The method **versus the madness**

The value of integrated software in the upstream energy company

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If you take a look at the benefits of a fully integrated ERP application solution and compare those benefits to the "best of breed" solution approach, you will find some facts that are usually overlooked or not well considered.

Small piece, big differences

Let's examine a very small piece of the process to shine a little bright light on some real differences.

Fully integrated solutions support workflow technology available for supply chain management activities such as having purchase orders, receipts, and payables linked directly into inventory management and joint interest processing. That same workflow and approval logic is leveraged for ownership changes and AFE

approvals, among other functions. It is a single solution applied in a similar methodology across different parts of a whole system the same way.

Best of Breed solutions have one or another primary system and rely on another vendor's application for accounts payable processing, another for JIB transactions (which is usually not part of that accounts payable process), and a completely different application for AFE management. Inventory management may fall victim to the process, or it may be another module manually maintained.

In some worlds that might "work," but let's consider that scenario a little bit further.

The fully integrated solution takes one program and database environment to run your live data and a test

environment for user acceptance testing of new versions, features, and fixes. A fully integrated solution is secured and tested for user acceptance on a defined release schedule for the entire application. It is secured one way, one time, using the same setup for all users. It is audited for everyone, once, as an application. It is supported by a single vendor. It is enhanced by that single vendor who has the benefit of working with customer partners to build a rich and robust integrated solution, where each customer can determine the best way to apply the system to their business processes and reporting needs.

In the Best of Breed approach, the environment is a lot different. In our limited example for workflow, procurement, accounts payable, and AFE processing, we find the "many vendors" solution. Some of the parts might be online, but some will be in-house. Some activities may be automated, but many will be manual. Each has to be set up where they can be used live and

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tested either way, creating lots of moving parts. Each vendor interfaces with the other in a mostly limited, if not completely custom method, for each installation.

Sometimes you can use what someone else built, but the interfaces become customized to a particular customer quickly. Data resides as cross references in at least three of these systems and each must be maintained, checked, and validated. The user acceptance testing now adds the complexity of scheduling with four vendors on ambiguous release schedules.

All four interfaces get tested each time you dare to upgrade any of the applications and so do all the programs – ouch! Security is set up and managed four ways, four times, with four audits.

The vendors are not out for each other's common good. They exist to profit individually, as they should, so don't expect a lot of change for the customer's common good. It "works," so it's not worth the cost of change. Really? Are you truly considering the cost and lost value all this extra effort is costing your company?

The Help Desk

Consider the cost of the Help Desk staff required to install the applications and maintain them.

Integrated solutions are published as Live and Test environments. Development and testing database copies are available for the user with their own IT developer groups who want to build and interface with other economics, reserves, and G&G solutions. A data warehouse may or may not be in the picture, but if it is, the ability to extract data is the only real concern.

Since there is a single source of data, the complexity is lowered and the accuracy is assured. Not having to check and balance multiple solution interfaces all the time makes this a much simpler process. With confidence in the data, you can make better decisions faster.

Consider your internal help desk providers, whoever they may be. Some companies have non-technical staff members, usually paid well, providing support and help to other department users or new employees. Other companies rely on technical IT savvy employees who may or may not have much business process experience.

A single integrated application is set up, accessed by users, secured, and used for each department's functions in a similar, seamless program interface. Once the methodology of a common integrated solution is learned, the business processes interact with different data and transactions, but the use of the system from navigation to inquiry to reporting and data extraction is common. This results in reduced administrative burden by requiring less time, collectively, in performing these duties. Less time and effort delivered by a common internal group for your Help Desk functions results in less cost and higher productivity.

The Best of Breed approach requires the Help Desk resources to either learn all the systems and interfaces or to have different employees supporting different issues. The loss of a common group of resources for this function is a burden to productivity and a higher cost.

Administration of interfaces and cross references eat into the resources' time and take away from their ability to help the business user unless these resources are expanded, thereby also raising costs.

Accuracy, reliability of data

Consider the accuracy and reliability of the data and how comfortable you are with it.

Fully integrated solutions store data in a common database in common tables. That means aggregating or filtering data for all or a group of companies is as easy as selecting the list. You'll see only what you have security to see, but you'll get it all back the way you ask for it.

If you are in a truly integrated solution, a financial inquiry leads to drill-down to transaction details,

images related directly to the transactions, and all the purchase order and accounts payable coding and approval, inventory data and the billing information related to all the approved transactions. You can see it all balanced without the need for additional reconciliations or "check and balance" reporting for the various systems.

The Best of Breed approach might give you drill-down reporting, but where is the coding and approvals, images, and inventory? You might find yourself looking online in a different system for that data, taking time and losing productivity all the while. You also might have to consider the coding from the interfaced solution versus the internal ERP cross references. Were there errors? If there are errors, are they reconciled and fixed in both places or just in-house? Here is where the madness really starts to shine. If you don't fix each system, and users keep finding the errors in the system that was not fixed, is it eventually deemed unreliable, or do the users start building their own spreadsheet solutions to track what they consider important?

Your company

Fully integrated solutions are not meant to do everything for everybody. However, the range of function-ality needs to be compared to your business needs by your own business process experts. Don't just take the word of the doubters or the best of breed guys – look for yourself. If you can determine the scope of your business that can be served by these integrated applications, you can consider the costs of resources and application support better for your organization. Once you factor that reality into your ROI, you may well find tremendous value hidden in the details.

Technology has advanced tremendously and continues to do so at breakneck speed. The benefits are amazing if you can find a single solution that can meet the needs of many and eliminate waste, enhance reliability, and regain lost productivity. **OGFJ**

About the author
Karl Schmidt is vice president of Midland, Texas-based Enertia Software. He has been actively involved with upstream energy technology solutions at Enertia for more than 18 years. During his time in the industry, Schmidt has worked with more than 200 companies in the private and public sectors to define and implement their software integration and business process objectives.