

How to Improve Employee Productivity in Midsize Businesses:

*A White Paper Highlighting Oracle Application Express
November 2007*

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EXECUTIVE SUMMARY

In his blog *Searching Kills Employee Productivity*, Toby Ward, President and CEO of Prescient Digital Media, says that professional employees spend 53 percent of their time looking for information, which he estimates results in 5.4 billion unproductive hours for U.S. business annually.

This is bad news for midsize businesses. Because they operate with slimmer margins and smaller reserves, midsize businesses have less room for inefficiency and error than large corporations. As a result, they have an even more critical mandate to maximize the contribution of each individual and to harness their efforts into organizational knowledge and competencies. However, they also often have smaller IT staffs and fewer resources with which to make this happen.

In his 2005 article *Process, Productivity, and Profit: The SMB Executive's Framework for ERP Investment*, David Caruso, Senior Vice President, Industry Research at AMR Research, says, "Today, inefficient workflow processes and inaccessible islands of information are the root causes of bloated overhead costs and poor response times. Oftentimes employees waste valuable time rekeying redundant information into many different systems because these systems are not integrated." Ironically, he also says, "[Critical] data needed to succeed is already with [the] firm; the challenge now is to leverage its use throughout the organization for better decision making."

This white paper reviews the productivity issues facing midsize businesses and discusses how Oracle Application Express (APEX) improves employee productivity and enhances development efficiencies.

INFORMATION MANAGEMENT SOLUTIONS MUST FACILITATE PRODUCTIVITY

Many midsize businesses are still critically dependent on voicemail and email to distribute and access information. Circulating spreadsheets, presentations, MS Word documents and other unstructured information is commonplace, but lacks a coherent system, process and repository for archiving the resulting compilation of a team's input.

Typically, a content author will distribute one or more of these files and then wait for responses and updates from the recipients. In the meantime, fundamental project details change, responses come in late and some never arrive, leaving the author to compile, coordinate, compare and ultimately recirculate newly gathered (and still incomplete) data—and the cycle begins all over again. Many of the important comments and insights are made outside of the documents themselves and never captured by the organization. The result is wasted effort, data resources that cannot be cross-referenced with others and potential "knowledge drains" when the individual who understands and coordinates the circulation/compilation system leaves the organization.

Intranets, extranets and other Web applications offer solutions to many of these weaknesses. They provide a single-source repository for data, company-wide access, ease of updating and global editing capabilities for those with appropriate authorization.

In 2002, Jakob Nielsen, Ph.D., principal of the Nielsen Norman Group, suggested that the average medium sized company “could gain \$5 million per year in employee productivity by improving its intranet design...” He reported the results of an intranet usability study in *Intranet Usability: The Trillion-Dollar Question*, which found that companies with “ailing intranet usability” often had multiple, uncoordinated intranets that suffered from inconsistent designs and navigation protocol. The result was dramatic inefficiencies and loss of productivity.

When Nielsen measured employees’ execution of sixteen common tasks on intranets with different levels of usability he found:

	Low Usability	Average Usability	High Usability
Cost for time per employee/year to complete measured tasks	\$3,042	\$2,069	\$1,563

The best intranet designs helped users perform tasks in only a quarter of the time it took with the least usable designs.

In addition to this doubled cost for poor usability, Nielsen estimated the return on investment for improving existing intranet infrastructures to range from a factor of 10 to a factor of 20, depending on whether usability moves from low to average or average to high. In 2004, after further testing, he found that the worst 25 percent of intranets required 99 hours per year to complete specific tasks while the best 25 percent took 51 hours. The very best designs required only 27 hours.

Oracle Application Express: A Fast Path to Employee Productivity

In *Management Information Systems for the Information Age* (Cummings, Donovan, et al., 3rd ed. Toronto. McGraw-Hill Ryerson, 2006), seven key factors are proposed for increasing employee productivity:

- Availability;
- Accessibility;
- Reliability;
- Scalability;
- Flexibility;
- Performance; and
- Capacity planning.

Oracle Application Express (APEX), a free, easy-to-use, rapid web application development tool for the Oracle Database, helps users realize these benefits along with ease and speed of development, timely deployment and security. By virtue of its three primary components:

- Application Builder;
- SQL Workshop; and
- Utilities,

users with little programming experience can create applications using declarative coding (i.e., no code is generated), wizards and property sheets to perform customized, organization-specific tasks using only a web browser. APEX is also very adept at migrating existing spreadsheet and personal database applications into consolidated suite(s) of applications running on the Oracle Database.

With centralized management, administration and security of business data and easy web access to reliable, up-to-date business information, employees can quickly become more productive. They no longer waste time searching for resources on individual desktops or risk using potentially out-of-date information. Instead, critical data is integrated with other related information sources through the underlying databases.

The speed and ease with which users can build solutions with APEX are also distinct advantages for midsize businesses. Individuals are able to quickly create custom solutions, eliminating the need for substantial investments in time, money and reliance on IT departments or consultants. Additionally, the resulting applications are simple to use and much more streamlined than existing systems or patched together work-arounds.

MIDSIZE SUCCESS STORIES

Hundreds of mid-sized companies in a variety of industries are using Oracle Application Express to improve employee productivity. By developing Web applications that generate online dashboards and streamline internal operations, employees are able to work with much greater consistency and efficiency than was possible before.

Applications That Fit Like a Glove

Anton Nielsen is president of C2 Consulting, Inc. (C2C), a software developer and integrator. His company uses the APEX platform for developing its corporate web site, internal applications and solutions for client companies.

He points to the ability to quickly build custom solutions as being a great benefit to a midsize business. "If you can build five or six targeted screens geared to specific needs and processes instead of one generic screen that's filled with every bell and whistle that everyone in an organization has to be trained to use, you save lots of time and money. You need something that's architecturally simple and doesn't call for a big SOAP and Java application server environment, a workflow engine and 100 other moving pieces that all have to be integrated," Nielsen says.

In one instance, C2C streamlined a client's click-through requirements so that one screen, working with an Oracle Database, now provides users with the same information that previously required more than 20 different screens. A process that used to take 25 minutes has been reduced to 2.5.

Using APEX, C2C streamlined a client's click-through requirements so that one screen, working with back-end Oracle products, now provides users with the same information that previously required more than 20 different screens. A process that used to take 25 minutes has been reduced to 2.5.

Escaping the “Spreadsheet Nightmare”

Scott Spendolini is president of Sumner Technologies, LLC. Shortly after starting the company, he found he was living in his own “spreadsheet nightmare,” created through employees submitting timecards via Excel. “I lost control almost as soon as I started the business. I couldn’t tell how much an employee had worked for a client in a specific week without opening an individual spreadsheet. Because we specialize in Application Express implementations, it was like having a fire at the fire department,” he says.

Ultimately, Spendolini developed an application that allows him to see hours spent on sustainment vs. sales, time for specific projects or clients—all from a single database within Oracle, which ties back into the company’s CRM system. He can now check employee activity, timecards, leads and client interactions all from a single dashboard.

Reducing Development Time from Months to Weeks

Traditional application development and deployment is an intensive, expensive and time-consuming endeavor. By using Application Express, however, Nick Intintolo, Director of Strategic Programs at Mythics, Inc., has reduced the required time and investment to a fraction of what it once was.

Intintolo says, “As far as productivity is concerned, we reduced software engineering cycles down from weeks and months to mere days—and that’s to build and deploy production-ready applications. Every time we created something to make our lives easier internally, like managing sales campaigns or tracking IT assets, we came up with something else we would add to our portfolio to offer clients.”

End User Delight Drives More APEX Applications for Giftware Company

In his article *Portals, Intranets & The SMB*, Tim Bourgeois, CEO of Pixel Bridge Inc., states that productivity benefits from portal installations and upgrades are achieved through streamlining internal operations, such as administrative functions, human resources processing, and IT support, and by improving customer service.

Roman, Inc., a Chicago-based giftware company, has realized benefits in both these areas, according to Tony Jedlinski, Vice President of Information Systems. He says, “We’ve written our own applications for virtually every department in the company, which are available from a main menu. By doing this, we’ve customized everything to meet our own needs. That’s a great advantage for SMBs.”

We have drastically reduced our IS workload and dramatically improved user acceptance and usability of the tools we’ve created. We’re able to do far more in less time than any previous tool we’ve used.

*Tony Jedlinski,
Vice President of
Information Systems,
Roman, Inc.*

The company originally used APEX to create an executive dashboard with a graphic display comparing annual sales. Users liked the results so much, company-wide development and implementation expanded from there. Roman now uses APEX-based applications to:

- Track products and shipments in its 500,000 square foot warehouse using a standard WIFI network and portable scanners.
- Enable salespeople to create sell sheets customized for their clients. Sheets include items, prices, photos and comments from the salesperson. “For clients, it’s like having a custom catalogue done just for you,” says Jedlinski.
- Create direct mail pieces along with targeted mailing lists and addresses.
- Enable customers to search catalogues for specific items and check order status online.

“It used to take a salesperson about an hour to create a mailer with six photos and several days to request targeted mailing labels. Now, both operations can be completed in minutes, even while traveling, so the cost is nearly zero,” Jedlinski explains. He adds that APEX-based applications have cut development time by a factor of five, are secure, stable and as easy to use for temporary workers as they are for long-term employees.

CONCLUSION

The true key to employee productivity at midsize businesses lies in making sure that IT solutions provide tools that enable organizations to harness the deluge of data in meaningful ways, rather than being consumed by it. Oracle Application Express provides this powerful leverage. It eliminates repetitive tasks and frees employees for more profitable pursuits.

Oracle Application Express facilitates productivity for midsize business employees in many different ways:

- APEX provides a simple, centralized solution built on existing Oracle Database resources, streamlining the ever-growing search for information.
- Rapid development and deployment of applications eliminate the need for costly consultants and additional hardware, saving time, money and other IT resources.
- Applications are quickly and easily developed to address highly specific organizational and departmental requirements. The results are higher-efficiency workflow and more streamlined processes—no matter what the business or industry.
- Familiar, intuitive, web-like application navigation allows for fast end-user ramp-up with little training.
- Browser access to real-time data eliminates cumbersome distribution of quickly outdated information and frees content authors from being saddled with coordination of distribution and collecting updated input.

The true key to productivity lies in making sure that information technology provides tools that enable organizations to harness the deluge of data in meaningful ways, rather than being consumed by it.

These benefits can also extend beyond the walls of the organization to customers, as well. For example:

- Applications allow customers to “self-help” online, from browsing catalogues to tracking order status.
- Improved employee productivity leads directly to improved customer service and satisfaction as APEX applications facilitate employees as they address customer concerns and requirements.
- Web (extranet) access to data facilitates collaborative efforts with clients.

Midsized businesses can take full advantage of the many benefits of Oracle Application Express with any version of the Oracle Database, beginning with version 9.2.0.1. APEX is free to download and deploy, so any business can improve its efficiency and employee productivity by maximizing mission-critical information.



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