Stability and Functionality for Process and Discrete Manufacturers and Distributors

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Situational Analysis

Customer requirements for enterprise applications capabilities have changed dramatically. The demand for remote access application availability through different interfaces and devices has risen. To enable access through Web services, web browsers, portals, popular desktop applications, mobile phones, and personal digital assistants (PDA), the presentation (client) and back-end (server) business logic needs to be separated.

For example, a substantial number of existing IBM iSeries-based enterprise resource planning (ERP) users are considering defecting to other platforms that are perceived as more modern. The days of the protracted sole commitment to one platform is leading to the demise of many independent ERP vendors. JBA, MAPICS, Infinium, interBiz, J.D. Edwards, Marcam, and so on and have scooped up and their platform specializations have been incorporated into companies willing to provide broader platform offerings.

This is not to imply, however, that these companies have been amalgamated into larger conglomerates, because of their failure to diversify outside of the iSeries market. Yet, the majority of the remaining and traditionally iSeries-based vendors are either planning or have already begun to emphasize other platforms over the iSeries product and business development. SAP and Oracle (which now includes J.D. Edwards and PeopleSoft) are approaching the platform seeking new opportunity, rather than for strategic purposes.

Infor, a global provider of enterprise business solutions to select, discrete and process manufacturing and distribution industries, recently had an industry analysts and press briefing event in Aventura (outside Fort Lauderdale), Florida (US), where the vendor shared its strategy on how it plans to differentiate from its peer competitors.

Infor had $360 million (USD) revenues in fiscal 2005, which ended on May 31, 2005, and projected revenues for fiscal 2006 (not including any possible acquisition) are nearing $600 million (USD). Infor’s strategy, which is along similar lines to Lawson, has been an evolving development environment for new products and the integration of existing applications and technologies.

To say the least, Infor has been an acquisitive company acquiring sixteen companies since May of 2002, including some both regionally and globally renowned ERP companies. They include (chronologically), SCT Process, Brain AG, and Future Three Software. Infor AG, daly.commerce, Varial Software AG, NxTrend, Aperum Inc., IncoDev Software, Lilly Software Associates, and Mercia, MAPICS were also acquired. Paragon Technologies (a former MAPICS’ developer partner, for the rights to the crucial technological of the XA ERP product), Intuita Holdings (a UK-based provider of solutions for distribution industries), and most recently Formation Systems (a provider of product lifecycle management [PLM] solutions for process industries) were also successful acquisition targets.

Perhaps the reason Infor, once known as Agilisys, stayed aloof from the analyst community and market observers for some time, is that the company was figuring out and formulating a sound and coherent strategy. Initially, its early strategy appeared to be a series of impulsive, opportunistic acquisitions, seemingly with the idea of merely milking the install base.

However, after the exhaustive explanations of Infor’s top management, there seems to be a method to the madness—each individual acquisition (at least lately) has apparently come after a thorough, disciplined, and metric-based evaluation and diligence process. There may even be a logical division between the value driven
acquisitions and the growth-driven acquisitions. Infor’s first six acquisitions were mainly conducted for their technology assets. The latter acquisitions were for likely to increase Infor’s market share.

Infor Strategy

The vendor has long realized the conflict between the inexorable market dynamics and customer dynamics. Many enterprise applications are aged and functionally static, whereas corporate IT budgets remain constrained, thus even up to 80 percent of enterprise software vendors are not profitable, and consequently the rampant consolidation of vendors is reducing customer choices. Customers, on the other hand prefer to standardize infrastructure to reduce the costs of maintaining disparate systems. New functionality is required to remain competitive. However, if customers feel uncertain, confusion and delays in the buying decisions can occur. Historically, this forces customers to make buying decisions “trade-offs”.

Surviving small niche providers can easily satisfy a customer’s’ requirements of industry specific, product functionality and industry domain expertise; however, they will hardly satisfy a customer’s need to hire financially stable vendors and single-source/one-stop-shop providers with a global reach. Infor has been striving to cover for both these ends of the spectrum, with the bonus of adopting open technology standards, ongoing delivery of future products to meet the market demand, and achieving ever-shorter implementations, and guaranteeing the customer IT investment protection or enhancements. Namely, large vendors like SAP and Oracle, have stated their dedication to a partner network around their preferred proprietary platforms. Yet, they face a number of challenges in executing such a vision, since opening up their software for others to build potentially competitive products will require a major cultural adjustment.

Infor has lately invested a lot of mental effort and physical execution to distinguish its “assembler” strategy from a “consolidator” strategy. In other words, its strategy for acquisitions have been driven by the need for specific vertical requirements for the solution, and has not been a grab for the install base of distressed firms. Infor has been driven by the strategy to provide the “best of both worlds” functionality and domain experience.

The Infor Model

The Infor model revolves around three themes: “Focus, Assemble and Innovate”. Infor’s focus theme means it will target the essential challenges its existing and prospective customers face in discrete and process manufacturing and distribution segments. As a result, it chooses not to spread itself thin and consequently concede to trade-offs across multiple vertical markets ranging from professional services, telecommunications, banking insurance, health care, to utilities, and media, which is what the mega-vendors tend to do. For example, SAP proudly mentions solutions for well over twenty industries.

Its theme of “Assemble” revolves around the idea of delivering industry-specific solutions, globally, by professionals with deep industry experience. Infor cites over 700 product developers with, on average 8 years of tenure with Infor. It also has 500 professional service resources with, on average, 7 years at Infor. The assembler model begins with existing customers’ and future market requirements, and acquisitions are then logically driven by the strategy of providing industry specific enhanced solutions to fill a void and to extend functionality and the benefits to these customers.

Infor’s last theme, “Innovate”, underlines the belief that the ultimate winner in the market will have to provide the following to the market:

- industry-specific solutions that solve essential problems that others cannot;

- deep domain experience coupled with industry-specific product functionality, which insures successful implementations;

- a fairly integrated suite of industry-specific products that satisfy current customer requirements; and

- an enhanced roadmap for customers’ potential and likely long-term needs.

As a result of this strategy, Infor has been able to integrate the industry-specific functionality of the products its acquired and leverage the savvy of the people its assembled. They will be showcased in the upcoming Infor .NET “center of excellence”, where Infor’s team will join the forces of the former Lilly VISUAL and MAPICS SyteLine.
product development teams. Also, the collective domain knowledge and some of its acquired "best-of-breed" products will be (or have already been) leveraged into the evolutionary so called "Super-Breed" products that will be leveraged across multiple divisions.

Some examples include the SupplyWEB supply replenishment product for automotive suppliers, which has already incorporated the best functionalities from Future Three and Brain. bizLinx, an e-storefront/catalog product is a similar undertaking coming from the Infor Distribution division. VISUAL WMS, a warehousing product will also result from Infor leveraging the assets from the former Lilly. The newly formed Infor SCP division, stemming from the SCT Process and Mercia acquisitions, is another such example.

Given that the ongoing merger and acquisition (M&A) strategy should help drive Infor's broader Assembler strategy, there are some key strategic considerations the company must take:

**Vertical expansion.** Every acquisition has to add to the "vertical" story, and add product depth to a particular industry focus, such as technology "crossover" and cross-selling opportunities, and add scale to current verticals or allow penetration into adjacent markets. Acquisitions must align with the existing vertical focus of process manufacturing (e.g., food and beverage, pharmaceuticals, chemicals, etc.), discrete manufacturing (e.g., automotive, aerospace and defense [A&D], etc.), and wholesale distribution (e.g., building materials supply, industrial supply, etc.)

**Geographic expansion.** Acquisitions should improve global distribution and open new direct markets or indirect channels, improve competitive position in current geography, and leverage established partner relationships. As possibly the best example, MAPICS has increased the vendor's ability to sell in Asia-Pacific, where it had no previous presence (consequently now with forty-seven direct offices in seventy countries). Further, in the automotive market, customers’ needs are still somewhat different in North America and Europe, which is why Infor acquired Future Three for the North American market and Brain for Europe. Accordingly, the Infor Automotive Essentials product suite has since been developed specifically to benefit manufacturers in the global automotive industry. Today, seventeen of the top twenty-five automotive suppliers worldwide apparently use the parts of Infor Automotive Essentials. Thus, the automotive discrete industry is an example of Infor's strategy to combine "best of breed" components into a "super-breed" suite. The same might hold in the future for leveraging and combining the SCT Process (now known as Agilisys) and acquisitions from IncoDev for disparate markets in process manufacturing within the Infor Process division.

**Valuation expansion.** Acquisitions should also improve Infor's corporate valuation profile in terms of additional scale (such as improved economies of scale), profitable growth (for example, the organic revenue growth must be enhanced while 20 percent or more profit margins should be maintained), or increased cash flow. In some instances Infor will also take out a direct competitor to improve its competitive position. Last but not least, as for technological compatibility, acquisitions of solutions that are based on Java,.NET, or iSeries platforms are preferred.

Thus Infor’s acquisition process seems to be well-defined, disciplined, and proven. Infor remains primarily interested in value, and will not overpay. For example, typical acquisitions so far have been three to five times of projected cash flow that the acquired company will contribute. All these tenets of due diligence and Infor's acquisitions track record have allowed Infor to win at new auctions many times before, even though it is not be the highest bidder. All previous sellers are apparently ready to provide glowing references for future prospects.

**Infor Plans**

Infor, a global provider of enterprise business solutions for selected discrete and process manufacturing and distribution industries, has been building its vertical focus through a long series of acquisitions—acquisitions, which on the surface, may have seemed superficial, and a grab at the customer bases of languishing companies. Yet, Infor has been merging the product functionality and brain power of its acquisitions to better offer customers niche functionality and stability.

Such acquisitions are unlikely to stop as Infor continues to look for solutions that would fill out its current product suites (e.g., a transportation management system [TMS], plant management/enterprise asset management [EAM], product configurator, etc.). The skill and technology set from acquisitions could be adapted by Infor to meet specific industry requirements and be marketed to the diverse installed base. They can also be adapted and sold outside the install base as standalone, best-of-breed solutions.
According to its upper management, Infor’s acquisitions can be divided into two categories: value driven acquisitions and growth acquisitions, and all were conducted after thorough, metric-based evaluations. This strategy appears to be working, even when compared to the strategies of Infor’s awesome competitors like SAP and Oracle. Infor cites its organic (“same store”) growth to be seven percent over the past fiscal year, driven by over 460 brand new customers (not existing customers or divisions of existing companies that are already customers that buy additional modules or Infor solutions) in the last fiscal year. These have been, in great part, driven by the sales of some “super breed” products, especially SupplyWEB. The maintenance retention has been between 95–98 percent, without any maintenance price increases (which is typical after acquisitions), and includes winning back some departed customers, but excludes any brand new business.

Why has Infor been successful at tacitly nurturing and growing acquired companies when many more noisy competitors have not? Its vertical focus makes solutions functionally richer than even those of its larger competitors; it is financially stable and has a global presence; and it does not rely on large deals to close the quarter (Infor’s average deal is reportedly around $300,000 USD). However, there is another reason. It puts continuous investment in research and development (R&D). Eighteen percent of revenues goes into R&D, which is high, given the industry standard is 14 percent or so. Infor also willingly supports and modernizes products on multiple platforms. While the vendor has been converging vertical solutions on one source code written in either Java 2 Enterprise Edition (J2EE) or Microsoft .NET environment, customers will not have to go through a costly and painful de-implement to re-implement upgrade process.

**Infor Corestone**

So, how does Infor plan to quickly converge innovative vertical solutions while protecting manageable, upgrade paths without forcibly marching customers towards change? To meet its goal, Infor has created its own internal development and integration environment, codenamed Corestone. Cornerstone has all but entrenched the following processes: drive enhancements by vertical differentiation, embrace leading technology platforms (i.e., J2EE and .NET) that leverage open standards, and embark on product development will use service oriented architecture (SOA) principles. Third-party applications might be used for non-core applications or functionality.

The deliverables of Corestone will eventually include a universal client framework that will provide a common user interface (UI), navigation method, and messaging standards for all Infor products. The environment will also provide unified development standards for more efficient global development teams and for database independence of all future products; enterprise java beans (EJB) will not be used. Stored procedures written in structured query language (SQL), which are operations that are stored with the database server, will not be used either. Instead Infor will move business logic to an application layer of its products, opening up the use of Web services, and allowing clients of all types to consume business logic, as needed.

Corestone will also create a library of re-useable utility components, such as single sign-on, authentication, licensing, printing, workflow management, reporting, enterprise service bus (ESB), etc. Rapid application development will be enabled through the development environment and UI design tool. Also, the Infor Business Integration Server (IBIS) platform will cater for eased integration with other Infor and third-party applications and services. Looking at the Corestone assembly environment, the top layer will consist of a raft of supported clients, such as Microsoft, Linux, and Macintosh smart clients. Microsoft IE 6.0 (and later), Mozilla Firefox rich browsers, and any commercially available regular browser will also be supported. Telnet and HyperText Transfer Protocol (HTTP) will represent mobile clients.

The applications layer below will feature legacy applications that will preserve their exiting codes on RPG (Report Program Generator), Cobol, Pascal, Progress, Java, Microsoft Visual Basic, and C# etc., albeit portions of the code will have to be rewritten in Java. This will allow interfacing with the UI layer, the service/utility layer (single sign-on, authentication, licensing, printing, workflow management, reporting, etc), and the foundation layer (data access and control structures). It will also permit upcoming CoreApps master data management (MDM) wrappers that will allow for a common, horizontal master and item data model between vertical applications, and which will be mostly contributed by the Infor Distribution division. For more information on the importance of MDM and product information management (PIM).

On the other hand, all brand new solutions, the so-called Corestone-enabled applications, are being written in J2EE or .NET. Therefore, although Corestone may have many similarities with the SAP NetWeaver or Oracle Fusion platforms. The major difference is that these appli-structure platforms that are being developed by SAP, Oracle, IBM, Fujitsu, and Microsoft are, after all, proprietary, either in terms of database, and operating system (OS), or...
application server or both. Thus, Infor’s technology roadmap will allow applications to be built in primordial third generation language (3GL) languages and outdated environments like RPG or Computer Associates’ OpenRoad to use new services and functionality written in J2EE or .NET. Also, the SOA-enablement of business logic should allow existing business logic to be reused across multiple applications.

The use of Open Applications Group Integration Specifications (OAGIS) and e-business extensible markup language (ebXML) standards allows Infor to integrate modules and functionality into existing applications, assembling the best solution for its customers. Then, the UI integration will bring a common look-and-feel to all diverse applications, while single sign-on and authorization model should support tighter integration to other applications and common navigation between applications.

Further, CoreApps will eventually simplify integration and support multi-company installation strategies via the CoreITEM (for the item master and product data management [PDM] data provision) and CoreCV (for the customer and vendor master data provision). Last but not least, like in case of Lawson Landmark, Infor’s applications will go through regular code regeneration for reasons of continuous code improvement. Infor will focus on further breaking down existing applications into more granular services and to write new applications and modules using SOA, whereby existing services will be occasionally replaced by new ones.

An example of Infor’s work underdevelopment is an iSeries-based automotive enterprise resource planning (ERP) application called XPPS (coming from former Brain). It is based on the RPG language and on IBM DB2 database, and has received a new Corestone Smart client interface and Corestone-enabled functional extensions, like manufacturing execution system (MES) functionality and cross-divisional Infor Global Financials (coming from Varial Software). Many other similar products based on iSeries and pre-.NET Microsoft technologies are to follow suit. The pace at which Corestone will be applied to Infor product lines will be determined by individual Infor business units, which have their own product development, product management, and development organization. It will also have the responsibility to drive industry-specific functionality into products.

The centralized Corestone team will work closely with business units to drive standardization and a common environment across the entire Infor organization. The Infor India offshore R&D organization will be integrated with business units development teams to accelerate product development in terms of product quality and performance testing, with improved development capacity, flexibility, and cost effectiveness in mind.

User and Vendor Recommendations

The initial and current release of Corestone 1.0 includes the initial release functions such as a smart client, a rich browser, the IBIS support, Bedrock managed services and consulting server support, a development studio, and a data dictionary. Revisions in these and other capabilities will come in future releases.

Infor acknowledges that what it has been trying to accomplish is not easy, given it will have to incorporate a number of moving parts. Yet, the vendor should be commended for its vision of an R&D model that could benefit existing customers, especially those wanting to leverage their current information technology (IT) investments while accessing new integrated solutions and processes, or those who want evolutionary technology to refresh their legacy platforms with new functionality and enhancements. Infor’s model will also help prospective customers with long-term IT investment enhancement protection, including those wanting to procure the richest possible “out-of-the-box”, industry-specific functionality within an integrated suite of applications.

While Infor’s approach is not necessarily unique, it seems quite appropriate for a vendor that keeps actively acquiring products, intending to adopt all. Infor stands a chance of benefiting from long-term, gross margin improvements, increased revenues due to integration and product leverage, common development environment to integrate new acquisitions (with new technologies) more efficiently, and long-term efficiencies in support. However, despite Infor’s technology blueprint, thoughtful acquisitions, and notable resources, it still needs to bridge the gap between vision and execution, and as has been seen in the market, this can be a long process.