LTIMindtree

Point of View

How to Leverage Application Portfolio Rationalization to Increase Business Value

In a fast-changing IT landscape, where apps exist for every business process, IT leaders are facing a huge challenge in managing the growing portfolio of apps. Many organizations still have islands of rigid monolithic applications that are not suited for the needs of the modern digital world. The legacy portfolio of applications is a stumbling block for organizations that want to accelerate on the highway of digital transformation. To ensure that business goals are achieved with the application portfolio, it is imperative for organizations to take a deep look at their applications landscape. This can be achieved by 'Application Portfolio Rationalization'. Gartner describes application rationalization as the radical reshuffling of an application portfolio as part of an application strategy. The research firm opines that application rationalization often occurs after an IT organization accumulates an unmanaged collection of applications through shifting business strategies or mergers and acquisitions. The application portfolio rationalization strategy can include replacing, retiring, modernizing or consolidating applications.

While an application portfolio rationalization strategy is extremely important, it cannot be applied blindly in every organization. We suggest a proven step-by-step approach for Application Portfolio Rationalization. IT leaders can use this guide to develop and implement an application strategy that helps them rationalize their legacy IT portfolio and prepare it for the fast emerging business landscape.

A roadmap for application portfolio rationalization

Depending on the state of the application landscape, organizations can plan for a 6-10 weeks effort to establish a roadmap to achieve application portfolio transformation. From a solution planning perspective, we recommend the following steps:

Portfolio Assessment

Organizations must assess the current business architecture and bottlenecks. This is followed by taking an overview of current application/technical architecture and bottlenecks. Priority areas for improvement must be identified and the key metrics need to be defined for improvement. This exercise will reveal the assessment of key business and technical capabilities against industries and help organizations identify the list of high potential opportunity areas.

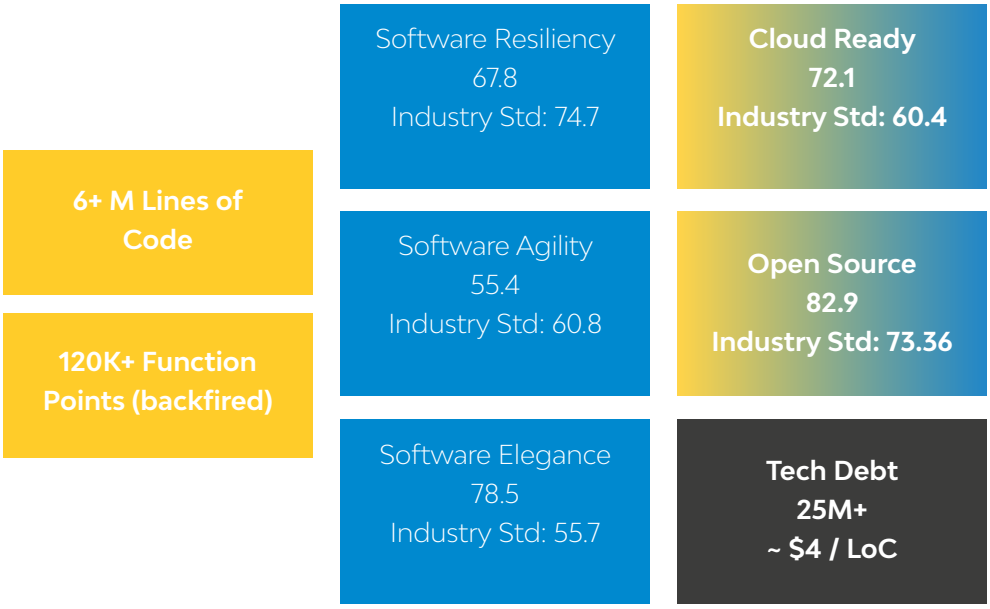
CAST Based Portfolio Assessment

LTIMindtree leverages CAST Software (a leader in Static Code Analysis) for assessing applications from a code quality standpoint. It assesses the applications on the reliability, security, and maintainability fronts to calculate the Tech Debt, which is a primary measure in deciding the technology value of the application.

CAST Highlight is a portfolio assessment tool that uses inputs from CAST source code analysis and other sources to provide comprehensive analysis in terms of Cloudability, Open Source Vulnerabilities, software health and composition analysis. It gives clear recommendations on quick-wins, and long-term pursuits from among the application suites, based on the business impact and current cloud readiness. In addition to this, it

gives application specific action points to remove potential roadblocks that might arise during the migration. A snapshot of the representative portfolio analysis is provided below. For more details on CAST highlight, **visit CAST Highlight - Application Portfolio Analysis.**

CAST Highlight Output



Development of "to-be" application ecosystem

Once an assessment is done, it is important to visualize the future state. Organizations must develop a high-level definition of the future state environment and define the critical "To-Be" performance metrics, the high-level application/technical framework. It is also equally important to determine the organizational change implications.

Solution definition

The decision-making framework must be created. This must be followed by identifying gaps between the "As-Is" and "To-Be" state. Options must be explored for addressing the high-priority gaps.

Implementation roadmap

To ensure smoother execution, organizations must organize required changes into discrete projects and prioritize projects accordingly. A phased implementation schedule must be followed. This can be done by developing a high-level project definition and identifying the required skill and resource requirements. This must be followed by identifying project dependencies and mapping the overall schedule.

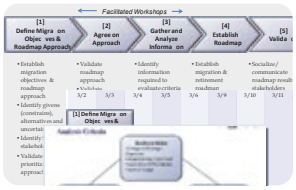
Application Portfolio Rationalisation (APR) Evaluation Framework

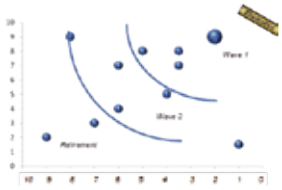
Portfolio Modernization Framework

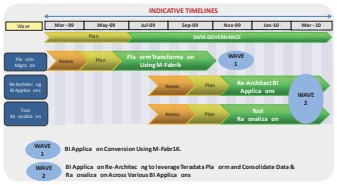
1 Acquire — Establish Approach & Collate Data

2 Analyze — Perform Portfolio Review; Portfolio Observations & Inferences

3 Advise — Develop the APR plan

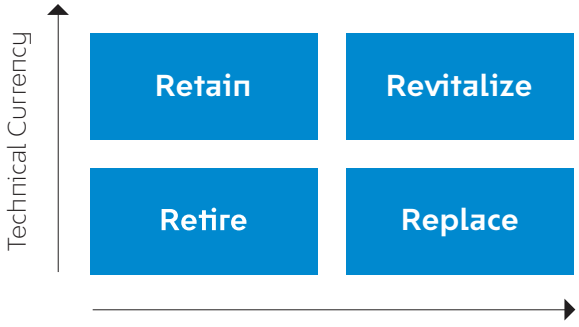






Sample Approach to derive Decision

4R Framework



Apps Evaluation Criteria

Business Value

- Strategic Impact
- Value Impact
- Digital Readiness
- Personas/Adoption

Technology

- Delivery Process
- Release Cycle
- Estimation Model
- Maintainability
- Flexibility
- Scalability
- Work pipeline
- Support Considerations
- HW/SW Requirements
- Usability
- Security
- Data Privacy

Key questions that must be asked before any application portfolio rationalization exercise

Before any application portfolio rationalization exercise is undertaken, the following questions must be asked with respect to different parameters such as:

Business process fitment: Is the process efficient? Can the process be simplified? Can the new technology transform processes? Can we leverage analytics to improve process?

Completeness of functionality: Can the process be standardized around industry packages? Can manual processes be eliminated? Can the standardized process be moved to managed business services?

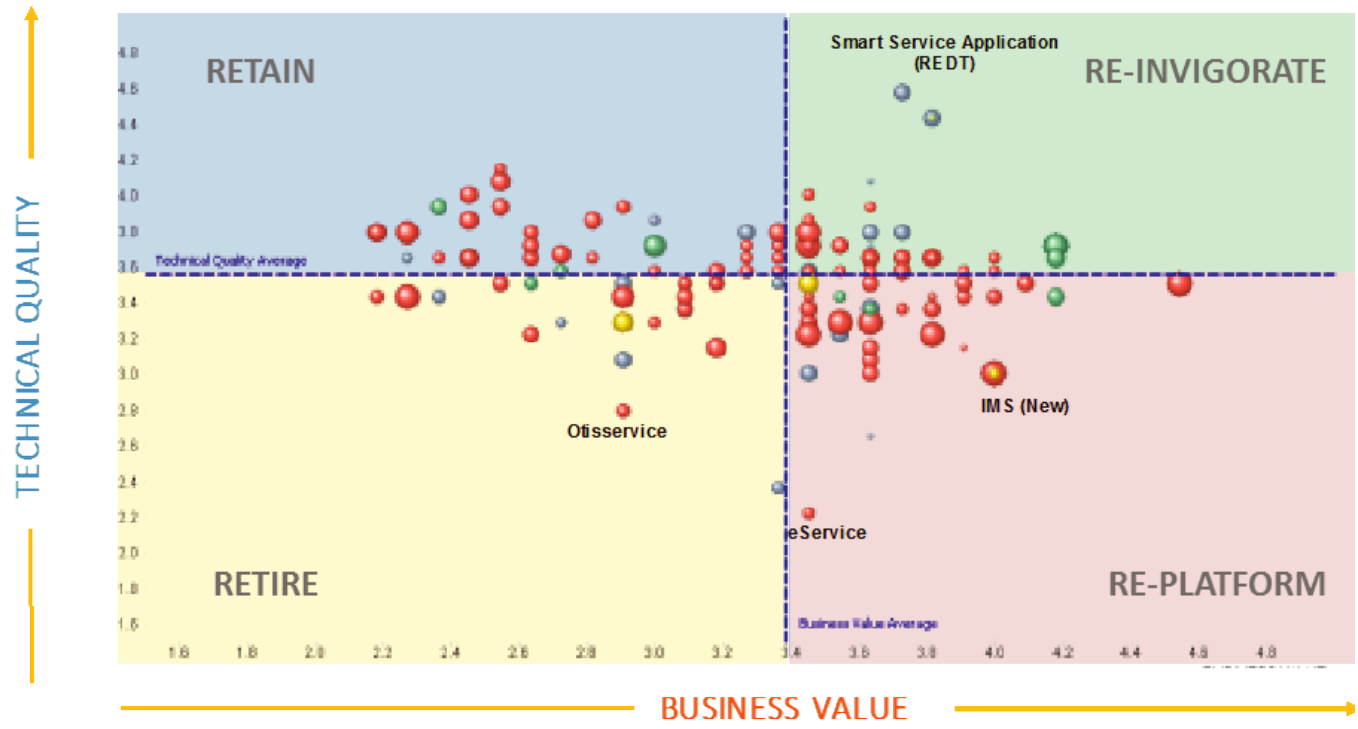
Technology alignment: Are there non-approved technologies in use? Do multiple versions of the same technology exist? Can licenses be rationalized?

Operations efficiency: What is the level of automation? Are monitoring tools being used effectively? Are shared services effectively utilized? Is there a QoQ improvement in ops metrics?

Digital-readiness: Is experience impacting productivity? Are systems designed for digital security?

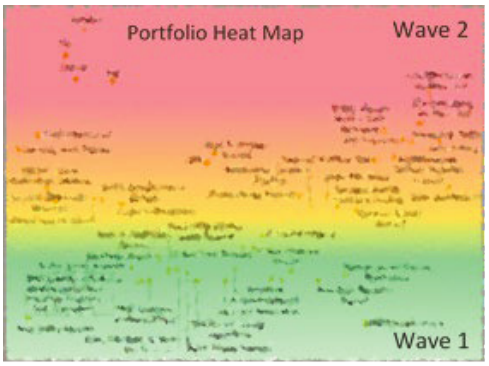
If enough data is not collected across various dimensions, the full potential of application portfolio rationalization can never be realized.

Depending on their functionality, use, and technical readiness, applications can either be Replaced, Revitalized, Retained, or Retired. Based on detailed portfolio assessment, organizations can identify candidates for rationalization and further lay down the transformation roadmap.

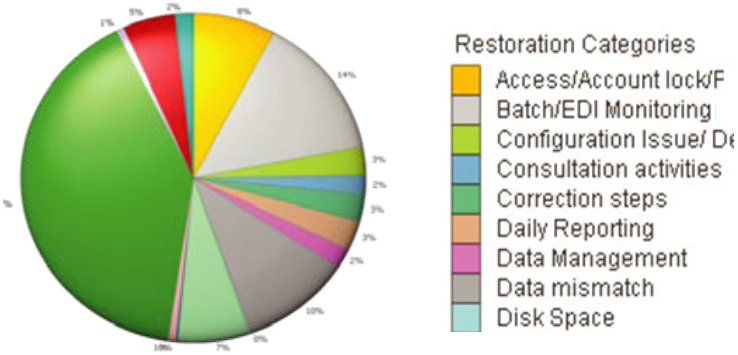


Strategic Alignment Mapping
to identify candidates for rationalization

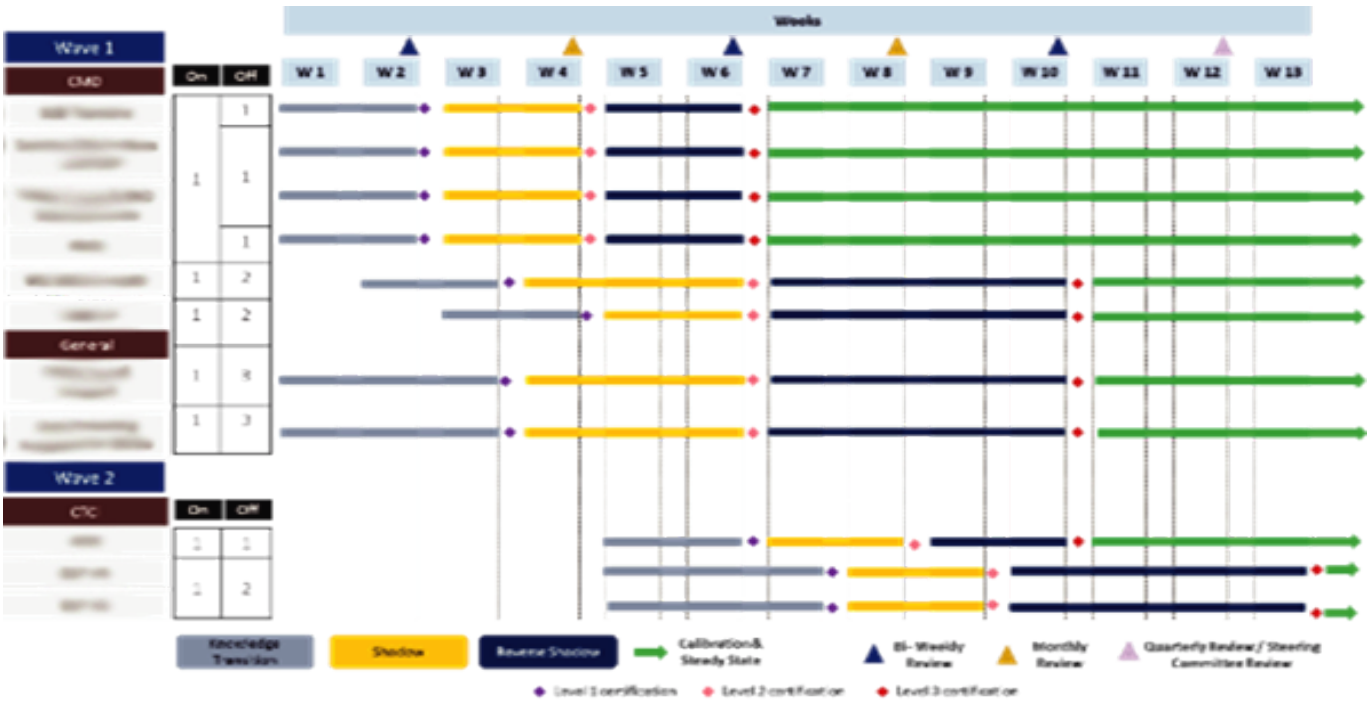
The assessment reports would consist of application landscape analysis and detailed roadmap along with implementation approach and timelines. The representative outputs are shown below.



Portfolio Heat Map
for risk free business transformation



Automation Opportunity Identification
to drive use cases for Shift-Left and automation



Transition Plan
optimized for risk and speed

Build a knowledge data lake

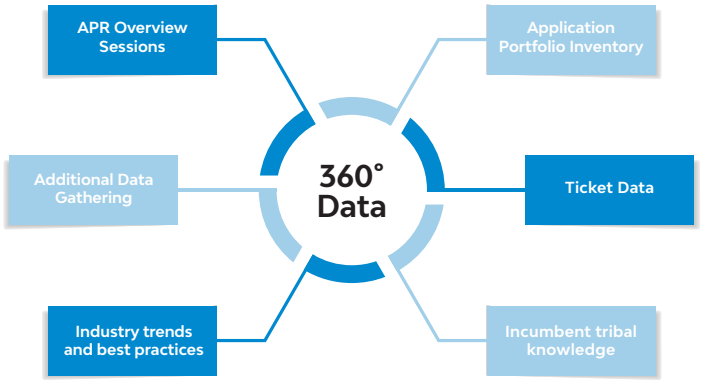
A knowledge data lake that contains data on the required parameters and dimensions from various sources becomes essential for conducting an application portfolio rationalization exercise, and to implement the post exercise recommendations. At a high level, data can be classified under the following parameters:

- High level objectives
- Governance model
- Application list
- Known initiatives across businesses
- Business process maps
- Personas
- Public domain knowledge of Client business, IT and Engineering strategies
- Benchmarks
- Best practices and industry standards

High level objectives and lay of the land
Governance
Application list
Known initiatives across businesses
Business Process maps
Personas

Public domain knowledge of Client business, IT and Engineering strategies

Benchmarks
Best practices and industry standards
L&T best practices



Complexity, Criticality, Size Stability
Infrastructure data points – DC, Servers, Storage
Service Management data
Event Logs

6-12 months service desk data
MOSAIC™ Discovery- LTIMindtree's cognitive analytics platform for deeper insights into operations and issues

L&T awareness of processes, issues and IT and Engineering landscape based on our Client engagements Known strategic initiatives

This helps in capturing multiple attributes of the application portfolio. Attributes could include parameters such as application owner, core business process supported, business-criticality, functional complexity, functional fitment, number of application users, technical scalability, impact on business if application is down, inbound interfaces, outbound interfaces, product vendor dependence, database and programming language used, peak frequency, FTEs for support, availability expectation, compliance requirement, and costs.

This analysis could help in proactively identifying areas impacting the stabilization and recommend alternate solutions. Similarly, an analysis of tickets or incidents can help in identifying the root cause of perennial issues. A complete analysis can help in creating a transformation blueprint and roadmap and suggest architectural recommendations.

In summary, a phased approach can help organizations take measured steps for application portfolio rationalization. For example, phase one could have an objective of eliminating at least 30-40% of orphan applications, while phase two could mean application consolidation. The long-term phase could include goals such as platform consolidation, functional consolidation, vendor consolidation, and infrastructure consolidation. To accelerate the process of application portfolio rationalization, the usage of emerging technologies such as AI and ML is recommended. For example, ML-based solutions can be used to obtain insights into most common and frequently occurring events, incidents, and service requests from users. AI-based frameworks can be used to perform code-level analytics and identify complexity and cloud readiness of application portfolio. AI-based platforms can be used to analyze web and mobile applications across multiple parameters quickly. Similarly, a cloud assessment toolkit with pre-defined rules and criteria like CAST can help in fast-tracking adoption of various cloud models.

We hope that this guide helps your organization chart out your application portfolio rationalization exercise with more clarity, and helps your organization prepare itself for a fast changing world.

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Avinash is an integral part of Enterprise Architect team NEAR at LTIMindtree. He has about 20 years of experience in IT service and product industry, providing technical leadership to the projects. His experience covers different domains, MFG, Oil and Gas, Insurance, and Banking.

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