

TECHWATCH LANKA

"A vital link between global technology developers and the local technology practitioners"



Newsletter of the Technology Watch Centre (TWC), National Science Foundation

VOL.4, NO. 1

AUGUST 2004

ISSN 1391-7897

Technology Forecast: 2003-2005 An intelligent real-time enterprise

As the pace of business quickens, successful enterprises must be able to continually monitor key business processes to detect deviations from expected performance and take corrective actions. Enterprises must also provide accurate and timely information about key indicators of business performance to decision-makers throughout the organization. These requirements create a need for systems that can provide such information in real-time. The Intelligent Real-Time Enterprise is an emerging trend according to a technology forecast for the years 2003-2005 conducted by an Australian organization. Intelligent Real-Time Enterprise will use a series of technologies that enable companies to manage information more effectively and react more quickly to changing business conditions.

Key emerging technologies which will use by the intelligent real-time enterprise

eXtensible Business Reporting Language (XBRL) is a language for the electronic communication of business and financial data which is set to revolutionise business reporting around the world. It provides major benefits in the preparation, analysis and communication of business information. XBRL facilitates by simplifying the flow of financial statements, performance reports, accounting records, and other financial information between software programs. Until recently, there were no standards that would allow financial information to be automatically communicated between different applications.

Business intelligence systems which traditionally processed highly aggregated historical data, have expanded their scope to monitor and manage individual transactions and business processes in real-time. As a result, they can generate alerts when an important event occurs or there is a departure from expected behavior. Key performance indicators can be monitored continuously and displayed on digital dashboards that are tailored to meet the needs of different individuals, from a logistics manager to the chief financial officer.

Business integration technologies have evolved beyond the previous generation of enterprise application integration (EAI) middleware to include process integration servers, which use explicit models of business process logic and add the ability to handle long-running transactions alongside short-running transactions. Long-running processes are particularly important for business-to-business integration because it is undesirable for a business process to come to a halt while awaiting a response from a trading partner.

Supply chain event management capabilities provide real-time information about order status and inventory levels, as well as other supply chain events such as deliveries, shipments and production. These capabilities will dramatically increase during the next few years with the growing use of radio frequency identification (RFID) technology, which allows pallets, cartons and individual units of inventory to be labeled with tags that can be read electronically.

Expanded use of eXtensible Markup Language (XML) will provide the basis for developing specifications and standards for automating business process within and between enterprises. XML also provides the basis for Web services, which will eventually replace the current model of the Web pages with automated communication between software programs, allowing information to be accessed and processed without the need for human intervention. Web services will allow company financial reports in XBRL format to be automatically retrieved by a financial analysis program, eliminating the need for an investor to first locate and download the information.

For more information, contact: Mr. Sam Trattles
sam.trattles@au.pwc.com

Inside this issue of "TECHWATCH LANKA".....

Biotechnology	2
Gene to fight against malaria	
Biodegradable gene carrier	
Aquaculture Technology	4
Design fish diets to make you healthier	
Breakthrough in aquaculture biotechnology	
Food Science & Technology	6
Cold-water starch for bakery products	
Textile Technology	8
High-performance cutting solution for heavy fabrics	
A new software for quick simulation of apparel	
Management of Technology	10
Electricity for a digital economy	
Technology and intelligence	
Electronics & Telecommunication Technology	12
System to reuse electronic wastes	
Information Technology	14
"Check point" quarantines infected computers	
Civil, Mechanical & Manufacturing Technology	16
A new type of glass engineered for self cleaning	
Future of CAD designing	
Rubber & Polymer Technology	18
A new process to join metals and plastics	
Thermoplastic alloy for meal packaging	
Environmental Science and Technology	20
Bacterial remediation to cure environment	