

## Perspective



### Navigating Post-Merger IT Integration in the Logistics Industry Infosys IT Integration & Transition Framework

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#### Abstract

Logistics Service Providers (LSP's) are facing globalization, increased industry consolidation and fast changing consumer needs, and are turning to Mergers and Acquisitions (M&A) to meet these challenges. M&As, while exponentially increasing business opportunities also bring challenges in the areas of systems integration, corporate culture, redundant employees, processes and technologies and customer orientation. In order to minimize these, M&A processes must have well defined IT integration strategies. This paper presents Infosys' IT integration & transition framework to help logistics companies successfully deal with post-merger IT integration challenges.

## Introduction

Over the last few years, in response to the demand for global capabilities and intense business competition, many Logistics Service Providers (LSPs) have turned to Mergers and Acquisitions (M&A) for faster growth and aggressive expansion. Through these mergers & acquisitions, LSPs expect to increase business size, broaden services range, leverage new technologies and increase geographical presence.

However, this M&A wave has also brought with it many challenges to concerned organizations - differences in internal controls, management styles, process and technologies, complexity in integrating systems etc.

A majority of traditional M&A strategies fail due to:

- Unrealistic expectations
- Lack of sufficient pre-merger due diligence
- Underestimating the difficulties involved in integrating operations, processes, systems and technologies

Organizations that are unable to negotiate these M&A hurdles fail to achieve the anticipated benefits of operations synergies - increased efficiencies and cost savings.

Market research indicates that post M&A, companies typically spend about 30% of their IT budgets to address system integration issues. Therefore, the challenge is to integrate different technologies and systems, while protecting investments. To enable this with reduced time and cost parameters, it is critical for M&A processes to have well-defined IT integration strategies.

## Post-Merger IT Challenges

- **Lack of streamlined IT infrastructure and system support**  
Infrastructure set-ups are often not standardized. Therefore, a certain level of due diligence is required prior to streamlining IT infrastructure and system support.
- **Incomplete visibility to customers**  
Information flow to customers could be hampered by decisions on visibility and the pace of system integration. This could impact customer's planning, forecasting, delivery and satisfaction.
- **Disjointed financial processes and systems**  
Financial systems need to be integrated immediately to ensure uninterrupted payment to suppliers.
- **Post-merger supplier network collaboration**  
Integration with supplier systems is essential to maintain continuity of information flow, within and across the enterprise, to enable visibility of inventory and service levels.
- **Fragmented and disparate IT systems**  
Identification and rationalization of IT applications portfolio and activities they perform is a critical area of focus during IT system integration.
- **Lack of technology standardization**  
Technology standardization and output quality are key issues in disparate IT system scenarios. Approaches followed by concerned organizations in vendor management, outsourcing and in-house development could vary, bringing additional integration challenges.

## Infosys M&A IT Integration & Transition Framework

While IT integration is perceived as a critical post merger activity, it is often difficult, challenging and time-consuming. *Speed, quality and simplicity* are crucial in making the process of IT integration cost effective. To this end, Infosys has developed a unique and comprehensive *M&A IT Integration and Transition Framework* (See Figure 1).

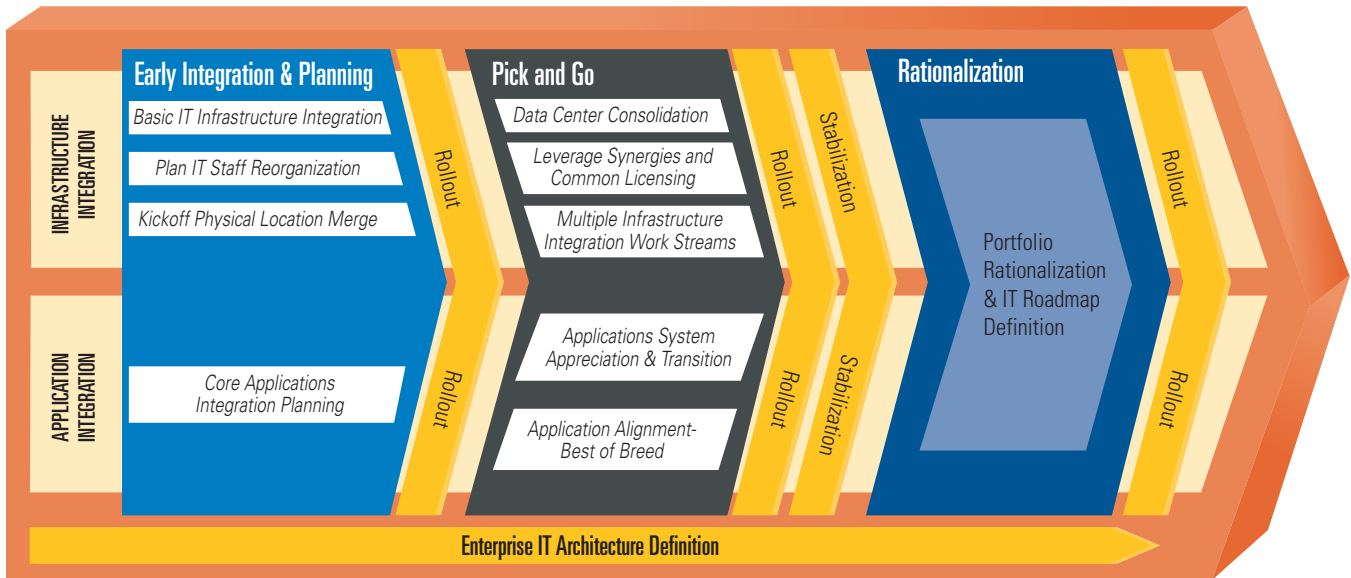


Figure 1 - Infosys M&A IT Integration & Transition Framework

The key focus of this framework is to rationalize applications and improve Total Cost of Ownership (TCO) by portfolio optimization. This framework helps concerned organizations achieve their IT integration objectives in a seamless and efficient manner.

The Infosys M&A IT integration and transition framework focuses on the following phases:

- Early Integration
- Pick and Go
- Rationalization

As a first step towards IT integration, it is important to undertake a set of activities to ensure critical business functions do not suffer. From this perspective, the early integration phase is an important step in initiating post-merger IT integration. This phase is followed by the Pick & Go and Rationalization phases. These phases can be run in parallel or sequentially, depending on business process complexities - size of merger, data, portfolios, etc.

### Early Integration

This step works to immediately integrate critical components, allowing for uninterrupted operations.

#### Infrastructure Integration

- Basic IT integration: Involves integration of business essential communication networks - hosting, telecom (data and voice lines), IT security, desktop, E-mail, directory of services, service desk and technical support.
- IT Staff Re-organization: Calls for re-organization of the IT staff across the merged organizations and allocation of roles and responsibilities to ensure smooth IT integration.
- Kick-off Physical Location Merge: Looks at opportunities to merge data centers & steps to initiate the same.

## Application Integration

Business applications that are critical to customer service need to be identified and integrated to ensure business continuity. Some core applications that need early integration include:

- Billing/finance applications – to ensure no impact on invoicing and rating mechanisms
- Customer facing/web-based applications – to announce and advertise the new, merged brand
- Customer data – to facilitate leveraging a larger customer database
- Core operational data – to continue data mapping, routing and message translation, across enterprise, to provide uninterrupted visibility to end-customer

## Pick & Go

Pick & Go focuses on identifying & selecting core business applications & systems, best aligned with future organizational needs.

Steps that characterize Pick & Go phase:

## Infrastructure Integration

- Data center consolidation: This step involves Identifying opportunities for consolidation of data centers, technologies & vendors.
- Leverage synergies & common licensing: Core strengths, of the infrastructure team - networks and servers, can be leveraged for synergies. Opportunities for common software licensing can also be explored and implemented.
- Multiple Infrastructure Integration Work streams: Teams, associated with various integration workstreams, are set-up to monitor progress and provide update on key milestones.

## Application Integration

- System Appreciation: This phase involves understanding the applications functionality and technology. This helps identify opportunities to offshore application maintenance and development.
- Application Alignment: Evaluate alignment of IT applications portfolio with business priorities to improve cost effectiveness. The objective of the process is to identify the best applications, wherever possible

## Rationalization

Portfolio rationalization & implementation involves the following 4 stages:

### Consolidate

Identify existing applications in merged organizations and prepare a list of “as-is application portfolio”. For preparing the process-application matrix, based on the business process area classification and hierarchy, processes are listed and applications are mapped against these processes. The critical success factors for this activity include:

- Information availability with respect to the applications deployed across the organizations
- Clear and precise process area definition - to enable effective application classification and mapping
- Definition of project charter

### Investigate

A set of pre-defined critical success factors is prepared, in consultation with business and IT teams, to drive Go/ No-Go decision for further analysis. Some of the parameters identified would be based on high-level business benefit of the application architecture - robustness, scalability, overall degree of fit etc. A questionnaire is designed, based on the technical and functional strategy for the application, and distributed to the stakeholders. Responses are collated and evaluated.

## Evaluation

This step focuses on business functionality and technology assessment to arrive at a list of selected candidate applications and a comparison score sheet for the same.

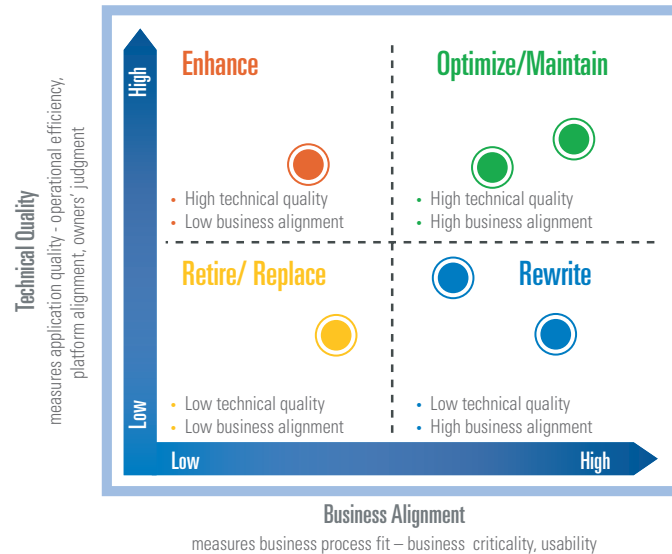


Figure 2 - Rationalization Matrix

The identified candidate applications are put through Infosys' detailed functional and technical assessment framework.

### Functionality Assessment Framework

- Split and align application comparison sheet by business processes & sub-processes
- Assign weights and ranks to functionalities and decide on application set for common functionalities
- Identify future functionality requirements - evaluating implementation capability in terms of ease and calculating overall score for each application – IT Roadmap

### Technology Assessment Framework

The technology assessment framework reviews technical parameters of current and future application needs - customization, new requirements implementation, architecture, flexibility, interface capability, migration, offshoring possibility and overall scalability. This is followed by an allotment of weightage to the technical parameters, in order to arrive at an overall score for each application.

Based on the scores allotted, on both functionality and technical parameters, the applications are plotted using the rationalization matrix (see Figure 2), where each quadrant of the matrix is indicative of the decision to be taken with respect to the applications.

The critical factors for the evaluation phase are:

- Domain knowledge
- Application knowledge
- Consolidation of knowledge across geographies
- Visibility of current and future business direction

### Implementation/ Rollout

This step involves the shut-down of legacy and redundant applications, and enhancement of selected applications. A phased, run-down approach is suggested for legacy applications, and a clear, transition strategy to the chosen application, would ensure successful IT implementation. The enhancement of chosen application should be done in a phased manner too.

## Case Study

### *Rationalizing applications for a large parcel express organization*

Infosys was engaged by a large, parcel express and logistics provider to drive application portfolio rationalization within its shipment movement process area.

### Business Challenge

Post M&A, the client's shipment movement process had a total of 105 disparate applications, duplicate or redundant. This was posing a challenge in terms of:

- Application maintainability, process standardization and data integrity
- Integration, consolidation and retirement of redundant, duplicate or unused applications

The client was also looking at optimizing its overall portfolio functionality

### Infosys Solution

Infosys' IT integration and transition framework was used to rationalize the client's applications, based on functionality and technology assessment parameters, and also help define the post-merger state of client's shipment movement applications. Some of the business processes that were touched upon, within the shipment movement domain, included Pick-up and Delivery, Fleet/Facility Operations, and Performance Management.

During the investigation and evaluation phases, the project team explored multiple factors to evaluate functional redundancy, technical quality and stability. The need to improve business functionality was also factored in. This helped to identify relevant optimization tactics and options.

Based on the application stability and technical quality assessment, one or more optimization tactics were recommended in each cluster. Optimization tactics suggested included retirement, consolidation, re-engineering / rewriting software, and a movement towards SOA.

### Key features of the engagement

The engagement identified a list of opportunities, which included:

- Retiring more than 30 applications with duplicate or unused functionality
- Re-engineering a number of applications to improve maintainability
- Optimizing application and data integration interfaces

### Key benefits of the engagement

- Reduced total costs of ownership
- Reduced data duplication across the shipment movement process
- Improved data integrity and standardization

In addition, Infosys developed a re-usable process and tool-set that could be leveraged by the client organization for future M&A IT integration and application rationalization activities.

## Conclusion

Logistics Service Providers are fast realizing that post-M&A, integrating business systems is often more complicated than integrating physical location, fleets & assets. Services such as freight management, warehouse management, value-added services, reverse logistics, track-and-trace / visibility management are all information intensive, and IT integration is vital for the uninterrupted functioning of these services. In addition to integrating with each other, organizations have to also integrate with their suppliers and customers, which pose further challenges.

The Infosys M&A IT integration & transition framework provides organizations with the necessary tools and techniques to tackle these IT integration challenges successfully. It also enables organizations to realize the business benefits of the merger, without compromising on service delivery standards. This application rationalization approach helps in making improvements to the overall effectiveness and business value provided by the client's merged IT systems.

### About the Authors

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