Mergers and Acquisitions (M&A) bring together different sets of people, processes and technologies with the common objective of creating a larger, unified enterprise. The enterprise aims to benefit from the synergies of merging companies by consolidation, rationalization and integration of the people, processes and technologies of both organizations. The post-merger integration of IT systems is fraught with challenges as there are few frameworks that take a consolidated view of IT in alignment with processes and people. This paper discusses Enterprise Application (EA) imperatives for an organization during a merger or acquisition by detailing various aspects of application integration that must be correctly assessed to create a unified enterprise.
IT Integration scenarios in M&A

Post-merger integration involves the integration of IT systems, applications, data and architecture to enable the integrated enterprise to leverage synergies and eliminate redundancies and inefficiencies that may result from improper integration. The extent of integration that an enterprise aims to achieve determines the level to which the enterprise applications are rationalized. Infosys believes that typically, three scenarios exist for post-merger integration of IT systems and applications. An enterprise may wish to achieve any of the three as its end state of IT integration and consolidation. The three scenarios are described in increasing order of costs and benefits (Figure 1).

The three scenarios signify the levels of integration required for the merged entity. For scenarios 2 and 3, a phased approach to integration may be taken. The extent of integration is also determined by the extent of similarity of process and applications landscape among the merging entities. The end-state of post-merger integration of IT systems and applications is driven by the M&A objectives, the time by which the enterprise needs to achieve the integration, as well as the cost of integration that the enterprise can bear within the time horizon. If the objective of the enterprise in M&A is to benefit purely from the wider portfolio of products or services without operational efficiencies, the company will go with little consolidation and minor reporting systems development, i.e. scenario 1. If the objective is to benefit by leveraging operational synergies and eliminating redundancies, the enterprise will choose scenario 2 as its end-state. And finally, if the objective is to merge one of the companies entirely into the other, the enterprise will choose scenario 3 as its end-state.

Once the integration end-state is determined, post-merger-integration can be carried out keeping the Systems, Application, Data, Architecture, IT organization as the broad entities (Figure 2). The integration program management office should manage the entire integration initiative with all the tracks working in a coordinated fashion to achieve the M&A objective.
The IT architecture of the merged enterprise is decided based on the level of agility that the organization wants to achieve. For high agility, the enterprise may choose a service-oriented architecture. This would also determine the applications and infrastructure requirements for the desired end-state.

**Figure 2: Post-Merger-Integration framework**

The IT organization structure must be defined based on the systems, applications, data and architecture envisaged for the new merged enterprise, and appropriate people must be identified for the roles thereof. The enterprise may have to recruit, train or release various skill sets that are required in the new IT landscape. A change management program would ensure smoother transition to a new IT organization that supports the merged enterprise.

**Post-Merger Integration Methodology**

**Figure 3: Post Merger Integration Methodology**
The first step in post-merger integration of the IT landscape is the portfolio assessment of existing IT applications and systems. The future IT landscape is recommended after considering business priorities and the desired end-state of integration (Figure 1). Following this due-diligence and consulting phase, the recommendations are implemented by consolidating IT systems, applications and data. The applications are also customized or configured to suit the new functionality that the enterprise would like to incorporate in their processes. Application integration and rollout is then carried out in the merged enterprise. A number of factors must be considered during application and data consolidation in M&A.

**Enterprise Application imperatives**

Organizations must carefully choose the enterprise applications that will enable business processes in the merged enterprise. Implementation of application consolidation and rationalization must be accompanied by careful monitoring and control for minimal disruption of business operations and to ensure business continuity with optimal operational performance. The following factors must be considered for enterprise application consolidation and rationalization:

1. **Integration end-state**
   The enterprise may choose any of three integration end-states (Figure 1) depending on its M&A objectives. The end-state determines the blueprint of functions and systems that will be integrated or consolidated. If the objective is to integrate only the reporting functions, only the financial applications will be integrated and consolidated. If the objective is to integrate only the HR functions, HCM applications will be integrated and consolidated.

2. **Evaluation of Enterprise Applications landscape**
   The Enterprise Applications map of each company must be evaluated through a framework to determine which functions are to be preserved, rationalized or enhanced in the applications. This forms the blueprint for application functionality integration and rationalization during M&A. For instance, when two distinct business entities merge, the enterprise would like to preserve most of the functionality within the applications; Functionality in financials and HR may be rationalized as there may be overlaps; enhancement in reporting functionality may be mandated by regulatory requirements.

3. **Best fitment of the package to enterprise needs**
   Various scenarios may exist on the application landscape of the existing entities. Both entities may be on the same enterprise application or on different ones. The former case may be one for package evaluation and to determine the best fit for the new merged entity. In the latter case, the versions may or may not be the same, and upgrading one or both on the same EA may be the optimal alternative. It is also possible that only one entity uses an EA, while the other runs legacy systems. This offers a case for rollout of EA and replacement of legacy applications. However, in some cases, depending upon the end-state, a package evaluation may be necessary so that a fresh set of EAs replaces both the existing EA and the legacy systems. If a larger organization acquires a number of smaller companies, it may plan to roll out its existing/ planned EA to the acquired entities using a rollout template, without getting into any other details. The choice of enterprise application package used to enable business processes in the merged enterprise is determined by a number of parameters, such as:
   a. **Functionality mapping**
      Identify the package that provides the best fit for business functions. Application packages with an industry flavor should also be evaluated for industry-specific features. This helps to minimize customizations.
   b. **Volume of users on each application**
      The number of users on applications in each entity impacts costs related to license, maintenance and user training.
   c. **Language & Localization Support**
      If the merged enterprise spans multiple geographies with diverse language usage, the Enterprise Application should have multi-language support. Similarly, enterprise applications must cater to regional requirements, if any, for the geographies in which the enterprise operates.
   d. **Application Integration Architecture**
      Integration needs increase in a merger scenario owing to a need to integrate multiple applications, especially those catering to niche requirements. The choice of enterprise application should consider the ease with which it can integrate with other applications. E.g. an automobile company merging with its components supplier should combine Product Lifecycle Management (PLM) and Enterprise Resource Planning (ERP) applications that can integrate readily. Similarly, in the case of telecom firms, the choice must be in favor of an ERP application that can integrate easily with OSS/BSS systems.
4. **Application re-configuration & customizations**

Typically, enterprises in the process of merging or acquiring would like to enhance or modify business processes, along with the transition to a merged enterprise. There is a need for application re-configuration and customization during the IT applications transition. Application version upgrades may also be necessary to cater to enhanced business process requirements. This may also be viewed as an opportunity to minimize EA customizations.

5. **Application instance consolidation and rollout imperatives**

Enterprises must choose between having multiple instances of applications versus having single or consolidated instances of applications. This is a critical choice that will affect the ease of maintenance and the ease of enhancements to the applications. Also, data that is regularly updated and regionally distributed across multiple instances play an important role in providing the desired level of information access and availability across the merged companies.

6. **Data migration imperatives**

a. **Managing and Merging Master Data**

Application consolidation involves migrating master data from one application to another. It is critical that the retained applications provide the functionality and data of the application that is undergoing sunset. A comprehensive data migration strategy is important to consolidate the master data.

b. **Meeting regulatory requirements for data maintenance**

Data maintenance is of critical importance in some nations where regulation requires sensitive data to be maintained within the country. This necessitates the maintenance of data master and application instances in particular countries if the merging enterprise has operations there.

c. **Reporting requirements during transition**

During transition to a merged enterprise, the organization has many regulatory reporting obligations to make e.g. the organization is bound by law to disclose certain information on the legal entities to the SEC. A separate program must be put in place to cater to such data and reporting requirements.

d. **Data Warehousing requirements**

For a scenario 1 kind of integration (Figure 1), Business Intelligence/ Data Warehousing becomes a critical solution for consolidated or integrated reporting. For the other two scenarios, this can be an intermediary solution if the consolidated Enterprise Applications are not available.

7. **Other Important considerations**

a. **Integration architecture imperatives**

Merging companies bring together multiple applications, middleware components and interfaces. It is essential to have an integration strategy and an integration competency center to manage these interfaces and provide a nimble and agile architecture to the merged IT landscape.

b. **Infrastructure imperatives**

The IT infrastructure of merged enterprises will have to consolidate and rationalize a number of infrastructure components such as hardware (desktops, servers, etc.), network (LAN, WAN), security (firewalls, etc.), and communication links. The choice of infrastructure dictates the total cost of ownership of IT landscape for the merged enterprise.

c. **Data Centers and application hosting imperatives**

Merging enterprises can reduce the total cost of ownership (TCO) of applications and IT infrastructure by opting for a consolidated data center and hosting applications at these centers. This reduces overheads and maintenance costs of applications and data. A detailed study of the costs of network, hardware, software and labor is required.
Conclusion

Enterprise Application integration and consolidation in M&A is a complex process with interdependencies between infrastructure, data and architecture components of the IT landscape. The convergence of diverse IT landscapes makes it necessary to balance the integration & rationalization requirements with time and cost constraints to achieve the M&A objectives, along with higher business profitability and agility. Package assessment in tandem with infrastructure, data and integration architecture assessment must be carried out to minimize the TCO of the merged enterprise.

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