



Open and flexible

A new generation of Enterprise Resource Planning software will make it easier for mid-sized companies to compete, collaborate and manage risk, writes Michael Judd

ENTERPRISE RESOURCE Planning (ERP) software has been an increasingly large part of businesses IT systems since its inception in the 1970s. Since then, organisations have embraced ERP's contribution towards the control of business process and information. However, they have also recognised the high cost and inherent inflexibility of such systems.

Software companies are now seeking to overcome these problems with a second generation of ERP software, known as ERP-2. This attempts to deliver the integration and business benefits of ERP, and to extend the software's reach outside the traditional organisational boundaries to include partners, customers and regulators.

ERP-2 is characterised by truly open systems with a higher degree of flexibility and is seen as the pillar of collaborative commerce, or c-commerce. It

facilitates groups of businesses to work within a common, information-sharing ecosystem.

History lesson

ERP has its origins in the 1970s, when a team of consultants left computer giant IBM to establish SAP, which is now a leading ERP company. Initially, the vision was to develop software targeted towards Material Resource Planning (MRP) but this expanded to address many aspects of the organisation – particularly back office systems. ERP offered integration and process control across the back-office and has flourished in global businesses for many years, driven by the need to compete and control globally.

However, by late 2000 IT research agency Gartner declared ERP dead. It predicted that by 2005, “the need for enterprises to publish critical information for c-commerce processes within

communities of interest will cause ERP-2 to supplant ERP as the primary enabler of internal and inter-enterprise process efficiency.”

ERP-2 is an evolution of ERP software rather than a revolution. However, this is not to say that the incumbent ERP software vendors have delivered

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ERP-2 through the software upgrade cycle. ERP-2 is a fundamental paradigm shift. To-date the major ERP software vendors have only delivered what we would call ERP-1.5 – industry-customised versions of their existing products. So, what characterises ERP-2 and how do we know when we have it?

ERP systems aim to integrate and optimise organisations' manufacturing, financial, ↻

↳ distribution and human resource functions. ERP-2 targets the integration of business processes that extend between an enterprise and its various trading partners. As such, ERP-2 is the basis of what has become known as internet-enabled, e-business and collaborative commerce.

What features?

The overriding feature of ERP-2 is the enablement of collaborative commerce, which is achieved by a combination of architecture, data and process. C-commerce requires each business in the common business ecosystem to synchronise their systems, often within complex and changing business environments. This cannot be achieved by simply adopting

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common systems. There is an abundance of evidence that synchronising information within multinationals through multiple deployments of the same system is extremely challenging. Rather, the goal of ERP-2 is to support seamless and secure data exchange across disparate systems in order to achieve efficiencies across organisations.

This requires ERP-2 to support open architecture, utilising where possible open standards such as XML and its variants. ERP-2 must be agile and cost effective. As factors in the ecosystem change, systems should safe-fail and there should be scope for corrective action without bringing entire processes and related systems to a grinding halt. ERP-2 leads to innovation in the automation of information management. Proponents of ERP-2 say that wins greater loyalty from customers and enables better service from partners.

Who sells it?

Gartner forecast that many existing ERP vendors would not

be able to make the transition to ERP-2 because it would require new technologies and functional expansion on an enormous scale. Gartner also said that due to the complexity of the ERP-2 systems and their development, the new generation products would not emerge until 2005 at the earliest.

However, traditional ERP vendors have been quick to re-badge their existing packages as meeting the ERP-2 requirements. But they have not gone far enough.

So where will ERP-2 emerge from? We believe there are a number of potential sources:

- ERP giants will try to leverage more out of their existing products by re-branding them as ERP-2 and perhaps integrating various data collaboration and enterprise integration systems. We believe this approach is doomed to deliver ERP-1.5. The benefit, however, is that this provides a reasonable solution for large businesses with significant existing investment in ERP systems.

- Innovative ERP vendors might launch new products designed from the ground up for c-commerce. This would help them address the elusive mid-market that has been reluctant to invest in traditional ERP due to the cost and constraints on business systems to respond to their more dynamic markets.

- Companies that sell mid-range accounting packages may build-out their systems to be open and provide traditional ERP and c-commerce functionality.

- Open source vendors may leverage collaboration in development and open standards to produce ERP-2 software that is collaborative by design.

Few software vendors claim to deliver ERP-2. Microsoft, through their Navision product, released the source code to their partner network in order to allow the product to adapt for collaborative commerce. This was a big step towards transparency and makes it easier for other software companies to build-in collaboration features.

Open source vendors such as



Compiere and JazzERP have designed their systems to be collaborative and open. One of the business benefits associated with some of the new ERP-2 vendors extends from the fact that their software has been re-designed from the ground up using modern software development tools and techniques. The result is that the cost of development is significantly reduced – this is often passed on to the customer through small or no license fees or the software being delivered as a service. Some ERP-2 vendors indicated that the total cost of owning the software can be as little as 5% of the implementation of their rivals.

Traditional ERP vendors have been focussed on product consolidation within what is considered a saturated market, especially at the top end. Their challenge is how to address the mid-market, either with existing or new products.

Managing risk

ERP-2 facilitates information flow within and across the

organisational ecosystem. In conjunction with commercial agreements with their trading partners, organisations may link control measures with this information flow. Such controls improve accountability and decision making on processes that extend outside of the traditional boundaries. In turn, better decision-making improves the delivery of service to customers, whether they be internal customers relying on financial information or the external customers who buy the businesses' products and services.

ERP-2 is inherently more flexible. Parts of the organisation that in the past were too expensive or at a misaligned stage of business development can now take advantage of the controls it affords. Flexibility is helpful for newly or loosely integrated subsidiaries or partners in addition to smaller organisation for which traditional ERP was too big and

too cumbersome.

ERP-2 has been designed for business environments where rapid change is expected and anticipated. The result is systems that allow change, freeing resources traditionally deployed to circumvent the outdated controls that were designed into many ERP products. For example, the process of re-statement of financial results due to organisational re-shaping or regulatory impacts can take as long as six months to complete for large enterprises; some of this work is unavoidable, but existing ERP systems tend to complicate and constrain such processes.

Furthermore, ERP-2 gives organisations the ability to implement system-wide KPIs and metrics to be delivered to business managers based on their own criteria. For example, a sales manager might ask the system to notify her when sales of a retail product line drop below a certain level in a specific

market, in order to trigger a change of product range in that region. This shifts the responsibility for producing standard, time-based reports and allows the finance department to add value by assisting managers to schedule triggers in the system delivering information when they need it.

ERP-2 is an opportunity for mid-sized, more agile businesses to collaborate and compete with their larger competitors. As businesses increasingly collaborate and integrate with their partners and customers, there is an increased need for information and control mechanisms both within and extending outside organisations. ERP-2 brings the level of control and accountability commonly found in global enterprise to the mid market.

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