PSI Successfully Implements Offshore Project Development Model For A Case Management System Application

Team strategized and partnered with the client to develop the Workflow application, which increased the operational efficiency by about 50-60%
About Client:
The client is a leader in providing risk intelligence, due diligence services, which reduce customer exposure to potential threats posed by the organizations and people they do business with. More than 4,500 institutions, including over 49 of the world's top 50 banks and 200 enforcement and regulatory agencies are using their services.

Client's Product:
PSI has developed a workflow system for client’s case management system, which was created for internal consumption at the client’s end. The team engineered the application from its development stage till its day to day maintenance. The application has designed processes to be deployed using BPM Suite named as Progress SBM (Savvion Business Manager), which enables generation of cases in workflow system and manages them until its closure. The application generates orders, tracks, distributes and compiles the tasks, reviews and submits the reports.

It also has built in invoicing capabilities. Different users can view and process the cases according to their user rights. The system also houses functionality to generate accurate and real time MIS reporting and case visibility system.

The team has additionally developed a report writing tool, which helps in generation of formatted reports.

Project Highlights:
- ‘Offshore project development’ model was adopted to develop and deliver the case management system as per the client’s specifications. The team worked as an integral part of the system. Development of the application took over a period of two years.
- Thereafter, the team has been providing maintenance support for the system for over 3 years. Time zone differences were dealt by adopting the client’s time zone.
- The application was built to overcome the challenges and issues faced in the previous legacy system, which had performance issues and was not scalable.
- Launch of the new application got delayed due to complexity of requirements, but the ultimate launch was successful and smooth.

Solution Approach:
- Agile methodology was adopted for rapid development and deliveries. It allowed regular releases to the internal QA with priority items addressed, as required.
- Regular walkthroughs of the application for the business users to take their feedback and cater to them.
- An effective design and code review process was established to ensure quality.
- Rigorous testing included both functional and performance testing, which met the requirement of rendering pages within agreed time.
- Regular project meetings were conducted to discuss the problem areas and project status.
- Planned and managed time zone gaps by making sure that 24*7 support is available, where odd hours service was available on-call basis.
- Database changes were done by pulling resources internally, which were not billed to the client.
Operating from Remote Locations: The biggest challenge was to convince the client that the distant development team will be able to develop and deliver the case management system as per the specifications. The team also provided 24*7 support on operational issues.

Communication process: The PSI team didn’t interact with the end users, the requirements or any change requests were provided by the client’s IT team. This at time led to loopholes in understanding of the exact requirements.

Involvement of multiple teams: Coordination of tasks was challenging due to involvement of multiple teams (End users, QA, DataCenter) spread geographically across the globe in different time zones.

Robust and scalable business workflow design: Project demanded designing a very complicated business requirement, providing ability to update the case on the fly and flexibility in terms of pulling back the case from any stage in the workflow.

Last set of MIS reports and Dashboards: It houses more than 50 MIS reports and Dashboards. The graphical reports also includes multi axes charts and multi column 2D stacked bar charts.

Bulk Data Retrieval & Display: Many of the user interfaces had a requirement of displaying even more than 70000 records and that too meeting the stringent performance criteria.

There were too many SPOCs from the client’s side, which led to ticket tracking issues.

Key Technical Challenges:
- DB Migration & Updating Legacy Data: Client’s heterogeneous legacy data was one of the biggest challenges.
- Rich Web User Interfaces: The user interfaces had animated feature for collapsing and expanding the panel along with maintaining a panel for quick links providing ease for the users to quickly navigate to the desired functionality.
- Tracking of tickets: Emails were used for raising tickets and hence tracking of mails and incorporating it into excel reports became a manual and tedious process.

Technology Deployed:

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>JDK 1.6, ASP Dot Net with C#, Axis Library for SOA architecture to support external system integration</td>
</tr>
<tr>
<td>Frameworks &amp; API's</td>
<td>SBM 7.6, BPM Studio 7.6, Spring MVC, AOP and IOC, JDBC, JSP, Servlets, IBatis, Quartz Framework, JUnit testing APIs, POI Library, EhCache, Fusion Chart, JMS, Aspose.Words, Sitemesh and Log4J.</td>
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<tr>
<td>Build Framework</td>
<td>Ant</td>
</tr>
<tr>
<td>Front End</td>
<td>Web, HTML, JQuery, Advanced Java Scripts, ExtJS, TinyMCE</td>
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<tr>
<td>Optimizer Tools</td>
<td>Google CodeProAnalytix, Eclipse Profiler Plugin, Silk Performer</td>
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<tr>
<td>App Servers</td>
<td>Pramati, IIS</td>
</tr>
<tr>
<td>Databases</td>
<td>Oracle 11g</td>
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</tbody>
</table>
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Application Launch was flawless, transition from legacy system to the new application was managed efficiently including migration of legacy data

The users across the application were able to raise tickets for any concerned issues, thereby reducing the turnaround time in resolving these issues as compared to previous system

The team managed to achieve maximum uptime (around >98%), and meet support SLA’s and customer satisfaction

The team provided support to over 350 Users worldwide across different time zones

Post Launch, in addition to support services, team undertook development and release of Change requests / Enhancements

The PSI team helped the client flawlessly relocate their servers from London to Singapore without any hindrances in the work processes

The New Application will now be able to extract Data from all the different sources seamlessly with greater efficiency

Customization of SBM as per Client requirement

Use of technologies like Caching for reducing DB calls

Usage of pagination and JMS Queues for increasing performance

Achievements:

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About PSI:

Pratham Software Inc. (PSI) is a global IT services company (with established ISO 9001:2008 practices) providing software product development, consulting and outsourcing solutions to enterprises worldwide. While providing a wide range of solutions, we focus on Outsourced Product Development (OPD), Business Process Management (BPM), Application Development and Maintenance (AMD) and Content Engineering. Our extensive experience in OPD helps us build strong relationships with Independent Software Vendors (ISVs), as we work with them throughout the product development lifecycle. Over 12 years of experience in the BPM field with various tools such as Savvion, IBM Lombardi, SharePoint and open source tools such as Activity have helped us gain leadership position in BPM. In terms of technology and platform, we work across all major technologies such as Microsoft, Java and Open source and have capabilities and experience in developing solutions for web, mobile, Cloud and social media. For Enterprise customers, in addition to Process Automation, we also offer development and support services in BI and DWH.