Legacy Systems Migration – Systematic Approach

March 12, 2014
Executive Summary

Executives strive constantly to increase profitability, reduce cost and eliminate risks in global market. Product Lifecycle Management (PLM) solutions are more heavily adopted by best-in-class companies that develops high quality and innovative products. Quite a few companies, many of them large global enterprises, are using complex legacy systems that are disconnected, rigid on process improvements, and weaken growth initiatives. The investment to replace these legacy systems may look higher than just fixing them, but as organizations look for growth, increased revenue, create new products, etc., they have to undertake deeper analysis considering financial and business impacts.

Having led many legacy systems migrations and transforming PLM solutions for large companies, we developed a systematic approach to help executives-CXOs make the right decision about legacy systems migration. This document will provide a simple but effective decision matrix to weigh different options.

The Approach - Why is it important?

Even in today’s highly connected and informed world, no two companies are similar. The products, process and people are different making every company unique and complex. In many cases even two divisions within the same organization are different; they use different systems, follow different processes etc., which directly impacts corporate goals. The systems and processes have to be consolidated and it is no doubt a highly challenging task. Big part of the complexity in consolidation comes from legacy systems that support the vital business processes.

Any solution for legacy systems migration or business transformations requires solid understanding of the complexities which comes from rich experience in handling variety of systems, data and processes. It is misleading to claim that a software tool could easily do it. What really required is an experience-based practice, a comprehensive approach that addresses all aspects of such endeavor; thorough analysis of data, (value, structure, dependencies), processes (inter-dependencies of processes, upstream/downstream impacts), target system functions, complexities in data mapping, custom tools (for extraction, mapping, validation) and overarching project management that provides solution for issues.

Our legacy systems migration practice developed with decade of experience, using three core principles:

- **Perspective** - End-to-end on Data, Process & Users
- **Methodology** - Meticulously map data to process & user functions, create & use the right tools
- **Experience** - Always, expect the “challenges” – an integral part of any legacy systems migration

![Figure 1 Approach to see data, process & users transformed end-to-end](image-url)
The Decision Matrix - How to arrive at the right decision?

Keeping legacy systems may seem less expensive option, but on the other hand, these legacy systems impact business objectives covertly, that it could even result in potential failure. The “cost of lost opportunity” (e.g., the cost of not releasing the next innovative product in time) could be much worse and ultimately define the success or failure of the organization.

Successful CXOs sum up typical financials with the “cost of lost opportunity” and align their judgment based on the business strategy.

With increasing global competition on product development and highly dynamic business environments, decisions have to be made with the right understanding and at the right time.

The following matrix could help in this critical decision making process based both IT & business criteria.

<table>
<thead>
<tr>
<th>#</th>
<th>Objectives</th>
<th>Category</th>
<th>Keep Legacy Systems</th>
<th>Fixed Legacy Systems</th>
<th>Migrated New System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supports business objectives - reduce time to market, higher quality products, etc.</td>
<td>Business</td>
<td>10</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Functions meeting current product development needs</td>
<td>Software</td>
<td>9</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Supports enhancements &amp; skills availability</td>
<td>Software</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Maintenance support availability</td>
<td>Software</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Support enterprise IT requirements - deployable onto current platform, scalable, etc.</td>
<td>IT System</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

The values are indicative based on our vast experience in these situations and include valuable feedback from our customers. The business objectives have high impact scale (10) and legacy systems are very much limited to supporting those initiatives (score 5) compared to legacy system that can be customized or fixed (score 8) vs a new systems (score 9) that are equipped with addressing the modern requirements off the shelf.

This approach and decision matrix have proved very productive and useful for organizations that are challenged with such difficult decisions. We also practice more complex matrix with ROI calculation tied to address requirements from large multinational organizations with many divisions. Feel free to fill in your numbers to calculate your score!
The Results - How to ensure the results are achieved?

First and foremost is to understand the business goals and evaluate if legacy systems negatively impact them. Once that is clear, work with the right solution provider who has long and successful track record of established practice providing the best solutions.

- Ensure that the vendor should has deep understanding of the data and be able to map them to the business processes that supports your end-to-end product development requirements.
- Engage the vendor early in the process of requirement evaluation to study the existing systems and processes, and come up with a feasible solution addressing all the objectives.
- You are the owner of the business requirements and processes. Work with the vendor in every step of the project to ensure that the final solution meets your needs.
- Follow the proven best practices methodology that has benefited other organizations. It is easy to check the records of earlier engagements on how the tools & methodology along with the systematic approach ensured success.

Experience, right approach, proven methodology and tools are key elements to successful legacy migrations.

SCONCE Solutions

SCONCE is a global PLM services company delivering high end business solutions. The consulting firm is focused on providing value driven solutions that supports business goals, such as increasing revenue, reducing cost and reducing risks.

As a leader in legacy system migrations related to product development together with key partners, SCONCE has executed some of the most complex migrations in the industry, bringing high return on investment for its customers.

- Migrations with ZERO downtime to end-users
- Up to 25% reduction in migration project timeline
- Unique data cleansing to remove 35% of duplicate data (3D CAD models)
- 30+ custom tools developed in-house for migration, mapping & validation
- On-time, within budget project execution