Simplify Business Process Automation with Bonita BPM
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Executive Summary

In today’s dynamic and competitive business environment, organizations across the world are facing a common business challenge i.e. optimizing processes and improving operational effectiveness. In order to overcome these emerging business challenges and gain competitive advantage, organizations need technology partners having deep-domain expertise in Business Process Management (BPM). A technology partner can understand core business challenges faced by organizations and work with them to automate their processes. This would help organizations to improve a wide-range of processes that involve people, systems and data.

Business Process Management (BPM) is now an integral part of organizations across the world. As we all know, it has become increasingly challenging for organizations to sustain growth without utilizing business process management practices / tools to align their processes effectively. BPM workflow solutions allow organizations to improve their process effectiveness and at the same time align their processes. This white paper aims to cover important aspects of Business Process Automation (BPA). It is intended for business executives, analysts and process owners responsible to improve the quality and efficiency of business operations.

Introduction

Business success largely depends on the effectiveness of process management. Manual processing can often lead to costly errors, delays and omissions. While working in teams, members would require access to the latest information, irrespective of their location, whether they are located within the same building or across the globe.

Evoke Technologies BPM team can assist organizations by automating their processes, which would help them optimize, control and implement business solutions effectively. Process automation helps businesses improve their efficiency by allowing real-time status reporting, which improves coordination among geographically diverse teams.

Need for Process Automation

Business processes often evolve as manual undocumented procedures, but later turn complex enough to be managed without automation. As the business expands these processes turn out to be laborious and require constant maintenance. In order to mitigate these challenges, businesses must continually improve their processes to align with changing business dynamics.

In the current economic scenario most of the organizations are aware of the evolving concept of BPM and the wide-ranging benefits it offers. Some of the immediate benefits include automation, better visibility, and improved efficiency. Although, organizations recognize the importance of BPM they are hesitant to implement these solutions for various reasons such as cost, time and effort.

In today’s rapidly changing business scenario, it is essential for an enterprise to take advantage of BPA. It is a concept that is helping organizations manage complex tasks efficiently with greater accuracy and faster execution time.

Organizations may typically try out one of the three approaches to BPA:

a) Extending IT service management systems.

b) Implementing specialized Business Process Automation tool sets or

c) Creating automated process workflows on the back of a BPM implementation.

Business Process Automation is often considered as a subset of Business Process Management. BPM has been referred to as a “holistic” management approach that strives to promote efficiency at an enterprise-level, for the processes that matter the most to a business. In the example cited below, the process automation mainly focuses at a department level.

Both BPM and BPA are treated as major initiatives, whose complexity and scope limits its application to major or core business process workflows. Business enterprises have hundreds or even thousands of smaller process workflows, sometimes involving only a handful of individuals or single departments. Many of these workflows include several manual processes. The manual nature of these processes may result in costly errors, delays, and increased inefficiencies, which makes a good business case for workflow automation. However, enterprises believe that their processes are too small to justify the development effort and cost incurred for this activity.

Business Process – Illustration

Let us take a classic example of a standard ‘Order Management System (OMS)’, which is typically managed by the operations team. The order management system covers several modules, out of which ‘customer account tracking’ is one of the most important activities.

While handling customer account tracking sub-process, the operations team will have to manually track various changes to the permanent address details of their customers (i.e. names and addresses of individuals and businesses). The process also includes details of individuals, who have filed for a new address with State Postal Service (SPS).

The operations team compares the data against SPS database utilizing the data provided by an external vendor (Vendor supplies OMS operations team records of customers, whose address on file differs with that listed in the SPS database).

Below is the process followed by the operations team with regards to change of address records, after receiving the data from the vendor.

Step 1

Identify the list of customer records (with the help of a third party vendor) where address details differ with reference to SPS.

Step 2

Post receiving records from the vendor, operation team adds the records onto their online database. Each row (customer record) is treated as a separate case.
Step 3
The operations team look up internal records of the customer (using a unique customer account number) to obtain the customer's current status. Based on the status the following actions are performed:

**Inactive Customer**: If the customer is inactive (i.e. if a customer is no longer registered with the company), a note is made in a spreadsheet [under ‘notes’ column] and the case is marked as ‘closed’.

**Active Customer**: If the customer is active, the following actions are performed:

I. The team compares address shared by the vendor with customers’ address held with the company.
II. If address matches, team makes a note in a spreadsheet and the case is marked as ‘closed’.
III. If the address does not tally, they send out an email to the concerned department (internal) to verify and confirm the new address.
IV. When a customer responds to the email, appropriate action is taken based on the response – i.e. either updating the address or marking the case as closed.
V. If no email address is existing in the profile, the operations team calls the customer to confirm the address. If the customer specifies any changes to his/her address, they are requested to send out an email with their new address.

**Solution Approach**

Evoke Technologies follows a structured approach towards BPM. Our business process automation solutions focus on the intersection of human-based and automated workflow processes, which allows organizations to:

a) **Increase efficiency and productivity.**
b) **Continuous improvement.**
c) **Improves quality, consistency and compliance.**
d) **Enhances company’s agility and flexibility.**

**Automated Workflow**

The first step in implementing a fully automated workflow solution is to identify the bottlenecks in a process, which are present due to manual processing. If these bottlenecks are not addressed they start affecting the productivity of the process. There are three major factors that any enterprise will focus on while implementing process automation, these are:

a) **Enhance process efficiency and productivity.**
b) **Ensure business compliance, security factors, and disaster alertness.**
c) **Increase return on investments (ROI).**

To identify bottlenecks in the existing process, we can frame the following set of questions targeting the business executives, analysts and management teams. This helps us to find ways to improve the current process resulting in process optimization. Following are the questions specific to each business factor:

**Enhancing efficiency and productivity**

a) How many records or what is the size of data handled, while managing business process or workflow?
b) How many stages each record has to pass in the entire process and how it is being passed currently?
c) Where are the records (data) stored and which user types need access to these records?
d) How is the tracking of the records (data) being managed?

**Ensure compliance, security and disaster alertness**

a) How secure are the records (data) in the current system?
b) What is the criticality / importance of the records (data) stored in files?
c) How can you retrieve the records / files lost in a disaster?
d) How expensive is it to implement control access / procedural controls of records (data)?

**Increase ROI on IT investments**

a) What is the size of the team that is working on the current business process?
b) What is the success rate (number) of records that are successfully updated based on a response from customer?
c) What is the average time spent by the operations team for closure of each customer record?
d) Is this data available in any existing software application?
e) How long does it take for records (data) to be updated onto the system?
f) Is the data manually re-entered?

**Bottlenecks in the Business Process**

With reference to our sample order management system process, it has been observed that the following manual steps are making the activity cumbersome for the operations team:

a) **Customer address change comparisons.**
b) Customer details verification.
c) Notifying customers about address change.
d) Follow-up and tracking.
e) The existing manual process is not scalable, which is leading to certain services being undelivered and the company is losing discount points from SPS.

Proposed Solution

The current process is entirely manual and data is being maintained using spreadsheets. It is difficult to keep the data secure and complex to track the progress of records using the existing process flow. It is also complicated to measure the efficiency of the process as a whole.

After evaluating the existing process, we recommended automating the process to enhance workflow and streamline the process, which would result in significant benefits to the organization.

The customer account tracking sub-process has to be automated by enhancing the existing workflow. The proposed solution would automate following activities:

a) Read the address change data from external (third party) vendor’s spreadsheet and create a case for each customer by assigning a unique customer account number.

b) Compare the address reported by the SPS with organizations master database.

c) Auto-generate address change notification e-mails (on a weekly basis) and send to all customers.

d) Track customer confirmation (reply / feedback) e-mails and auto generate reply e-mails with relevant customer case details.

e) Provide an online form (alternate option) to customers, which would capture feedback about the address change process. The workflow would automatically capture the customer feedback onto respective customer account.

f) Create simple steps to update customer profile (by operations team) based on the customer feedback.

g) Analytics view to monitor case history details with the help of key performance indicators (KPIs) and provisions to generate status reports.

Bonita BPM Implementation

We utilized Bonita BPM – leading open source workflow software to design and implement workflow for this business process.

Bonita BPM includes the following set of components - Studio, BPM Engine, and Portal.

The Bonita Studio is widely used by process analysts across the world to create world-class workflow designs using the industry standard BPMN 2.0 notation, it further allows them to automatically generate workflow related documentation. Bonita BPM Engine allows developers to easily implement the proposed workflow solution and design process related web forms. It further allows them to use it as a multi-user repository. Bonita Portal helps process related business users to interact with the newly designed workflow applications and perform process related activities.

How Evoke Implemented Bonita BPM?

a) We utilized the ‘Event Management’ feature to schedule process-related activities (e.g. auto-generated email notifications to customers).

b) Customized various connectors for interaction between Bonita BPM Engine with line of business (LOB) applications.

c) Effectively managed business processes using Bonita REST (Representational State Transfer) API integration.

d) Used Analytics feature for extensive reporting.

The following (figure-1) diagram depicts the integration of different components utilized to achieve the proposed solution.

Figure-1: Solution Approach - High-level Component Architecture Diagram (Integrations View)
Here’s a look at some high-level details of the architecture for the proposed workflow design. The proposed solution can reuse the existing components available in the organization’s existing workflow platform for ‘customer record processing’ and ‘email notification processing’. Additionally, the solution can reuse the existing Application Programming Interfaces (APIs) that are available from Line of Business (LOB) applications to fetch the domain data into the workflow. The following diagram (figure-2) depicts the automated business process workflow that needs to be implemented in the Bonita BPM’s workflow engine.
Measurable ROI Elements

Process automation helps organizations to a great extent. Some of the major benefits include:

a) Improving and optimizing process efficiency.
b) Continued process improvement.
c) Reducing time to resolution.
d) Mitigating process gaps.
e) Quick response to emerging business challenges
f) Maximizing business profits.

Benefits

Management teams require concrete information and quantifiable benefits before they make any business decision. Vague references to the possible benefits of business process automation may not be sufficient for decision making process. Here are some substantial benefits to support the cause of process automation:

a) Firstly, the benefits of business process automation projects are multi-dimensional. There exists no clear model to exactly map the cost associated with BPA projects. Additionally, there are no proven metrics to calculate ROI.
b) Before making an investment on any automation related projects, ROI is a critical factor that needs to be closely looked into.
c) Most of the businesses realize the need to optimize their processes to save costs. However, they lack a clear idea on calculating the ROI factor, which would give them the confidence to go ahead with BPA.

‘Direct benefits’ and ‘indirect benefits’ are few indicators which would assist businesses measure ROI. Some examples pertaining to these have been cited below.

Direct Benefits

a) Improvement in the operating structure and efficiency due to process automation.
b) Cut-down process gaps, failures and re-work factors.
c) Better staffing model, which will frame re-allocation of roles and responsibilities as part of business process modelling exercise.

d) Reduce risk factors by implementing effective controls on the processes.
e) Standard and enhanced end-to-end process maps to reflect the organization’s policies and procedures.

Indirect Benefits

a) Easy to handle change requests for future enhancements (as standardized documentation and process mapping are in place).
b) Centralized repository of policies and procedures with details of end-to-end process mapping for cross reference.
c) Seamless integration between diverse business processes results in direct contact and interaction with IT and business staff.
d) Ease of developing new strategies to accommodate new clients.
e) Centralized business analysis and better project management with little effort and lot of control.
f) Expansion of Business Process Management to other departments with minimal effort and external expertise.
g) Regulatory and compliance benefits.

ROI Estimation

The below table (figure-3) outlines the ROI estimation. The figure also provides data of pre and post workflow implementation.

<table>
<thead>
<tr>
<th>Process Improvement Areas</th>
<th>Before Workflow</th>
<th>After Workflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of records processed per day (in 1 cycle)</td>
<td>80 Records</td>
<td>450 Records</td>
</tr>
<tr>
<td>(560 % ▲ )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Hours spend to process 1000 records</td>
<td>500 Hrs</td>
<td>90 Hrs</td>
</tr>
<tr>
<td>(410 Hrs▼ )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time spent on Notifications (Initial e-mail + Regular reminder e-mails) 1000 Customer records</td>
<td>333.33 Hrs</td>
<td>Zero</td>
</tr>
<tr>
<td>(333 Hrs▼ )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automate Case-Status Tracking (Update record status)</td>
<td>Manual Effort</td>
<td>Workflow Defined</td>
</tr>
<tr>
<td>Workable Reports (for each cycle)</td>
<td>No Reports</td>
<td>Status Reports</td>
</tr>
<tr>
<td>(based on time parameters)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3: ROI Estimation – Pre and Post Automation
Conclusion

Business enterprises worldwide are expected to offer customers world-class service, higher reliability, and greater agility than ever before—which increases their overall spending. Can this be achieved without increasing expenditure? Certainly there are alternate ways to meet these objectives. Businesses can leverage technology to their advantage and the easiest way is to automate their business processes. Automating business processes can result in a host of savings, including cost, effort, time, improved resource utilization, security, compliance, improved response times, and agility. Before taking a decision to go ahead with BPM, businesses should spend considerable time finding the right technology partner who can assist them in achieving their objectives and goals.

Evoke and BPM

Evoke Technologies offers comprehensive BPM solutions that enable organizations to effectively manage their business processes. We have been highly successful in implementing process automation solutions. BPM is now a widely accepted practice worldwide. It is helping effectively model processes and deliver practical solutions to key business issues. The smart BPM solutions that we offer allow businesses to streamline their processes and improve efficiency.

Evoke Technologies has partnered with Bonitasoft and utilizes its world renowned Bonita BPM software for workflow design and implementation. Bonita BPM allows users to design and optimize business processes using the industry standard BPMN 2.0 notation. It helps users to generate process documentation and KPI reports on the process data. Bonita BPM is a highly flexible and powerful BPM suite for all types of organizations, helping develop flexible workflow applications.

Business Scope

Business process improvement and alignment is a universal challenge faced by organizations. Assuring customer satisfaction, reducing costs and increasing efficiencies across the board is the primary objective of every business enterprise. We have been assisting our clients by suggesting practical BPM solutions to manage emerging business challenges. Business Process Management has now evolved to the next level and is now a widely accepted practice. BPM allows software companies to provide smarter solutions by creating workflows around business processes utilizing latest BPM software.

Process Automation and Management Solutions

We offer multiple BPA and BPM solutions that standardize and accelerate the deployment of software solutions, which helps organizations streamline their processes. Successful BPM solutions implementation requires direct communication with the business process stakeholders. Our experienced BPM process consultants understand the entire process flow and chalk out a process oriented strategy to identify the best possible solution for each industry domain. With our unique BPA and BPM solutions, we can effectively integrate business processes, which results in significant time and cost savings for your business enterprise.

Our Approach

Our BPM solutions enable businesses to manage changes in their workflow effectively. We follow a unique approach, which allows businesses to optimize their processes by blending traditional business models with emerging technology practices. Utilizing top-of-the-line BPM tools, we have been offering effective workflow solutions, which have helped our clients’ meet their process automation goals. We have created an IT and management environment that reacts more quickly to changing business dynamics, through a process that involves a cycle of design, modeling, execution, monitoring and optimization. This helps in improving information flow and efficiency of business processes.

Technology Partners

Evoke Technologies is a Virtuoso Bonitasoft partner.

About Evoke Technologies

Evoke Technologies is a SEI-CMMI Level 3 appraised company, ISO 9001 and ISO 27001 certified IT enterprise. We are an innovative Information technology firm offering value driven software services that help businesses save significant costs and amplify their business systems. We have gained strong expertise by adopting the best practices while driving our high quality software development solutions. We have developed innovative solutions that have a high degree of customer satisfaction, reducing costs and increasing efficiencies. We have worked with a wide variety of companies, enabling them to stay competitive and achieve their business objectives.

For further information about Evoke Technologies, business process management services, please visit: www.evoketechnologies.com

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