What are examples of decision support systems in global enterprises?

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This Ask Dan! continues the discussion of decision support in global enterprises (see DSS News of January 29, 2006 and March 12, 2006). As noted previously, you can discuss this topic and other leading-edge DSS issues at ICDSS2007 (ICDSS2007.org) and please consider submitting a relevant paper for the conference book to info@icdss2007.org by May 10, 2006.

A global enterprise has significant operations in multiple nation states and often in countries on different continents that need to be coordinated and cooperatively managed. A global enterprise can not function without sophisticated telecommunications and information technology, BUT the amount and sophistication of decision support varies widely. As these enterprises grow and prosper they are however likely to innovate and rapidly adopt sophisticated DSS technologies that emerge. The examples in this column will therefore focus on leading edge, publicly disclosed examples of DSS in global enterprises. All of the examples are documented in case studies or press releases at DSSResources.com or at vendor Web sites. These examples are the "tip of the ice berg" and the focus is primarily on recent press releases.

Let's examine some examples in the context of the expanded DSS framework: Communications-driven DSS, Data-driven DSS, Document-driven DSS, Knowledge-driven DSS and Model-driven DSS. Also, it should be noted that managers in global enterprises like Procter & Gamble use software for decision support special studies (cf., Palisade Staff, 2001).

Communications-driven DSS

Groupware, chat, Videoconferencing, and web-based bulletin boards are increasingly common in global enterprises. In a 2002 case study, eRoom Staff documented how more than 100 Naval Medicine CIOs and...
their staffs access eRoom through industry-standard Web browsers. The U. S. Navy Bureau of Medicine manages 77 hospitals and regional service providers in locations inside the U.S. as well as overseas-based military installations, combat field hospitals and Navy ships at sea.

Recently, WebEx launched WebEx WebOffice in India to support distributed project management and outsourced development coordination for overseas partners and clients (03/07/2006). In 2001, Procter & Gamble chose Polycom for worldWide video communications support. Hewlett Packard (HP) has 13 Halo Collaboration Studios installed at its facilities worldwide. Halo Collaboration Studio is a high-end video conferencing facility built by HP in partnership with DreamWorks Animation SKG (12/12/2005).

To use Halo, organizations purchase at least two Halo rooms set up for six people each. "There are three plasma displays in each room that enable participants to see those they are collaborating with in life-size images. The rooms come equipped with studio-quality audio and lighting and participants use a simple on-screen user interface to begin collaborating". "Participants can easily share documents and data directly from their notebook PCs with individuals in other rooms using a collaboration screen mounted above the plasma displays."

Data-driven DSS

In a recent case study at DSSResources.com, SAS staff explain how Briggs & Stratton uses SAS BI to consolidate information and deliver it globally to manufacturing offices, particularly in North America, China and Europe. The case describes a global data-driven, executive management system with scorecards. More than 50 people in the company are hands-on information producers. For the past few years in the oil business within Shell International, a Category Management Business Solution (CMBS) has been used in seven countries, including Germany, UK and Netherlands. Data is gathered from more than 2,500 sites with 100 head office users.

At Maytag International, in a somewhat dated example, DI-Diver was
used to track sales and analyze profitability for refrigeration, laundry, floor care, cooking and dishwasher product categories. DI-Diver reports included sales dollars, unit totals, revenue, cost, warranty, and gross margin information for 1,700 SKU’s and 1,000 customers. The data was updated monthly and distributed to users over a LAN. For remote users the updated information was distributed on a CD.

Two July 2005 press releases described decision support applications at Airbus and Hellmann Worldwide Logistics. Airbus expanded its use of an Applix TM1 solution to approximately 100 controllers at 16 Engineering Competency Centers located in France, Germany, the UK, and Spain. Hellmann is an air and sea freight shipping company that serves customers from 341 cities in 134 countries. Hellmann selected BusinessObjects XI to provide real-time access to customer related information such as tracking and tracing statuses, invoicing, inventory, and KPI management.

Buckman Labs standardized on Information Builders' software for global information integration (01/30/2006). It uses WebFOCUS to generate sales analysis reports. The company has annual sales of $429 million, produces 700 different products, and employs over 1,500 people working in more than 90 countries. ABN AMRO selected Teradata Data Warehouse to build a platform for business decision support in Asia (02/15/2006). ABN AMRO is an international bank with more than 3,000 branches in more than 60 countries and territories. The data warehouse will support business development of ABN AMRO consumer businesses in Asia. Regional headquarters in Hong Kong will be able to view the region's total business as well as the performance of each individual country's business, and each country will have a view of its own data. The focus is on DSS for customer relationship management, customer revenue analysis, and monitoring credit risk metrics. On March 21, 2006 Cognos announced Fresh Del Monte purchased the Cognos Performance Management solution. Fresh Del Monte is a leading global producer and distributor of fruit and vegetable products in Europe, Africa and the Middle East.

Document-driven DSS

In a release dated March 10, 2006, "Dr. Scheller Cosmetics speeds time-to-market with Captaris Workflow", Captaris Workflow software
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was used to automate the approvals process for Dr. Scheller research and marketing materials. Dow Corning automated workflow capabilities and created templates using the Documentum ECM platform to ensure the consistency of all Web content while enabling business units to manage the content. DuPont Engineering has a document-driven system with more than 2,100 users worldwide. The system contains more than one million CAD drawings and other project documentation (cf., http://documentum.com).

Knowledge-driven DSS

Moody's Risk Management Services uses a knowledge-driven system to support the needs of commercial lending institutions. Over one third of the top 100 commercial banks in the US and Canada along with some of the largest industrial and financial companies in the world use FAST (Financial Analysis Support Techniques) software for credit analysis. Also, Hewlett Packard deployed a Web-based system to provide "quick, accurate hardware sizing, network configuration, and usage recommendations for SAP Business Information Warehouse implementations" (cf., http://exsys.com/case.html).

Model-driven DSS

Standard Bank, one of the largest banks in South Africa, has operations in 17 countries. It was one of the early adopters of credit scoring and customer-level decisioning from Experian-Scorex (08/30/2005). ILOG announced on February 14, 2006 that Taiping Life, a leading Chinese insurer, chose ILOG JRules for its underwriting system so that it could expand its underwriting in Asia. I'm sure that there are many other model-driven scheduling, simulation and optimization DSS examples in global enterprises similar to those found in more local or country-centered enterprises.

So what can one conclude from the above examples? First, global enterprises differ in their decision support needs, but they also have many needs that are similar to those of all large, complex organizations. Second, technology adoption varies widely in global enterprises. Third, the possibilities for DSS seem much greater than what is evidenced by current applications.
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As always, your comments and suggestions are welcomed.

Cited Press Releases

07/12/2005 - Airbus expands use of Applix TM1 solution.

07/12/2005 - Hellmann Worldwide Logistics optimizes performance with BusinessObjects XI.


12/12/2005 - HP unveils Halo Collaboration Studios: Life-like communication leaps across geographic boundaries.

01/30/2006 - Buckman Labs standardizes on Information Builders' software for global information integration.

02/14/2006 - Leading Chinese insurer Taiping Life chooses ILOG JRules for its underwriting system.

02/15/2006 - ABN AMRO selects Teradata Data Warehouse to build a robust foundation for business development in Asia.

03/07/2006 - WebEx launches WebEx WebOffice in India: An on-demand collaboration solution for distributed project management and outsourced development.

03/10/2006 - Dr. Scheller Cosmetics speeds time-to-market with Captaris Workflow.

03/21/2006 - Fresh Del Monte moves to Cognos Performance Management solution.
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References


eRoom Staff, "Naval Medicine CIOs use collaboration and knowledge-sharing decision support application", eRoom, Inc., 2002, posted at DSSResources.COM August 2, 2002.


SAS Staff, "Briggs & Stratton harnesses operational data", posted at DSSResources.COM December 2, 2005.