Database Consolidation and ROI: The State of the Art

an eprentise white paper
The problems that drive companies towards database consolidation of any kind are well known, and span a range of business and technical problems. (See Figure 1.) It is clear that the business risks that companies encounter by relying on multiple, highly disparate, and unconsolidated data sources are endemic to all industries and company types. It is also clear that there are business events, such as mergers or acquisitions, as well as regulatory requirements and other drivers, that in many cases make consolidation an absolute necessity, independent of a specific return on investment (ROI) case.

Figure 1: Common Drivers for Database Consolidation

<table>
<thead>
<tr>
<th>What kind of problems?</th>
<th>81%</th>
<th>78%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inaccurate reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arguments over which data is appropriate or trusted</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Bad decisions based on incorrect definitions</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Data governance and stewardship limitations</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Limited visibility for data lineage and linkage</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>No understanding of master data homonyms, synonyms</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Poor customer service</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Inefficient marketing</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Inefficient purchasing/sourcing</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Delay in new product introductions</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Data Warehouse Institute

Against this backdrop of opportunity and necessity, examples of database consolidation projects abound, all promising a robust business case, and an equally robust ROI. A review of most publicly available examples of consolidation, as well as EAC’s own research, reveal that the overwhelming majority of examples of database consolidation are fundamentally technical consolidations, and not higher-value business consolidations.

The value of technical consolidation has nonetheless been amply proven by a number of different research organizations. Forrester Research has estimated that companies that have undergone consolidation to a single instance have spent well below the industry average on their total IT budget. Whereas a broad swath of companies spend an average of 3.8 percent of revenues on IT, according to Forrester, companies that have undertaken single-instance consolidation spend on average 2.5 percent of revenues on IT, with one company reporting a 1.6 percent spend rate.

A look at some published results from technical consolidation projects shows how some of this ROI is achieved, and in particular how these types of projects focus on resolving problems of IT complexity, rather than presenting a means to improve business operations. Hewlett-Packard, IBM, Microsoft, and Williams-Sonoma have all recently engaged in data center consolidation projects, yielding some
impressive cost savings. In Hewlett Packard’s case, the company was able to reduce its number of data centers from 85 to three, with an additional three centers acting as disaster recovery sites. IBM’s consolidation efforts reduced a 3900-server system to 30 mainframes, in the process reducing data center energy use by 80 percent. Microsoft’s efforts at data consolidation produced a $23.2 million savings, while retailer Williams-Sonoma consolidated 100 servers down to five, and in the process was able to cancel plans to add 50 more servers at its data center.

While these projects all showed significant ROI, they were focused exclusively on the technical aspects of consolidation, which meant that the resulting environment still had a large degree of complexity, and therefore was poorly positioned to deliver the benefits that a business consolidation delivers.

Not all technical consolidations are without business value, however. Toronto-based Longo Brothers, an on-premise and on-line grocery chain, undertook a technical upgrade and consolidation effort that was in part targeted at reducing the IT department’s enormous spend on data integration, estimated at 30 percent of the total IT budget. Longo was able to measure a distinct return on its investment for this project in a critical area of its business: warehouse management. The consolidation yielded a 1.5 percent improvement in its warehouse management processes relating to its on-hand stock. That improvement allowed the company to stock an additional 300 items in its stores, an improvement that translated into significant revenue upside for the company.

Like many technical consolidations, however, Longo retained many of the disparate systems that contributed to its complexity problems, including multiple point-of-sale (POS) systems and a homegrown employee scheduling system, among others. Mediating all this complexity is a service-oriented architecture that by its very nature advances business functionality, but imposes its own considerable costs, and also limits potential return on investment and optimal business value. Similarly, limited returns on investment can be seen in master data management projects, which are typically expensive, multi-year engagements that add more complexity and promise high on-going maintenance costs.

>>> Download the White Paper In Full (PDF)

© 2009 EAC

Joshua Greenbaum has over 25 years of experience in the industry as a computer programmer, systems analyst, author, consultant, and industry analyst. He spent three years in Europe as an industry analyst and as European correspondent for Information Week and other industry publications.

In his role as an industry analyst, Josh regularly consults with leading public and private enterprise software, database, and infrastructure companies, and advises end-users on technology infrastructure and applications selection, development, and implementation issues.

An award-winning columnist, Josh is widely quoted in the trade and business press, blogs on ZDNet, and is a regular columnist for Managing Automation, Datamation.com, NetWeaver Magazine, and Redmond Channel Partner magazine. Other opinions by Josh may be found on his blog at http://ematters.wordpress.com/ or on his website http://www.eaconsult.com/.
Curious?
For more information, please call eprentise at 1.888.943.5363 or visit www.eprentise.com.

About eprentise
eprentise provides transformation software products that allow growing companies to make their Oracle® E-Business Suite (EBS) systems agile enough to support changing business requirements, avoid a reimplementation and lower the total cost of ownership of enterprise resource planning (ERP). While enabling real-time access to complete, consistent and correct data across the enterprise, eprentise software is able to consolidate multiple production instances, change existing configurations such as charts of accounts and calendars, and merge, split or move sets of books, operating units, legal entities, business groups and inventory organizations.