

Smaller Vendors can Still Provide Relevant Business Systems Part Two: Market Impact

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Market Impact

We expect the market for application software to further segregate into two tiers. The first group will be a limited number of very large vendors, while the second group will be a large number of small, highly focused vendors. The latter's business model will be focusing on a relatively small, tightly defined market with specific requirements that cannot be met with more generic products. These specialists, boutique, or niche vendors (whereby neither of these terms is meant in a derogatory manner) will compete by having in-depth product functions and intimate knowledge of their market place or by offering services (content or location wise) not available from the Big Few or large independent service providers.

Relevant Business Systems, (www.relevant.com), a privately-held San Ramon, CA-based provider of *enterprise resource planning* (ERP) solutions that helps mid-size and large *aerospace and defense* (A&D), *engineer-to-order* (ETO), contract manufacturing, *maintenance repair and overhaul* (MRO), and like project-oriented manufacturing companies to improve their business might be a true example of a focused niche vendor. Relevant, which has a focus in the above closely related markets, has thus recently captured a significant market and mindshare in the segment, particularly given that several US-based ETO-like companies have thereby decided to partner with the vendor by selecting the flagship **Relevant ERP** (formerly **Integrated Financial & Manufacturing Control System INFIMACS [II]**) system. More recently, on October 29, Relevant announced that **Ionatron, Inc.**, a security solutions start-up company developing laser-guided directed energy technology has chosen to implement Relevant's ERP software in its Tucson, AZ, Albuquerque, NM, and the **Stennis Space Center**, MS facilities.

Despite arguably still ongoing difficult economic times in most sectors, the growth of government contract manufacturing has continued largely unabated. For instance, while the commercial aircraft industry may have suffered following the dreadful 2001 terrorist attacks and stalled economic activity afterwards, it is quite the opposite case in the defense and government industries (see [*Fed Warms Up to ERP Spending, but Will Contractors and Their ERP Vendors Comply?*](#)).

The federal market opportunity thus comes as no surprise given that it has long been the segment with a low penetration of off-the-shelf integrated enterprise applications, since during the salad days of economic boom and federal surplus, agencies, contrary to their private sector or commercial counterparts, have not had many qualms about devising large-scale fragmented, homegrown, maintenance-intensive informational systems from scratch. The times have drastically changed almost overnight and cost-cutting remains one of the most important reasons why agencies are implementing ERP systems.

The other reasons why ERP has recently become a far more attractive option for the federal market might be the fact that this market has benefited by vicariously learning from mistakes and failed ERP implementations in many commercial companies in the past. Additionally, many ERP systems are now componentized, which provides phased implementations in more manageable chunks (instead of a traditional 'big bang' approach) in addition to vendors' developed implementation methodologies that are based on bypassing the usual traps of past failures.

Many ERP systems have also meanwhile been Web browser-enabled, which also allows for a quicker and simpler implementation, because client machines do not have to be configured time and again. Further, the leading ERP vendors have incorporated *customer relationship management* (CRM), *supply chain management* (SCM), *business intelligence* (BI) and analytic, as well as many other extended-ERP modules by developing them in-house, by acquisition, or through strategic partnerships with the best-of-breed vendors.

For a detailed discussion, see [*Federal Contract Management and Small Vendors*](#).

Relevant's Response

To that end, Relevant seems to have also responded to most of the above nitty-gritty's via its recent initiatives, some of which were depicted earlier on. After a period of fairly stealth, mainly "word of mouth" operation, Relevant has started to make some noise with the above product-related initiatives outlines and with a more aggressive marketing effort in the sector. The opportunity has long been extended

by its support for UNIX and Windows operational systems, as well as for **Oracle**, **IBM DB2** and **Informix**, and **Microsoft SQL Server** databases.

The company also continues to expand the functionality of its flagship **Relevant ERP** product, whose capabilities go beyond traditional core ERP functionality, as evidenced by the above latest enhancements. Accordingly, Relevant ERP has long featured a complex manufacturing-oriented CRM capability that includes a complete contact history on which client or prospect's people the company has been working with, what calls have been made, and what correspondence has been exchanged. Also, the CRM module has service-call tracking capabilities to help manage the field service function, with the ability to give anyone authorized in the organization a view into what is happening with customers and prospects.

Some other relatively recent enhancements in this regard would be increased customer dialogue facility while administering service calls, whereby users can add, maintain, and track the status and severity of service requests made via phone, e-mail, fax, web entry, or any other means of contact; they can also define service procedures, assign staff, and manage workloads. Additionally, the on-line documents management and control enable users to attach electronic documents in any standard format to records or menus in the ERP system; they can also add reference items to BOMs, attach objects to records or programs, and attach their own help items to Relevant ERP fields and menus.

In addition to its **J2EE** open architecture decision, Relevant has been espousing an "enterprise information integration" approach that entails both Web-based and thin client UI. It also emphasizes an information-centric view of business process, workflow enabled application suite (via embedding the **WorkWise Business Alerts** product, which will be depicted later on), and business process modeling. To that end, the *Business Wizard*, an "information management, data mining, and navigation" tool, has also been offered for nearly two years as a complement to the company's ERP package. The software contains built-in templates, which are "ready-to-use" throughout an entire enterprise or can be created by the end user as required. Thus, managers from disparate departments (e.g., Purchasing, Shop Floor, Sales, Costs, Inventory Control) can create templates, charts, graphs, spreadsheets, and reports based on the data gathered, to retrieve and get informed in a more analytical way, and then launch initiatives from there to perform updates and other transactions necessary to communicate activity across the enterprise. The Business Wizard was designed to "lay over" the entire system in an intuitive "windows-like" fashion, with "point and click" functionality, such that individual users create specific views of the information in the system from which decisions can be made to execute tasks and activities at both tactical and strategic levels.

For more information on J2EE versus .NET see [Understand J2EE And .NET Environments Before You Choose](#).

Aerospace and Defense

Relevant has been one of the first vendors that spotted the A&D opportunity as it has been addressing the rigorous requirements of this project- or contract-based complex manufacturing industries, especially deliberately since 1993. As an illustration, A&D producers are typically high-tech or electronic manufacturers, and must handle complex production processes and large, complex supplier networks, albeit the supplier integration is still seriously lagging in the industry. Sophisticated customer order management applications are typically not required. Instead, customer service needs are more oriented toward precise contract management and cost reporting. Frequent changes force contract supplier engineers and *original equipment manufacturer* (OEM) engineers to be in constant collaborative communication throughout the design and production cycle of the unit.

One of the most manual functions in a supplier organization is the sell-side RFQ management, which usually revolves around a few key individuals that have direct knowledge of the product or who can manually pull together the diverse information sources into a unified document. The combination of outsourced manufacturing with increasingly common *configure-to-order* (CTO) or *build-to-order* (BTO) production environments is making unit-level data management an increasingly high priority for contract manufacturers and the companies that retain them, while additional tracking and reporting requirements are another big issue.

A number of articles on the TEC site have incisively depicted the peculiar traits of ETO and project-based manufacturing, such as [Project-Oriented Versus Generic GL-Oriented ERP or Accounting Systems](#) and [Caution! Will A Traditional ERP System Help You Deliver Projects?](#)

The APICS Dictionary defines *ETO* as “products whose customer specifications require unique engineering design, significant customization, or new purchased materials. Each customer order results in a unique set of part numbers, bills of material, and routings.” A term that is closely related to ETO is *project manufacturing*, which is defined as “a type of manufacturing process used for large, often unique, items or structures that require a custom design capability (ETO). This type of process is highly flexible and can cope with a broad range of product designs and design changes ...”

As already stated in TEC's earlier research article [ERP Systems and the ETO Manufacturing Market](#), a vast majority of manufacturing-oriented ERP systems have been largely amenable to repetitive, volume-based manufacturing environments that rely on the movement of materials either through functionally-oriented work centers or product-oriented production lines, and are designed to maximize efficiencies and lower unit cost by producing products in large lots. Standard products with similar routings are therefore made using virtually the same process, while production is planned, scheduled, and managed to meet a combination of actual sales orders and forecast demand.

Thus, vendors that will prosper in any given market segment will have focused their business and product on a few particular manageable industries (possibly only one for the smallest vendors), instead of a more generic, horizontal approach. There is a general consensus in a number of diverse industries that generic solutions require longer implementation time frames, more customizations (or, possibly even worse, workarounds, and related dreaded backdoor knowledge just to keep the system running), and the complication of add-on solutions. Winning ERP and other enterprise applications products will thus demonstrate deep industry functionality and tight integration with best-of-breed 'bolt-on' products in a particular vertical, which also means adding sector-specific, fine-grained capabilities.

As a matter of fact, verticalization can be seen as part of a larger effort by most enterprise application vendors to ease the implementation of their products. That happens, in part, because the larger, generic ERP packages usually arrive needing to be configured for the business and the industry entirely from scratch. At least by configuring parts of the package in advance for a given industry and circumventing functions not required in that industry, these vendors can shorten and ease the implementation process, which Relevant seems to have grasped with its product development approach.

This brings us to the so-called "fatal flaws", which are missing functions that may make it extremely difficult if not impossible for the application software to run the physical business. For more details, see [Find the Software's Fatal Flaws to Avoid Failure](#). The fact remains that ERP products built for repetitive manufacturing need a lot of customization to even begin to adequately handle the peculiar, often one-time requirements of custom-engineered products.

A number of these ETO fatal flows or showstoppers are close engineering, manufacturing and purchasing collaboration, and management as to collapse product life cycles; project management and scheduling capability; the ability to compare actual and estimated or budgeted costs; revenue recognition and progressive billing by milestones; management of an immense number of engineering changes; strong estimating and quotation capabilities that include freight and duty; support for subcontracting (or the nowadays less popular word *outsourcing*); part numbering flexibility (to such a degree that BOMs can be created even without part numbers); handling shipment straight from *work-in-progress* (WIP) and without posting to inventory; ability to attribute costs to projects as to financially quantify modifications upon a customer request that varies from the original specification; visibility of proposals, open orders, and materials (including the estimated-to-complete), and so on.