



Overview

IBM Active Middleware Technology™ is a lightweight and agile complex event processing rule engine. IBM Active Middleware Technology™ helps enterprises lower the costs associated with changing business logic by automating and monitoring business processes, and enabling on demand business environments.

As opposed to simple mechanisms that detect single events, IBM Active Middleware Technology™ can detect complex situations that involve a context-sensitive composition of messages and events. This functionality is extremely practical when processing input from multiple event sources. Such scenarios may involve SLA (Service Level Agreement) alerts and compliance checking applicable to the financial market, banking, and insurance industries.

Functional Features

IBM Active Middleware Technology™ is not just another rule engine; its extended approach covers and broadens areas such as temporal awareness and context sensitivity. It builds on the traditional Event-Condition-Action (i.e., if-then) paradigm by introducing stateful rules that enable the real-time detection of patterns.

IBM Active Middleware Technology™ supports:

- **Situations** – conditions defined based on the event history to expand traditional rules
- **Temporal awareness** – time-restricted rules and timeout actions
- **Context awareness** – temporal, spatial and entity context support
- **Expressive power** – rich, high-level, extendable language for the definition of situations
- **Business level modeling** – Eclipse-based development environment. A wizard guided process aimed at the business user includes an expression builder and template support. The end-to-end rule life-cycle is supported with facilities such as version control, syntax validation, and simulation

Non Functional Features

IBM Active Middleware Technology™ is a robust and scalable Java-based event processing engine that supports numerous quality of service levels and non-functional requirements on different platforms:

- J2SE for optimized performance
- J2EE for enterprise platform
- J2ME for embedded devices

All IBM Active Middleware Technology™ implementations share the same toolkit and pattern language. These provide the following:

- **Persistency** of both the rule definition and the runtime state
- **Transactional support** where event processing is part of the business transaction
- **Hot update** so rules can be updated and validated while the event engine is running
- **Actions** are pluggable to enable custom code performance as a result of a rule being triggered
- **Flexible event format** supports “flat” events, CBE, WEF, arbitrary XML, arbitrary objects, JMS messages, and more
- **Optimized for performance** with tens of thousands of events per second
- **Declarative rules** enable the generation of rules from other tools via an XML bridge
- **Horizontal scalability** allows multiple event engines to work concurrently in a distributed environment
- **High availability** is provided via application server clustering or HACMP

Value Proposition

IBM Active Middleware Technology™ is embedded in the products and solutions of IBM and its business partners, providing:

- Detection of real-time threats and opportunities
- Consistent behavior across the enterprise, with no manual or semi-automatic event processing
- Business agility and quick reactions to changing requirements/ regulations
- Flexible state-of-the-art enterprise architectures (SOA, EDA)