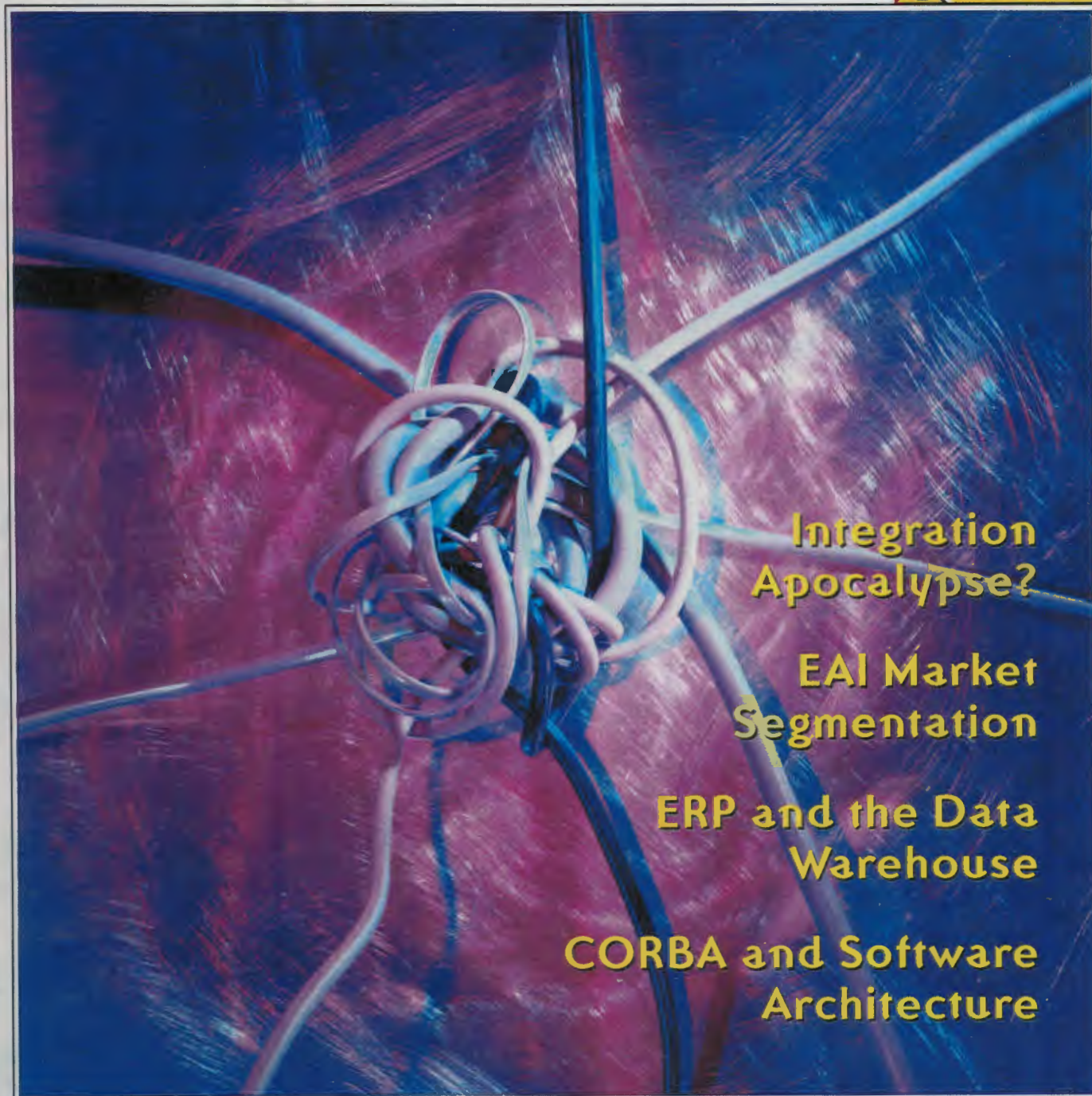## PROTOTYPE ISSUE

EAI
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Integration Apocalypse?

EAI Market Segmentation

ERP and the Data Warehouse

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enterprise integrity

By DAVID McGOVERAN

What's EAI All About?

Enterprise application integration (EAI) is arguably the hottest market to come along in twenty years. But we can't say its entirely new. Integration problems have been with us for at least the duration of my career (about 30 years), and there have been many failed attempts to address it. Early on we talked about systems integration with the focus on how to integrate a particular application into its operational environment. Then came integrated systems, with the emphasis on providing integrated solutions.

When it became obvious that integrated systems provided limited, short-term benefits, our approach shifted to interoperability of best-of-breed solutions. Unfortunately, interoperability was oversold as well. It was soon followed by application integration solutions, with concentration on point-to-point integration and the high overhead of many complex interfaces. Finally, we have progressed to enterprise application integration and the promise of integration of business functions across the enterprise and beyond.

What has changed that we should expect success, you may ask? Well, to begin with, the technologies available are considerably more sophisticated. Not only do we have more computing power at our disposal than ever before, but middleware for connecting applications is smarter and more standardized. Hub and bus approaches promise to provide the benefits of application integration more flexibly and at a much lower cost. Even that is not be enough to change the prognosis for enterprise integration from one of almost certain failure to one of probable success.

Another important factor has come into play. Just a few short years ago, most enterprise applications were custom. With the rapid emergence of packaged applications, including ERP, sales automation, marketing, and supply chain — a degree of standardization has occurred. Although there is tremendous variety among these packaged applications, the number of interfaces that must be considered in an integration project are fewer than ever before.

Even more influential than the change in technologies is the change in the business environment. The need and rewards for successful enterprise integration have become truly astounding. For longer than I can remember, the greatest value to be obtained from IT was in managing or reducing costs. The value of IT has been in providing means to be more efficient at what

the business was already doing. In the beginning, this involved finding ways to automate business functions. Over time, most of the IT effort has become more indirect. We found it necessary to provide increasingly more complex technological infrastructure before direct business value could be provided. This is particularly true when we try to automate the interconnections between business functions — hence the great importance of that brand of infrastructure so carelessly labeled "middleware" and middleware-centric approaches to EAI. But we must remember that automating interconnections is, at best, a means to the old business goals of cost reduction and containment.

Focusing too much and too long on cost reduction and cost containment leads a business to stagnation. To prosper, a business must change with its environment, responding to new customer needs, new markets, regulatory changes, mergers, acquisitions, new competitors, and much more. Accommodating these changes means being able to change not only which business functions are performed when, but changing the business functions themselves or adding new business functions. As the pace of business change increases, we are seeing the emphasis move away from business efficiency and toward business agility.

In the past, the pace of change was slow enough that business could manage to trends, setting the general goals for IT projects well in advance. However, in a world of continuous change, IT no longer has the luxury of planning specific technology changes: It must now enable business agility by accommodating unforeseen changes. Implementing EAI with a goal such as reducing cycle times or latencies generally results in an unacceptable rigidity of the enterprise. Balancing cost reduction goals with the need to accommodate change is a difficult and unfamiliar process. Nonetheless, this is the real promise of EAI.

The purpose of EAI must always be kept in mind. It must drive every decision, determine every path, identify every opportunity, measure each benefit. No matter what the specific goal, the value of EAI lies in perpetuating the enterprise. And by definition, an enterprise, even if changing rapidly, has an intended purpose. If you remember but one thing, remember this: EAI is about maintaining the integrity of the enterprise. ∎

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