A Comprehensive Approach to Application Portfolio Rationalization

Executive Summary

Ongoing economic uncertainty is imposing stringent cost pressures on organizations across industries. In response, many businesses are prioritizing their investments to drive operational efficiencies and minimize IT spend on their application portfolios. However, several factors — including the expanding size and complexity of the application portfolio, poor license management, rising total cost of ownership and increasing inflexibility — are challenging many organizations to adapt to the rapid changes in the business environment. Many IT organizations are working to lower the percent of the budget spent on operations and maintenance, which tends to hover at 70% or above, according to industry estimates.

This paper provides a methodical approach, with embedded critical success factors, for application portfolio rationalization. It also describes a robust model for assessing the business value, technical health and strategic fit of the application estate, as well as prescribed solutions, such as decentralization of the software/application procurement function and other overlooked components of cost avoidance in the portfolio. A comprehensive approach allows organizations to utilize the residual business value of the existing portfolio, which frees key resources and funds to support a focus on high-value opportunities.

Application portfolio rationalization leads to other cost and business benefits realized through quick cost savings, reductions in total cost of ownership (TCO), heavier reliance on more flexible Op-Ex models, maximization of ROI to drive long-term business value and architectural alignment. If executed correctly, our approach eliminates functional overlaps and ensures stricter compliance with regulatory requirements and alignment with corporate strategy. The rationalization exercise we lay out is not merely another instrument for cost cutting but is a strategic initiative for improving the business effectiveness and operational efficiency of the organization.

Making the Business Case

With change being the only constant in today’s hyper-competitive global economy, organizations need to innovate to adapt quickly to ever-fluctuating market conditions. To keep pace, organizations have tended to invest aggressively in IT initiatives, resulting in a wide array of disparate and disconnected applications across their portfolios. Mergers and acquisitions, niche applications, IT upgrades and in-flux replacement projects add to the application cacophony.

Through application rationalization, organizations can transform a highly complex, costly and only moderately effective application catalog into an agile, lean and productive portfolio, aligned with
key business needs and adaptable to an ever-changing macro-economic climate. Creating a business-aligned portfolio can enable operational agility and flexibility; however, it may necessitate changes in the organization’s governance and fundamental operational processes. It will also require IT leaders to shift core resources from tactical to strategic initiatives. Key considerations for rationalizing the application portfolio are:

- **Establishing a quantitative baseline** on the efficiency and effectiveness of the current application landscape so that prudent management decisions can be made regarding current and future application development, application phase-out and remediation.

- **Ensuring proper business/IT alignment** (i.e., making sure IT is working on initiatives that the business values the most) and prioritizing applications that need the most attention.

- **Determining management options** for translating application value improvement theory into meaningful results.

**Critical Success Factors**

To control the leakage of value realization from an application portfolio rationalization program, it is important to understand the critical success factors that drive the value expected from such an initiative (see Figure 1), such as the following:

- **Strong commitment from top management:** Top-level support is mandatory, since initiatives like this have organization-wide impact. The leadership team must align application portfolio rationalization strategically with key organization objectives to first overcome and then resolve conflicting business needs. Most experts would agree that strategic planning should be at the heart of the IT leader’s agenda.

- **Clear communication of objectives and expectations:** Clearly conveying top-priority objectives to all relevant resources is extremely critical. Objectives must be “SMART,” as in, specific, measurable, achievable, realistic and time-framed.

- **Access to and active participation of stakeholders:** Data collection is a crucial part of the application rationalization exercise. It is essential to assemble both fact-based data, as well as information regarding the perception of business users to properly measure overall application portfolio effectiveness. So, access to and involvement of stakeholders in the data collection process, as well as validation of the hypothesis, is essential.

- **A robust model for applications health analysis on key dimensions:** A model for application health analysis will increase the probability of developing recommendations

**Drivers of Success**

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<th>Critical Success Factors</th>
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<td>Strong commitment from top management team</td>
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<td>Clear communication of objectives of portfolio rationalization</td>
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<td>Access to and active participation of all the stakeholders</td>
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<td>Robust model for application health analysis on key dimensions</td>
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<td>Experienced team of consultants with right mix of skills</td>
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<td>Higher degree of confidence on financial data</td>
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<td>Availability of budget and resources to implement recommendations</td>
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<td>Application rationalization as an ongoing process requiring regular evaluation</td>
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that drive successful rationalization of the application portfolio. The assessment can be performed based on strategic, business, technical and commercial dimensions, using a comprehensive questionnaire for surveys and interviews.

- **A higher degree of confidence regarding financial data and information**: Decisions on which recommendations are implemented, and in what order, are made on the basis of translated financial benefits. The financial model for realizing benefits must not only be robust; it must also be reinforced by a high degree of confidence in the financial information supporting it.

- **An experienced team of consultants with the right mix of skills and knowledge**: A cross-functional team comprising highly experienced business consultants, domain experts, process consultants and technology architects is an essential parameter for successful application rationalization. A cross-functional team helps drive synergies and improve collaboration, as well as bring multiple perspectives to a case, which helps in gaining alignment more quickly.

- **Availability of budget and resources to implement recommendations**: One of the fundamental reasons some application rationalization projects fail is lack of budget, resources or both to implement appropriate recommendations. The organization must assess the cost and level of involvement required before executing the application rationalization initiative to ensure desired benefits are realized.

**A Framework for Transforming the Application Portfolio**

A robust framework for application portfolio rationalization involves data collection, application profiling, application value analysis, identification of opportunities and defining an implementation roadmap. The framework is focused on understanding, analyzing and transforming the current application portfolio to arrive at the most effective rationalized application portfolio. Following the application portfolio analysis, an opportunity domain grid is created for categorizing the opportunities identified by the framework, as well as other hidden costs that, if surfaced, reveal potential cost-cutting opportunities.

**A Step-by-Step Process for Application Rationalization**

![Diagram](figure2.png)

Figure 2
During the rationalization process, the value of each application is computed. According to the analysis conducted on each application, a recommendation is made to either retire or decommission end-of-life applications or conduct a functional upgrade to applications determined to be critical to the business or with significant business potential (see Figure 2).

**Data Collection**
In the first phase, the application inventory is filtered to remove applications that are obsolete or have been earmarked for retirement. Application portfolio profiling starts with issuing a questionnaire that is intended to assemble data elements across business, technology, strategic fit functionality and cost dimensions. The questionnaire can be customized to capture the essence of the domain to ensure the most accurate and useful information is captured for analysis. The primary information is obtained through interviews, using the questionnaire, with the application service managers and business system owners of the process. A kaleidoscopic view is generated on the demographics of the portfolio to develop a high-level analysis. Applications are also clustered based on their business function.

**Applications Profiling and Value Analysis**
In the next phase, a robust application portfolio rationalization model factors in the key parameters that influence the business value and technical health of an application. Each of the parameters identified under the business and technical dimensions is assigned a weight based on its relative importance to the other parameters within a dimension (see Figure 3). Individual applications are assessed on each parameter, reinforced by the data collected through interviews and surveys. The business value and technical health index identifies each application’s lifecycle positioning, assesses the opportunity for improvement, calculates the cost savings and determines the actions needed to optimize the application’s business effectiveness.

A rationalization map is generated using the quantitative data model to identify the underperforming assets and propose measures for improvement.

**Opportunity Mapping**
In the third phase, a rationalization map is generated, using the business value and technology health index. The rationalization map identifies opportunities for application decommissioning, application consolidation, technology/platform

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**Key Parameters for Weighing Business Value and Technology Health**

![Diagram](image)

Figure 3
upgrade and functional enrichment. After the application rationalization map is generated, an opportunity domain grid is created. The opportunity domain grid maps the opportunity based on decommissioning, consolidation and upgrading the application environment, and identifies additional opportunities for cost avoidance (see Figure 4).

Traditionally, most large organizations allocate and manage IT budgets in silos; as a result, many similar applications are procured and used by different business units. By centralizing the software procurement function across business units/geographies, the IT organization can help reduce the overall license spend by the simple principle of economies of scale. Centralization also enables IT to identify the right number of users in advance, which streamlines management and improves utilization.

Benefits Realization and Implementation Roadmap

In the last phase, an implementation roadmap is created. It collates a set of actions, clustered on a time-scale basis, that are required to achieve sustainable business results. This roadmap supplies the organization with immediate, short-term and long-term opportunities to improve the applica-

Prioritizing the Opportunities
Improving Operational Efficiency Through Rationalization

Payback Opportunities

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<th>Payback from Application Portfolio Rationalization</th>
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<tr>
<td>Optimizing IT Cost</td>
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<tr>
<td>Improving Operational Efficiency</td>
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<tr>
<td>Ease of Governance</td>
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Cost/Benefit Attributes

- Business Innovation
  - Addition of new customers/users.
  - Ability to meet current and future functional needs.
  - Reduction in time to market of new offerings.
- IT Efficiency
  - Speed of IT delivery (i.e., development/implementation time, planned to actual).
  - Reduction in training effort for users.
  - Integration of valuable IT assets.
  - Asset utilization (i.e., resources, network, hardware, software licenses).
- Process Improvement
  - Reduction in project time by reusing existing functionality.
  - Reduction in management and documentation efforts.
  - Clear definition of IT rules and policies.
- Ease of Governance
  - Reduction in processing time.
  - Training (prevention costs, review/inspection days, cost, rework/retest, failure costs).
  - Compliance effort required for meeting IT standards and frameworks (quality audit).

Figure 6

The opportunities can be prioritized based on the ease and cost of implementation, savings and inter-dependencies (see Figure 5).

Spotlight on ROI

Rationalization enables organizations to significantly alter their cost structures (Figure 7). While rationalization demands an initial investment, it can significantly reduce the cost of running the business. For instance, an initial investment in the consolidation of similar applications, utilities and services will create a foundation for medium- and long-term payback by reducing maintenance expenses and improving operational efficiencies.

Long-term payback from application portfolio rationalization will be realized in four ways:

- Reducing TCO by retiring the redundant applications.
- Consolidating multiple versions of similar applications and services running at different locations.
- Maximizing the reuse of common utilities across various business functions.
- Reducing total cost of quality by minimizing the number of applications that would undergo the quality compliance process.

Quantifying Application Portfolio Rationalization

Figure 7
Case Study: Life Sciences

Client Situation
A leading pharmaceutical organization faced the challenge of increased size and complexity of its application landscape, making it difficult to respond quickly to dynamic business changes. The company was looking to reduce the total cost of ownership of its applications, identify cost savings and cost avoidance opportunities and assess the impact of tighter IT architectural alignment with its global business architecture. The IT organizations’ goal was to identify the functional overlaps and opportunities for application portfolio rationalization.

Value Delivered
We worked with the IT leadership team to perform the assessment/analysis of a global drug development applications portfolio, with the following results:

- Simplified the application portfolio by reducing portfolio size by 40%.
- Proposed savings of $1.5 million from quick wins — $1 million from near-term actions and $600,000 from long-term opportunities.
- Concluded that 20% of the application had license savings opportunities, a key parameter for cost avoidance.

Building a Lasting Infrastructure
Companies across industry face overwhelming challenges to gain operational efficiencies and reduce the complexity and TCO of their application portfolios. A decentralized approach for managing the application portfolio typically leads to organizational inefficiencies. As the need for new business applications arises, the portfolio landscape changes quickly, which necessitates a rationalization exercise to be performed at regular intervals to ensure an applications infrastructure that supports business requirements.

The desire for continuous improvement and realization of rationalization opportunities will help organizations reduce license costs, tap the existing portfolio’s residual business value and reduce functional overlap — all of which are key ingredients in an IT infrastructure that supports today’s business requirements and anticipates tomorrow’s needs.

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