Here, we introduce ERP II, the next generation of enterprise resource planning strategies and applications.

Core Topic

ERP Systems - Manufacturing Industries ~ Business Applications

Key Issues

How will ERP and ERP strategies evolve?

How will the ERP market and ERP vendors evolve?

Strategic Planning Assumptions

By 2005, the need for enterprises to publish critical information for c-commerce processes within communities of interest will cause ERP II to supplant ERP as the primary enabler of internal and interenterprise process efficiency (0.8 probability).

Through 2005, ERP II will fail to deliver value in the collaborative-commerce context and will be supplanted by newer technologies as the core transaction system of the enterprise (0.2 probability).

The next chapter in the enterprise resource planning (ERP) saga is beginning, and it is entitled “ERP II.” Enterprises are starting to transform themselves from vertically integrated organizations focused on optimizing internal enterprise functions to more-agile, core-competency-based entities that strive to position the enterprise optimally within the supply chain and the value network. A primary aspect of this positioning is engaging not just in B2B and B2C electronic commerce, but in collaborative-commerce (c-commerce) processes (see Note 1) as well. In a collaborative world, enterprises must compete not only on the availability, cost and quality of their products and services, but also on the quality of the information they can publish for consumption by collaborating partners.

Note 1
C-Commerce Definition

Collaborative commerce, also referred to as c-commerce, involves the collaborative, electronically enabled business interactions among an enterprise’s internal personnel, business partners and customers throughout a trading community. The trading community can be an industry, industry segment, supply chain or supply chain segment.

The demand on ERP processes and systems to meet this change is causing users to redesign ERP processes to include outward-facing elements, thereby rendering the vast majority of current ERP systems obsolete from both architectural and business relevance perspectives. As a result, the fundamental value proposition for ERP is being forced to change, evolving into what we term “ERP II” or “the second vision for ERP” (see Note 2 and Note 3).

We define ERP II as a business strategy and a set of industry-domain-specific applications that build customer and shareholder value by enabling and optimizing enterprise and interenterprise, collaborative-operational and financial processes (see Note 4). By 2005, the need for enterprises to publish critical information for c-commerce processes within communities of interest will cause ERP II to supplant ERP as the primary enabler of internal and interenterprise process efficiency (0.8 probability).

Note 2

The Evolution to ERP II

In 1990, Gartner defined ERP, establishing a new vision for the resource planning domain. That vision centered on resource planning and inventory accuracy, as well as visibility beyond the plant and throughout the manufacturing enterprise, regardless of whether the enterprise was a process manufacturer, discrete manufacturer or both. ERP has since appeared in different “flavors.” Extended ERP reflected the fact that many nonmanufacturing industries turned to ERP systems for “backbone” financial transaction processing capabilities. As enterprises looked to applications that would provide SCM, CRM and e-business functionality to enable them to jump ahead of their competitors, ERP vendors responded by pursuing the vision of the enterprise application suite (EAS), either through partnerships, acquisitions or native product developments. However, the EAS’s unwritten mantra of providing “all things to all people” within the enterprise renders it ill-suited to a future that demands focus and external connectivity. The ERP II vision addresses the future by focusing on deep industry domain expertise and interenterprise, rather than just enterprise business processes.

ERP II includes six elements that touch business, application and technology strategy: 1) the role of ERP II, 2) its business domain, 3) the Functions addressed within that domain, 4) the kinds of processes required by those functions, 5) the system architectures that can support those processes, and 6) the way in which data is handled within those architectures. With the exception of architecture, these ERP II elements represent an expansion of traditional ERP (see Figure 1).

Note 3

Why Call It ERP II?
Despite Gartner's original definition, ERP has become the accepted term for back-office transaction processing systems, regardless of the industry or region. We do not believe that enterprises will benefit from a completely new term. Nonetheless, they need to understand that they should start looking for a new value proposition from ERP processes and systems and that vendors, in striving to provide that value proposition, will deliver what are essentially redesigned products. As a result, the term “ERP II” is born out of the need to reflect these market realities.

Figure I

ERP II Definition Framework

<table>
<thead>
<tr>
<th>ERP</th>
<th>ERP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role</td>
<td>Value chain participation/ e-commerce enablement</td>
</tr>
<tr>
<td>Domain</td>
<td>All sectors/segments</td>
</tr>
<tr>
<td>Function</td>
<td>Cross-industry, industry sector and specific industry processes</td>
</tr>
<tr>
<td>Process</td>
<td>Externally connected</td>
</tr>
<tr>
<td>Architecture</td>
<td>Web-based, open, componentized</td>
</tr>
<tr>
<td>Data</td>
<td>Internally and externally published and subscribed</td>
</tr>
</tbody>
</table>

Source: Gartner Research

Note 4

ERP II Financial Capability

The core financial areas of ERP II are accounting, purchasing, order entry and costing. Software packages must have these functions to be considered ERP II packages.

The role of ERP II expands from the resource optimization and transaction processing of traditional ERP to leveraging the information involving those resources in the enterprise’s efforts to collaborate with other enterprises, not just to conduct e-commerce buying and selling (see Figure 2). ERR II's domain expands beyond ERP to include nonmanufacturing industries.

Figure 2

ERP Definition Framework
Functions addressed within these industries expand beyond the broad manufacturing, distribution and financial areas to include those specific to an industry sector or a particular industry. The Web-centric, designed-to-integrate architectures of ERP II products are so different from monolithic ERP architectures as to eventually require a complete transformation. ERP II data expands from ERP's attempt to store all data within the enterprise to handling data distributed throughout a trading community.

For both users and vendors, ERP II offers great opportunities, but getting there will be tough. For enterprises, the journey will provide broader and deeper functionality, as well as e-commerce enablement; however, business process and system change will be required. Rather than pursue a “big bang” reimplementation of ERP, most users will evolve to ERP II systems via multiple upgrades of existing ERP systems. As vendors provide these upgrades, users will find sustained business process and system stability all but impossible to attain.

ERP II will give ERP vendors an opportunity to grow in what has been a poor market, but for most vendors, ERP II will mean a new vision requiring new technologies and functional expansion. The enormity of the task means that many will not make the transition. Enterprises should view vendors with fewer development resources and more generic-functionality-based products and Internet-aware (vs. Internet-centric) architectures particularly at risk.

**Acronym Key**

**B2B** Business-to-business

**B2C** Business-to-consumer

**CRM** Customer relationship management

**SCM** Supply chain management