



eBAM Creation Review

Planned Review Date: April 7th 2010
Communication Channel: [Forum](#)
Project Lead: Angelo Bernabei



eBAM Overview

(Extended Business Activity Monitoring)

- ✓ **This project is intended to realize a monitoring platform supporting the performance and management analysis of external systems.**
- ✓ **Provides both build-time and runtime tools for a BAM platform.**
- ✓ **Modular OSGi Architecture, based on Equinox platform.**
- ✓ **Proposed as subproject of SOA Platform Project.**
- ✓ **Excellent feedback received in the proposal forum.**

Project Scope



- ✓ **The eBAM project focuses on the evolution and promotion of a middleware solution for Business Activity Monitoring, which can be used for any type of services (infrastructure, applications, BPM, SOA).**
- ✓ **Enables the real-time control of heterogeneous applicative and technological contexts**
- ✓ **Correlates different types of information coming from different environments**

Main features



- ✓ **Presenting monitoring dashboards.**
- ✓ **Producing alarms in critical situations (which are defined according to specific rules).**
- ✓ **Sending events which can interact with external systems**
- ✓ **The integration between eBAM and source systems is based on Adapters, specialized for each channel/protocol (log file; JMS, DB, SOAP code; etc.).**
- ✓ **Definition of rules through CEP engines.**
- ✓ **Definition of alarms and SLAs.**

Proposed Components



Adapter DataFlow Services: it gathers the information of one's interest from several heterogeneous and distributed data sources (JMS, DB, log files, XML, JMX, SOAP, etc.). Each one extracts the information from an external service (JMS, SOAP, JDBC, Log, workflow, BPEL, ESB, OSGi, ...) and turns them into an Eclipse CBE (Common Base Event) Format. Several adapters will be developed during the project lifecycle. The analysis will require the integration of the Generic Log Adapter of the Eclipse TPTP Monitoring Tools Project.

Event Manager: the project implements new OSGi modules for Equinox which work as a gateway for different rule engines (e.g. OpenL Table and JBoss Drools). Starting from the SLA and alert definition of every KPI.

Meta model area: Metadata repository (CEP, SLA, alarm rules) and cache systems for the input of data. This area is close to the meta model (EMF) project and will be realized as new OSGi modules for Equinox, by EclipseLink and SDO.

Alert Services: It will be based on a component which can detect the threshold alarms on CEP events and interact with external notification systems through the definition of a standard interface.

Dashboard Services: graphic front-end interface, enabling the analysis of the indicators of one's interest and providing processes monitoring dashboards. It will be based on the use of BIRT and, if necessary, on the extension of an applicative console.

Proposed Tools



The project adds the following tools to the support runtime execution and the design phase:

- ✓ **SLA Editor:** to define thresholds.
- ✓ **Alarm Editor:** to define how to handle alarms.
- ✓ **Rules Editor:** to define CEP rules and alarms configuration.

Relationship to other Eclipse Projects



- ✓ **Eclipse TPTP**– using the Generic Log Adapter to read data of log files.
- ✓ **Eclipse CBE (Common Base Event)** – used to manage the information representation.
- ✓ **Eclipse Swordfish**- eBAM runtime can work on Sworfish as OSGi runtime, and benefits of Swordfish features.
- ✓ **Eclipse Equinox** – eBAM runtime is built on top of OSGi, and will use Equinox as its runtime.
- ✓ **EclipseLink** – eBAM uses EclipseLink as its persistence framework.
- ✓ **Eclipse BIRT** – used to design and produce Reports and DashBoards.
- ✓ **Eclipse EMF** – used to manage the metamodel.
- ✓ **Eclipse JWT (Workflow Administration and Monitoring)** – used to share the monitor API.
- ✓ **Eclipse Mangrove - SOA Modeling Framework**– used to share the information about Processes.

Initial Committers (1)



Angelo Bernabei, Engineering Group

Angelo is an IT Senior Solution Architect. He has been operating several years in the design and development of business applications on different markets: industry, finance, local government and public health, as well as in different thematic areas such as Register, CRM, Enterprise Portal, Security and Asset Allocation. It has consolidated experience in designing Java Enterprise architectures, in open source frameworks and in the application of software development methodologies. He is currently involved in SpagoBI designing and he supports enterprise projects using SpagoBI platform.

Andrea Zoppello, Engineering Group

Andrea is an IT Architect with 10-year experience in web applications design and development, J2EE and EAI open source frameworks. At present, he is active in Spagic design and development, and in some projects focused on EAI, Business Process Management, Workflow, and Data Integration. Since November 2007, he has committed himself to Eclipse STP project, thanks to his contribution of the STP Intermediate Model. He will be eBPM Project Leader, working on the eBPM Core Frameworks Architecture and on the definition of the BPM Gateway API.

Andrea Gioia, Engineering Group

Andrea is an IT Architect with 5-year experience in web application design and development, J2EE and BI open source frameworks and tools. He's actually active in SpagoBI design and development, and on projects focused on BI, Location Intelligence, RIA, data integration and DWH.



Initial Committers (2)

Antonella Giacchino, Engineering Group

Antonella is an IT Solution Architect and SpagoBI Consultant with 10-year experience in web applications design and development J2EE and open source frameworks. She builds portals for demonstrations and projects, manages applications developed through SpagoBI platform and works on SpagoBI evolution.

Antonietta Miele, Engineering Group

Antonietta is an IT Developer with experience in J2EE and SOA. She has acquired knowledge on business process modelling and mapping, working as a consultant in some firms in the services and telecommunications markets, before joining the Spagic group in May 2009. She has been contributing to the Spagic development. In eBPM project, she will develop services and connectors, and will be responsible for the project wiki, forums, and documentation.

Giulio Gavardi, Engineering Group

Giulio is an IT Developer with 3-year experience in web applications design and development, J2EE and BI open source frameworks and tools.

He's actually active in SpagoBI development and in projects focused on BI and data integration.

Marco Cortella, Engineering Group

Marco has taken his Master Degree in Computer Science at the University of Turin, doing his thesis on Social Network Analysis in the Enterprise. In November 2009, he has joined the SpagoBI team, the Open Source platform currently supported by Engineering Ingegneria Informatica. At present, he contributes to the development of the platform with its expertise in systems for processing information.

Mentors



Cédric Brun – [OBEO](#)

Dave Carver – [Intalio](#)

Code Contribution and Licesing



- ✓ We are starting to design and develop the first eBAM architecture.
- ✓ The first code contribution will be composed of our state of art.
- ✓ All the source code will be released using EPL license.

IP Policy



✓ **eBAM will use IP Process**

Plan



EclipseCON 2010

Project Presentation

June 2010

Planned the Release Candidate

August 2010

Planned the Release of eBAM 0.7 version

eBAM aims to participate at the annual Eclipse release train, as part of the SOA Project.



eBAM Proposal – <http://www.eclipse.org/proposals/ebam/>

eBAM Forum - <http://www.eclipse.org/forums/eclipse.ebam>