A 6-step Guide to Enterprise Business Activity Monitoring (BAM)

Business Activity Monitoring (BAM) is analytics software that provides real-time information about business processes. It enables organizations to monitor their processes and identify bottlenecks and optimization potential. In order to successfully enable BAM in an enterprise environment certain key factors such as meaningful business goals, focused internal communication and accurate planning are essential.

In this whitepaper, we explore those factors in detail and provide you with a guide to support you in your BAM implementation.
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Introduction

BPM: The Process of Process Improvement
Before we go into detail about BAM, let’s first look at the topic of Business Process Management (BPM). Often referred to as “the process of process improvement,” the most common business goal in the adoption of BPM methodology is to increase the efficiency of processes and improve their performance. This is usually achieved through the constant iteration of applications and evolution of processes - which enables businesses to continuously adapt and respond to changing environments.

To adopt BPM, most organizations begin by going through a “design phase”. During this phase, the business process is rationalized, converted to a BPM-compliant model and lastly, into an application. This application is then delivered to end users who adopt it to support or even drive their daily tasks. However, the story should not end once an application goes live. Rather, going live should just be part of the “run phase” of the BPM lifecycle, which also includes managing and improving the process.

A common occurrence: no pattern to process automation
The introduction of a business activity monitoring tool is a natural evolution to effectively manage and improve processes. The monitoring activities usually take place during the “manage phase” of the BPM Lifecycle. Business activity monitoring is a huge step forward on the way to improving business process performance. Critical situations and bottlenecks can be isolated on the spot, workloads investigated and better distributed, and teams resized accordingly. The investigations performed using analytics software also help enterprises to improve processes by identifying areas for optimization, including design enhancements. They encourage re-iterations to achieve optimal process efficiency.

Business Activity Monitoring (BAM):
The Complete Picture
The business activity monitoring journey starts after the business process is designed, an essential phase of the usual BPM lifecycle. Once the design phase is completed, key stakeholders and process owners are in charge of defining what should be observed on top of the process design. This includes contracts for the expected duration of activities (Service Level Agreements or SLAs).
A good BAM solution takes real-time data about current and past processes and turns it into meaningful information that is enhanced with visual insights (i.e. charts, tables, reports.) This information should be accessible through an aggregated dashboard that also includes an overview of business-related data (account types, client location, etc.) With BAM, process owners and managers are able to identify trends and patterns that can be used to optimize processes. This allows decisions to be made based on dependable data, instead of unreliable intuition.

The BAM Steps

However, certain questions must be answered before an organization decides to implement their BAM application: How should the introduction of the BAM software be approached? What prerequisites and steps should be followed to introduce BAM into daily activities? How can meaningful business goals be defined? Are there special considerations or best-practice guidelines for small and large organizations?

Size Matters
The strategy to adopt BAM in an organization can vary greatly depending on its size and internal complexity. In an enterprise environment, where a large number of processes and users are involved, BAM’s adoption requires careful planning. Potential threats should be explored in detail and considerable attention should be dedicated to user training and education.

For smaller or less complex organizations, only a few of the factors identified in this whitepaper may be relevant. In these cases, roles are often combined and therefore, the need for coordination and internal communication is dramatically decreased.
The 6-Step Guide to a Smooth BAM Implementation

In this whitepaper, we focus primarily on the challenges that enterprises face in the adoption of BAM. We have narrowed the essential success factors down to 6 steps:

1. Achieve commitment from management
2. Perform a timely BAM analysis
3. Define realistic business goals
4. Set achievable Service Level Agreements (SLAs)
5. Plan for BAM implementation and testing
6. Invest in communication and training
1. Achieve commitment from management

The first step towards a successful BAM implementation and its adoption in the enterprise is to define the right managerial roles and ensure their commitment.

The optimization of business processes with BAM can only be possible if management is committed to monitoring the status of those processes and identifying critical situations and opportunities. It is essential that the business activity monitoring initiative receives the right amount of visibility, and that management is committed to investing the necessary effort into making it work. Management must be aware of the purpose of the tool to ensure commitment to its use.

Recognizing who needs to be actively involved in BAM depends a great deal on organizational structure and the specific needs of the project. In some cases, the team that uses BAM will also lead the implementation initiative. Alternatively, the process owner could initiate the BAM stream but does not actually monitor the process performances directly. Sometimes the demand for a monitoring and tracking tool comes from operations and not management. One thing is clear; everyone with a role in a BAM initiative should collaborate in defining a clear strategy to ensure that the investment is leveraged and the tool is shaped to their specific needs, as well as the needs of business.

A productive way to involve managers and achieve their commitment is to show them personalized examples of how BAM can be leveraged to solve the particular issues they encounter in their daily jobs. Examples include finding out why a specific activity has not been completed, or resolving a bottleneck that constantly causes delays in task completion.
2. Perform a timely BAM analysis

A BAM project requires a detailed analysis phase that enables the enterprise to define which business indicators (KPI's) should be considered in order to monitor process performance. During the BAM analysis phase, the expected duration of activities and processes should be determined. The expected activity durations will, at a later stage, be compared to the actual activity and process durations. During this phase, specific user interface (UI) requirements for dashboards should also be determined and included in the BAM implementation or customization plans.

Optimal Timing for a BAM Analysis
The timing of a BAM analysis is crucial. Generally, if the process is not already running in production, analysis should be done in parallel with process design. If the BAM analysis and process design are not performed simultaneously, then outcomes could be misaligned or incompatible. For example, if the process design is evolved using agile iterations in the implementation phase, the BAM analysis must also be performed through agile iterations throughout implementation. If the BAM analysis is conducted at the beginning of the process design and never updated again, if the process changes in later stages incomplete or incompatible specifications could result.

Determine Activity Durations and KPI's
Another advantage of performing a BAM analysis in parallel with process design is the amount of time it saves. Use the time already scheduled for interviews and discussion sessions with the various user teams to also determine the average activity durations and the key performance indicators that should be monitored. If the BAM analysis is performed at the end of the process design stage, a new round of interviews with teams could be required.
Apart from the obvious inefficiency and waste of resources, some other complications can arise - such as matching questions about process and activity durations with work tasks that have already been identified in previous interviews.

**A BAM Analysis Checklist**

- Select the key performance indicators (KPI’s) that should be measured. Stakeholders should be required to identify the key performance indicators for all business data that is being collected by processes. These indicators will be provided in reports and dashboards and will serve as a way to evaluate the processes.

- Identify and list the set of activities that are relevant for monitoring purposes. For example, the approval stage of a process is an ideal candidate for measurement, but the duration of a document printing activity - which is nothing more than a technical step - is not a relevant candidate for measurement.

- Agree upon the expected durations for each of the activities defined in the step above. Service level agreements (SLAs) should be realistic and consistent with the typical working style of the company and the target duration of the overall process. The next sections of this whitepaper will provide advice on alternative approaches to how SLAs are defined.

- Define dashboard and reporting requirements. Stakeholders should identify the required visualization and reporting features to analyze data, observe trends, and recognize patterns. In some cases, BAM vendors already offer out-of-the-box BAM dashboards and reports that can be customized according to the project needs. In this case, the goal of the requirement-gathering phase should be to identify gaps between the desired result and the existing tools - and to define the customizations that will be required.
3. Define Realistic Business Goals

The decision to have BAM running on top of one or more business processes should happen together with the definition of business goals.

A popular goal for BAM is to extract business insights directly from process executions. Management may merely be interested in observing the running processes to find trends. Once these trends are identified, often in the form of opportunities and threats, business can react. To achieve this particular goal, be specific about what exact business indicators (KPI’s) are relevant for the process in question.

A second high-level goal for BAM is to ensure that business processes are optimized. This is achieved by eliminating bottlenecks and reducing idle time. When reached, this goal leads to a more efficient organization, significant cost savings, and potentially increased revenue. This high level goal can be broken down into more specific, practical goals:

- Reduce operational costs: By using BAM to identify bottlenecks and idle time, rewarding adjustments can be made in workload redistribution and in the way people work. As a first step towards cost reduction, define the goals in terms of cost savings and translate those targets directly into working hours. Then, work backwards to define the target durations of processes and activities. The process could then be optimized using BAM to satisfy the defined durations. Another approach to achieve cost savings is to use BAM to identify teams that have spare capacity. Those teams can be re-sized accordingly and underutilized team members re-assigned to other teams or divisions of the company.
- Speed up process execution: Another main goal for the adoption of BAM is to speed up the execution of a process. This can be achieved by identifying bottlenecks that obstruct the critical path towards process completion. At the activity level, evaluating teams’ workloads and their tasks can decrease the duration of processes. Reducing process duration enables the business to comply with formal and informal contracts that have been stipulated with clients and partners. This greatly enhances service quality. In addition, reducing process duration can increase revenue. For example, in the account opening process the time elapsed between account opening and funding can have a huge impact on the revenue generated by a specific account.

In both cases above, ensure that the goals defined are realistic and feasible. Setting expected process durations that are unattainable will result in a sense of frustration among team members, potentially leading to a decrease in productivity.
4. Set Achievable Service Level Agreements (SLAs)

In order to achieve BAM-related efficiency goals, it is necessary to set clear SLAs for processes and activities. Securing the right values for these indicators is not always an easy task and SLAs that are too generous with respect to real durations will not help to identify slow activities and bottlenecks. Warnings will not be produced for late instances, and they will not be marked as expired in dashboards and reports. In addition, SLAs that are too strict, unrealistic, or too aggressive will negatively impact employee commitment.

Three methods can be used to define SLAs. We have outlined the pros and cons below.

Method A
Starting with predefined SLAs: The first way to define SLAs is to start with the expected duration of processes and activities. These can be deduced from contracts with clients and partners or competitors’ benchmarks. If only the overall process duration is known, the activity SLAs could be defined by splitting the overall duration among all the sub-activities. This approach favors compliance with contracts and policies but it could be too aggressive or potentially un-applicable because it fails to take real-life company scenarios and elements into account.

Method B
Starting with no SLAs: Another way to define SLAs is to start from a blank slate. Begin the activity and let users execute the process as normal (without warnings and expirations). After the first few weeks (or months, depending on the process characteristics) of usage, a reliable data set will have been collected and the average durations of activities can be observed. These average values can be used as starting points to define SLAs as they represent real activity durations. After this step, the SLAs can be adapted and refined to match expected durations. With this approach, it is easier to achieve realistic service agreements, as real data is available.
The disadvantage of this approach is that it takes some time before data becomes available; therefore actual SLA implementation and process optimization are delayed.

Method C
Starting from real process durations: This last approach requires finding out the real durations during the BAM analysis phase and is the most advisable. Interviews should be carried out with the different teams involved in the process and each team should provide information about the common duration of their tasks. This is a useful basis for SLA definition, as it provides realistic data which can then be adjusted and refined without delaying the SLA implementation as it is not pushed back after the first release.

Parameterization with SLA scenarios
Depending on the process being measured, the SLA contracts might need to be parameterized based on the specific characteristics of the process. In an account opening process, the type of account being opened could have an impact on the expected duration of the activities: opening a joint account could take more time than opening an account for an individual person, as more information needs to be gathered and a longer approval process might be required.

In BAM terminology, the different conditions that impact the process duration are called “scenarios.” In the example above, there would be an “individual” and a “joint” scenario. The SLA definition should be performed at scenario level instead of process level. SLAs can be more accurately specified for each activity, based on the corresponding scenario. If such a concept is necessary for the process to be measured, the SLA analysis stage should also include the identification of “scenarios sets” that are relevant for the process. Simply define which SLAs all of the scenarios have in common and those that need to be defined scenario by scenario.

SLAs scenarios defined on top of a business process
5. Plan for BAM implementation and testing

Although it may sound obvious, many businesses underestimate the amount of time and effort that goes into implementing BAM. The analysis and related efforts should always be included in an overall project plan to ensure success. Make sure that the correct amount of time and resources (e.g. business analysts) are allocated to complete all of the activities. Once the BAM analysis is complete, time, effort and external factors that impact the actual development of BAM should also be estimated.

If process design is carried out in parallel to the BAM implementation, carefully consider precedences and interdependencies among tasks belonging to the two streams. For example, the definition of SLAs should be performed after the activity content has been identified in sufficient detail.

Besides standard functional testing, BAM testing should also include business simulations of SLA behavior with real-life process data. Depending on which SLA definition method has been chosen (see previous chapter), the SLA might require a round of pilot run-throughs to confirm that the expected durations are realistic and will not result in the majority of the processes being either very early or very late. This step could be skipped if SLAs are defined starting from real-life durations.

After the go-live of the BAM solution, expect and plan for SLA iterations and adjustments. This is quite common during the first adoption period as SLAs are tested against actual usage and first optimization potential is identified. Further changes to SLAs due to the re-sizing or cross-utilization of teams or process redesign should be planned for future stages.
6. Invest in communication and training

Another important factor to be considered while setting up a BAM adoption strategy is the investment in communication and training for end users and managers. As with any new tool and business process reengineering practice, BAM can encounter resistance from users; common roadblocks include misunderstanding about what the tool is for and why it is needed.

In order to achieve successful BAM deployment and high adoption rates, clearly communicate business goals and provide extensive training to all parties involved. The exact type of communication and training should be tailored to the audience and is dependent on whether they fall into the categories of end users or managers and process owners.

- End users. This group consists of people whose daily work will be monitored by BAM. The first and most important task when presenting BAM to end users is to clearly explain the various purposes of the tool in order to avoid resistance caused by the fear of being “monitored.” BAM identifies teams and individuals with low workloads; hence, resistance is commonplace and a powerful obstacle with this group. Perhaps the best way to assure end users that they are not at risk is to stress that the main goal of BAM is to increase organizational efficiency and improve service quality, not create redundancies. End users should be trained on BAM as well as the business process. They should receive clear information about the SLAs defined on each process and activity so that they know what is expected from them and should also be aware of what KPIs will be measured. Finally, they might be interested in a quick overview of dashboards and reports - it will help them to understand the purpose and reasons behind using BAM.
- Managers and process owners. This group consists of individuals who are going to use BAM for monitoring and process optimization. The focus of this type of training and communication should be to encourage the correct usage of the BAM software. It is less likely that this audience will feel threatened by a monitoring tool. Comprehensive training on the dashboards and reports that are available to them is highly recommended. If they were not involved in the definition of SLAs, they should also receive clear information about the SLAs that have been defined on each process and activity. Above all, managers and process owners should be trained on optimization practices and provided with examples of bottleneck identification, so that they are aware of how to exploit the full potential of the tool. Of course, the optimization and pattern recognition techniques vary from product to product and solution to solution.
Wrap up

In this whitepaper, we have presented a set of guidelines to help enterprises embark on a successful BAM initiative.

Defining realistic business goals in terms of cost savings and reduction of process duration are essential so that the BAM initiative can move in a clear direction. These goals should be feasible in order to avoid negative reaction but at the same time challenging enough so that their achievement produces tangible business benefits.

The main threats to the adoption of BAM in an enterprise are the absence of commitment from management and end-user resistance - usually stemming from fear of being surveyed and monitored. Resistance can be successfully overcome by investing in appropriate communication and training practices to educate relevant parties on the goals of the tool and the business strategy behind its usage.

Finally, the meticulous planning of a BAM analysis and its implementation are crucial to its success. These should be part of the overall project plan, together with the dedication of the appropriate resources, to achieve the best results.
About Appway

Appway empowers the service industries to move beyond automation toward ongoing digital transformation. With its toolset, leadership, community, and methodology, Appway enables companies to revolutionize their business models, processes and moments.

Appway’s Digital Business Platform gives organizations the power to develop and operate scalable and reliable digital enterprise applications. The comprehensive platform coordinates all relevant interactions in a collaborative digital workspace and delivers key business insights, inspiring companies to turn their visions into running solutions. With its seamless orchestration of people, knowledge, and systems, Appway promotes collective intelligence and enables businesses to reinvent for the digital age.

In an era of increasing competition and regulations, Appway, the leader in global client onboarding, works with 4 of the top 5 wealth management institutions. Headquartered in Zurich with offices in Chiasso, New York, Hong Kong, and Singapore, Appway and its award-winning technology serve over 120 service institutions and 175,000 individuals worldwide.

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