

## Computer Hardware & Software

# Risk And Data Warehousing

By Robert Malone Electronically reprinted from June 2, 2006

**N**EW YORK - Analysts, suppliers and vendors have turned their attention toward managing in an age of greater risks. These risks can include the threat of natural (or man-made) disasters or simply the failure of one supplier to deliver a critical component. A small failure like that can radiate out to become its own induced disaster.

"The question has come up as to what causes us to look at risk management from a new perspective. Companies have been dealing with risk management from the dawn of time. It has been the normal course of business to deal with disruption," says Jerry Hill, director of supply chain solutions for **Teradata**, the enterprise data warehousing leader that is a division of **NCR** (nyse: [NCR](#) - news - people ).

According to AMR Research, whose executive conference Hill is attending, the supply chain has now become so complex and so interdependent that a single point of failure within the network, or a global shift in resources, government policies or taxes, can have a catastrophic effect on a company's global supply chain. A company increases its dependence when it uses contract manufacturers or outsources its transportation. At particular risk are companies that are single-sourced on key components, because the costs of

developing technology doesn't allow for a wide supply chain for some of those components.

But Wall Street doesn't accept an act of God. Investors expect companies to have contingency plans for every kind of event that may affect the supply chain, Hill says.

A recently released AMR study of surveyed companies indicates a number of strategies and technologies that could help enterprises better manage risk. These include simulation tools, score carding, probability analysis, early warning techniques and a multitude of information technology.

AMR's studies also show that companies that are decisive in dealing with their risk management are much more successful than those that are not as focused. Supply chains are evolving into the competitive advantage that dominates manufacturing and distribution.

At Teradata, Hill points out, there is a need for an application-neutral supply chain risk platform. Today's enterprise resource planning systems and operational planning systems in risk management often have significant limitations and only serve where they are deployed. Risks, on the other hand, can be outside the domain of the current infrastructure.

Hill says Teradata considers it of pri-

Jerry Hill



mary importance to gather, maintain and organize the company's data in a data warehouse. This has to be done in such a way that it is independent of any kind of analytical or business intelligence tool.

If the data is clean, of high caliber and organized in the data warehouse, a company can then point any kind of analytical tool at it--the warehouse doesn't care if the data comes from internal or external sources. This process gives a company the freedom to define its supply chain according to

its needs over time. It also allows the company to model its entire network at a detailed level for analysis and contingencies.

Hill makes three major points on risk management operations using data warehousing:

--Company data should be leveraged to detect the early warning signs of a problem brewing. In most cases, these indicators exist but are overlooked or lost in the system. By using a data warehouse, a company can perform

statistical process control against it and flag an early warning sign, just as the company would in its manufacturing line. A company has to look for changes in performance: Consistency should be rewarded, and inconsistency is an alarm signal.

--A company's system should be configured to give managers very precise and timely decision-making information. When a problem occurs in a traditional system, a specific kind of sequencing takes place. It may be intel-

ligent and intuitive, but it runs off data that is not always precise or based widely enough. In a data warehouse application, you eliminate those processes and make a query of precise and broadly based data, and you get an answer that can be acted upon.

--Finally, managers must be able to model anticipated events through the use of the data warehouse. This means turning forethought into foresight. This process has to be acted upon continuously.

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