

BUSINESS PROCESS MONITORING

SUB-CAPABILITIES OVERVIEW



Applies to:

SAP NetWeaver Composition Environment 7.1.1

Summary

This document gives an introduction to business process monitoring and an overview of its sub-capabilities. It also describes the challenges and lessons, as well as the value of business process monitoring for your organization.

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Business Activity Monitoring

Business activity monitoring (BAM) comprises collection, analysis and delivery of relevant and timely data about business activities within an organization, as well as business activities involving customers and partners. It enables process performance measurement - end-to-end monitoring of business processes and event driven on multiple process instances.

SAP NetWeaver® technology platform provides business activity monitoring infrastructure as a framework, enabling customers to analyze and take timely action on critical business processes and business activities, as well as to monitor and measure the key performance indicators for those processes.

BAM is not just a tool, but a framework providing advanced capabilities. SAP leverages BAM as a capability, providing the technical infrastructure for enabling users to:

- Take action on significant and critical events considering the correct business context
- Monitor, measure and enhance their business processes efficiency

Current SAP offering provides reliable BAM Infrastructure:

- Embedded Event Infrastructure enables collecting, pre-filtering and publication of events for cross-system use across SAP systems
- Process Milestone Monitoring enables subscription and handling of business process events and also building consistent business process instances
- Process Efficiency Analysis provides process related reporting with SAP NetWeaver Business Intelligence (SAP NetWeaver BI).

Challenges

- Business and technical users need to be aware of significant and/or critical business activities and needs relevant to their work at the right time
- Events are not actionable today – “Just another wave of notifications that should be dealt with?”
- Events are not ‘tangible’ for business users – “What kinds of business events are managed in our business landscape today? Where and how do users set up new scenarios?”
- Missing ‘chattiness’ of today’s applications and systems; events result unnoticed or appear with insufficient context
- The need to analyze and understand if event-driven architectures affect service-oriented architecture (SOA) strategy and what kind of event management capabilities are really needed
- To implement business activity monitoring on the business side, the organization must identify which processes to monitor, beginning with core business processes and assign metrics in order to extract useful information
- Organizations must also control interfaces with their business partners and related service-level agreements
- Ability to make informed decisions, recognizing significant events and rely on timely data, which is relevant in the business context of each decision

Benefits

With business activity monitoring, organizations gain visibility into business processes and optimize operational performance. It helps organizations to improve processes execution via:

- Gaining new level of transparency for the organization
- Enabling dynamic and collaborative business processes
- Leveraging task-oriented user interaction and collaboration
- Anticipating and resolving successfully significant business events by ensuring the right information is available at the right time to the right people

Insights

Business activity monitoring is an integral part of a holistic performance management solution. It helps to combine disparate business and IT practices, such as business process management (BPM) with end-to-end process integration, business information management and user-productivity enablement. When organizations are able to manage operational performance, they also know when significant business events occur, therefore action can be taken in a timely manner. Timely notifications combined with comprehensive and actionable 'data insights' are essential.

Monitoring business activity creates significant value for enterprises. While managing business performance emphasizes strategy life-cycle management, monitoring business activity focuses on business operations and addresses the management of operational performance. It helps achieve excellence in business processes and overall operations.

The effective monitoring of complex processes is a main benefit deriving from employing business activity monitoring infrastructure. The real value is that it can alert the appropriate people to relevant, significant business events and provide guidance on how best to resolve the situation at hand.

Summary

The SAP NetWeaver® technology platform supports business activity monitoring in three primary ways:

- SAP NetWeaver Process Integration - provides integration functionality, a process-centric structure for monitoring business activities, including business events of non-SAP sources as well.
- SAP NetWeaver Business Intelligence - initiates events based on analytical insights, such as exception reporting, predictive forecasting and opportunity identification based on pattern analysis and / or data mining. For event resolution, it delivers relevant embedded analytics, including forecasting and risk analysis, which help users make the right decisions when they receive alerts.
- SAP NetWeaver Portal – this component functionality provides alerting and resolution dashboards that integrate seamlessly with work centers, acting as central points of access to collect and coordinate user interactions, tasks and alerts. It also provides a personalized, secure interface that unifies enterprise applications, information and processes from SAP and third-party sources into a coherent, role-based portal experience.

In addition to security, interoperability and extensibility, business activity monitoring require other functionality, including alerting and visualization, as well as rules and events handling. The synergies between business activity monitoring, business process management and business intelligence require that

data and events are placed into a business process context throughout organizations. Systems use sophisticated analytical and business rules to recognize and interpret significant events as they relate to other past and present events in business operations. A single business event by itself, for example, may not be significant, but may become so when combined with other events.

The real return on investment from implementing business activity monitoring results from the ability to recognize and respond to events, as well as to resolve events quickly so that users can resume their standard activities. The ability to resolve business events helps users make timely and informed decisions. Organizations gain visibility on business processes and instant alerting of significant events, which helps executives and business users prevent problems before they occur. With an integrated business activity monitoring approach, companies are well positioned for business on the competitive edge.

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Process Instance Monitoring

Process Instance Monitoring refers to tracking of individual processes (single instance) with a graphical representation so that their status can be easily determined. Cross-component Business Process Management (ccBPM) powered by SAP NetWeaver Process Integration provides infrastructure to monitor the business process engine and to display the generated work items into a workflow, as well as to display detailed information about the status of a specific process or its individual steps. Process instance data can be loaded into SAP NetWeaver Business Intelligence for further analyses and reporting purposes.

Business activity monitoring infrastructure leverages the ccBPM capability to define Process Milestone Monitoring:

- Event-based monitoring of key process milestones
- Subscription and handling of business process events
- BPM modeling with Business Process Execution Language (BPEL)
- Building consistent business process instances across different application system
- Providing rich business context information
- Basis for process efficiency analysis

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Process Optimization

Via leveraging process optimization companies are able to analyze, understand their business processes, strengthen their IT and business architecture on their way beyond traditional business analysis towards business innovation.

Based on runtime data from SAP applications, SAP Process Performance Management application by IDS Scheer allows visualization and business processes analysis via enabling process measurement, monitoring of implicit processes running inside SAP applications. That way, activities with a high potential for optimization are identified. Based on the defined key process performance information, SAP Business Process Optimization application by IDS Scheer acts as a strategic corporate planning tool, which eases decision making and control over process efficiency improvement and optimization.

The SAP Business Process Optimization also enables process planning and simulation, retrieves and provides users with process performance information from monitoring phases. Its functionality can be used as an efficient decision making and a control instrument for improving and optimizing processes, per example when the following processes are scheduled for optimization: costs reduction, outsourcing decisions, personnel requirements, planning and benchmarking, etc.

The SAP Business Process Optimization provides the following capabilities:

- for business simulation:
 - Dynamic analysis of business process based on event-driven process chains (EPC)
 - Provides information on resource bottlenecks
 - Range of alternatives can be evaluated before costly process changes are made

- for business optimization:
 - Provides support in determining optimal procedures
 - Gain process transparency by modeling the organizational structure and procedural organization
 - Process key performance indicators (KPIs) can be imported from the tools and evaluated (per example: “what-if analyses”, “timeline studies” and “scenario comparisons”)

Benefits

SAP Business Process Optimization functionality helps organizations realize some important benefits:

- An event infrastructure enables and integrates information from existing systems – while driving process optimization users can collect, filter and publish events leveraging existing systems
- Process efficiency optimization through monitoring – by thorough review and analysis of business processes performance improvement areas are identified, therefore end-to-end analysis of core business processes enable organizations to outline significant event and process milestones and benchmark them against critical business KPIs
- Informed decisions for optimizing processes – after recognizing significant events an informed decision on critical process optimization may be taken as an appropriate response to these events, using predefined or more flexible business rules.

SAP Business Process Optimization adds quantitative process analysis to web-based modeling with the help of extensive simulation functionalities. Companies will be able to realistically simulate process hierarchies, dependent and interlinked business processes. Organizational structures and other resources involved in the process are also considered. A web-based tool for key figure-based process optimization is also included to aid in corporate decision making. With SAP Business Process Optimization business process improvements can help to optimize processes, task-handling times, reduce costs and therefore increase the processes' quality.

Related Content

Please include at least three references to SDN documents or web pages.

Business Process Management: <https://www.sdn.sap.com/irj/sdn/nw-bpm>

Business Process Monitoring: <https://www.sdn.sap.com/irj/sdn/nw-processmonitoring>

Milestone Monitoring:

http://help.sap.com/saphelp_nwpi71/helpdata/en/47/024260154c2ecfe10000000a11466f/frameset.htm

Business Intelligence: <https://www.sdn.sap.com/irj/sdn/nw-bi>

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