The next generation

Enterprise information integration will do what EAI failed to do, and make sense to the business, not just the IT

By John Wise

This is a story about why technologists originally purchased enterprise application integration (EAI) but the business guys didn't see the point, and why now the business guys are driving the implementation of enterprise information integration (EII) solutions from data hub vendors.

EAI was created to solve the problem of spaghetti interfaces, virtual and actual, caused by the need to share information using peer to peer interfaces between the many systems/applications that the business needed to process its activity. Some would claim that this enabled a best of breed strategy for deploying multiple specialist processing systems. However, I feel there was not much strategic thinking involved, and that the implementations were more to do with the tactical and often haphazard need to progressively fill gaps in processing functionality along the financial transaction lifecycle.

The "bus" approach to EAI provided an interface on to a common "highway" across platforms and was widely adopted in the front office as many of these applications were very similar and so the requirement for translation was limited. The "hub and spoke" approach assumed that all platforms were different and thereby translation and mapping had to be very strong in these products which were typically deployed in the front, middle and back offices.

Unfortunately, EAI solutions still seemed to take a lot of time and expense but their benefit was obscure. The real issue with the EAI approach is that you may indeed only have 10 interfaces on the hub or bus, but the mathematics still require these products to handle the many different mappings/translations handling peer to peer connectivity – albeit internally within the product and no longer "exposed" to outside scrutiny. Thus the interface definition problem remains the same in reality and this is why the business could not see the point.

Having been involved in three generations of EAI products I have at last woken up to smell the coffee – and it is not Java, .Net, Grid or Pazz. All of these technologies promote interoperability and are good for different things such as routing, TP monitors, scalability and recoverability, and thus provide foundations. But these, along with the EAI vendor products, all suffer from the lack of defined data models for the financial industry and associated applications that leverage such a data model.

The importance of a sector specific, specialist data model to these solutions has been slowly realised by the EAI vendors and thought-leaders of this industry, such that there has been an evolution of the EAI paradigm over the last few years towards the creation of EII, or enterprise information integration. Thus, EII has emerged to solve the same problems and requirements as EAI, but with a powerful "information-centric" approach using a specialist data model for the financial industry in a data warehouse or data store configured as a "hub". The advantage here is that all interfaces are mapped on to the common financial data model once (and only once), hence with 10 applications only 10 interfaces are required. Finally a solution has arrived for enterprise information, albeit using the EII model and not EAI.
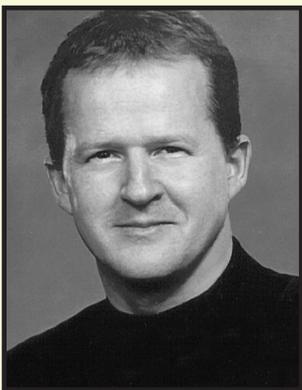
The EII vendors typically promote these solutions as data hub or investment hub implementations. These products and solutions not only provide a complete and common financial data model and data store, but they also have associated applications for robust data management and reporting – something that internal users and their (external) customers benefit from.

As EII is information centric, these solutions have to address integration of transactions and static information, validation, enrichment, cross-

EII vendors sell their solutions as data or investment hubs

referencing and look-ups, along with multi-way matching and reconciliation, data/information and workflow, culminating in multi-dimensional reporting via multiple channels. To achieve all of this, there are therefore many associated applications – all of which plug into the hub and leverage the enterprise information contained therein. EII is not designed to replace processing systems. However these solutions are engineered to solve the perennial problem of how to handle financial data from increasing numbers of sources, rationalise, transform and reconcile it and accurately route, store and warehouse it so that it can be leveraged as information throughout the enterprise and via multiple channels, including the web.

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