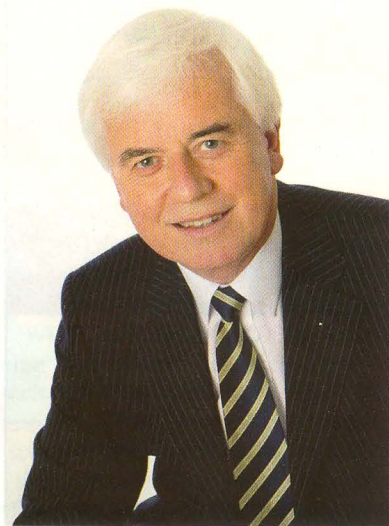


AT YOUR SERVER – SQL A HIT FOR MICROSOFT

In this month's column, Anglia Business Solutions' David Hurley outlines Microsoft SQL Server 2005 and the advantages the system can offer the fresh produce industry in terms of database technology and data replication



IN THIS month's article, we take a look at some of the nuts and bolts that make up a totally integrated solution.

While the terminology can be obscure at times, the implications from a business solutions aspect can be quite significant.

At the heart of every business management system is a powerful relational database engine that manages the masses of data generated by the system. Microsoft SQL Server 2005 is a database platform for large-scale, online transaction processing, data warehousing and e-commerce applications. It is also a business intelligence platform for data integration, analysis and reporting solutions.

Microsoft SQL Server is fast becoming the market leader in database technology, by winning

market share from traditional vendors such as IBM and Oracle. One of SQL Server's powerful facilities is its ability to replicate data and business logic across multiple servers at various locations. Replication is a set of technologies for the copying and distributing of database objects from one database to another, and then synchronising between databases to maintain consistency.

Using replication, you can distribute data to different locations and to remote or mobile users over local and wide area networks, dial-up connections, wireless connections, and the internet. SQL Server provides three types of replication, each with different capabilities: transactional replication, merge replication, and snapshot replication.

These are briefly described, as follows:

- **Transactional:** This is new to SQL 2005 and allows incremental changes to be made. It can operate in peer-to-peer mode
- **Merge:** Allows multiple copies of the database to be merged into a single copy.
- **Snapshot:** This is a point in time copy of the data.

What these replication facilities offer to the IT department is a number of options that can help to improve and refine their systems.

For example, they can provide improvements in scalability, with offloading of reporting and data extraction from the primary server. This can have a significant impact on

the responsiveness of the system, leading to increased user satisfaction.

One of the big issues facing many organisations is what happens in the event of the loss of service from the main company server platform. Replication provides for data availability, with real-time copies of the database in a single location or many alternative locations.

This means that where a company has linked servers at various locations, a disaster recovery plan can be implemented.

In the event of the failure of the main server, the replicated server kicks in and normal service can be resumed.

A further area where replication can help is with a mobile workforce. Typically, this could involve account executives operating with customers using laptops as their main devices.

Information can be gathered on the laptop while on the move, and synchronised when next in touch with the core system using the replication facility.

These are just a few examples of where database replication can have a significant impact on productivity.

As with all technologies, the database continues to evolve. However, the knowledge of how to take advantage of these advances is still a scarce commodity.

In the information age, the lack of awareness of what these new advances can actually offer a company could lead to investments in expensive and complex alternatives. ○