# Streaming Analytics: Business Intelligence's Next Stage

## Transform Real-Time Data Into Deeper Understanding and Faster Action

Legacy business intelligence (BI) systems that draw only from static and archived data can't keep pace with a business environment that demands fast, accurate action in the moment rather than after the fact. Business today needs a new generation of BI, one that incorporates real-time business events and dynamic live data from diverse operational sources to expose relevant patterns and enable greater agility. This new approach to BI is called Streaming Analytics (SA).

### New Approaches Using Proven Technologies and Methodologies

When situations demand quick action, organizations need to make faster, more accurate responses based on the most relevant and timely data and events. By melding proven technologies and methodologies from data integration, data replication, complex event processing, data virtualization, and event-driven architecture, SA enables organizations to detect and react to important business situations as close as possible to the critical moment.

Unlike traditional BI, which is based on a "store first, then analyze" model, SA calls for a minimal latency design that analyzes and reports on business events as they occur. This approach requires all of these capabilities:

- Real-time detection and response to business events with self-service/rule-based event processing
- Real-time access to live operational data through database-independent, high-performance data replication
- A common and trusted data access layer that accelerates delivery for all BI tools and dashboards through data virtualization
- Ready access to all enterprise data sources, including social media and unstructured data

### Analyzing the Present to Predict the Future

Event processing capabilities are key to SA's success. By systematically correlating individual events and data anomalies with other data, business processes, and/or anomalous transactions, then measuring them against historical norms or metrics, SA can begin to expose cause-and-effect patterns and predict future problems and opportunities. This ability to sense and correlate seemingly unrelated events into meaningful patterns gives an organization a significant edge in making strategic decisions. Besides increasing the company's agility in a fast-moving market, event processing solutions make possible the next phase of real-time SA systems: the ability to alert appropriate IT and business employees proactively about situations requiring intervention. Such alerts occur with enough advance notice to analyze potential responses and choose the one most likely to deliver maximum value.

# New Potential for Serving Customers and Driving Revenue

The event-driven data delivery model of SA provides your users with the information they need when they need it: as it happens. By delivering real-time insight into the critical operational processes and events that drive strategic decision making, SA dramatically speeds detection of potential problems and opportunities. It also supplies the critical context for evaluating the situation and choosing a response.

With SA, your company stays on top of shifting trends, can intervene in minor issues before they become major business disruptions, and knows what your internal and external customers need and expect as soon as they do — and maybe sooner.

### Improving Customer Retention

It's peak season, but one of your major customers is actually cutting back its orders. Is the customer on the verge of taking its business elsewhere, and if so, what can you do to stop it?

SA can help you identify and correlate delayed deliveries, problem transactions, and other negative events to determine whether the reduced orders are an anomaly or part of a larger negative pattern your company needs to address.

### Pursuing Opportunities Proactively

A regular customer's usage trends suggest its demand for your product will exceed its current regular order in just one week. What's the optimal point to begin upselling?

Streaming analytics can predict increased demand before the customer even calls — and deliver enough information about similar customers, trends, and real-time usage to your call center agents to help them identify the right moment and incentives to assist in upselling.

### Managing Service-Level Agreements

Your organization needs to stay current with its service level agreement (SLA) thresholds, both to ensure continued compliance and to notify customers and business users of possible issues.

SA provides risk management techniques and rules to help you monitor SLAs and implement make corrections at the first sign of trouble. It also enables your organization to give end users as much advance warning as possible of prospective issues, from unplanned outages to planned maintenance.

# Join the Evolution of Business Intelligence with Informatica

The core of SA is the ability to establish business process definitions and support an IT infrastructure that automatically adapts them on the fly in response to changing business scenarios and activities. This requires a system that can integrate and make virtual a wide range of data sources — not just typical enterprise sources, but unstructured, log, sensor, and social media data as well. It also requires a strategic assessment to determine which business processes will benefit most from the shift to a real-time, "sense and respond" paradigm.

Most enterprises today have some level of synchronization with key data sources in their enterprise, but their lack of a common, trusted data access layer across all BI tools and dashboards hinders self-service and hampers agility. Market-leading data integration from Informatica® solutions solve this problem by working hand-in-hand with its event processing platform to ensure real-time processing and delivery of timely, trusted data throughout the enterprise.

Because Informatica solutions are vendor-agnostic, they readily integrate diverse data types with advanced event-handling tools across the broader IT infrastructure. Data virtualization allows organizations to accelerate the delivery of this common and trusted data access layer from months to days, without moving data or risking data quality. Informatica solutions also integrate with existing software and hardware rather than requiring a tear-out-and-replace strategy. In addition, the solutions are designed for maximum flexibility and agility in integration with other systems through connectors, Web and mobile services, support for unstructured data, pre-built adapters, and data normalization facilities between systems. They can be rolled out incrementally, running in parallel with existing piecemeal solutions and either replacing them or integrating them over time as necessary.

With an organizational intelligence system based on Informatica's proven data integration technology, organizations can begin to turn real-time information from multiple sources into actionable strategic information for near-instant reactions in a changing business environment.

## About Informatica

Informatica Corporation (Nasdaq:INFA) is the world's number one independent provider of data integration software. Organizations around the world rely on Informatica to realize their information potential and drive top business imperatives. Informatica Vibe, the industry's first and only embeddable virtual data machine (VDM), powers the unique "Map Once. Deploy Anywhere." capabilities of the Informatica Platform. Worldwide, over 5,000 enterprises depend on Informatica to fully leverage their information assets from devices to mobile to social to big data residing on-premise, in the Cloud and across social networks.

## More Information

For information on Informatica Rulepoint, a first-class business rules engine with streaming capabilities that enables developers to author streaming applications using both business rules and streaming operator constructs in one platform, visit www.informatica. com/us/products/complex-event-processing/rulepoint/.

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### Informatica RulePoint Customer Testimonial

"Informatica RulePoint enabled us to look forward instead of backwards when pursuing new initiatives. We can now evaluate and analyze things as they happen and take action if necessary."

Source: 👤 IT Manager, Medium Enterprise Financial Services Company

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