody migration processes, compliance could be at risk.

► Understand all of the tasks that will be required to sustain compliance around the MDM data. Here, it is vital to identify the various controls employed to protect access to and integrity of data, and to make sure those controls remain in place for MDM data. Doing so for personal information, transaction information and other carefully regulated data is particularly vital because migration to a central MDM database often exposes the information to new audiences.

► Design compliance into the overall MDM service plan. Doing so improves awareness of the implica-

tions of data governance and creates an inventory of the steps required to assure the new MDM systems enable effective compliance. These steps might include contract amendments, changes in internal procedures, reviews with public regulators and tests of data recovery and reporting technology and processes.

Implementing these steps takes work. IT executives familiar with International Standards Organization-based information security controls can often manage the compliance dimension of MDM systems using the same process-based control orientation used to deploy security controls.

Provide clear, measurable criteria against which to declare victory and move forward, making continual improvement of your company's compliance profile an important new benefit that MDM can achieve.

Not only will you build a stronger case for your system, but you'll also keep your legal team happy—and perhaps more responsive for your next project. ■

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\* "Master Data Management: Consensus-Driven Data Definitions for Cross-Application Consistency," 2006, The Data Warehousing Institute (TDWI)