

A White Paper by Exact Software



ERP-II:

Making ERP Deliver On Its Promise to the Enterprise

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Introduction

Conventional ERP has fallen short in a few areas that are critical to today's business needs.

Enterprise Resource Management (ERP) implementations have swept through the business sector since the early 1990s, helping corporations to drive down costs and operate more efficiently. ERP has allowed department heads to view their data more easily and manage it more effectively. It also has streamlined a host of manufacturing and distribution processes, ranging from product development to order processing to the cataloguing of goods.

Still, conventional ERP has fallen short in a few areas that are critical to today's business needs. First, its scope is limited. ERP helps automate individual departments, but it hasn't extended its back-office benefits into the front-office to help businesses manage people, workloads and supply-chain issues. Second, it hasn't delivered consistent control of all the processes of the business. Competitive pressures and globalization have made it clear that the business world is still in need of more effective, total enterprise solutions.

This White Paper will provide an essential understanding of how traditional ERP implementations have set the groundwork within organizations to start capturing all information onto one true "enterprise" system. It will outline a clear vision of how the next generation of ERP systems will include the bulk of the functionality that traditionally has been found outside of the ERP system. Finally, this paper will highlight the benefits that can be associated with such an ERP system, and the efficiencies that can be realized across an organization.

Executive Overview

Traditional ERP implementations have typically penetrated only 15 to 20 percent of an organization. The original vision that such a solution would touch all of the processes within an organization has turned out to be overly optimistic. Organizations have had to implement multiple solutions to store various data, and questions persist about how corporations can consolidate and use their storehouses of information to deliver better products and services, while maintaining profit margins.

Integration has become the big issue. Knowledge within a majority of organizations currently resides in silos that are maintained by a select few, without the ability to be shared across the organization. Today's business leaders need information to be more readily accessible. They want real-time views into their businesses so that decisions can be made when they need to be, without the added time of tracking data and generating reports. Managers want to monitor key metrics in real-time to actively track the health of their business.

ERP was a good start, but the market is currently demanding more. The one dominant conclusion is that ERP must now involve the entire enterprise, delivering consistent, measurable processes and up-to-the-second information that supports profitable decision making.

The Rise of ERP

ERP solutions were developed to deliver automation across multiple units of an organization, to help facilitate the manufacturing process. ERP addressed the issues of raw materials, inventory, order entry and distribution, but it was unable to extend to other functional areas of the company such as sales, marketing and services. ERP also failed to provide value for non-transactional relationships with external partners and vendors, and other non-inventory, non-order operations.

ERP did not tie in any customer relationship management (CRM) capabilities that would allow organizations to capture customer-specific information, nor did it work with web sites or portals used for customer service or order fulfillment. Call center or quality assurance staff could not tap into the ERP solution, nor could ERP handle document management, such as cataloging contracts and purchase orders.

The Evolution of ERP

ERP has grown over the years to become part of the entire enterprise. From its beginning as a tool for materials planning, it has extended to warehousing, distribution and order entry. With its next evolution, ERP expands to the front-office. Now administrative, sales, marketing, and human resources staff can share a tool that is truly “enterprise-wide”.

ERP is not just about manufacturing, distribution, and accounting. Projects, workflow, sales, documentation, and employees play an important role in the enterprise and its day-to-day operations. This diagram shows how ERP has grown since the 1990’s to accommodate the needs of the entire organization.



To compete on a functional level today, businesses must adopt an enterprise-wide approach to ERP that utilizes the Internet and connects to every facet of the value chain.

As the idea of the extended enterprise emerged, it raised serious questions about how to most effectively integrate partners, service vendors and the entire value cycle with documents and workflow driving the business and capturing all the information involved. Today's enterprise has evolved and expanded beyond internal influences and organizational borders. The reality is that businesses using a traditional ERP deployment, without full operational and informational integration, will continue to struggle. It is this reality that leads us to the materialization of the ERP-II philosophy.

ERP-II—Bringing ERP to the Entire Enterprise

All technologies adapt to changing business climates if they are to survive and prosper. The ERP market is no exception. As businesses entered the 21st century, they began to tinker with the idea of extended ERP—bringing functionality that existed outside of the ERP system into the mix. There were—and continue to be—issues with integrating such functionality, as businesses thus far have had to implement any “middleware” number of solutions to solve specific IT problems.

ERP-II is the next step in extended ERP. It's a solution that includes the traditional materials planning, distribution, and order-entry functionality strengthened by capabilities like Customer Relationship Management (CRM), Human Resources Management (HRM), Document/Knowledge Management (KM) and Workflow Management. Such a system can quickly, accurately and consistently operate an entire organization. It delivers information in an instant to the people who need it. It manages the access to that information by establishing security roles and ratings that define which employees can use certain pieces of information. It also addresses the issue of multiple office locations by making the solution web-based, so employees can access the system no matter where they may be.

Businesses are utilizing the Internet more and more. It is no longer just a tool for email, research and single-transaction commerce. It is quickly becoming a tool for globalizing a business—a tool that allows an organization to tie together its employees, its suppliers and its customers. It enables the free flow of information, and the next generation of solutions will be built upon it.

The Enterprise-wide Solution

To compete on a functional level today, businesses must adopt an enterprise-wide approach to ERP that utilizes the Internet and connects to every facet of the value chain. They must change their own internal processes and procedures to foster collaboration efforts both inside and outside the organization, and they must integrate technologies that allow their collaboration efforts to take full flight.

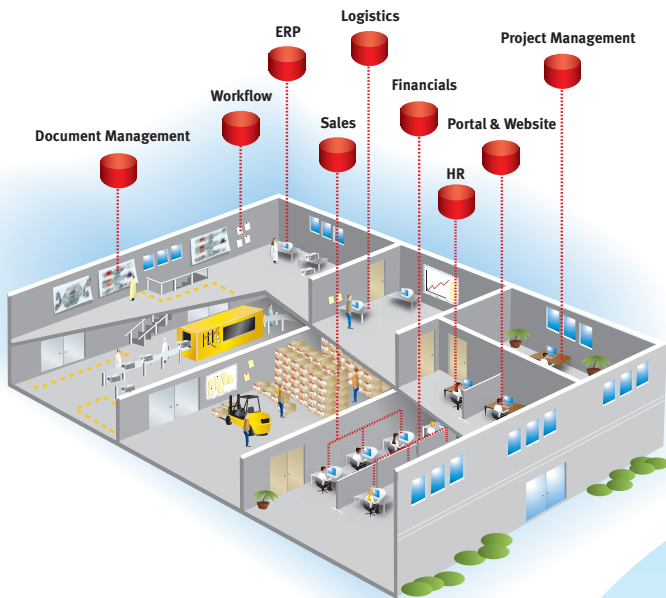
Changing internal processes isn't always easy. Corporations must abandon old methods that strived to preserve and protect data in individual fiefdoms. They need to allow data to be shared within an organization on a rules- and roles-based system. They

must overhaul reporting structures that limit decision-making to a select few. They must open lines of communication and collaboration within the organization and to outside partners, suppliers and customers. Without open processes, the extension of ERP throughout an enterprise will fail.

Systems that leverage advanced levels of ERP-II functionality integrate disparate software packages in a manner that is seamless and transparent to those using them. A single interface loads information from separate systems, allowing it to be modified and saved back. Actions can trigger events in individual systems, resulting in a chain of events across the enterprise and throughout the value chain.

Bringing the Organization Together

In most organizations, information has traditionally been isolated within specific departments, whether on an individual database, in a file cabinet, or on an employee's PC. ERP-II enables employees across the organization to share information across a single, centralized database. With extended portal capabilities, an organization can also involve its suppliers and customers to participate in the workflow process, allowing ERP to penetrate the entire value chain, and help the organization achieve greater operational efficiency.



True enterprise-wide solutions create an environment in which companies can not only model, but effectively streamline workflow and automate manual, unsecured processes into a secure centralized environment.

Software providers need to provide vehicles to connect traditional ERP capabilities with front-office processes. They need to present companies with the means to unify the people, processes and knowledge that matter most to a business. By linking traditional ERP with advanced tools that help run a business, customers can create an accurate, up-to-the-moment view of the extended enterprise to enhance decision-making, analysis, scenario planning, and ongoing management of the value cycle. This approach also provides companies with the unique ability to see where processes intersect, how they impact each other, and the workflow that drives them to produce a clear picture of the business—leading to cost savings and operational efficiencies.

Solutions that bridge the gap between the back- and front-office worlds give organizations the ability to exchange information with the ERP solution. They also tie in additional functionality, such as giving designated individuals inside and outside the company easy access to information critical to their job function or role in the value cycle through a Web-based interface. The result: a substantive competitive advantage.

True enterprise-wide solutions create an environment in which companies can not only model, but effectively streamline workflow and automate manual, unsecured processes into a secure centralized environment. Access to information and documents should be based on roles- and a rules-based schema, giving business managers the ability to control access to data on a need-to-know and need-to-access basis for projects and outside managed operations. This roles- and rules-based approach eliminates the “data islands” outcome inherent in most, if not all, ERP deployments. Such a model also allows for the involvement of outside stakeholders with the use of portal capabilities. This enables all members of the value-chain to be included in processes.

But most importantly, advanced ERP requires a powerful workflow component. Workflow that provides each member of the value chain, based on their roles and responsibilities, with a process-centric view of the business. Workflow that does not depend upon a crude “send”-only model like email, but on a business-rules system which automates the flow of communication and tasks. Workflow that can ensure that assigned tasks are completed, or elevated if need be. Workflow that can be used in conjunction with advanced alert management technology to make certain that potential problems in the production chain do not become crises.

Because of the constant evolution of today’s business requirements, workflow processes have to be updated as needs change. Some systems require customization, but that requires changing the code, which is an IT function. In certain cases businesses can define and modify their workflow functions through configuration rather than through a more complicated rewriting of the program code.

Summary

Business in the 21st century is complex, fluid and customer-centric. It requires stringent, yet flexible processes and communications systems that extend globally and respond instantaneously. The processes and systems must be integrated. No part of the enterprise can escape the pressure to deliver measurable results.

ERP gave businesses a vehicle to manage information and use it to their advantage. It organized customer data in ways that helped individual departments operate more efficiently, and it created streamlined processes that helped manufacturing operations cut costs and move products along more quickly. But traditional ERP systems failed to complete the task they ultimately set out to accomplish: to unify the enterprise and turn it into one smoothly running machine.

ERP-II promises to bridge this gap. New software tools are available that link departmental communications, work processes, customer data and supplier capabilities into a centrally functioning system—all focused on driving the enterprise forward. Challenges remain. Companies will continue to face obstacles as they revise internal processes, open up communications to outside sources and integrate disparate technology functions. But the move toward the next technology frontier is under way, and enterprises are already starting to benefit from extending their ERP installations to more of their organizations. ERP was a giant step forward when first introduced, however, over time it had reached a plateau in functionality and most products on the market offered similar functionality. The market then saw new buzz terms, such as lean manufacturing, arise that did not bring new functionality, but promised greater efficiencies, when in fact all it did was deliver what ERP was supposed to do in the manufacturing space. ERP-II, in contrast, does offer advancements in functionality. It delivers on the original concept of ERP being for the entire enterprise, so that the whole organization can operate more efficiently. No longer does corporate information sit isolated in departmental silos, but it is housed with all corporate information, used to benefit the entire organization. That is the true initiative that ERP was based from, and it is an initiative whose time has finally arrived.

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