

FALL | 2009

# HP/ORACLE ALLIANCE

SOLUTIONS AT THE SPEED OF BUSINESS



This magazine isn't about technology—there are enough of those around already. Most business executives don't need to know more about technology. Instead, they need to know how technology can be applied. It's not about what technology can do, it's what it should do, for your business.

In short, this magazine is about business needs and solutions, not technology benefits. Learning about a specific server or software package is less valuable than seeing how an end-to-end solution can impact an organization and open up new business opportunities. For you.

We've taken special effort to strip away technology terms and focus on the business bottom line. The articles in this issue are all linked by one thing—the business benefits that accrue when companies like HP and Oracle combine their products, services and experience to deliver end-to-end solutions to real-world business problems. We think that applied business solutions are a whole lot more relevant today than isolated discussions of the latest technology innovations.

Take a look inside. We hope that you'll agree.



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A man with short dark hair, wearing a dark purple long-sleeved shirt and a matching tie, stands with his arms crossed. He is looking slightly to his right with a slight smile. The background is a server room with white walls and a rack of server equipment visible on the left. The overall lighting is bright and clean.

# LOOKING FOR A COMPETITIVE EDGE? THINK DATA CENTER

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*Streamline your data infrastructures, to save money, to be ready for that tidal wave of data and to be able to use the data explosion to your advantage. — By Simon Firth*

Five years ago MICROS-Fidelio found itself in a bind. The company was a leading supplier of software solutions to hotels, restaurants and retail stores worldwide, but those solutions were getting more and more complex.

"It got to the point where our customers wanted to buy our solutions, but they didn't have the technical expertise to be able to manage them in-house," recalls Pete Simpson, vice president, Business Technology of MICROS-Fidelio EMEA. "So, we started providing them with hosting services."

That was an opportunity for sure, but it also turned out to be an enormous challenge. The company quickly discovered the downside that comes with trying to expand a conventional data operation.

Upgrade a typical data center, Simpson explains, "and the next model is not proportionally more expensive, it's exponentially more expensive. So, you're constantly fighting this reverse economy of scale." Compounding the problem were huge monthly energy bills, servers constantly running well below capacity, and an IT infrastructure that, through ad hoc growth, had ended up sprawled all over the globe. "We were looking at our servers and saying, 'We're really not using these efficiently,'" Simpson remembers.

Most problematic of all, though, was the inflexibility of standard data center solutions. Adding a new service to a conventional system typically requires an expensive and risky work-around, while doing nothing to address the system's existing inefficiencies—indeed it just exacerbates them, turning an opportunity for expansion into a potential business disaster.

The only solution, says Simpson, was to follow a program of what he calls "ruthless optimization," and, at the same time, make a major investment in an entirely new IT framework: one that structures the data center in the form of a super-efficient, ultra-flexible "grid."

#### THE DATA CENTER DOUBLE BIND

Today, data centers are woven into the fabric of just about every large enterprise on the planet. Without them, most organizations simply couldn't deliver their goods and services at a competitive price.

But that level of maturity has brought with it unwelcome consequences. As MICROS-Fidelio experienced, IT infrastructures have become unwieldy, inefficient and hugely expensive to run.

How bad have things gotten? Take the cost side of the equation. According to the U.S. Environmental Protection Agency (EPA), in 2006, data centers in America alone consumed 61 billion kilowatt hours of energy, which is more than the U.S. transportation and manufacturing industries use combined. And that figure, the EPA predicts, will double in the next five years.<sup>1</sup>

It's little wonder that independent analyst group IDC found in a 2008 survey that "IT organizations report that power and cooling has become the number one problem for the data center." Owners of data centers, the report continued, "are finding that their aging facilities have inadequate power systems, cooling systems, or they simply cannot draw additional wattage from their utility providers."<sup>2</sup>

MICROS-Fidelio supplies software for the hotel, restaurant and retail industries.



THE AMOUNT OF ENERGY CONSUMED BY DATA CENTERS IN THE U.S IN 2006

61 billion kilowatt hours

Source: EPA

The sheer number of data centers owned by many organizations is another problem, notes IDC, as is the fact that they typically run a huge variety of different applications and leave too much capacity unused. Long-established data centers are also frequently housed in urban locations, making them vulnerable to security breaches, and are controlled by many different groups within an organization, so no single entity has a comprehensive overview of the company's entire IT system.

The real costs of running data centers this way go beyond the expense involved, vulnerability and inefficiency. New compliance demands, such as the U.S. Sarbanes-Oxley Act, require large quantities of business data to be retained for long periods, and the ability to mine data across the entire breadth of a business is becoming a key competitive differentiator. But holding data in multiple, standard, siloed data centers impedes both goals.

That inflexibility becomes really troublesome when, like MICROS-Fidelio, an enterprise needs to change the work its data centers do. And it's just as problematic in a whole host of other situations in today's fast-paced business climate, such as when a software vendor goes out of business, when companies get bought out or merge, or when an enterprise wants to start outsourcing parts of its operations. Any of these can suddenly render a conventional IT system all but useless.

The pressures to optimize the data center, then, are enormous. But to make any kind of change requires, inevitably, spending money. In the best of times, that would be unwelcome. In a global economic recession, it's potentially fatal.

As a result, many companies today find themselves in what could be called "the data center double bind." As a 2009 IDC report puts it: "Companies of all types are struggling with increasing infrastructure demands and changing business practices, while often being constrained by smaller IT budgets."<sup>3</sup>

Enterprises desperately need to better align IT to business needs, but they also desperately need to be spending less on it, not more.

#### SQUEEZING OUT EVERY EFFICIENCY

When it comes to IT spending, says Pete Simpson of MICROS-Fidelio, "if you try making a technical argument with

**"UPGRADE A TYPICAL DATA CENTER, SIMPSON EXPLAINS, "AND THE NEXT MODEL IS NOT PROPORTIONALLY MORE EXPENSIVE, IT'S EXPONENTIALLY MORE EXPENSIVE. SO, YOU'RE CONSTANTLY FIGHTING THIS REVERSE ECONOMY OF SCALE."**

— PETE SIMPSON

management, you're wasting your time. You have to make a business argument."

For MICROS-Fidelio, the arguments in favor of pursuing system efficiencies were relatively easy to make. Their current expenses were so high that a better optimized system was all but guaranteed to pay for itself in maintenance and energy savings alone.

In short order, MICROS-Fidelio consolidated its many data centers down to just two, based in Frankfurt, Germany. That alone reduced power consumption by 40 percent with no impact on processing capacity, and cut the space needed to house the company's IT operations as well as the software licenses it needed to buy. MICROS-Fidelio also upgraded to standardized hardware and software, which reduced downtime by 20 percent and increased staff productivity by an estimated 35 percent.

MICROS-Fidelio hasn't been alone in appreciating the value of data center consolidation. Analysts IDC note that, "Many large IT customers are looking to reduce the number of physical sites that they are maintaining by 70-90 percent. Some customers report consolidating 50 or more sites down to 3-10 sites."<sup>4</sup>

IDC also notes a parallel trend in data center investments: the creation of several "virtual" servers on a single physical server.

Through virtualization, companies can increase server capacity without having to buy new physical servers. That, in turn, allows for more processing power without a concomitant rise in spending on power and cooling.

#### TANGIBLE BENEFITS

MICROS-Fidelio data center consolidation

40%

Amount of reduced-data center power consumption

20%

Amount of reduced IT downtime

35%

Increased staff productivity

## DATA CENTER CONSOLIDATION BENEFITS

# 40%

The amount German insurer WGV A.G. reduced its IT costs

# 60%

Decreased HP data center energy consumption

"In a typical environment, a server may be running at 3 percent or 5 percent CPU utilization," explains Simpson. MICROS-Fidelio's new data centers, however, were virtualized as well as consolidated, which means their workloads could be reassigned to available processors. By optimizing hardware this way, says Simpson, "it's now uncommon for us to have a server that operates below 50 percent capacity."

Like consolidation, virtualization is catching on. Nearly 12 percent of all new servers sold worldwide in 2007 were virtualized, according to IDC, which calls server virtualization "the killer application of the data center" and notes that for customers in mature markets, "virtualization is now the default build for their x86 (i.e., industry standard) servers."<sup>5</sup>

MICROS-Fidelio, certainly, isn't going back to the pre-virtualization world. "Having the ability to dynamically reassign workloads," says Simpson, "is a requirement for us now. If we had to uninstall and reinstall a server to move a workload from one place to another, we'd be out of business."

### THE NEXT GENERATION DATA CENTER

While virtualization, consolidation, and hardware and software standardization are each of enormous individual value in taking on an inefficient and expensive data infrastructure, when combined they begin to fully realize their potential for both maximum efficiencies and true flexibility.

In particular, if you start out with a plan to build a small but powerful set of linked physical servers—each running multiple virtual server environments—you can build them in a modular way, out of standardized hardware and software components. In the process, you'll minimize needs for space, power and cooling while maximizing the processing power you are able to draw upon.

Crucially, though, such systems are also extremely flexible. A typical university, for example, may run its admissions processing on one data center and its physics experiments on another. Its admissions system must be powerful enough to accommodate a large spike in use in early fall, when the physics system is in a pre-class lull. A single consolidated, virtualized university data center, though, could service both demands, allocating processing power to each virtualized server on an as-needed basis, in effect lessening the total aggregate processing power that the university needs to pay for.

Because everything in this new kind of data center is now modular, standardized and virtualized, it's easy to add new server capacity or new applications. And it becomes fairly easy to manage the whole system remotely, to keep your hardware

**"COMPANIES OF ALL TYPES ARE STRUGGLING WITH INCREASING INFRASTRUCTURE DEMANDS AND CHANGING BUSINESS PRACTICES, WHILE OFTEN BEING CONSTRAINED BY SMALLER IT BUDGETS." — IDC 2009**

and data more secure, and to shift work loads temporarily from one virtual server to another. That all but eliminates disruptions caused by maintenance.

Perhaps most significantly, it also becomes relatively simple to alter or expand the work that companies are asking their data centers to do. Investing in a newly virtualized, consolidated data center allowed German insurer WGV A.G., for example, to reduce its IT costs by more than 40 percent. At the same time, it was able to roll out a number of innovative new service offerings—including "pay-as-you-drive" auto insurance that dynamically calculate risks based on real-time driver behaviors, which WGV A.G. could not employ on their previous IT infrastructure.

### TRANSFORMATION BUILT-IN AND EXPANDED—GRID COMPUTING

It's this kind of super-efficient, highly-dynamic system people have in mind when they talk about the "next generation data center". The process of getting there is what's come to be known as data center transformation.

There are advantages to building next generation data centers in which every part is pre-designed to interlink in what's typically described as a virtual grid.

A grid system takes the benefits of virtualization beyond the single server and extends them across data centers and across hundreds or even thousands of servers. In addition to server virtualization, a grid architecture virtualizes the application layers through which that work is processed. Each layer is now aware of the other, creating a kind of automated intelligence that makes a grid-based data center not only super efficient but also incredibly agile.

Expanding both the scale and the breadth of the system becomes much easier, as does integrating "legacy" applications. This is thanks to the way a grid can easily accommodate the added workload that any new or legacy application brings.

### CHALLENGES TO TRANSFORMATION

Given the potential benefits of a transformed data center, it's perhaps no surprise that analysts Hansa|GCR report efforts aimed at data center transformation are underway, or imminent, at nearly 75 percent of international IT organizations.<sup>6</sup> Those efforts are by no means guaranteed success, however.

As the Economist Intelligence Unit (EIU) found in a recent survey of worldwide IT modernization efforts, "In most companies both the business functions and the IT function understand the potential benefits of modernization. But that does not mean that most companies know how to do it right."<sup>7</sup>

One major problem is that data center transformation is hard. Organizations often lack the expertise to direct modernization efforts. And such efforts often face entrenched interests within the enterprise that don't wish to lose control over their own IT infrastructure.

By far the biggest issue, though, is cost of implementation.<sup>8</sup>

It's easy to understand why. The global economy is in recession, which puts big capital projects under an added burden of justification.

**"WE FULLY TEST ALL THE ORACLE APPLICATIONS ON ALL OF OUR SYSTEMS," EXPLAINS CROWSEN. "WE DO THE PERFORMANCE AND BENCHMARKING AGAINST OUR COMPETITORS. SO WE'VE GOT PROOF POINTS TO SHOW THAT ORACLE RUNS VERY WELL ON HP."**

But companies also need to not forget that IT modernization can lead to better customer service, increased competitiveness and, therefore, increased revenues. When companies see the strategic value of an IT initiative, the EIU argues, the case for data center transformation ought to be clear. "An IT modernization project is not something to skimp on," it concludes. "Done right, it is as strategic as any other project."



Data center transformation is relevant to IT efficiencies, as well as environmental sustainability.

PAYBACK  
PERIOD

3—5  
Years

Time MICROS-Fidelio expects to recoup  
its IT investment

**“THERE WILL BE MORE DATA  
CREATED IN THE NEXT FOUR YEARS  
THAN IN THE HISTORY OF THE  
PLANET.” — MARK HURD, CEO OF  
HEWLETT-PACKARD**

#### LOOKING FOR HELP FROM SUPPLIERS

Whatever the potential benefits of data center transformation, the complexity of taking on such a program remains daunting.

A 2009 IDC survey of mid-size and enterprise IT customers in the U.S. found that most were, “reluctant to go too far with virtualization without help from IT suppliers, which makes it easier to effectively demonstrate business value prior to deployment.”<sup>9</sup>

It helps especially if those suppliers have gone through their own IT transformations, says Mike Crowsen, vice president in charge of HP’s alliance with Oracle Corporation. Thanks to an internal transformation begun at HP in 2005, he says, “we’ve got some really good proof points that we can show customers today.”

Within three years, HP went from running 85 data centers worldwide to just six. It reduced its annual data center energy consumption by 60 percent, its networking costs by 50 percent, the number of software applications it ran from 6,000 to 1,500 and its operational spending on business technology from 4 to 2 percent of company revenue.

At the same time, the company increased its data center processing power by 250 percent and is on track to flip the ratio of its IT spend from 75 percent on maintenance and 25 percent on innovation to 75 percent on innovation and 25 percent on maintenance—all thanks to a rigorous implementation of grid-style computing.<sup>10</sup> HP’s experience is proof, argues Crowsen, that “grid computing is changing the whole economics of the data center.”

#### THE HP / ORACLE APPROACH

“It was very interesting to see the approach that HP had taken,” acknowledges Pete Simpson of MICROS-Fidelio, “because it was much the same as ours.”

Indeed, MICROS-Fidelio chose to take a similar grid-based approach in its own IT transformation, running Oracle’s Real Application Clusters (RAC) software on Enterprise Virtual Array (EVA) hardware from HP that was optimized to work with Oracle’s next generation grid-based products.

“To operate our data centers competitively we need to maximize automation of all data center processes,” explains Simpson. “So we use Oracle technology both at the database layer and also at the application server layer. And when we standardized, we only used HP hardware. In fact, we have standardized down to two server models.”

Aside from being less expensive to build, data centers with standardized components are easier both to maintain and to expand as a business grows, says HP’s Crowsen.

Kevin Lyons, a grid expert with HP’s ESS Solutions Alliance organization, adds that while many other companies’ applications are designed just to accommodate grids, Oracle’s architecture is designed to be grid-ready from the ground up. “With Oracle,” he says, “you really can use a grid from the database through to the end user. Their databases and middleware components are designed to be able to move across multiple servers or however else you need them to move.”

Equally crucial is the effort that HP and Oracle have made to ensure that their products work well together. “We fully test all the Oracle applications on all of our systems,” explains Crowsen. “We do the performance and benchmarking against our competitors. So we’ve got proof points to show that Oracle runs very well on HP.”

That translates to valuable time saved, both in down-time avoided, and in the ability to more rapidly implement new products and services.

#### IN THE END, IT’S ABOUT ROI

In a recent keynote address, HP CEO Mark Hurd reminded his audience that “there will be more data created in the next four years than in the history of the planet.” It’s why Hurd believes that many other organizations will want to follow HP in streamlining their data infrastructures—to save money, to be ready for that tidal wave of data and to be able to use the data explosion to their advantage. It’s also why Hurd has been actively positioning HP as the first company to call on for help.

As Pete Simpson of MICROS-Fidelio suggests, the only good arguments for biting the bullet and beginning a data center transformation effort are just good business. MICROS-Fidelio spent \$6.5 million U.S. on their new HP/Oracle solution, but expects to see the investment pay for itself in only three to five years.

Thanks to its ability to empower rather than stifle innovation, the new MICROS-Fidelio grid-enabled data center has gone beyond offering just “ruthless optimization,” says Simpson. Crucially, he says, “it has allowed us to introduce dynamic, new commercial models that we couldn’t offer before to our customers.”

MICROS-Fidelio can now offer its customers the hosting business they were asking for at a price their competition finds almost impossible to match—and grow it to meet the ensuing customer demand.

Certainly, in tough economic times, the last thing many companies want to be thinking about is investing in a next generation data center. But if they aspire to remain competitive and—as the downturn wanes—to grow, an investment in grid-based IT transformation might well be the smartest move they could make.

**ASIDE FROM BEING LESS EXPENSIVE  
TO BUILD, DATA CENTERS WITH  
STANDARDIZED COMPONENTS ARE  
EASIER BOTH TO MAINTAIN AND  
TO EXPAND AS A BUSINESS GROWS.  
— SAYS HP’S CROWSEN**

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#### LEARNING MORE

To learn more about the HP Oracle Alliance, please visit  
[www.hp.com/go/oraclealliance](http://www.hp.com/go/oraclealliance)

# A BIG FUTURE FOR SMALL AND MIDSIZED COMPANIES

*Just because a company is small doesn't mean that its needs are small. In fact, many small or mid-sized organizations have supply chains and business needs that are just as complex as larger ones.*  
— By David A. Kelly



## KEY SMB CHALLENGES

- 1 Increasing intensity of competition
- 2 Continually improve profitability

AMI Partners, 2008

**“Mid-sized companies have the same challenges as enterprises,”** says Mark Johnson, Vice President of Oracle’s Accelerate Program Office. **“They usually just have fewer resources, fewer people and smaller budgets to deal with them.”**

Take the case of Creative Cabinet Systems, an Arcanum, Ohio-based manufacturer of custom millwork, case goods and store fixtures. For years, Creative had used an old software package designed to manage construction projects. As the business expanded over the past few years it became clear to Creative’s CFO, Tom Frederick, that the company needed a new, customized ERP solution to keep up with inventory, invoicing and general business needs. The challenge was how to find and deploy one effectively without investing millions of dollars or years of effort.

For small and mid-sized organizations, selecting, configuring, deploying and maintaining key business applications like ERP, human resources (HR), customer relationship management (CRM) and other applications can be a difficult, expensive and time consuming process. Yet without such solutions, companies can find themselves struggling to keep up with the competition.

That’s where a unique alliance between Oracle and HP comes in. For 25 years, HP and Oracle have been collaborating on delivering solutions that combine Oracle’s applications and database experience with HP’s engineering, hardware and services excellence. Now, with the joint HP-Oracle Accelerate Partnership, HP and Oracle joined together to deliver practical, cost effective end-to-end business application and hardware solutions optimized for the needs of small and mid-sized businesses.

### **THE RIGHT INFORMATION AT THE RIGHT TIME**

Putting the right information in the right hands at the right time is just as important for smaller companies as it is for larger organizations, but it’s often more difficult because of the way that mid-sized companies continually grow and change. Unlike large enterprises that have years to plan and plenty of extra resources, mid-sized organizations are usually too busy managing day-to-day operations to invest excess time or cash into long-term projects.

In many cases, small and mid-sized organizations that have experienced rapid growth have the need for global capabilities such as shipping, reporting or financials.

That’s one of the key reasons why small and mid-sized organizations are investing in ERP, CRM, business intelligence, and other packaged applications that provide greater control over and insight into basic business processes such as order-to-cash, procure-to-day, or customer relationship management.

Small or mid-sized companies that want to run lean and mean and compete in today’s market need greater insight into their business operations—insight that only flexible and adaptable business applications can provide.

“Without an ERP system, most companies simply don’t have enough visibility into their operations to be successful,” says Johnson.

In many organizations, the IT departments report into the CFO, who’s asking IT to deliver more value, ensure that projects are delivered on-time and under budget, and making sure that they fit into a capital purchase plan.

“IT budgets are more closely scrutinized than they used to be,” says Johnson. “CFOs need to have the visibility into the business operations that strategic business applications can provide.”

### **FAST, PRACTICAL SOLUTIONS THAT SOLVE BUSINESS PROBLEMS**

But while small and mid-sized company can have similar business requirements as large enterprises and need similar software solutions, they typically are much more constrained when it comes to resources, time, money and attention. For most mid-sized companies, time is money, so they can’t wait two years for an ERP, CRM or other mission-critical software deployment.

In fact according to IDC,<sup>1</sup> mid-sized companies are facing three main challenges.

The first, and potentially largest one, is limited financial resources. It’s hard to be innovative and competitive when you have lots of money, but it’s even more difficult when you don’t.

140,000

joint customers

25

years of partnership

300

HP/Oracle dedicated staff

13

Number of joint worldwide  
technology centers

And while mid-sized companies need to be as creative and competitive as large companies these days, they typically don't have the same financial resources that enterprises have. Mid-sized companies are more sensitive to working capital requirements and need to watch areas such as cash flow, currency exposure and other financial processes much more closely. To address this challenge, organizations need to implement effective IT systems that can help efficiently manage key financial and visibility processes.

The second key challenge is a need for effective inventory management. However, from HP's perspective, this challenge is even broader. In other words, small and mid-sized organizations have a need for more effective business processes—from supply chain management to inventory management to customer relationship management or more—because of their special agility requirements. Small companies grow proportionally faster and change more dynamically than larger companies. Everything from products to partners to business processes might change more quickly than in a larger enterprise. All that makes it difficult for mid-sized companies to manage their end-to-end business processes effectively and accurately, especially with applications and ERP systems that have no room for growth or are set up for the way the company used to do business, instead of how it should be doing business. To overcome this challenge, organizations need to ensure that their key business applications and systems are built for future growth and change.

Lastly, mid-sized organizations are faced with limited internal IT bandwidth and expertise. Unlike larger companies that can invest in and support specific technology skill sets, mid-sized companies typically have a limited number of resources spread across all their projects—leaving little bandwidth for new, or specialized projects.

"In many cases, a mid-sized organization has limited IT staff, perhaps between 1 and 12 people, and typically that staff can't be distracted from their day-to-day jobs for an ERP implementation," says Johnson. "That's why they rely heavily on partners to get the job done."

Small and mid-sized organizations have limited IT resources and not a lot of time or money. As a result they typically have to rely on outside consulting organizations. What small and mid-sized businesses need are price conscious, turnkey IT solutions that can provide a foundation for them to grow with.

"Small and mid-sized businesses can't wait years for a solution," says Oracle's Johnson. "The key to success for such companies is creating projects with a very controlled scope, with high return on investment and an affordable budget that is tightly controlled. For example, we're seeing a lot of projects where it's a three-month financial management implementation or a 30-day product lifecycle management deployment."

**END-TO-END BUSINESS SOLUTIONS: ORACLE ACCELERATE**

Small and mid-sized organizations need enterprise-class business applications but rarely have the time or resources required to do a traditional implementation. And that's exactly why HP collaborated with Oracle on the Oracle Accelerate program for small and mid-sized organizations.

The Oracle Accelerate program includes a comprehensive set of applications, rapid implementation tools and partnerships that enable small and mid-sized businesses and government entities to efficiently, effectively and affordably deploy business solutions.

**"IN MANY CASES, A MIDSIZED ORGANIZATION HAS LIMITED IT STAFF, PERHAPS BETWEEN 1 AND 12 PEOPLE, AND TYPICALLY THAT STAFF CAN'T BE DISTRACTED FROM THEIR DAY-TO-DAY JOBS FOR AN ERP IMPLEMENTATION."**  
— MARK JOHNSON, VP OF ORACLE'S ACCELERATE PROGRAM OFFICE

In 2007 longtime partners HP and Oracle joined together to further enhance Oracle's Accelerate program by building on the company's shared experiences to create pretested, preconfigured, and optimized hardware and software solutions for mid-sized organizations.

"The cost of an ERP implementation using Oracle has come down dramatically when it's delivered through local partners with very specific industry experience gained in similar projects," says Oracle's Johnson. "These partners know first hand that today's organizations simply have to have visibility into business operations that ERP solutions can provide, otherwise they can't manage day-to-day costs or evaluate opportunities. You can't be lean and mean unless you can see things in real time."

The partnership combines Oracle's deep experience in applications and databases with HP's in-depth expertise in infrastructure, hardware, and services, along with local partners of each company, to create practical end-to-end, easy-to-purchase and easy-to-deploy business solutions for mid-sized business and government entities.

"We've already tested and validated HP servers and storage in an Oracle environment and provide our customers with sizing and performance guidelines to speed their deployment time," says Jay Workman, ESS Oracle Alliance, HP. "We're saving our customers a lot of time, and therefore money."

One compelling advantage of implementing an Oracle-based business solution is that the software and applications are the exact same ones used by the largest companies in the world. In short, Oracle's solution for the mid-market is the same as its enterprise solution—it's just priced and delivered differently.

That means as a company grows or expands it can simply upgrade its software license and hardware as needed—it doesn't have to migrate or change the software it's using.

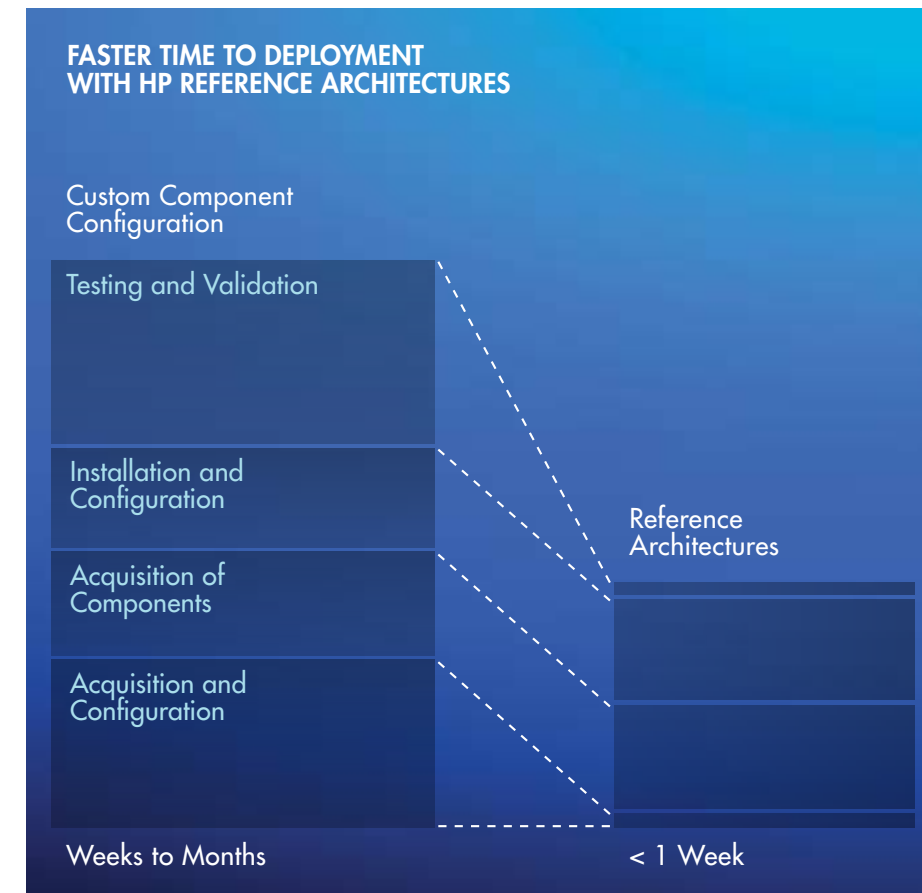
"Mid-sized companies get the same complete functionality that enterprise companies receive," says Camala Kolseth, HP Alliance Manager, Global Oracle Alliance.

But where enterprise organizations typically purchase, install and manage such deployments themselves, mid-sized businesses usually don't have the time or resources to do it themselves. That's where the Oracle and HP partners come in. Organizations benefit because they're dealing with local or regional experts that understand the specific industry and customer needs.

"A phased approach is key, where a partner helps you stick to the agreed upon scope," says Oracle's Johnson. "By using an experienced Oracle Accelerate implementation partner, organizations can reduce the amount of upfront analysis needed, deploy the hardware and software based on industry best practices and get a solution up and running quickly."

The Oracle Accelerate program is very industry-focused, sold by partners who are certified in their industry solutions. The program uses a special implementation methodology based on individual partner expertise and Oracle Business Accelerators, rapid implementation tools that reflect industry-leading practices.

"Oracle has a catalog of midsize business solutions that the Oracle system integrator partners provide," says Kolseth. "Oracle and its partners really understand individual industries and the challenges that organizations are facing. HP and our resellers provide local hardware expertise and support."



We think that a strong local relationship is very important, especially for midsized organizations.”

The result is faster time-to-market for a turnkey business solution. HP’s reference configurations make it easier and faster for organizations to choose the right hardware environment for their specific business needs, since HP and Oracle have already configured and tested specific recommended solutions based on the software applications selected, the number of users, and other factors.

Another important factor is the depth of HP’s expertise with Oracle. “For example, HP currently holds the top 12 positions for the Oracle E-Business Suite small model benchmark,” says Kolseth. (The Oracle Applications Standard Benchmark (OASB) provides a comparable standard workload measure of the performance and scalability of Oracle E-Business Suite across different system configurations). “That’s a result of in-depth knowledge of the relationship between the Oracle software and the optimal hardware configurations. That’s the type of engineering leadership that’s been applied to our Oracle reference configurations for midsized customers.”

#### **COMPLETE CHOICE**

Picking out a laptop to run word processing is one thing, but selecting a server to run an important business or packaged application is another. Deploying an enterprise class application—even if you’re a small or mid-sized business—requires a solid understanding of exactly what processor speed/type is required, how much memory is needed, what type of storage is required, how the storage needs to be set up, what types of network cards are supported, and a range of other critical hardware-related decisions.

“We’re thinking ahead of what’s best for growing companies,” says HP’s Workman. “For example, servers with one processor socket are an inexpensive way to get started, but for just a little more an organization can buy a dual-socket capable server. You spent a little more up front, but as the business grows you don’t have to start all over with a new server. Instead you can add a little more memory, another processor and more storage space and you’re protecting that initial investment in the hardware.”

Unlike some competitors, HP provides organizations with a complete set of choices when it comes to selecting the right hardware and software for an Oracle-based deployment. As part of the Oracle Accelerate program, HP has tested a wide range of server configurations, operating systems, storage devices and more. HP’s Oracle-tested server solutions include everything from blade servers to rack mount servers to pedestal and tower units. Instead of being limited to stand-alone servers, HP customers can choose whatever hardware platform that enables them to save money while still leaving room to grow.

For example, since blade servers allow organizations to slip in additional server blades as needed, they can be a good choice for larger midsized businesses or ones with dynamic computing needs. Blade solutions are also good for “green” computing or environments where floor space is limited, since they have a smaller form factor, more efficient power consumption and require less cooling than traditional servers.

“Blade adoption is growing rapidly for all types of businesses,” says Workman.

## KEY BENEFITS OF USING HP FOR ORACLE

- **STRONG LOCAL RELATIONSHIPS**  
The combination of Oracle industry experts with local HP partners means customers can be assured of having in-depth HP-Oracle expertise delivered and supported locally
- **PRE-TESTED REFERENCE ARCHITECTURES**  
Pre-configured, pre-tested combinations of hardware and software make it easy and fast to select the right combination of industry-standard hardware, operating system, and storage
- **UNRIVALED TECHNICAL EXPERTISE**  
HP’s in-depth technical knowledge of the optimal hardware environment for Oracle solutions means optimal performance and no surprises
- **INDUSTRY-SPECIFIC SOLUTIONS**  
Industry-specific solutions mean less customizing and faster time-to-market for midsized companies
- **INDUSTRY-STANDARD CHOICE**  
Unlike solutions from other vendors, an HP-Oracle solution is based on industry standards and open choice, including a wide range of servers, storage devices, processors, and operating systems that have all been thoroughly vetted and tested
- **BUILT IN UPGRADE PATHS**  
HP-Oracle solutions are future-proof, since the Oracle applications and databases can be upgraded to highly-scalable solutions and clustered environments without significant change. At the same time, by selecting scalable HP hardware solutions, organizations can easily grow without losing existing investments.

“HP IS ORACLE’S BIGGEST CUSTOMER. WE HAVE MORE APPLICATIONS MORE ORACLE DATABASES THAN ANYONE ELSE ORACLE DOES BUSINESS WITH.”  
— WORKMAN



In addition, HP can recommend a range of operating systems, including Linux, HP-UX, and Microsoft Windows, all supported with recommended configurations running industry standard processor technology.

#### **MISSION CRITICAL BUSINESS APPLICATIONS**

Keeping up with the competition and maintaining profitability requires organizations to have a solid handle on the type of information that is typically managed through key business applications such as ERP, CRM, HR, and more.

"No matter how big or small the company is, the key business applications they run are mission critical for them," says Workman.

Take the earlier example of Creative Cabinet Systems. Creative's custom-designed cabinets and fixtures are sold to customers ranging from libraries to sports stadiums to hospitals

**"WE WERE COMING FROM SUCH A POOR IT SYSTEM," SAYS FREDERICK. "IT USED TO TAKE US A MONTH OR LONGER TO GET IT [INFORMATION] USING THE PREVIOUS SYSTEM."**



and stores. Yet over the last decade as the company became more efficient in everything from its designing custom solutions to ensuring customer satisfaction, one challenge remained—it simply didn't have an efficient or effective way to manage inventory or track billing, and it was beginning to affect the business.

Many of Creative's projects involve exacting custom manufacturing using specific combinations of woods and other materials, all of which can have wide variations in cost. What Creative needed was a set of applications that could help it track the inventory and resources used in different projects and ensure that customers will be billed correctly and in a timely manner.

After learning about the Oracle Accelerate program and evaluating his options, Creative CFO Tom Frederick decided to deploy a combination of Oracle's JD Edwards Enterprise One Financials along with a software package designed for custom woodworking shops. In addition, Creative selected Oracle Accelerate partner Zanett to help configure and deploy the solution.

From Frederick's perspective, being able to leverage Zanett's expertise combined with the advantages of the Oracle Accelerate program made a significant difference during deployment.

"We probably encountered half the problems I expected," Frederick says. "I never guessed that it would be that easy."<sup>2</sup>

In addition, Frederick was impressed with the Oracle Business Accelerators, which he credits with making a big difference in the roll out. In fact, it only took Frederick and his controller five hours to set up a complete chart of accounts.

The results have been impressive—especially when it comes to payback.

"I think that I've paid for half of the software just with the receivables I've collected that I might have had to write off before," says Frederick. "These weren't bad debts, just billing and payment discrepancies that tend to get ignored if they're not dealt with in a timely manner."

But the new applications aren't just providing monetary value and improved cash flow. They're also providing greater insight into business processes and giving Creative's management more information (and more timely) than it's ever had, including a clear view of payables.

"We were coming from such a poor IT system," says Frederick. "Having information available to us instantly really helped. It used to take us a month or longer to get it using the previous system."

#### **A BIG FUTURE FOR SMALL AND MIDSIZED ORGANIZATIONS**

An important key to keeping up with the competition and achieving profitability is an agile set of business solutions—from enterprise resource planning to customer relationship management and everything in between—that can not only put the right information in the right hands at the right time, but grow and change as the company's needs change.

Unfortunately, for too long (and for too many small and midsized organizations) that's been a difficult thing to do.

But now, with the HP and the Oracle Accelerate program, small and midsized organizations have access to enterprise-class end-to-end software and hardware solutions that can be delivered in a practical, rapid-to-deploy approach. When it comes to betting on where things are going, both HP and Oracle see a big future for small and midsized organizations.

#### **Reference**

- 1 IDC White Paper, "Optimizing Business Benefits for Midsized Companies Through the HP-Oracle Accelerate Partnership," Jean S. Bozman, Janet Waxman, Raymond Boggs, Albert Pang, IDC, July 2008
- 2 "Accelerate to Great: Oracle helps midsize businesses achieve a fast return on investment," Oracle Profit Magazine, May 2009

#### **LEARNING MORE**

To find out more about HP Oracle small and midsized ERP solutions, please visit [www.hp.com/go/oraclealliance/smb](http://www.hp.com/go/oraclealliance/smb)

To learn more about the Oracle Accelerate Program, please visit <http://www.oracle.com/solutions/mid/oracle-accelerate-hp.html>

## **KEY COMPONENTS OF THE HP-ORACLE ACCELERATE OFFERING**

- **ORACLE APPLICATIONS**  
Oracle provides a wide range of proven horizontal and industry-specific applications that help organizations reduce risk while obtaining industry-leading functionality
- **ORACLE BUSINESS ACCELERATORS**  
Oracle Business Accelerators speed time-to-market by providing a proven methodology and industry leading practices for quickly and effectively deploying even complex business process.
- **HP HARDWARE AND SUPPORT**  
HP's hardware reference configurations get organizations off to a fast start while eliminating hardware configuration and sizing issues and providing a proven future upgrade path
- **PARTNER SERVICES**  
Last, but certainly not least, HP's partner network provides local support and service for all types of Oracle-base solutions, while Oracle's in-depth partner network brings custom industry-specific knowledge for faster time-to-market and higher return-on-investment

# A DELOITTE VIEW TO BI

By David A. Kelly

**Nimitt Desai leads the Business Intelligence and Data Warehousing (BI/DW) practice capability of Deloitte's Information Management services area, which also covers the following capabilities: Enterprise Data Management, Performance Technologies, Web Channels Solutions and areas of Enterprise Information Strategies and Architectures, Enterprise Content Management, and Enterprise Portals.**

**HP/Oracle**  
**How high of a priority is business intelligence for most organizations these days?**

**Nimitt Desai**  
While lots of organizations are seeing a downturn because of the economy, we're seeing nothing but an upturn in the business intelligence space. In fact, I think there's more demand because during a downturn organizations need to know where they can turn to get the most bang for their buck—they need solid business intelligence capabilities to help guide them to the right decisions. On top of that, we're also seeing a lot of organizations that had set up individual data marts or discrete analytical capabilities but haven't been able to analyze or collaborate across them. The economic downturn is now driving organizations to expand their analytical capabilities to cut across systems and data marts.



**Nimitt Desai, Principal,**  
Information Management,  
US BI/DW Capability  
Leader, Deloitte Consulting

**HP/Oracle**  
**Deloitte has a traditional strength in auditing and financial areas. Does that have an impact on your business intelligence business?**

**Desai**  
Yes. We're benefiting uniquely in two key areas. First, data quality and consistency is important to our auditors, so we have experts in our data management group that can leverage our Audit practice's expertise to help organizations deploy their own quality initiatives to ensure that they're capturing data the right way. Secondly, we're able to bring to bear some unique capabilities around tax analytics. We have an offering that's done in conjunction with our tax partners that enables organizations to identify ways they can squeeze the most out of the taxes they pay, as well as identifying compliance opportunities.

**"WE'VE REALLY SEEN BUSINESS INTELLIGENCE MATURE. IN THE PAST IT WAS ALL REPORTING, REPORTING, REPORTING. NOW WE SEE SPECIFIC TARGETED INITIATIVES AND OVERALL MATURITY FROM REPORTING TO ANALYTICS TO DATA MINING AND MORE."**  
— NIMITT DESAI

**HP/Oracle**  
**What's driving some of the demand for better business intelligence?**

**Desai**  
One of the big drivers around business intelligence implementations is all the change within the compliance area, particularly with government regulations and policies. For example, recent announcements about green tax credits mean that organizations might be interested in looking at historical data and using analytics capabilities to explore how changes to their business might impact their tax or regulatory situation.

**HP/Oracle**  
**How have business intelligence solutions and implementations changed over the years? Are they different from the types of solutions organizations deployed five years ago?**

**Desai**  
We've really seen business intelligence mature. In the past it was all reporting, reporting, reporting. Now we see specific targeted initiatives and overall maturity from reporting to analytics to data mining and more. The other thing was in the past, finance and marketing fields were the core focus areas for business intelligence initiatives. Today, we see a lot more business intelligence and data warehousing investment around supply chain, inventory management, demand management, production management and more. Also we're seeing more companies focused on doing cross-functional and cross-enterprise business intelligence and data warehousing. It used to be that global companies might have a U.S. data warehousing initiative and a different one for a Europe or its other subsidiaries. Now the emphasis is more on having a global data warehousing capability.

**HP/Oracle**  
**Which industries are pursuing business intelligence most aggressively?**

**Desai**  
There's actually quite a range. The demand is actually across the board, but there are certain industries such as public sector, life sciences and healthcare, and consumer packaged goods that are particularly strong. Of course high technology and telecommunications companies have traditionally had very active business intelligence programs. And believe it or not, even the financial services are in a pretty healthy market.

**HP/Oracle**  
**Are all those sectors looking for the same types of benefits from business intelligence?**

**Desai**  
Not necessarily. For example, life sciences organizations are typically looking at business intelligence for research and development needs, as well as finance, while high-tech business intelligence deployments are more focused on increasing manufacturing efficiency. Telecoms would be focused on the traditional sales and marketing initiatives and optimizing gross selling because their industry is so competitive. In the state and local government sector, we've seen a lot of projects around better governance and greater efficiency and transparency. For example, we did a project for one of the state agencies, the Texas Comptroller, where they deployed a transparency solution, so citizens could go to the Texas Comptroller website and get information on how much the state is spending with each supplier. There's also been a lot of interest from the public sector around Medicare and Medicaid fraud solutions.



*"Telecoms would be focused on the traditional sales and marketing initiatives and optimizing gross selling because their industry is so competitive."  
— Nimitt Desai*

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“YOU NEED TO MAKE SURE YOU DON’T DO TOO MUCH AT THE SAME TIME—LIKE TRYING TO IMPLEMENT A NEW DATA WAREHOUSE THE SAME TIME YOU’RE ROLLING OUT A NEW ERP SYSTEM.” — NIMITT DESAI

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“MAKING SURE YOU’RE CAPTURING THE RIGHT INFORMATION IN THE RIGHT WAY CAN TAKE SOME EXTRA WORK IN SOME SITUATIONS, SUCH AS WHEN YOU’RE DEPLOYING INCENTIVE COMPENSATION SOLUTIONS.”

— NIMITT DESAI

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**HP/Oracle**  
**What are the biggest challenges in implementing business intelligence solutions?**

**Desai**  
Challenges come in multiple ways. You need to make sure you don’t do too much at the same time—like trying to implement a new data warehouse while you’re rolling out a new ERP system. Another problem that we’ve sometimes faced isn’t so much on the implementation of a BI solution, but on the definition of the proper metrics within the business, such as sales compensation figures. Making sure you’re capturing the right information in the right way can take some extra work in some situations, such as when you’re deploying incentive compensation solutions. Of course, constantly changing business rules or master data management issues are going to make any implementation more difficult. It’s helpful, at least initially, to be as specific as you can for the first implementation.

**HP/Oracle**  
**Can you provide a recent example of a business intelligence implementation?**

**Desai**  
There’s an interesting example of a large technology company we recently worked on with HP. Like many companies, they’ve had data warehouse for a long time, but it was only for keeping information on existing customers and what they’ve purchased. It didn’t have any capability for tracking across the company’s four different sales regions, nor could it keep track of prospects or people that just made inquiries, came in over the web, or contacted a salesperson.

**HP/Oracle**  
**So that probably means they were having a problem keeping track of sales inquiries and understanding which ones were translating into sales?**

**Desai**  
Exactly. But also, once a product was sold, the company didn’t have a good way to track maintenance agreements. In addition, the company didn’t have enough information about its prospects and customers to generate a useful customer profile or complete view of the customer. The end result was that these types of issues were impacting the company’s ability to gain market share, increase sales and increase revenues.

We helped them solve that problem by bringing all of the different global customer and sales prospect repositories into a single database and then associated that with the existing customer data, so they could identify the customers. From that, they could track prospects as they converted from inquiries to sales, as well as being able to proactively go out and identify which customers were prime candidates for maintenance agreements. The new system also included much more customer profile data, so that there was a much greater opportunity for cross-selling and up-selling.

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**“IF A CUSTOMER IS GOING TO EMBARK ON THIS TYPE OF A PROJECT, IT PROBABLY MAKES SENSE TO TAKE A STEP BACK AND THINK ABOUT THEIR ENTIRE IT INFRASTRUCTURE AND STRATEGY.” — NIMITT DESAI**

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**HP/Oracle**  
**Sounds pretty powerful—anything else?**

**Desai**

Yes, actually that was just the first phase. The second phase of the project was focused on making the incentive compensation system more effective and efficient. Their incentive compensation system had previously been a bit of a “black box” where managers estimated or allocated individual compensation. Now, all of the incentive compensation data resides in a global data warehouse that’s directly linked to sales and marketing transactional data, with drill downs from each person’s commission to all the orders that a person was involved in.

**HP/Oracle**  
**What’s the best way for organizations to get started on a business intelligence project?**

**Desai**

If customer is going to embark on this type of a project, it probably makes sense to take a step back and think about their entire IT infrastructure and a strategy for implementing a productive business intelligence solution in a series of stages, so that they can identify easy wins or business needs with a short payback period.

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# MOVING FORWARD BY LEAVING YOUR LEGACY BEHIND

*Handing down a legacy of money, a lifetime of accomplishment  
or a record of outstanding personal achievements is generous.  
But inheriting a set of legacy applications is a problem for most organizations.*  
— By David A. Kelly

In fact, too many of today's organizations are stuck running their business on out-of-date, inflexible applications that are critical for day-to-day operations but costly to maintain and almost impossible to expand or integrate into today's expanded technology and business requirements. That may be why in a recent Forrester Research survey 64% of enterprises cited "updating key legacy applications" as their top initiative.<sup>1</sup>

Unfortunately, almost every organization, whether public or private, big or small, has legacy applications.

"Legacy applications are applications that no longer serve the real business need," says Paul Evans, Worldwide Director of Application Transformation, HP. "The business requirement has continued to change and the application has stayed the same. Invariably, legacy applications run today's organizations."

According to independent market research firm Ovum<sup>2</sup>, a key reason for the problems with legacy applications and environments is that most enterprises have evolved applications that were written in older programming languages, designed to access older databases and transaction systems. The end result is not only higher on-going maintenance costs, but also increased complexity as well as staffing challenges due to a dependence on specific skill sets that are increasingly dwindling within today's available workforce.

A few years ago, HP, Intel and Oracle created the Application Modernization Initiative (AMI) for just this type of situation. AMI is a joint program developed to help companies identify specific applications that can be moved from legacy systems to open, standards-based servers. This action can reduce operational expenses and risks and help organizations open up new opportunities for more efficient business processes and more complete use of key business data.

## **MODERNIZING TO INCREASE AGILITY AND LOWER COSTS**

The real problem with legacy applications probably isn't what the applications do—it's what they can't do. Whether it's a mainframe application from 20 years ago or a Web-based application from five years ago, if the application isn't easy to maintain, update to new business requirements or integrate with new technology resources, it's probably a legacy application.

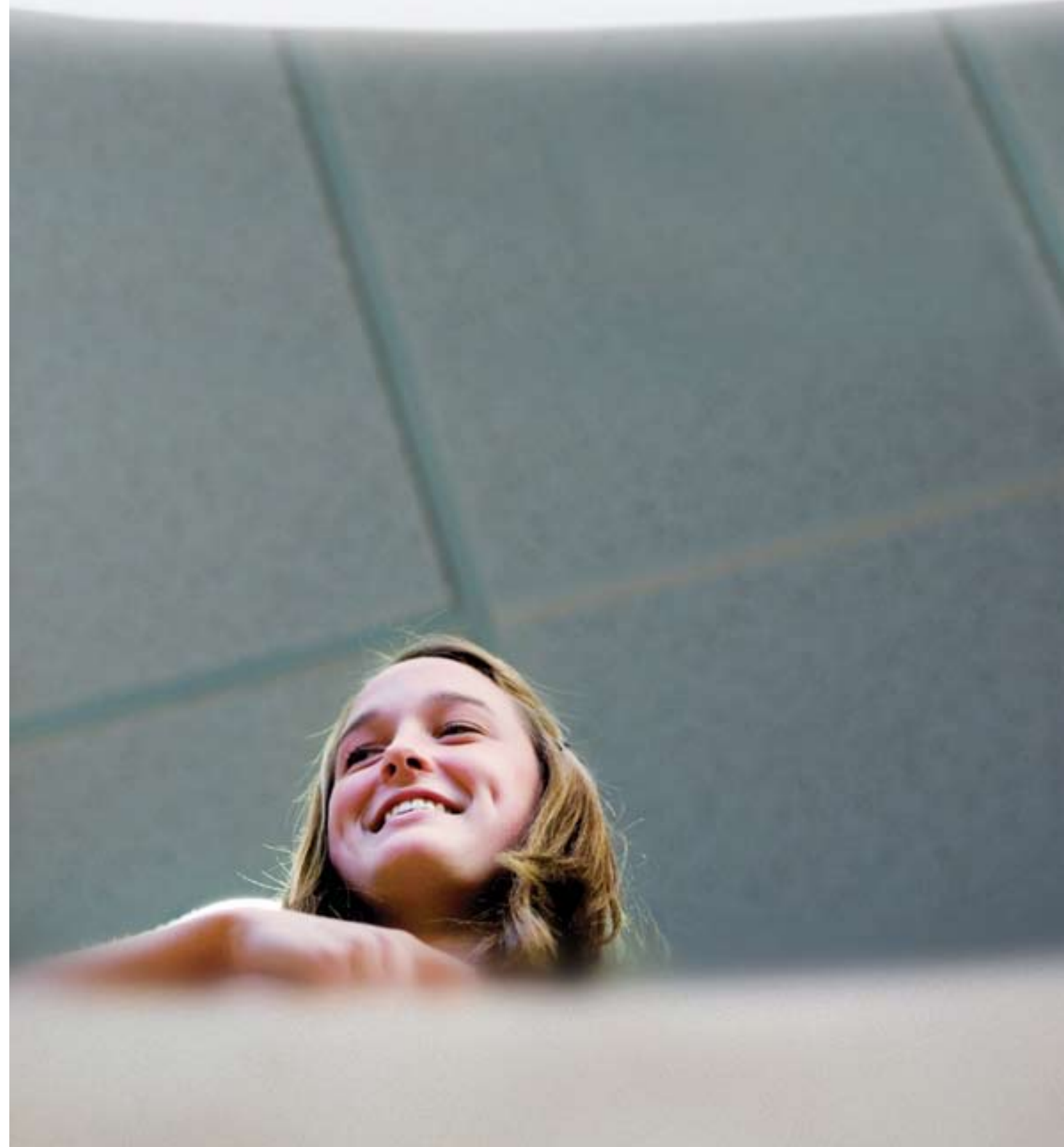
Worse yet, the gap between the functions legacy applications provide and what the business needs is continually growing bigger. In effect, legacy applications cause business and technology to be out of alignment.

"When we're doing an application modernization project, we focus on applications that are critical to the business, yet probably ten or more years old, very fragile, and very brittle," says Evans. "They were probably designed by somebody who no longer is in the organization; has retired, left, or whatever, and were written by hand."

Unfortunately for most organizations, there is significant amount of legacy environments in the market. Legacy technology environments typically include mainframe-based data tied to databases such as DB2, VSAM, COBOL or IMS/DB. And while organizations continue to use legacy applications because they're important to the business, their inflexibility can make it difficult for organizations to keep pace with business needs. For example, the experience of the Italian Ministry of Instruction, University and Research (or MIUR) highlights how legacy applications can affect organizations.

MIUR<sup>3</sup> is responsible for managing close to 750,000 teachers, 250,000 school administrative staff, and 40,000

*MIUR is a large, government body which manages nearly 1 million staff and 40,000 schools. Its IT systems are used by about 70,000 people distributed across all of Italy. HP was charged with lowering the company's IT costs and increasing flexibility.*



**“IN MOST CASES, ORGANIZATIONS FIND THAT IT CAN TAKE A LARGE PORTION OF THEIR BUDGET JUST TO KEEP THE LEGACY SYSTEMS GOING— WITHOUT ALLOWING FOR NEW FUNCTIONALITY.” — PAUL EVANS**

schools across Italy. As a result, the Ministry is a large, labor-intensive government organization with significant people costs. Its technology systems are used by 70,000 people distributed across all of Italy. Yet over time, the applications became outdated and unable to keep up with changing business needs. For example, the applications supporting human resources and administrative processes were developed in the early 1990s in CICS/COBOL/DB2 and were modified over time by ad-hoc updates for specific needs, rather than being architected for broader changes.

From MIUR’s perspective, its existing legacy systems resulted in a number of problems, including:

- **High Costs**—The complexity of the legacy systems has caused higher maintenance costs and limited existing investment in innovation and people
- **Inflexibility**—The existing systems were difficult to change and required too much time and too many resources to modify for new business processes
- **Poor Manageability**—The applications portfolio expanded significantly and became overly complex to track and manage
- **Long Time to Market**—MIUR struggled with slow reaction times and high amount of effort for any change, due to the reliance on outmoded development languages, methodologies and inflexible interfaces

But MIUR’s legacy systems were also impacting its business processes and needs. The Ministry’s strategy to devolve the management of education to each region was being hampered by the aging, inflexible, legacy systems. The company was faced with the prospect of continuing on (and doing nothing) or considering an application modernization strategy—a situation that many companies now find themselves in.

**THE COST OF DOING NOTHING**

In most cases, organizations find that it can take a large portion of their budget just to keep the legacy systems going—without allowing for new functionality.

“Our work across many application modernization projects has found that these legacy applications are typically too large, and have become overly complicated,” says HP’s Evans. “They can end up taking 80-90% of the technology budget just to maintain and update them, just to keep the lights on. That leaves a very small amount of money for business innovation.”

If a technology organization spends the majority of its budget just keeping the lights on, there isn’t anything left over to address new requirements or develop applications for new business opportunities. Worse yet, companies are being forced to cut IT budgets in the current recession, leaving even less room for innovation.

“Let’s say an organization has a \$100 technology budget and they spend \$70-\$80 of it just on maintenance,” says Evans, “that leaves \$20 or \$30 for innovation. But what happens when the technology budget gets reduced from \$100 down to \$80—now the entire technology budget is being spent on maintenance and you have nothing left for innovation. That’s the real cost of doing nothing.”

Over time an organization might find itself spending all of its technology budget on standing absolutely still, instead of helping the business side innovate and expand. Purely maintaining legacy applications might be the path of least resistance, but it can have disastrous consequences when the business environment changes dramatically.

Based on recent research sponsored by HP and Oracle and conducted by the Economist Intelligence Unit, some organizations are not waiting around for the economy to rebound before they continue with their modernization programs. “We’ve found that many organizations are responding to the “cost of doing nothing” by either maintaining their modernization budget, or even accelerating it, especially in this business climate,” says Evans. “Across the world and industries, people are telling us that they realize doing absolutely nothing in terms of modernization would be a high-risk strategy in today’s business climate.”

**APPLICATION MODERNIZATION PAYBACK TIME**

Doing nothing can result in not just financial losses, but also opportunity costs as well. Yet if an organization is willing to modernize, there’s a significant potential for a solid payback.

“In the past, it might have been risky to consider modernizing legacy applications and moving them to non-mainframe environments. But that’s not true anymore, with the new technologies and techniques that are available,” says Evans. “There are cost savings across the board, from lower hardware and software maintenance and license costs to reduced power consumption and even labor costs. The cost savings are even larger when an organization goes beyond just modernizing the infrastructure and into the modernization of the applications.”

Not only can companies save further investments in legacy solutions, but they can typically obtain lower operating costs and even help achieve green objectives, since modern infrastructure can consume significantly less power, cooling and floor space than mainframes. Organizations can save on energy bills, cut down on CO<sup>2</sup> emissions and end up with a greener solution.

“We typically see achievements of 30% savings that can result in a payback of under two years. Those are very compelling numbers,” notes Evans. “There are so many positives to application transformation that people need to look into what’s possible and how they can save.”

**DEFINING A MODERNIZATION STRATEGY**

An important component of determining how an application modernization effort can pay off is first creating a strategy.

Modernization strategies vary across the spectrum—from migrating mainframe to Unix, Linux or Windows, to upgrading to the latest versions of software packages to converting code from one programming to an updated version. Organizations can choose to deploy a strategy based on their needs, budget and requirements.

Of course, the place to start is by taking stock of where you are. As boring and dull as it might be, it’s surprising how many organizations don’t actually know what they’ve got. Start with some discovery workshops that can identify what’s installed, where the “pain” is, what the business needs the applications to do, and more. The goal is to create a basic plan, so that the business and technology organizations know what they should achieve.

In fact, this is where new technology solutions, such as services from HP are making a difference.

“We’ve invented some new tools that allow us to visualize the structure of legacy applications. This “x-raying” of the applications allows us to identify the trouble spots within an application and propose an approach to eradicate the problem with minimum risk and cost. Knowing exactly where the problem is allows us to be extremely accurate in our analysis and proposal of a suitable solution. Legacy applications are critical to the business and this is not a time for guess work,” says Evans. “Many of these applications are on mainframe but we don’t believe nor expect organizations to offload their mainframes in one go. What we advise is that they look for the modernization targets that will give them the biggest payback that is in-line with the business requirement.”



**LEGACY MODERNIZATION PAYBACK**

**2** Years

Based on typical savings of 30% from IT, energy and operating costs

“THE COST OF DOING NOTHING IS EXTREMELY SERIOUS. IF YOU DO NOTHING YOU’LL END UP SPENDING YOUR ENTIRE TECHNOLOGY BUDGET ON STANDING ABSOLUTELY STILL, AT A TIME WHEN STANDING STILL IS DANGEROUS.” — PAUL EVANS



## SOA AND MODERNIZATION

Once an organization has analyzed its legacy applications, it will usually find that a significant portion of it, up to 40 percent in many cases, may simply be handwritten “housekeeping” code that would no longer be needed since many common tasks can now be done automatically by newer development tools and architectures.

Also, once an application has been analyzed and broken down into its individual tasks, it is a good candidate for transformation into an SOA-based application.

SOA is a buzzword that has been thrown around in technology circles for a while, but what exactly is it? Services-oriented architecture (SOA) is an architectural approach that provides organizations with a technology framework for creating new applications out of individual services or components that can be shared and reused across applications. Simply put, rather than requiring custom code, SOA allows common processes like “Get Employee” and “Update Employee Status” to be implemented as common routines that can be reused, resulting in less coding and maintenance and more flexibility.

“SOA becomes like the glue for the next generation of applications. It gives organizations an architecture on which to build much more flexible and interoperable applications,” says HP’s Evans.

By opening up modernization applications or legacy systems using SOA, organizations finally have the opportunity to experiment with ideas such as Web 2.0, social networking, cloud-based computing, and more. Application modernization efforts are the key for unleashing the full potential of today’s new technologies. But capturing that potential takes some solid planning and a good understanding of what it takes to create a rock-solid, performance-oriented mainframe replacement environment. And that’s where HP, Intel and Oracle come in.

## THE VALUE OF APPLICATION MODERNIZATION

Application modernization efforts can yield a range of benefits, including:

- driving down the total cost of ownership
- enabling innovation while eliminating backlogs
- increasing technology agility and responsiveness
- unlocking the existing business value trapped in legacy systems

## HP, ORACLE AND INTEL APPLICATION MODERNIZATION INITIATIVE

HP, Oracle and Intel introduced the Application Modernization Initiative solution portfolio in 2006 to help customers through the transformation process and provide a unified alternative technology infrastructure to a mainframe environment.

The Application Modernization Initiative (AMI) is designed to help organizations evaluate their modernization options and plan and implement a pragmatic and effective transformation while mitigating potential risks. The services allow organizations to holistically assess their applications, their application environment and their business outcomes—balancing the relationship among the three to achieve the optimal solution.

Keeping in mind that there’s no “one-size-fits-all” application modernization solution, and that each company’s needs can be different, AMI offers solutions aligned with customer business concerns that range from cost avoidance of legacy platform contract renewals all the way through re-architecting applications or technology environments for new strategic initiatives, such as services-oriented architecture (SOA). In addition, possible solution paths range from incremental to comprehensive, with a focus on a phased approach and real world ROI.

“AMI has a very pragmatic, straightforward approach that combines the strengths of HP, Intel and Oracle for helping organizations with their modernization requirements,” says HP’s Evans.

An important part of AMI is a set of software and hardware configurations that have been tested and verified to ensure they work out-of-the-box. These recommended configurations provide a solid foundation for any transformational project, since they’re based on industry-standard components, including Intel processors, HP Integrity servers, Oracle Fusion Middleware, and Oracle Grid computing.

In addition, the HP Application Modernization Services portfolio offers a range of options for determining business needs, developing a detailed plan, deploying a strategy, and monitoring the transformed applications. The five key components to the solution portfolio include:

- **Application Portfolio Rationalization**—helps organizations identify the best business value for the resources and time spent on modernization efforts. This service is particularly useful for organizations that don’t yet have a clear picture of the benefits of modernizing their application environment.

**“AMI HAS A VERY PRAGMATIC, STRAIGHTFORWARD APPROACH THAT COMBINES THE STRENGTHS OF HP, INTEL AND ORACLE FOR HELPING ORGANIZATIONS WITH THEIR MODERNIZATION REQUIREMENTS.”**

— PAUL EVANS



- **Application Modernization Assessment**—is appropriate for organizations that know they need to modernize, but aren't sure where to start. It includes a process overview, application review, review of business drivers, and analysis of initial cost-benefit factors. It also provides modernization options and the foundation for the development of business case for modernization.
- **Application Analysis**—is good for organizations that want to modernize but want help defining the new application deployment environment. This service includes a thorough analysis of legacy applications' characteristics, which provides a baseline for improvement. It also includes a detailed application modernization plan that reduces total cost of ownership and increases business agility.
- **Application Transition**—provides an organization experienced partner to help lower the risk of modernizing, by helping organizations design and implement detailed strategies for re-engineering, rehosting, replacing, and retiring existing systems as well as building, testing and maintaining the new application environment.
- **Application Management and Support**—is designed for organizations that have modernized applications and want an experienced partner to help support, monitor, control, and manage the modernized environment.

Undertaking an application modernization effort does require work and decisions, but with the right partners and strategy, it can pay off big time.

#### INCREASING EFFECTIVENESS AND EFFICIENCY

A good example of an application modernization project done right is one undertaken by the Italian Ministry of Instruction, University and Research (or MIUR). As the result of a new legislative requirement to decentralize some administrative processes, the Ministry realized that it needed a large modernization program to move its information systems from a legacy platform to open systems in order to effectively implement the changes.

To solve its business and technology challenges, MIUR undertook an application modernization initiative composed of an overall transformational strategy, a complete assessment of the legacy applications, and a modernization roadmap to sequence the modernization projects.

MIUR proceeded with a solution based on HP, Intel, and Oracle technologies tied together with application modernization services from EDS. The key deliverable here was the transformation of thousands of COBOL batch programs and their re-hosting onto a modern infrastructure. The transformation strategy for each different group of applications was based on a business case and previous analysis. In general, the organization did a combination of replace, re-host, re-factor, re-architecting and re-writing the applications onto a new HP-based Oracle platform, running Oracle Applications, Batch Cobol, and J2EE Oracle applications. They automatically converted about 67% of their COBOL code, and rewrote the remaining 33%.

The results so far have been impressive. The applications have improved and modernized user interfaces, navigation, and overall systems performance. End-user productivity has

## KEY COMPONENTS OF THE HP, INTEL AND ORACLE APPLICATION MODERNIZATION INITIATIVE

- Architectural design and consulting support from HP, Intel and Oracle
- Intel Itanium® processors at the core of HP Integrity systems, working within the HP Virtual Server Environment Reference Architecture
- Oracle Grid Computing Platform with industry-leading SOA capabilities, including Oracle Database, Real Application Clusters (RAC), Oracle Fusion Middleware, and Oracle Enterprise Manager/Grid Control
- The Application Modernization Services portfolio from HP Services

even doubled in terms of daily operations along some business processes. The application portfolio has also been greatly simplified and reduced by a third through elimination of unneeded and outdated functionality.

From a financial perspective, the results are even better. Despite the organizational change management effort that was required, the program was completed on time and on budget, according to the original roadmap. After 24 months MIUR had greater than 90 percent of the final functionality delivered to users. Hardware and software license (including maintenance) cost savings were €7.4 million in 2007, €2 million in 2008, and €3.4 million in 2009.

MIUR is also seeing on-going benefits from application enhancement and new development efforts. The new, modernized software architecture has reduced the development costs by 38% compared to the old COBOL environment. For example, enhancements made in 2008 shifted from €9.9 million in the COBOL environment to €6.2 million in the new environment.

#### A PLATFORM FOR GROWTH AND INNOVATION

Sometimes something old is new again, and sometimes something old is just plain old. In many cases, that's the situation when it comes to legacy applications. Too often, legacy applications are holding back business innovation and consuming a greater share of technology resources. That's why over the past few years HP, Intel and Oracle have combined forces to help create a practical, efficient, and cost-effective alternative for legacy environments.

#### MUIR COST SAVINGS

After 24 months MIUR had greater than 90 percent of the final functionality delivered to users.

38%

Reduction in development costs

€12 Million

Hardware, software and maintenance savings over 3 years

While application modernization efforts require some planning and investment from the technology organization, it's ultimately difficult to see how organizations can be successful without taking legacy action sooner or later.

"In the end, the cost of doing nothing is extremely serious. If you do nothing you'll end up spending your entire technology budget on standing absolutely still, at a time when standing still is dangerous," says Evans. "That's why so many organizations are taking another look at their legacy systems and planning application modernization projects. It's a win-win-win—a win for IT, a win for the business, and win for the bottom line."

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#### LEARNING MORE

To find out more about HP/Oracle/Intel AMI solutions, please visit [www.hp.com/go/oraclealliance/ami](http://www.hp.com/go/oraclealliance/ami)



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4AA2-5018EEW, June 2009.  
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