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Package-Agile

Delivering Rapid, Enhanced Value in Enterprise Business Transformation Programs

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Abstract

Aggressive market requirements, strong competition and changing regulations are driving businesses to deploy Enterprise Package Application Software (PAS) products for their ERP, CRM and SCM functions. Enterprises are increasingly going in for IT-led and enterprise-wide business transformation engagement. However, such large-scale and time-consuming deployments are not only very expensive but also pose the danger of huge deviance from planned objective to even outright failures and abandonment due to their big-bang, single phase approaches.

Package-agile offers an alternative to deliver consistent value for these enterprise-critical business functions. Traditional wisdom assumes package functions cannot be implemented in any other fashion apart from a monolithic way. Through this paper, we offer an alternative point of view. Package-agile differs from conventional implementation approaches of PAS products by combining the speed and efficiency of the agile paradigm with the pre-configured nature of the PAS products. The steady state of package-agile envisions IT delivering value to business on a continuous quarter-on-quarter basis. It focuses on progressive elaboration and a series of small success stories to provide quicker outcomes, improved quality, strengthened estimates and reduced change management risks and payback period.

At a time when the business community around the world is trying to ensure the right customer alignment, an agile-oriented approach to package implementation solves most of their challenges while providing the flexibility and agility to change direction based on new market realities.

This paper considers the benefits of package-agile implementation and offers a project execution methodology to get started on the package-agile path. It also gives examples from the field to highlight the advantages of combining two best practices (PAS & Agile) to create a quantum leap in overall value proposition.

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PAS Implementations

The End of Conventional Models

Competition, Market requirements, Regulations, Assimilation of business groups, Intra-Organization standardization are some of the drivers pushing Business and IT groups within today's corporations to look at Enterprise Package Application Software (PAS) products for core functions like Enterprise Resource Planning (ERP), Supply Chain Management (SCM) and Customer Relationship Management (CRM). Streamlining of operations to achieve higher business benefits, regardless of their size or homogeneity requires adopting new business processes within these organization functions. However, deployment of business process changes within an organization is heavily dependent on change management skills, i.e. the ability to satisfy the needs of a majority of business users with the new application.

PAS providers such as SAP, Oracle, IBM and Microsoft have successfully challenged conventional software development models by building in pre-configured processes which seek "user feedback" as against starting from ground zero via use cases and "user inputs". This has resulted in IT-led Business Transformation engagements typically relying on enterprise-wide deployment of PAS offerings across business units and geographies. These deployments span a period of a year to usually several years with the end-state objective of bringing together the entire organization under a harmonious set of business processes for each of these functions. However, in the intervening time period, as the original implementation vision gets diluted and the core PAS design gets revisited multiple times, the final go-live more often than not causes tremendous pain due to

a. the business requirements changing substantially and
b. the huge sunk costs in the entire IT stack covering hardware, software licenses, networking, technology stack and various implementation and integration costs which becomes increasingly difficult to justify.

How can IT departments turn around this situation and deliver value for these enterprise-critical business functions consistently? This is where package-agile comes in. For too long a period, go-live durations of 18-36 months were considered de rigueur and were regarded as an accepted risk. In today's scenario, companies are grappling with multiple issues - increasing globalization, mergers & acquisitions, new business lines starting up at a rapid pace and the need to manage interlinked organizational eco-systems comprising of internal stakeholders and processes on one side coupled with external entities of suppliers, customers and business partners on the other. This has resulted in old models becoming completely unviable. The reality today is a slew of failed or disappointing IT transformation projects in the PAS space with not enough to show for the organizational investment in real dollars and management time.

The huge divergence between planned and actual is a triggered by multiple issues, some of them being:

- Desire to over engineer of the business process during the first time
- Desire to create a global system and get it right the first time
- Weak Change Management (User Buy-iln)
- Over automation of the product leading to performance issues

We believe that package-agile as a philosophy can mitigate a number of these risks not just for the organizations, but also for the service providers who toil long and hard to incorporate catch-all requirements and conflicting priorities from multiple stakeholders.

The Next Wave

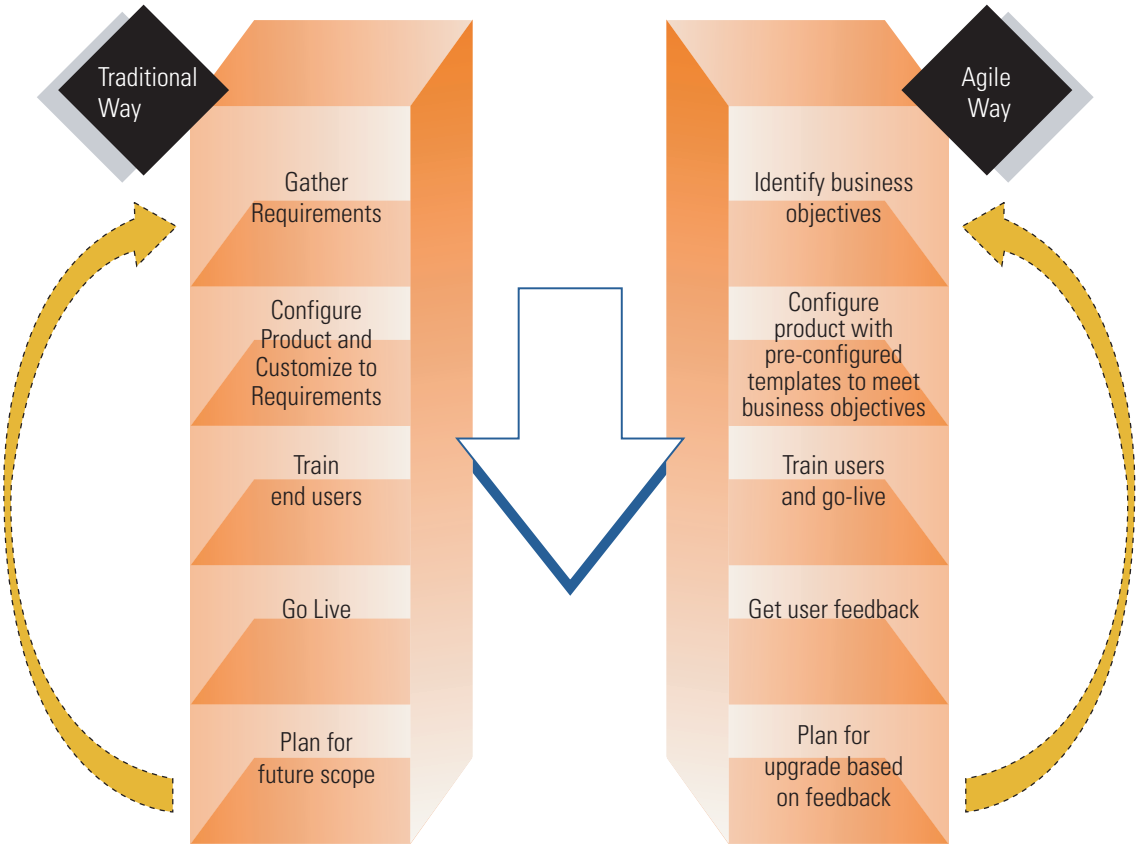
Understanding Package-Agile

Package-agile attempts to challenge the conventional implementation approaches of PAS products by combining the best of both worlds - the speed and efficiency of the agile paradigm with the pre-configured nature of the PAS products which helps leverage best practices for an industry or process.

Taking a broad view, the implementation approach conforms to the following steps:

- Deploying pre-configured templates against stated business objectives
- Outcome based (scenario based) training to the users to use the new system
- Allowing the user to run the operations using the new system
- Setting up a feedback loop back from the user community to the central committee
- Identifying requirements per stated business objectives and upgrading the system

Figure 1 - Implementation Approach: Traditional vs. Agile



Agile in PAS

A Compelling Argument

The steady state of package-agile envisions IT delivering value to business on a continuous quarter-on-quarter basis. The package-agile paradigm with its focus on progressive elaboration and a series of small success stories significantly reduces overall risk and provides multiple benefits.

1. Quicker outcomes: Quicker outcomes help mitigate the key risk of missing the market pulse by enabling businesses to respond to the ever-changing needs of the market. By packaging and delivering solutions to the both business and operations in a fast track mode, organizations can hit the ground running with a set number of functionalities in the new system to achieve those specific goals. The package agile philosophy thus resonates well with the needs of today's agile organization. Rapid updates to the application capability and quick validation of the updates against the business environment and needs offer immediate advantages to the organization.
2. Improved quality: An over bearing, long duration project has the inertia to destroy the very objectives with which one started with. There is no measurement possible during the project's lifecycle to assess the quality of the implemented package in terms of it satisfying the current business requirements. This can render much of the package insufficient with respect to the business expectations. In this regard, a feedback driven, user tested, production tested package has lot more potential to harness the functionalities of the package configured in terms of satisfying the current business requirements. On top of this, a feedback driven upgrade of the package periodically prepares the IT department to deliver value and satiate the business needs continuously.
3. Strengthen estimates: Work Breakdown Structure (WBS) charts extending to tens of thousands of lines involving hundreds of stakeholders and teams running over 24-36 months are fraught with estimation risks. An accommodative project steering committee, for a high priority project also brings in more voices from all quarters putting greater pressure on the implementation team to factor in all requests. The more an application stays in the design stage, the more the requirements pour in from all quarters with re-estimations and impact analyses being the order of the day. On the other hand, by focusing on detailing a specific, time-boxed component of the overall WBS on a standalone 90-day basis, estimates become more water-tight, dependencies can be better defined over the shorter-term duration and predictability of achieving the end-goal becomes higher.
4. Reduce change management risk: Desire to satisfy all, is a disaster waiting to happen within the global implementation of PAS not just in terms of estimates as mentioned above, but also in the scale of change management required. On the other hand, the cyclical agile process would comprise of:
   - deploying a set number of pre-configured functions
   - demonstrating the usage to the immediate beneficiaries (user community) via scenarios
   - having it functionally tested by end-users
   - working on incorporating user feedbacks and
   - going back to the next piece of agile scope

   This helps create bite-sized chunks in terms of new scope being added, new learning required and most importantly, new converts needed for the application
5. Reduced payback period: To manage competing priorities, IT departments are expected to justify each investment upfront via Return on Investment (RoI) calculations or outlining the payback period. When it comes to product licenses, organizations can go back to PAS vendors to demand a pricing model based on the number of users or functionality deployed rather than an enterprise-wide big ticket capex investment. For implementation phases which take up a much longer time and higher budgets, sunk costs can be minimized and pay-back periods calculated based on the deployed functionality. Tighter partnerships between business team and IT department would mean working together to calculate the pay-back period aligned to the phases.

Managing

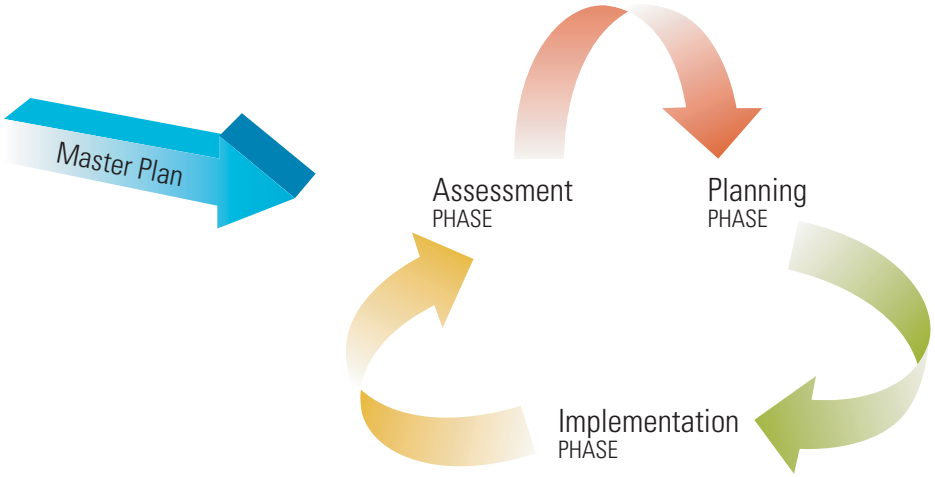
the Agile Implementation

Unlike traditional modes of project execution (waterfall or spiral), package-agile recommends a new way of implementing enterprise package applications by

- Formulating an end state vision in terms of key business benefits, overall timeline, departments impacted, change management plan, end-state functional deployment etc
- Creating a roadmap to achieve the end-state with details around people, processes and technology elements and broadly mapping the timelines against components of scope
- Calibrating that vision into smaller bite-sized scope chunks, planning mini-projects around the componentized scope
- Executing shorter-term projects to meet the milestone objectives with strong alignment between the business user community and the implementation team, validating and refining the functionality but staying within the allocated time window
- Re-assessment of the roadmap in terms of the milestones achieved and planned downstream
- Measuring software compatibility with user requirements and software acceptability by the users

The project execution methodology under package-agile would thus have 4 distinct phases:

Figure 2 - Package-Agile Execution Methodology

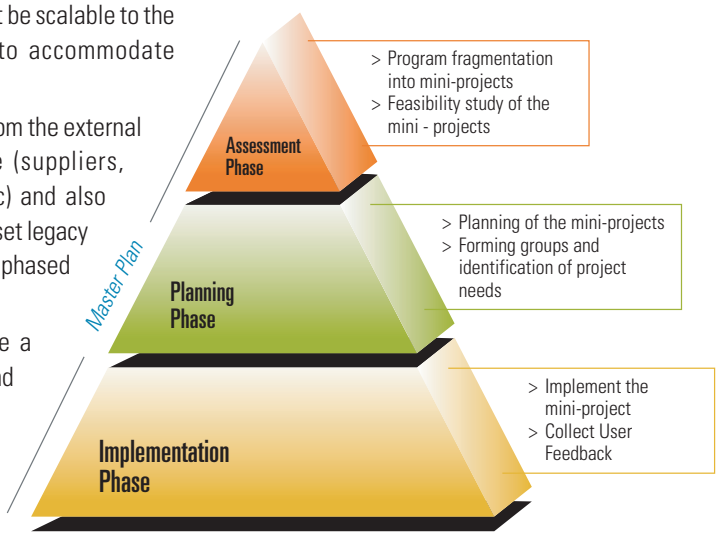


The essence of package-agile is comprehensive coverage of end-state goals, broad-brush roadmap (called Master Plan in Figure-2) covering the various phases of scope and deployment followed by details of the initial 1-2 phases with clear actionable goals. At the end of each phase, the Master Plan is updated and the next phase begins. Within each phase, there would be 3 distinct sub-phases.

Master Plan Phase (Iterated for each phase)

- Business to create a phased road map of the end state derived from the original implementation business case and divided into 90 (or 60/120) day plans
- IT to design and provide a consolidated enterprise architecture standards which must be scalable to the end-state vision and flexible to accommodate modifications
- Project Sponsor to obtain buy in from the external stakeholders on the end state (suppliers, customers, business partners etc) and also from internal stakeholders (to sun set legacy applications and/or processes in a phased manner)
- Business/IT/Operations to create a governance structure that is lean and empowered to take critical decisions to ensure each phase is agile and maps to the overall end state requirements

Figure 3 - Agile Execution Approach



Project Assessment and Planning Phase

- Product evaluation and selection to ensure product capabilities and product roadmap map to the organization's business goals and IT goals in the long run
- Creation of a benefits mapping in terms of the functionality to be enabled within individual projects versus potential business benefits achieved by the individual projects
- Creation of the following critical working groups
- Change Management: Objective of Change Management is solution governance, this is the central team which keeps track of the relevance of the solutions with respect to the business goals
- Feedback and Training Management: Very important functioning body to measure the pulse of the user community with respect to their acceptance of the deployed solutions and create a mechanism to channel the user feedback to the Change Management group
- Performance Management: A potent force to ensure solution scalability as the solution progresses through its enhancement journey and as it catches more eye-balls internally and externally

Project Implementation Phase

- Implement and Rollout the solution
- Prioritize the user feedback received
- Identify critical process and package gaps as per the business requirement
- Ideate and identify solution to the gaps identified
- Manage scope for the next project to ensure it happens in an agile way
- Finalization of the end state of the next project phase (or Goal of the next project)

Project

Structure

By breaking down a large-scale, multiyear PAS implementation project into logical business segments or mini projects, we can address the problem of value dilution. However, this needs an effective project structure for the mini projects done by phases (a) to be bound together to realize the end objective and (b) meeting their self-contained, specific objective and requirement.

Hence we propose:

- Overall end objectives and perceived benefits to be owned by Steering Committee and the Program Manager
- Program Manager to orchestrate the individual project goals against the end-state vision
- Program Manager along with Steering Committee to facilitate the feedback loop from the user community
- Program Manager along with Steering Committee to measure and calibrate individual project results against overall perceived results
- Rapid implementation teams (Individual project teams) formed to configure and deploy as per the milestone objectives
- Program manager to break the implementation into 30-60-90 day mini project plans to facilitate rapid go-lives and thus decreasing the turnaround time for user feedback

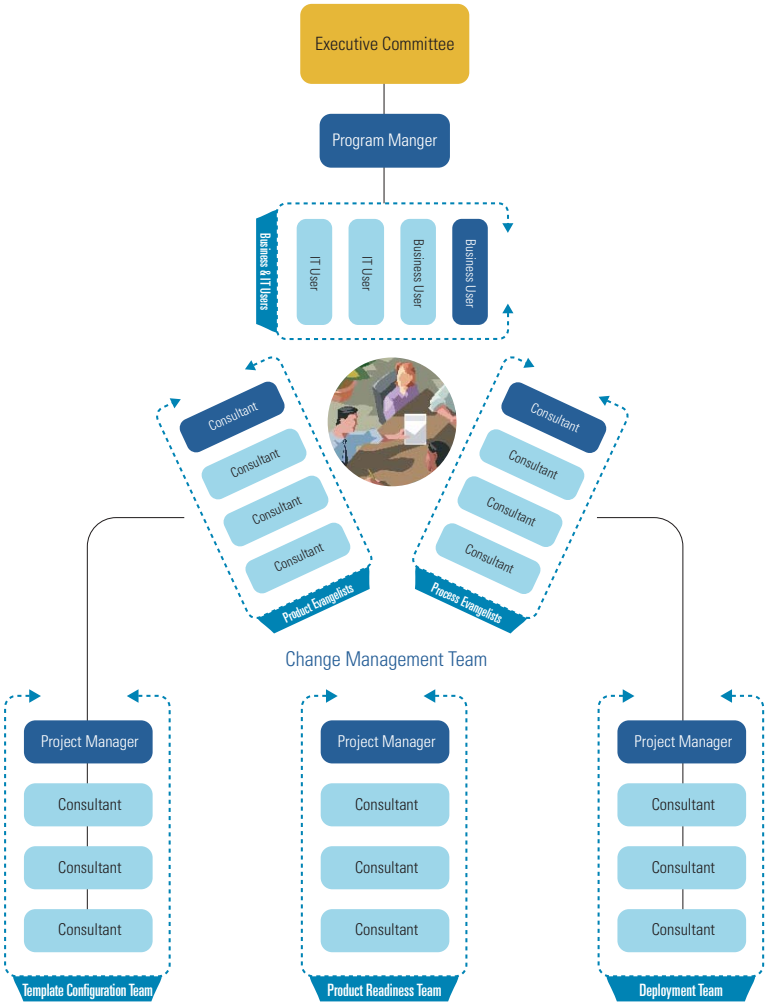


Figure 4 - Project Structure

Agile projects need a well developed feedback mechanism to be in place as well as faster turnaround of the feedback received. This assumes all the main stakeholders to be co-located during key phases of the project. For 3rd party implementation partners, there is a need to explore onshore or near-shore options aggressively to maximize impact. The other alternative being successfully practiced is identifying key project phases where key client personnel can travel to be with the software vendors within the software vendor premises, one such example being requirements elaboration for successive mini-projects at the beginning of each phase. This has several advantages in itself

- The client personnel have an opportunity to visit the key members of the software vendor involved in his/her project
- The client personnel have the freedom to concentrate on the problem at hand without being pulled into various day job activities
- A clear mandate by the client steering committee to address the issue which is important in Agile mode
- A 360 degree impact analysis (Design, Build, Validate) for all the requirements owing to the availability of the client personnel and all team members from the software vendor at a single location. This reduces the turnaround time for the feedback

The Road to Package Agile

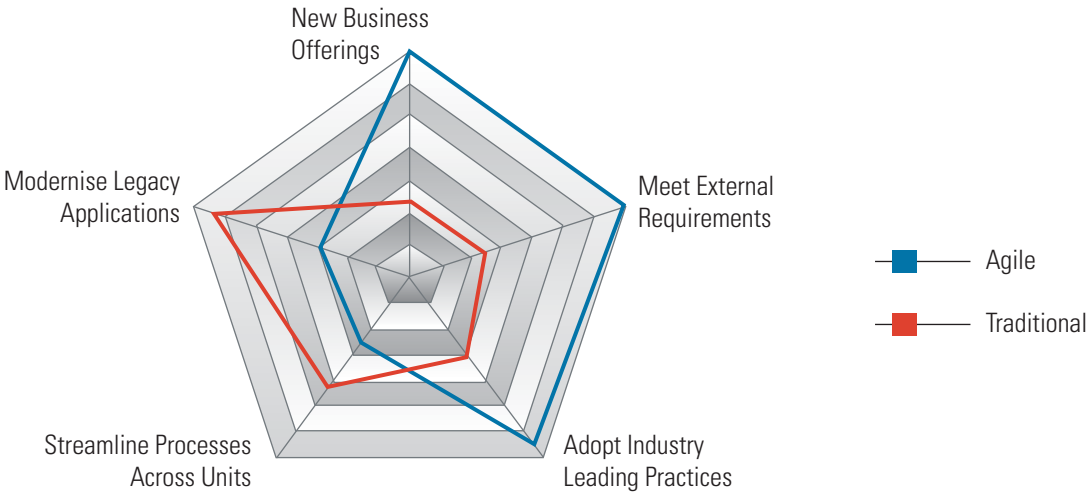
Candidate Applications

Some of the examples where Package-Agile model of Implementation helps are given below:

- New Market Offerings (example eCommerce, eSourcing, Predictive Maintenance, on-demand Warehouse Management Systems etc), especially around organizational peripheries
- Regulatory and Compliance Requirements (example Industry Regulations, SOX compliance etc)
- Adoption of Industry Leading Practices (example RFQ process, Contract Management, Service Management)

In the above examples, availability of skills within the PAS implementation vendors to suggest and help deploy pre configured PAS modules / applications with focused business user inputs, will provide for faster realization of the project goals.

Figure 5 - Perceived Business Benefits



Perceived Business Benefit Chart (Figure 5) implies that projects which utilize industry knowledge and specialized consulting skills are the right candidates for this implementation model. Innovation in terms of identification of pre-configured package templates, techniques for data governance and data integrity, pre-built prototypes for user training etc., are all instrumental in the success of the agile implementation projects. The Assess - Plan - Implement cycle is fast tracked when the system integrators or consultants involved in these projects bring in smart and innovative solutions to crash/fast-track the solutions addressing the stated business problems.

Beyond knowledge and innovative solution, process innovation also helps. For example, let us consider a PAS implementation that needs to integrate with the organization's financial system. In this case, package configuration or enhancement upgrades made during middle of the quarter may cause huge data integrity and consolidation challenges due to the financial business process impact. In such cases, a quarterly rollout cycle can be planned in tune with the quarterly financial cycles that most organizations follow.

Hence a careful analysis of the overall project impact in terms of People, Process and Technology needs to be built into the Agile Implementation methodology to select appropriate 30, 60 or 90 days implementation cycle for each phase of the project.

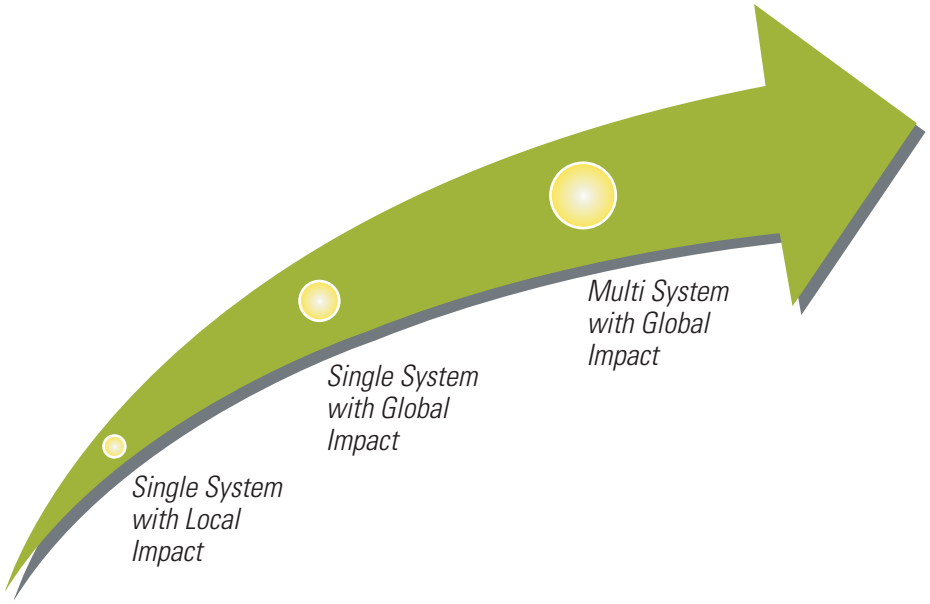
Creating

the Implementation Roadmap

Success of PAS implementations are measured based on the acceptance of the solution by the user community and the ability of the solution to standardize operations across its geographical footprint. Given the inherent nature of judging agile implementation success through user feedbacks, creation of a roadmap for package-agile needs to consider multiple parameters including:

- Geographical Impact
- User Impact
- Business Functions impact

Figure 6 - Road Map



A typical roadmap can be evolved with the following progressive guideline:

Phase-1: Single System + Local Impact (for business community)

- Local solutions
- Specific user group (Single user group impact) within one business function of the organization (Example: Deploying the eSourcing solution to the Sourcing group alone within one geography)
- Feedback from Internal Stakeholders towards solution enhancement

Phase-2: Single System + Global Footprint (distributed user base)

- Global solutions
- Multi user group impact within one business function of the organization (Example: Deploying eSourcing solution to the Finance and Sourcing groups of the organization)
- Feedback from internal and external stakeholders towards solution enhancement

Phase-3: Expand to Multiple Systems (Locally or Globally based on complexity)

- Global solutions
- Multi user group impact within multiple business function of the organization (Example: Deploying Warehouse management and eSourcing solution to the Finance, Operations and Sourcing groups of the organization)
- Feedback from Internal and External Stakeholders towards solution enhancement

PAS Examples

from the Field

Since there is no one magic formula to create phase-wise scope for adopting package-agile, its critical to take into account organizational appetite, nature of the business function and finally, very critically, nature of the enterprise software package or the PAS being implemented. Certain products are inherently modular with loosely coupled architecture, others are monoliths that need to be installed and run as a single product. Some applications, especially in the ERP domain have a significant fixed cost in terms of time and effort spent on the initial set-up and configuration. Many PAS vendors support 3rd party implementation (customer IT department or SIs like Infosys) and keep the architecture flexible enough to separate the base product code different from customized code. If this separation does not exist, there is a certain level of vendor lock-in that needs to be accounted for. With these and other constraints in mind, we are giving examples from the field as to how package-agile is being tried out in various functional scenarios:

Case 1 Distributed Order Management Implementation (DOM) with Sterling Commerce

Sterling Commerce, a Supply Chain leader, offers a way to create Multi-Channel Commerce (MCC) capability by integrating multiple ordering channels (e-Commerce, Stores, EDI, Call Center, Catalog Orders, Special Orders, B2B contract orders etc) and multiple fulfillment channels (Distribution Centers, Warehouses, Supplier Warehouses, 3PLs etc). Since this is a many-to-many end-state, most Sterling DOM projects start either from the supply side or from the demand side. Supply side integration involves providing visibility to more and more of inventory in the system, both on-hand and in-transit, across warehouses and other storage locations. On the demand-side, project phases can be defined by ordering channel and within complex ordering channels like e-commerce, phases can be carved out by category or geography.

Case 2 Spend Management Implementation with Ariba

Ariba is a market leader in Spend Management applications with a suite of offerings mostly focusing on indirect spend. This is a major category for most large corporations. Large scale spend management implementations looking at bringing all indirect spend (procurement function) under the scanner looks at optimizing this function that takes up to 10-15% of an organizations expenses. Indirect procurement implementations are typically done department-wise or more popularly via spend categories (organizations can start with low impact ones like stationery or complex ones like IT service procurement). Once the category/department direction is set, the phase-wise elaboration can be done geography-wise since the procurement function has complexities around taxation, local laws, approval rules etc that could be country specific.

Case 3 Enterprise Asset Management Implementation with IBM Maximo

IBM Maximo is the top choice for organizations trying to get their assets streamlined. Asset Management involves the core Work Management function surrounded by related functions of Procurement, Inventory Management, Asset Configuration etc. EAM is also deployed to manage facilities like large buildings, warehouses, stores etc. Assets can be mobile as well like those of trucking companies. Depending on the organization and their EAM implementation (operational assets, IT assets or facilities), one of many paths can be chosen. From a compliance standpoint, the four phases can cover:

i. registering all the assets (know-your-asset)
ii. work management automation for certain assets or divisions
iii. related functions like procurement or inventory management
iv. instrumentation where assets can directly communicate to the IT application on their health

Package-Agile a Last Word

Business communities around the world are increasingly facing challenges in servicing their customers in the most optimal manner pulling together internal stakeholders and organizational boundaries and hierarchies, managing their suppliers and business partners, all to ensure the right customer alignment. The expectation from IT in this world has undergone a 180-degree change. As a CIO of a large energy company mentioned, "We would rather have it 50% right in 2 months than 90% perfect in 18 months". IT is expected to demonstrate increasingly value for their budgets.

An Agile-oriented approach to package implementation does solve most of these challenges. However, organizational buy-in, availability of subject matter experts, crashed timelines for change management enabling (interactive/role-based/scenario-based training sessions), stringent change control, infrastructural planning (for quarterly scalability and flexibility) and most importantly, a strong PMO to drive the roadmap are all critical factors which would help organizations stay the course. The benefits would be instantaneous, visible and would importantly help drive positive change across the organization.

About the Authors

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Gopi Krishnan has more than 15 years of IT and industry experience. At Infosys, he heads the Supply Chain Management practice (www.infosys.com\supply-chain) in Enterprise Solutions, delivering best-of-breed package business solutions to organizations around the world. His experience spans several supply chain functions such as demand fulfillment, services supply chain, distributed order management and procurement in multiple package applications. An acknowledged thought leader in the SCM domain, Gopi has published several white papers on various SCM functions, spoken in multiple international forums, been interviewed by several media publications and is an active blogger in the Infosys SCM blog (www.infosysblogs.com\supply-chain). Gopi is also a Project Management Professional since early 2004. He holds a bachelors degree in Electronics Engineering and a masters in General Management. He can be reached at gopikrishnan_r@infosys.com.

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