

ORACLE: 15 YEARS OF EVENT PROCESSING LEADERSHIP

ORACLE EVENT PROCESSING

- **2007: Complex Event Processing (CEP)**
 - Stream Relations
 - Pattern Matching
- **2006: Event-Driven Architecture Suite**
 - JMS Messaging
 - Reliable Events
 - Event-Driven Rules
 - Business Monitoring
- **2004: Business Activity Monitoring (BAM)**
 - Web Browser Dashboard
 - Business User Authoring
 - Embedded Actions
 - Real-Time Analytics
- **2002: Data Streams**
 - Load Balancing with N-Way Replication
 - Hub & Spoke Replication
 - Synchronous Capture
- **1997: Advanced Queuing**
 - End-to-End Tracking
 - Automatic Correlation
 - Automatic Auditing
 - Message Warehousing
- **1992: DML Triggers**
 - Customized Database Management

For fifteen years Oracle has led the market as a provider of event processing technologies. From database triggers to message-oriented middleware and today's complex event processing technology, Oracle has been at the forefront of introducing and standardizing all forms of event-based processing.

History of Oracle Event Processing

Oracle's rich history of event processing technology includes fifteen years of bringing together the best ideas, talent and real-world customer tests to execute on a vision for enabling world-class event processing applications.

1992: Database Triggers in Oracle7

Oracle began delivering event processing in its core offering, the Oracle Database, with the Oracle7 release and Data Manipulation Language (DML) Triggers. Triggers supplement the standard capabilities of Oracle to provide a highly customized database event management system. For example, a trigger can restrict DML operations against a table to those issued during regular business hours. You can also use triggers for a variety of different tasks, for example: to automatically generate derived column values; prevent invalid transactions; enforce complex security authorizations; enforce referential integrity across nodes in a distributed database; enforce complex business rules or provide transparent event logging.

1997: Advanced Queuing in Oracle8

By the mid-1990's Oracle was looking at how the Oracle Database could be extended to support event processing through integrated message queuing. Oracle Advanced Queuing was introduced with Oracle8 in 1997, as the industry's first database-integrated message queuing system. By integrating asynchronous messaging into the database itself, Oracle8 Advanced Queuing provided a single transactional, security and data model for combined messaging and database operations.

2002: Streams Introduce Information Management in Oracle9i

With Oracle9i Database Release 2, Oracle introduced Oracle Streams to the market. Oracle Streams enables the propagation of data, transactions and events in a data stream either within a database or from one database to another. Oracle Streams provides a set of elements that allows users to control what information is put into a stream, how the stream flows or is routed from node to node, what happens to event in the stream as they flow into each node, and how the stream terminates.

2004: Bringing Event Processing into Fusion Middleware with Oracle Business Activity Monitoring

In 2004, Oracle Business Activity Monitoring introduced business relevance to events as part of Oracle Fusion Middleware. Oracle BAM is a complete solution to correlate low-level system events with business-relevant KPIs and SLAs in order to more efficiently manage business operations. Oracle BAM provides business users with dashboards for monitoring, drill-down analysis and alerts for real-time notification and response to business problems or opportunities.

2006: An Event-Driven Middleware Suite to Compliment Service-Oriented Architectures, Oracle Event-Driven Architecture (EDA) Suite

Oracle's EDA Suite was the first comprehensive, integrated event-driven architecture offering in the market that enables customers to monitor, analyze and respond to business events in real time. Oracle EDA Suite brings together in one integrated offering (i) a Business Activity Monitoring (BAM) solution to define and monitor events and event patterns that occur throughout an organization; (ii) a Business Rules engine to capture, automate and flexibly change business policies; (iii) Enterprise Messaging to reliably deliver event messages with configurable qualities-of-service; (iv) a multi-protocol Enterprise Service Bus (ESB) to connect applications and route messages; and (v) a Sensor Edge Server (SES) to enable connectivity to RFID readers and other physical devices to capture and filter events.

2007: Enabling Event Processing Applications with the Oracle Complex Event Processor

Today Oracle is bringing to market a new product for event processing, the Oracle Complex Event Processor (CEP). Oracle CEP provides a set of programmatic event processing capabilities like high-throughput stream processing, event correlation and detection, as well as market leading functionality in the area of pattern matching.

Oracle CEP is built on a simple, elegant and rich language to model the data streams and continuous queries required to deliver complex event processing called the Continuous Query Language (CQL). CEP with CQL executes complex algorithms in real-time against streams or feeds of hundreds of thousands of events per second. The end result is the correlation, aggregation and pattern matching output that feeds business applications.

For More Information

Please visit www.oracle.com/goto/eda

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