

ERP Research Center

In ERP

ERP Plus and Beyond

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ERP Plus

Although **PowerCerv** (now **Verticent**) did not intentionally focused on any particular industry, its product has found place within many metal fabricators in a *make-to-order* (MTO), *configure-to-order* (CTO), and *make-to-stock* (MTS) environments. This may very well help Verticent to secure its position in the competitive ERP landscape. For additional information on [Verticent's background see The Strengths of a Vertically Centric Enterprise Software Provider](#).

Part two of the *The Strengths of a Vertically Centric Enterprise Software Provider* series.

Basically, Verticent's solution, **ERP Plus**, provides tools that metal fabricators need to streamline their quoting, order entry, inventory control, production, labor collection, shipping, and invoicing processes. Like many peer products, ERP Plus can typically help manage a gamut of production activities from sales order release to work order closing. It can enable reviews of near real time information about operations and products on the shop floor; give users the ability to respond rapidly to customer demands; streamline planning, scheduling, and purchasing; track material and labor; and ensure consistency and accuracy across the shop floor. For users with international needs, Verticent provides international date formats, custom documentation, and supports international phone numbers and addresses. Also, its full multicurrency support allows enterprises to conduct transactions in foreign currencies and translate receipt amounts to the base currency for actual costing.

ERP Plus also allows shop floor supervisors and planners to deliver job dispatches electronically; simulate finite loading and post their plan at work centers; and use

electronic Kanban to pull demand through the shop. Finite scheduling capabilities may also enable users to create more accurate production schedules based on finite capacity constraints and simulate schedule changes by conducting what-if scenarios. Built-in workflow management capabilities can then send action messages to specific individuals, notifying them when their actions are needed and keeping everyone informed.

Also, machine operators can be more efficient by building the right product at the right time, by accessing electronic drawings and process information. They can report production, labor, scrap, and quality issues with relative ease in near real time. Additionally, Verticent solutions easily manage distribution requirements across multiple facilities, if required. This functionality allows employees in different facilities to access inventory information by tracking movements, allocations, movement histories, and inventory transfers.

The product has also been used by industrial machinery and equipment manufacturers and distributors, which tend to value product configuration features, as well as planning and production, inventory control/management, *manufacturing resource planning* (MRP), finite scheduling, and workflow management functionalities. As will be described later, although some of these functionalities are delivered via partnerships with third party providers, Verticent (and former PowerCerv) insists that some core competency functional capabilities cannot be obtained this way, and instead require a deeper level of native integration.

The best example is product configuration, which requires a tremendous amount of integration deep within an *enterprise resource management* (ERP) system because it leverages the item master, *bill of material* (BOM), work operations (routing), costing/pricing, work order management, sales order, and sales quote management information. Configurators are needed to, for example, add or change an operation, change the work center where the operation is performed, change the run rate on that operation, and change the set-up time. They also need to produce special instructions or comments on the work order, sales order, or invoice (see [Product Configurators Pave the Way for Mass Customization](#)). Further, each of those parameters affects cost, and the *available-to-promise* (ATP) date. Therefore, the third party product approach lands itself with problems like redundant data elements that need to be repeatedly and tediously synchronized between disparate databases and systems. It also leads to very common problems such as different user interfaces (look and feel), different release schedules, programming languages, and in some cases, even different database technologies.

This is Part Two of a two-part note. Part One presented Verticent's background.

Beyond Verticent ERP Plus

In addition to integrating with ERP systems, another area of native integration that the vendor has long embraced is *customer relationship management* (CRM), because a bigger issue in efficiency is data reconciliation, such as customer master data, and integrate inter- and intra-enterprise business processes.

For MTO products, the overall process starts with capturing customer requirements at the front-end and dynamically converting the information into work orders, routings, and other procedures via product configuration engines. The traditional use of CRM software focuses on sales opportunity management, contact management, and customer database tracking, and then grew into post-sale customer-support activities. As a result, it has produced many natural integration points from CRM and ERP all the way down to the shop floor. Consequently, the Verticent enterprise business system delivers specific functionality for the sales and marketing teams, including Web-based CRM functionality for lead capture and management, contact management, opportunity management, time management, marketing automation, customer support, and more.

Verticent products have also long exhibited a componentized architecture, which has been crucial for the deployment of e-business products. The Web-based collaboration and commerce functions are found in the vendor's eSeries e-Business collaborative portal applications, written in **Microsoft Visual Basic (VB)** as **Component Object Model (COM)** objects that communicate with **Microsoft Terminal Server (MTS)**. MTS, is a feature of the **Microsoft Windows NT Server operating system (OS)** that allows the development and deployment of server-centric applications built using COM technologies. This integrates with ERP Plus, and include the following modules: **eOrder**, **eView**, **eCRM**, **eDashboard**, and **eConfigure**.

eOrder and **eView** respectively provide the ability to do either *business-to-business* (B2B) or *business-to-consumer* (B2C) transactions over the Internet. Users can view and query enterprise information including customer invoices, credit memos, on-account transactions, open-order status, and detailed inventory information with the real time product availability. eOrder, to that end, provides features like B2B order entry, shopping cart "basket", order or quote hold, confirmation, item lookup, credit checking, freight/tax, view customer-specific pricing, e-mail acknowledgements, credit card functionality, order status, and real time transactional processing. eView provides several browser-based inquiries, like invoice status, order status, inventory availability, shipment status, product inquiry, and customizable portal.

eCRM is the Web enablement of some of the CRM functions featured within ERP Plus, such as lead capture, knowledgebase, lead management, campaign management, diagnostics, product registration, and case management. **eDashboard**, on the other hand, is an on-line version of **Verticent Intelligence** representing a customizable Web-based screen that tracks key business drivers that are important to executive level personnel such as *chief executive officers* (CEO) and *chief financial officers* (CFO). Such drivers include income statement, balance sheet, current ratio, inventory turns, *days of sales outstanding* (DSO), cash flow, customer service, customer returns, competitive analysis, sales forecast performance, item analysis, and cost variance

reporting. Last but not least, **eConfigure** a Web-based sales configuration solution is also a key module in ERP Plus.

Product Strategy

Because rewriting ERP Plus' current client/server architecture, so it becomes .NET-compliant will do little to serve Verticent's market, and will be a huge expense for the vendor, the solution will remain on its current traditional client/server architecture. On the other hand, the eSeries modules are being rewritten in **VB. NET** and **Active Server Pages (ASP).NET** to be *extensible markup language* (XML) and Web services compliant. As a Microsoft server-side Web technology, ASP.NET is used to create Web pages and Web services and is an integral part of Microsoft's .NET vision. It takes an object-oriented programming approach to Web page execution, where every element in an ASP.NET page is treated as an object and run on the server. An ASP.NET page gets compiled into an intermediate language by a .NET *Common Language Runtime*-compliant (CLR) compiler, and then a *just in time* (JIT) compiler turns the intermediate code into native machine code, and that machine code is eventually run on the processor.

Because the code is run straight from the processor, pages load much faster than classic ASP pages, where embedded ActiveX scripting technologies (usually VBScript or Jscript) have to be continuously interpreted and cached. When a browser requests an ASP, the Web server generates a page with *hypertext markup language* (HTML) code and sends it back to the browser. For more information, see [Understanding SOA, Web Services, BPM, BPEL, and More](#).

In the future, Verticent plans to deliver similar modules that would expand beyond its current realm of customer self-service to include suppliers and employees. Even the former PowerCerv had attempted to move beyond combining integrated ERP and CRM applications for mid-sized manufacturers, yet it never had the chance to "beef up" its collaborative *supply chain management* (SCM) capabilities. In other words, all it managed to do was advocate a business case for combining these functional capabilities under the concept of **Integrated Enterprise Response**, a moniker still retained by Verticent to highlight what its software should mean to customers. The idea is that its customers should be able to share valuable inventory information three ways: by enabling their Web-based order processing, engaging them in Web-based CRM activities such as self-service diagnostics and lead-capture capabilities, and by generally developing a more responsive organization.

Somewhat related to this is **Verticent Vision**, which is a best practices business knowledge data repository that supports the vendor's Integrated Enterprise Response concept by providing visualizations of workflow processes between CRM, ERP, APS, and e-business applications. Workflow diagrams describe who does what and offers the ability to drilldown into ERP Plus work statements describing how the work is done. The organization charting feature also allows users to drilldown to workflows related to a

selected job. All diagrams can be modified fairly easily, and administrators will likely appreciate the consistency and control, just as users will likely appreciate the intuitive drag-and-drop features. The module also enables process costing; job description reporting; bookmarking; data migration; consistent and verifiable implementation methodology; and enterprise training and ad hoc communication, which are in tune with knowledge management processes.

From the Brink of Demise

By integrating CRM and ERP, and adding knowledge management processes, PowerCerv provided a rather decent functional scope. Nonetheless, even a vendor with a decent functional scope can all but go out of business, if its timing is bad, and has limited resources and lacks focus in a harsh environment. Yet, while some cynics may scoff at Verticent's over 30 percent annual revenue growth claiming its absolute value only totals revenue of a few million, it has had several consecutive, profitable quarters, adding nearly twenty new customers in less than twenty-four months.

So a burning question is, how did Verticent "buck the odds" and move from the brink of demise? One logical explanation is that since late 2002, the vendor has refrained from targeting general discrete manufacturing markets, and has consequently avoided direct and recurring competition with the likes of **Made2Manage Systems**, **Infor VISUAL** (former **Lilly Software**), **Infor SyteLine** (formerly under **MAPICS**, **Frontstep** and **Symix Systems**), **Intuitive Manufacturing Systems**, and **Microsoft Business Solutions (MBS)**. But this prompts another question: even if ERP Plus has functional parity and could serve customers in these markets, could Verticent still compete? After all, it would have to fight the perception that it is a *just* a little, weakling vendor (with around twenty employees), with a tainted past that uses a non-mainstream PowerBuilder technology platform. (It should be noted, however, that Sybase promotes .NET-enabled PowerBuilder, and that other competitive products are not necessarily more.NET compliant at this stage.)

Even in its niche market, Verticent will still have to shake this stigma. The vendor must build greater recognition and market share within its targeted market, possibly by advertising in, for example, industry-focused publications, and by publicizing its recent wins. The same holds for explaining the adequateness of its technology strategy for its target market, while allaying any association with the ill-fated PowerCerv.

In any case, Verticent can still be considered role model because it has survived a difficult market by finding a defensible turf and by exploiting its competitors' fatal flaws.

New Verticent's Target Market

By focusing on the metal services industry, the vendor was able to persevere because it is able to do what the majority of general ERP providers cannot: it can meet the

specific requirements of the metals industry, such as dimensional inventory, chemical and physical properties requirements. Though Verticent has exploited the fatal flaws of traditional ERP vendors, it does not mean that it is without competition. Enmark Systems, Invera, Compusource Corporation, STEELMAN Software, Axis Computer Systems, and SoftBrands evolution, Exact Software's JobBOSS, and to a degree SYSPRO also have solutions geared to the metal services market. (For a detailed discussion of metal service center requirements see [The Exacting Needs of Metal Service Centers](#). For a general discussion on the fatal flaws of software see [Find The Software's Fatal Flaws To Avoid Failure](#))

Nonetheless, Verticent differentiates itself by contending that many of these vendors do not provide a sound technology platform, nor do they provide a complete front- to back-office enterprise footprint that includes *sales force automation (SFA)*, *business to business (B2B) e-commerce*, and built-in business intelligence (BI) capabilities.

To give its users a broader offering, Verticent has allied with a number of vendors offering complementary services. It has added **Taylor's TESS APS** solution, and has built alliances with **Kewill** for shipping automation; **Sage Software** for fixed asset management; **Vertex** for more complex sales taxation software; **Sterling Commerce** for *electronic data interchange (EDI)*; **RightFax** for fax automation; **Hyperion** for BI reporting; **DataMax** and **RF Gen** for wireless/mobile/barcode data collection; and **PCCharge Pro** for credit card authorization, just to name a few.

Moreover, solid landed cost calculation and subcontracting capabilities may help Verticent expand its focus towards metal importers and giftware distributors. For example, automatically creating purchase orders directly from the sales order for sub-contracted and outsourced services may save time and improve profitability by tracking and costing tasks properly. Also, Verticent may find opportunity among other material bulk converters, such as paper distributors, whose operations use the same type of principals as metal service converters. To that end, the vendor recently announced that its customer, **Pacon Corporation** from Appleton, Wisconsin (US), has deployed the entire ERP Plus software suite in an effort to continuously improve customer service and manage paper conversion for over forty-five product lines. This multisite implementation went live at three divisions: **Superior Specialties**, **Bemiss-Jason Display Division** of Pacon Corporation, and Pacon Corporation.

Though Verticent will from stay away from general ERP engagements for the time being, it did inherit a broad extended-ERP footprint, which is scalable (up to 200 users), and this should come in handy for metal service centers that plan to expand (possibly through mergers) into multisite and multinational operations. The vendor also touts its international distribution coverage via *value-added resellers (VAR)* in selected regions outside North America, such as PSL in Colombia, **Insung Information Co.** in Korea, **Systemy Komputerowe-Glowka. S.A.** in Poland, **M-Focus Co.** in Thailand and Vietnam. It will also soon have distributors in Egypt and China. Moreover, its multinational capabilities, such as support for multiple currencies and languages

including English, Polish, Thai, Spanish, Korean, and Arabic will definitely propel the company forward.

User Recommendations

Metal centers and other prospective customers with dimensional inventory issues should evaluate Verticent, especially if they are in the vendor's current geographies, and if they can benefit from the product's inherent, broad, extended-ERP footprint, and scalability. Prospective customers should always insist on a contractual timeframe for the delivery of a solution, and seek reference sites (preferably in their vertical market space), which have been successful with the product suite.

Although the financial viability of Verticent should not be an issue now, users with doubts based on PowerCerv's demise should talk openly to Verticent's current management to have any lingering questions addressed. Customers wanting to remain self-sufficient can opt for the source code licensing option. Existing Verticent users that find themselves in industries where the vendor has not been focusing on lately, should urgently clarify their support status and the vendor's long-term product development and migration strategy with the vendor's management.

On a general note, as a litmus test to determine whether any ERP solution can cater to the needs of metal centers, one should ask whether the solution can automatically compare available inventory specifications like width, length, gauge, and chemical and physical properties against a customer's order specifications, and show which pieces of inventory meet the customer specifications and which pieces do not. This is quite likely this one of the first stumbling blocks for many generic ERP providers, and will help users in their search for the most suitable solution.

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