eBook

APM Series

An Introduction to Application Portfolio Rationalization

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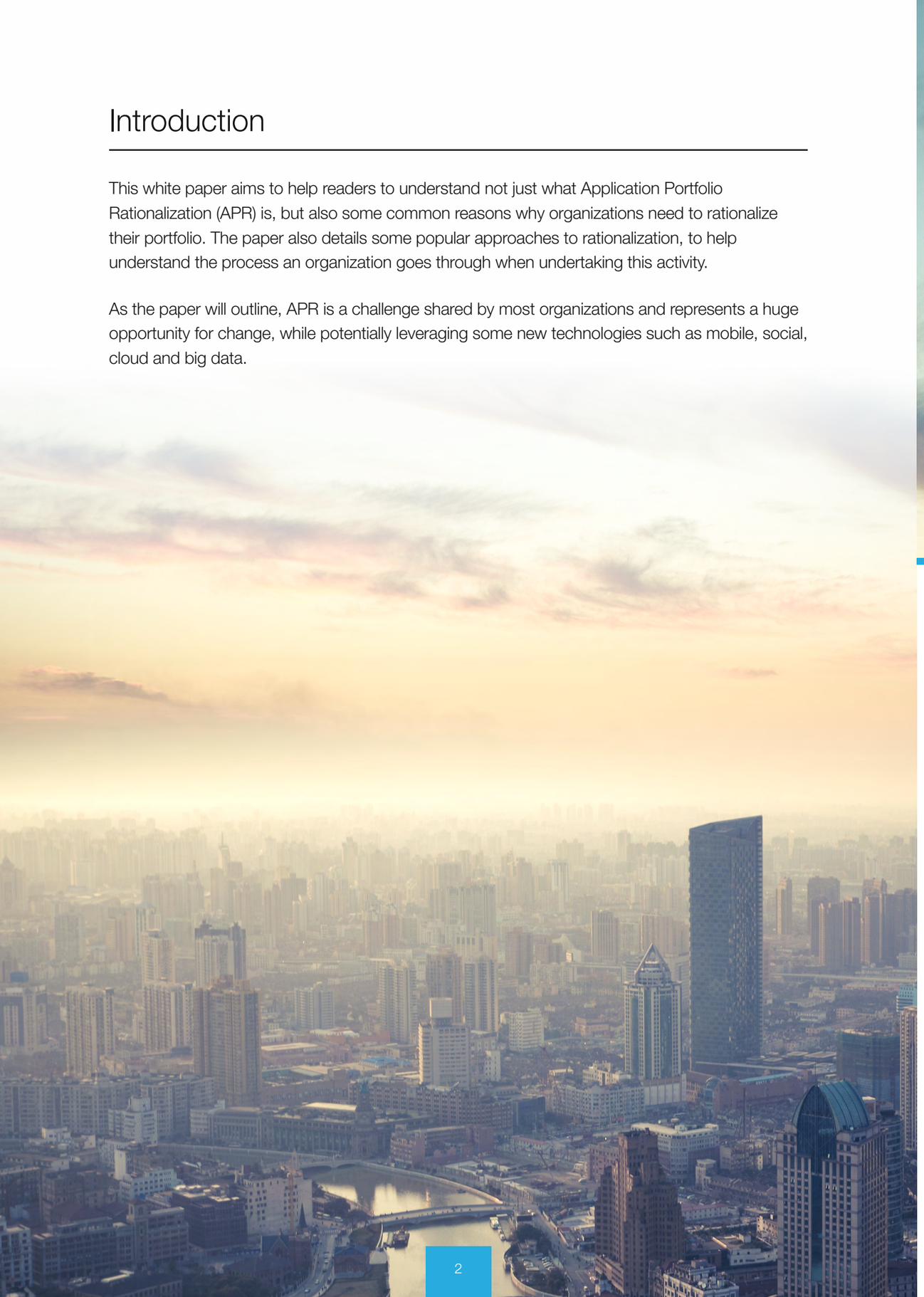
Introduction

This white paper aims to help readers to understand not just what Application Portfolio Rationalization (APR) is, but also some common reasons why organizations need to rationalize their portfolio. The paper also details some popular approaches to rationalization, to help understand the process an organization goes through when undertaking this activity.

As the paper will outline, APR is a challenge shared by most organizations and represents a huge opportunity for change, while potentially leveraging some new technologies such as mobile, social, cloud and big data.



The significance of APR

The accumulation of applications is a major challenge for most organizations today, in fact 85% of CIO's believe their application portfolio needs to be rationalized [1]. This statistic may seem surprising, but decommissioning an application is often a time consuming and expensive process. This may include steps such as extracting data, finding an acceptable way to store / manage the data, often in a new system and managing support and maintenance contracts for both the systems receiving the data and the one being decommissioned [2]. Considering this challenge, and others such as resistance to change from the user community, doing nothing may seem like the easiest decision.

So why do so many CIO's see a need to rationalize their application portfolio if it is such a challenge? Primarily the reason is cost. Cost in terms of operational such as hosting, support and maintenance, along with the internal cost of application management. Where an organization has multiple systems performing the same function, or worse - systems which aren't even used, spending money on these systems is waste and a great opportunity to reduce cost without reducing productivity.

Another key factor is opportunity cost. With new innovative technologies such as mobile, social, cloud and big data there is a lot of pressure to channel the IT budget into these technologies which means moving away from legacy applications, and as CIO.com highlights, there is a sizeable investment in these legacy applications "maintaining and supporting legacy applications consumes the lion's share of the budget" [3].

Avoiding the need for APR

The bloating of an application portfolio is extremely common, and the causes are numerous. Some of the common reasons include merger / acquisitions, poor governance or simply a lack of application investment control. Some valuable management techniques outlined by Capgemini [4] can help limit the number of applications requiring rationalization by ensuring suitable applications are introduced:

- **Architect for Change:** Consider building a simplified, flexible application platform applying standard solutions, SOA or Cloud-based delivery. A simplified system architecture can help improve productivity, cut costs, and channel resources toward innovation

- **Capture Business Requirements:** Ensure alignment between business and IT by capturing, organizing, and managing requirements. Establish a risk-based application delivery approach to help you assess and prioritize the highest risk, highest-priority requirements so you can optimize your development and testing efforts based on business risk

- **Ensure Applications function as intended:** The sooner you detect defects, the less it costs to fix them. Starting your quality process as early as possible, and incorporating all aspects of quality into your lifecycle will help ensure that your applications work as expected, and remain reliable and secure

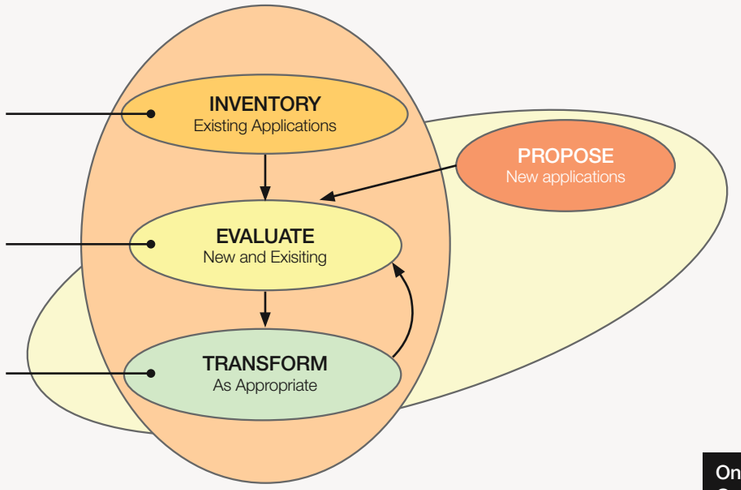
- **Establish a Governance Process:** Portfolio Management can help businesses focus on core activities while staying informed about all aspects of project and application health. It lets you govern your entire portfolio of IT projects, opportunities, and operational work in real-time with effective collaborative processes

- **Retire Applications while maintaining access to Data:** Building retirement and archiving practices into the application lifecycle and implementing enterprise content and data management systems would help keep application and data growth in check. Importantly, it will prevent reoccurrence of similar problems in the future

Even when following best practices for application management, APR will be required for the foreseeable future. Organizations regularly introduce new standards and strategies, applications evolve rapidly with underlying technologies changing equally as quickly and business requirements change for a variety of reasons. Whatever the reason, the need for APR is clear and the opportunities, if difficult to realize, are plentiful.

Application Rationalization

1. Building an inventory of existing applications
2. Evaluating the inventory against objective criteria
3. Talking appropriate actions to transform the inventory to the desired state



Ongoing Governance

Approaches to APR

To better understand APR, we should understand some approaches to rationalization. Three approaches have been selected from white papers published by Oracle, Capgemini and Cognizant.

Oracle White Paper: Benefits of Application Rationalization: Reduce Costs and Improve Service with a Systematic Approach

This approach begins with a three step process. These steps, we will later come to learn, are similar across the three approaches in this paper. The below details the three step approach:

- **Inventory:** Discover all applications used across the organization.
- **Evaluation:** The inventory of applications is assessed, often using scoring, keeping the APR objectives in mind.
- **Transform:** Based on the evaluation of the application, a plan is created and executed to decommission, enhance or introduce applications to achieve the APR objectives.

While this gives a broad understanding of the steps an organization might take, it doesn't help much until reviewed in more detail. The paper suggests using an automated system to capture the inventory which would be refreshed periodically, and this should be supported by manually populated information to form a complete picture of the application landscape.

This approach moves on to suggest that during the evaluate stage different approaches should be taken by different organizations, depending on the maturity level. The specific techniques aren't detailed (the Capgemini approach offers more guidance in this area). Finally, it is suggested that transformations are broken down into scenarios in an APM system and prioritized according to factors such as resource availability, budget, business impact and dependencies.

Capgemini Paper: Application Modernization and Retirement

While the Oracle paper gives the three step approach, the below is put forward as an alternative by Capgemini [4]:

- **Step 1 Plan for Change:** Scan, analyze, and visualize your existing application portfolio, understand how it aligns with the needs of the business and compare it with the industry standards and benchmarks
- **Step 2 Scan and Document the Inventory of your Application portfolios:** Use analysis and metrics to understand the inter- relationships between applications and their dependencies
- **Step 3 Craft a Solution:** Craft a rationalization design on how to increase efficiency of current applications, archive historical data, and safely decommission obsolete IT systems
- **Step 4 Manage the new Landscape and Avoid Future Problems:** The rationalized portfolio needs to be managed in an ongoing way with a focus on quality, integrity, and continuity

The Capgemini paper offers some valuable insight into the actions which may be performed for each step, starting with 'Plan for Change' it suggests using tools. There is a particular focus on 'scan and doc:

- **Benchmark Analysis:** Assess the entire application portfolio and compare it with industry standards
- **Financial Analysis:** Understand the underlying costs of application as run/build, OPEX/CAPEX
- **Redundancy Analysis**: Identify redundancies by company, country, business unit, plant, process or function
- **Retirement Analysis:** Find applications that are older with a smaller user base and minimal business functionality
- **Realization Analysis:** Determine the ease of rationalization (how feasible it is to implement recommendations for expansion, restructuring or consolidation of applications)

- **Comparative Analysis:** Analyze different attributes and dimensions of an application (e.g. stability Vs. criticality; business value Vs. cost)

- **Architectural Alignment Analysis:** Analyze the alignment of underlying application technology with preferred client technology

- **Risk Analysis:** Identify the risks associated with technology obsolescence, vendor support, skills availability, stability issues

During the third step 'Craft a Solution', it is suggested data is either disposed, archived or merged depending on the type of application and its position in the organization. Finally, the paper suggests that the key to a healthy portfolio is good management of the portfolio in an ongoing way.

Cognizant Approach: A Comprehensive Approach to Application Portfolio Rationalization

The Cognizant approach [6] includes a framework for transforming the application portfolio, which outlines the below steps:

- Step 1 Data Collection: The primary information is obtained through interviews, using a questionnaire

- Step 2 Application Profiling and Value Analysis: The business value and technical health index identifies each application's lifecycle positioning, assesses the opportunity for improvement, calculates the cost savings and determines the actions needed to optimize the application's business effectiveness.

- Step 3 Opportunity Mapping: The rationalization map identifies opportunities for application decommissioning, application consolidation, technology/platform upgrade and functional enrichment

- Step 4 Benefits Realization & Implementation Roadmap: an implementation roadmap is created. It collates a set of actions, clustered on a time-scale basis, that are required to achieve sustainable business results

This approach also outlines specific criteria against which to measure business and technology health:

Business: Scalability and Flexibility, Documentation & Training, Stability & Usage, Financials, Criticality, Functionality Coverage

Technology: Usage, Scalability and Flexibility, Stability, Documentation & Training, Complexity, Criticality, Data Analysis and Dependencies

This approach is outlined in the most detail, offering insights on things such as drivers of success, visualization techniques and way to prioritize.

Conclusion

Most organizations have the opportunity to reduce costs by rationalizing the application portfolio, while simultaneously supporting the business more effectively with emerging technologies. It has been established that while the opportunities are great, the process is challenging. Many consultancies have approaches to APR (and ongoing application management), which offer to help realize APR opportunities. The three approaches covered in this paper have their own strengths and weaknesses but in combination we can see the steps, analyses and some metrics that might be used for a typical APR effort.

There is one outstanding similarity among the approaches covered in this paper: all approaches suggest tackling the challenge by capturing data, then analyzing it before producing a change plan. With this in mind, it would be prudent for current APR programs to consider tackling the challenge in this way.

References

1 Application Landscape Report (2011), Capgemini

2 https://gopmo.com/blog/item/decommissioning-legacy-applications-challenges-and-tips-for-healthcare-providers

3 http://www.cio.com/article/2377916/enterprise-software/5-ways-cios-can-rationalize-application-portfolios.html

4 https://www.capgemini.com/resource-file-access/resource/pdf/Application_Modernization_and_Retirement.pdf

5 http://www.oracle.com/us/products/applications/042763.pdf

6 https://www.cognizant.com/whitepapers/A-Comprehensive-Approach-to-Application-Portfolio-Rationalization.pdf

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Ross has experience delivering Process, Enterprise Architecture and Governance, Risk & Compliance projects globally across multiple sectors but with a focus in the public sector and finance.

Ross has a particular interest in the pragmatic implementation of tools and methods, Application portfolio Management (APM), Business Process driven change and the positioning of successful EA departments within organizations today. Ross has certification in TOGAF, ArchiMate and COBIT along with extensive implementation experience.

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