STREAMING ANALYTICS

VALUE TO OUR CUSTOMERS

MindStream Analytics is a professional services firm dedicated to helping clients enable better decision making. With over a decade of experience in the analytics and Business Performance Management space, MindStream offers customers business intelligence and analytic tool selection, predictive modeling development, real-time streaming analytics, Profitability Costing models, BPM design and delivery optimization and best practices for financial planning. MindStream guides their customers to a solution that enhances business modeling enabling better analysis and insight into their data. We believe that the power of technology combined with best practices will give customers the ability to make fact based decisions.

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Why can I watch YouTube videos on my laptop but can't get current operational data to run my business? Streaming Analytics is made possible through specialty chips, or hardware accelerators called Field Programmable Gate Arrays (FPGAs). Here's how it works: Data enters the FPGA and passes through a series of internal "gates" according to the function loaded into the chip. Filtering and processing takes place as data flows unimpeded through the gates. The process enables algorithms to run 10-100 times faster than traditional approaches and accounts for the speed advantage of FPGAs when handling data streams. Conventional technologies typically require moving data between storage and memory to perform a processing operation.

Using high-performance analytics at streaming speeds can be game-changing for data-intensive companies by improving performance by orders of magnitude. Wherever critical information is needed urgently -- fast, in-depth analysis of data impacts business performance. Financial Services firms can run complex risk analyses iteratively, hundreds of times throughout the day rather than overnight, for better trading decisions. Telecommunications companies can analyze call data records in real time to offer customers the best packages and rates. Retailers can optimize SKU-level pricing by capturing in-store data dynamically.
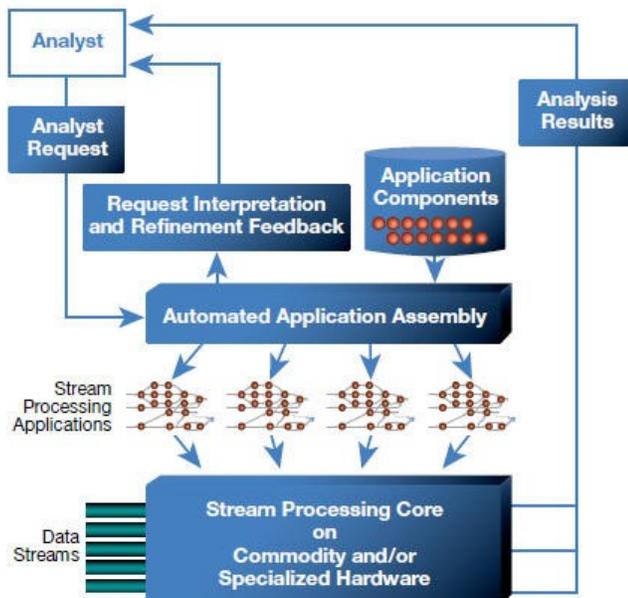
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NO DATA MOVEMENT

A fundamental computer science principle says: **when operating on large data sets, do not move data unless you absolutely have to.** Streaming Analytics processes data extremely efficiently, as early in the data stream as possible. By optimizing the use of FPGAs, the architecture has revolutionized the data warehousing industry. Data warehousing is transformed by running complex SQL queries and non-SQL algorithms used by analytics applications against terabytes of data. The ability to run a complex analysis against a huge live database, without the delays and costs of moving data to separate hardware and storing it in an application, opens up new types of analyses previously out of reach.

MINDSTREAM CAN HELP

MindStream Analytics core competency is the development of statistical analysis and is ready to help our client's organization understand key performance indicators driving behaviors in today's business climate. Whether those patterns are; customer purchase patterns, inventory stocking efficiencies, purchasing models, or any type of analysis, we can help. Today, the technology exists to analyze data patterns in real-time as they happen. By deploying streaming analytic software tools, MindStream Analytics is a pioneer at the forefront of the next technology revolution.

ARCHITECTURE

The diagram shows the business user (top left corner), and how the user's analysis request is converted into a stream processing application, deployed into the compute environment as a distributed stream processing job. It also shows how the analysis results are returned, rendered as a dynamic mashup and presented to the business user. (Credit: IBM)

For more information on how MindStream Analytics can help you with your needs, contact us at info@mindstreamanalytics.com

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