

Overloaded With Data? Wipro Helps Enterprises Analyze It to Do Business Better

Beth Ellyn Rosenthal, Editor | September 19, 2011



Wipro Voice: A Discussion with K R Sanjiv, Senior Vice President for Analytics and Information Management

Enterprises, physicians, stock traders, oil rig operators — everyone these days is awash in data. How do you make sense of all the information? How do you use it to make better business decisions and ultimately more money?

Wipro has created a new service line: Analytics and Information Management to help its customers do just that. The service provider has included analytics in its offerings for years. But what's different now is analytics “are a priority and aligned closely with business outcomes,” says K R Sanjiv, the new division’s senior vice president.

The new service line addresses one of the trends Sanjiv called “Big Data.” Three attributes create the Big Data environment:

1. **Volume.** Sanjiv points out transaction databases could have hundreds of terabytes of data and exploding every year.
2. **Types of data.** In addition to structured data (the data in databases), companies now have to analyze unstructured data like texts, blogs and messages from the Web. It also includes feeds from companies like Reuters or Bloomberg and other syndication sources. It includes data from machines or sensors like those placed in an operational oil well or a patient monitoring operating room. Unstructured data is any data not in a relationship format.
3. **Real-time usage.** Today corporations want to analyze data in real time, not just at the end of the quarter. In fact, the need for speed and right timing outweighs even the need for accuracy in many scenarios.



Defining a sustainable and efficient enterprise architecture for all the above is a complex exercise for most organizations. Sanjiv says Wipro recommends a three-tier architecture to handle Big Data scenarios.

1. **Conventional databases and datamarts tier** for handling the structured data
2. **Appliances tier** that processes closer to the hardware and in memory for faster and real-time processing. These can be up to 10 times faster than conventional processing.
3. **Unstructured data tier** for processing, parsing and analyzing the unstructured content

“Processing happens in the appropriate layer to keep the cost down,” says Sanjiv. Also a uniform layer to load data into the appropriate layer and integrate the outputs from each layer to provide an integrated look is essential for success.

How can information management help outsourcing buyers?

Sanjiv says this is a two-step process. First, outsourcing buyers need “to get a first hand understanding of this new technology so they don’t get carried away by the hype.” They can do this by doing a proof of technology or a pilot around these technologies.

Next, they need to look at their business processes and link their key performance indicators (KPIs) and their required return on investment to what these new technologies can provide.

For example, a media company puts a cable box in every customer’s home. That device records every action. Companies can analyze this data to search for granular viewing patterns. “This information has business value,” Sanjiv explains. The company can make better choices when selecting a new show, or segment its advertisements more effectively. “The data lets them monetize their insights because they now know how to optimize their spend,” he continues.

In the healthcare field, elderly patients now have monitoring devices so they can age at home. These devices send information on regular basis. Analytical applications can detect abnormal patterns and alert the concerned physicians who can then look at the data to make the correct diagnosis from afar.

The three-tiered architecture allows outsourcing buyers “to implement cost-effective uses that were not possible before. These innovations create real impact,” Sanjiv says. He suggests corporations identify one or two processes to explore new options, options that were not possible before because either the technology was too expensive or just not available.



Five keys to success in information management

Sanjiv posits there are five keys to success for successful analysis and information analysis:

1. **Create a standard reference architecture at the outset.** Without standardization, “different lines of business will use the same technology in different ways, resulting in duplications and related quality issues.”
2. **Build a summarization capability in the unstructured data layer.** This is necessary because of the large volumes involved. This layer must have the ability to do the summarizations in the huge mass of data and then pass these on to the structured layer or other analytical applications for processing. To use the medical monitoring device example above, the processing layer would extract the abnormal readings only and pass them on to the medical application or tell the physicians. That way the application would only have to deal with a manageable amount of relevant data.
3. **Build an analytics service** that can take inputs from the transactional system and do analysis and mining on the large data. This is required where patterns or correlations have to be detected by using the whole data. As an example, a credit card company would want to drill down to analyze the data to detect fraud committed by one person.
4. **Build an interface.** The interface pushes data in and out. This, too, needs to be standardized.
5. **Create strong governance and security.** Compliance has to be uniform across all three platforms.

After completing many pilots for clients, Wipro’s executives noticed they were creating new architectures for this technology that co-exist with their existing technology. “Companies are building around their legacy systems,” Sanjiv reports. That’s good news. No one has to jettison systems they are currently using to take advantage of the data they are producing.