



# Application Optimization: Begin with a Strategic Make-or-Buy Decision

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## INTRODUCTION

Today, many companies manage an inventory of several hundred applications that were developed in-house and evolved over time to include new functionality or were integrated into an existing application landscape with the acquisition of a new company. These applications are used in parallel, sometimes containing the same or similar functionality. In many cases, different applications with the same functionality are used in different regions and countries.

Identifying these areas of overlap is a starting point – and a challenge – for application optimization. Slicing applications into smaller building blocks and defining microservices would solve the problem, but this is already a major project on its own, and many enterprises don't have the capacity and budget to transform applications in this way. As a prerequisite for the development of microservices, companies must define the business processes that are global. This requires the involvement of the entire organization and strong backing from management to get to the necessary results – especially in a siloed organization.

At the same time, cloud- and low- or no-code solutions are being purchased directly by business departments as SaaS or PaaS solutions, and transferring management of these applications to IT. These decentralized purchases may also lead to overlap or duplication in functionality and can cause considerable redundancy and cost. It becomes particularly challenging for a CIO when acquisitions of applications executed in the business create a shadow IT in the business units. This happens when solutions are purchased and not handed over to IT.

All these scenarios generate high costs in terms of maintenance, support and operation of the application landscape, as well as for the ongoing development. They also create a greater number of interfaces that must be maintained to ensure data integrity.

### **Application Optimization Needs a Top-down Approach with Continuous Involvement from Management**

To optimize IT spend, enterprises need to optimize their application portfolio, which usually presents the CIO with the major challenge of implementing this strategy throughout the whole (global) company. Individual geographic regions often have their own strong local IT with individual agendas, and a business line is sometimes not willing to change its way of working by moving away from familiar processes and applications.

For all enterprises, a mandate to optimize the application landscape should be preceded by a strategic make-or-buy decision for its future sourcing model. A company needs to decide whether it wants to rely consistently on external sourcing or whether it wants to retain or build essential expertise in-house. This is especially true for solutions and processes that differentiate itself in the



**Be aware of increasing IT costs triggered by business decisions to buy SaaS/PaaS solutions.**

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market. A prerequisite for this decision is strong knowledge about the company's differentiators and "unique selling points" (USPs) in terms of processes implemented in the application landscape.

The next challenge is to analyze the skills that already exist in the (global) company. Leaders need to ask: Do we have employees with the knowledge and skills to meet the constantly growing demands of the departments and the market? Is the company prepared to invest in its own employees to provide and develop precisely these differentiating topics? Is a centralized or decentralized IT organization the right strategic solution?

Without a clear understanding of a company's differentiators, leaders are at risk of making suboptimal decisions. One risk is that external providers commissioned to maintain applications simply provide the same services they provide to other customers with a focus on standardization. This allows the differentiators to be absorbed into the market standard. The only way to counteract this phenomenon is to understand and adequately value the company's business processes and market and ensure that providers do, too. Preservation of knowledge about market position and continuous investment in the development of additional skills will promote differentiation and strengthen an enterprise's USPs.



**Invest in your own people and offer career advancements.**

Base your analysis of the capabilities of employees – including skills, costs, training, potential and readiness – on your vision and planning for further development. This can result in attractive career plans that offer opportunities for advancement for potentially interested employees and potentially lead to a lasting commitment to the company.

Once the make-or-buy decision has been made for each application cluster or business (sub) process, create a roadmap to optimize the application. The roadmap should be accompanied by strategic specifications and guardrails, such as "cloud first," and substantiated by respective business case calculations. It should be noted that return on investment (ROI) can be difficult to establish for application clusters that have been defined as in-house. Oftentimes, internal costs are higher than nearshore or offshore costs offered by providers. Be sure to offset the added value of the remaining in-house costs, including the costs of labor, training and retention benefits. A conscious decision for these cases should be made to prioritize the strategic management decision over an attractive ROI outcome.

## **The Roadmap Should Include Guidance for each Application Transformation**

The roadmap should include specific methods for optimizing and transforming the identified applications. Applications can be retained, retired, rationalized, rehosted, refactored, rebuilt or replaced, depending on several criteria like application lifecycle, stability, technology and cloud vision/mission.

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The graphic below shows the result of an application portfolio analysis with clear guidance for each application. It includes which implementation tasks and cut-over activities need to be executed for the transformation.

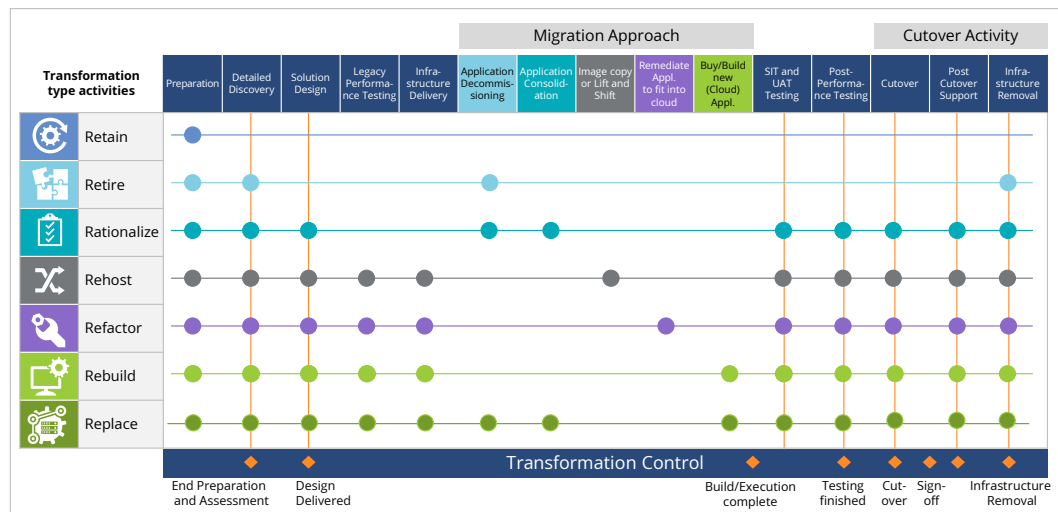
Different approaches for an application transformation are applicable:



**Initiate competition for application transformation.**

- Retain - keeps the application without any changes to it or to the underlying infrastructure (e.g., missing business case).
- Retire - deletes an application in case it will not be necessary in future (due to movement of functionality and data into other applications or simply because it is not used any more).
- Rationalize – consolidates the application (e.g., to remove double functionality across applications).
- Rehost – transitions the application (also called lift-and-shift) from one infrastructure to a new one (e.g., in the cloud) without major changes to the application as such.
- Refactor – partially renews applications that need to be renewed while keeping the functionality (e.g., develop same functionality in a new programming language).
- Rebuild – renews from scratch applications that need it while keeping the same functionality (e.g., or prepare it for cloud migration by building modular micro-services for it).
- Replace - exchanges an application for another one that may be more standardized (e.g., replace with a SaaS application).

**Figure 1: The transformation roadmap is defined for each application based on the Re-X work to be implemented.**



Source: ISG

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Due to the complexity inherent in application optimization, a company must decide which implementation methodology works best for the structure of the internal organization. The roadmap can be implemented by external partners if the required knowledge is not (yet) internally available.

Since optimization of an application landscape is a transformation program lasting several years, it's smart to remember that competition in the service provider market will work to your benefit. Competition fosters intensity and quality, especially if you can ensure that a second provider can take over services in case of poor performance. Prerequisite for this approach are contracts flexible enough to handle changes in volumes in both directions (e.g., awarding additional services to one provider reduces the volume of the other). The ISG RFX One® contract architecture, which is well known in the market, supports this approach through its flexible and modular approach while ensuring high delivery quality.



**Knowing and mitigating the risks associated with agile approaches is key for successful delivery.**

## **Successful Transformation Requires Organizational Change**

More and more providers and enterprises are choosing an agile way of working for their transformation delivery model. This decision often results in a transformation of the internal organization as well. The change of the organization must be executed with care and accompanied with organizational change management (OCM) to ensure the changes do not overtax the company's employees. The speed of the organization's transformation to an agile model, supported by DevSecOps implementation or product orientation, depends on the governance maturity of the organization.

It should be noted that the enterprise product owner (PO) bears the essential responsibility for success in an agile approach. The PO is responsible for constantly filling the backlog and prioritizing and slicing user stories to implement the roadmap. The PO is the driver of the agile teams and interfaces with the business to coordinate and prioritize requirements. This role is often underestimated. Indeed, the influence of the PO often goes unrecognized – in which case, the enterprise takes responsibility for the success of the transformation program when it has contracted external providers to do the job.

The PO should know the business processes and be available to the agile teams. He or she slices the user stories into sprint-compatible portions, interfaces with the business, and ensures minimum viable products (MVP) for each sprint.



**Application optimization is a chance to remodel a new internal organization.**

If many teams are involved in the transformation and it is carried out according to agile methodology, so-called Foundation Teams should give specific guidance for architecture, development guidelines, testing and deployment pipeline to ensure the principals of continuous integration and continuous delivery (CI/CD). These guidelines must be created, deployed, continuously monitored for compliance, and improved upon as needed. This guarantees uniformity and standardization during implementation and reduces subsequent effort involved in the ongoing management of the transformed applications.

Optimizing the application landscape presents both challenges and opportunities. The journey should begin with a fundamental strategic make-or-buy decision. This defines the future direction of IT as either a strong vendor management unit or a hybrid organization with in-house development teams responsible for differentiating topics/processes and purchase of external support for commodity services. The implementation methodology – which will never be "either fully agile or fully waterfall" but a mixture of both – influences the transformation of the internal IT organization as well.

## ABOUT THE AUTHOR

### **Application Optimization: Begin with a Strategic Make-or-Buy Decision**



#### **PETER LINKE**

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Peter Linke is responsible for the development of sourcing contracts with the clients to ensure provider delivery for application management and transformation. He is a thought leader for application management and is a certified Product Owner and Scrum Master.

Peter has more than 30 years of experience in application management and sourcing. He has worked on provider side and has delivered large outsourcing contracts and was responsible for the solution design for large outsourcing contracts. Peter works with ISG clients to find their best sourcing solution to optimize their application landscape while improving IT to deliver high quality business requirements.



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Tobias works in application sourcing, guiding clients to prepare, and run sourcing initiatives. He is an application services contracting expert and is a certified Scrum Master.

Tobias has more than 20 years of experience in application management and sourcing. Before joining ISG more than six years ago, he worked for a Tier-1 provider, shaping large outsourcing contracts. He focuses on the interaction and orchestration of all involved parties during sourcing initiatives, striving for the best-fit outcome.





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