

Application Management & Architecture

*Opportunities for Cost
Reduction and Business
Alignment*



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Introduction

We have all seen Application environments where the number of seats / licenses being charged by vendors does not reflect the number of actual users. You also may have been overwhelmed by the number of CRM systems, Document Management systems, ERP, collaboration tools or data sources that need to be consolidated and optimized. Maybe your Application environment has hundreds of interfaces that are moving data all over your environment, but restricts your ability to be agile and responsive to market change. Or perhaps you're in a situation where extensive scoping effort is required for a project, and adds significant costs and effort to identify and untangle the spaghetti.

These issues are a significant drag on your agility and ability to respond to a changing customer profile and market opportunities. CIOs and technology teams do not need to look much further than their existing IT function to see if Applications are being actively managed, owned and governed across the Portfolio, or if Projects and business units make all the calls on what Applications are introduced into the environment.

Most companies have a significant embedded cost of past business decisions and poor Application Governance, and are endeavouring to turn back 20-30 years of complexity. CIO's are endeavouring to balance the need to fix the old and leap frog to the new digital world in their Application Portfolio planning and business stakeholders ask "Why has this been allowed to happen?"

In this eBook, I will describe why and how the Application Portfolio Management function is a critical lever for CIO's to reduce your IT costs and improve alignment with your key business stakeholders. I will outline the key elements of Application Portfolio Management and explore approaches that highlight how creating some discipline in your Application Portfolio will reduce costs and gain the support of your business stakeholders.

Positioning Application Portfolio Management & Architecture

So what is Application Portfolio Management?

Here is a simple description of Application Portfolio Management:

The art and science of developing, managing and reporting on your Application strategy

In order to develop, manage and report on your Applications, your organization must have a body of data on your Applications that is maintained and utilized for insight and decision making purposes i.e. a basic catalogue of the portfolio. Without the data, technology teams are unable to move with the business and provide insight on why certain decisions are being made. A recipe for developing “Gold Plated Spaghetti”.

Ideally the information is collated and shared with the technology, project and business teams and often competitive advantage is generated by the discipline applied and not the actual applications deployed. The collection of data on your Applications gives technology teams strength in what Application capability is actually available, what it costs to maintain and what options are available in responding to organizational requirements.



Here is some basic information on your Applications that should be established within your Applications catalogue:

- Application Name, Vendor Name, Purchase or Implementation Date
- Applications’ business and technology owner, where that owner’s manager accepts it is a job responsibility for the owner to manage the system
- Applications have a business value rating and criticality statement
- Applications have had a risk assessment and rating
- All Applications have had a security assessment and rating
- All vendor contracts are listed, monitored and tracked
- All service and support levels are defined and monitored
- All Applications have the costs for operations, support and maintenance clearly reported
- All Applications have backup, and that recovery and contingency plans have been tested
- All Applications have a life cycle management plan that shows current versions, when upgrades will be needed and how and when systems may need to be replaced
- All Application interfaces and functions have been documented.



The value of establishing this baseline information is the ability to make decisions, review the portfolio, identify trade-offs and options for your business units and ensure that projects are adding value to the Application Portfolio and not adding complexity and extra overheads.

The Application Portfolio Management process needs to ensure that all assets are being adequately managed. This is a lot of work, but the value statement is significant when dealing with the costs involved in maintaining the Applications Portfolio. Often these costs are hidden in financial accounts and not specifically surfaced to support decision making.

The model below highlights the cost curve often associated with Applications that have not been architected into an environment. Short term application value can easily be eroded by longer term complexity and reinforces the need to govern and architect applications into existing environments.

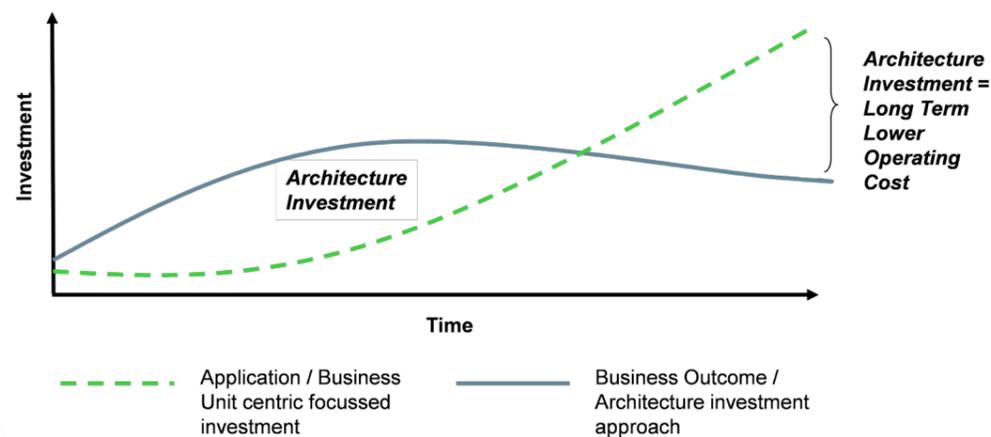


Figure 1: Applications cost curve over time

Management and visibility of Application Costs

The management and visibility of costs associated with your Applications Portfolio is often invisible until a full audit and recognition of cost inputs is taken. Technology accounts can include buckets of costs but until these costs are unwound, re-allocated and Total Cost Ownership (TCO) established for each application, then critical decisions and opportunities can be missed.

A range of Application cost inputs need to be considered including:

- *Cost to deliver* — generally the cost of the project to introduce the capability
- *Cost to operate, support and maintain* — costs include help desk, subject matter experts and technical support and maintenance cost of providing the live operational environment; This can also include the internal cost for applying patches and managing incidents
- *Cost to enhance and extend* — estimates for changes to the functions and capabilities of the application and can be driven by business criticality
- *Cost to decommission* — this requires estimates of when the asset will need to be decommissioned and potentially replaced and the costs involved

Believe me when I say the exercise of undertaking an Application audit always generates cost saving opportunities for your business. If your Application environment is reasonably simple or well managed then the total cost savings may not be in the millions, however the value generated from undertaking such an exercise will improve your business case development processes, business alignment and longer term Application decisions being made.



Potential Responses to the Application Portfolio Management Problem

Application Strategy jointly created by IT and business units

To be successful in reducing costs and improving alignment, the process and participation in the Application Strategy development outcome across business and IT stakeholders is more important than the output. An Application Strategy document is mainly a communication vehicle to capture the facts, Application Principles, lay out the options and set a proposed direction for discussions with stakeholders. It must continue to evolve as stakeholders and business strategies change and as new business needs surface.

An Application Strategy is simply a step-by-step roadmap for evolving the Application Portfolio, processes and organization to meet the strategic needs of the business, while minimizing the cost of building and maintaining the portfolio. Creating this shared understanding of the Application Portfolio enables IT departments to consistently engage business units in the development discussions and avoid angst and misalignment.

Each company must develop its own unique Application Strategy to address its current-state Application Portfolio, its future-state business needs and the transition options available. Gartner (2015) proposed common approaches to Application Strategies to meet common needs. Some of these approaches include:

- Application rationalization — A deliberate process to rationalize the application portfolio by consolidating, standardizing, modernizing and simplifying the applications
- Application strategy — Differentiating applications and the processes to develop and support them, based on the rate of change of each application and how they differentiate the business
- ERP suite, CRM, Document Management, Platform strategies — Covering some of the unique decisions required when a company decides to buy a large part of its Application needs from a single vendor

Application Planning and Architecture

Planning for your key platforms is a critical process that can be included within your IT Strategy process, as part of a dedicated Application Strategy development exercise or as part of planning a Portfolio of change projects.

Below is a HealthCare Application Planning example where development and uplift of key platforms can be addressed within each project as well as part of a dedicated Application Planning exercise. The diagram highlights the current platform status, contribution of projects and the planning inputs that will deliver on your target platforms.

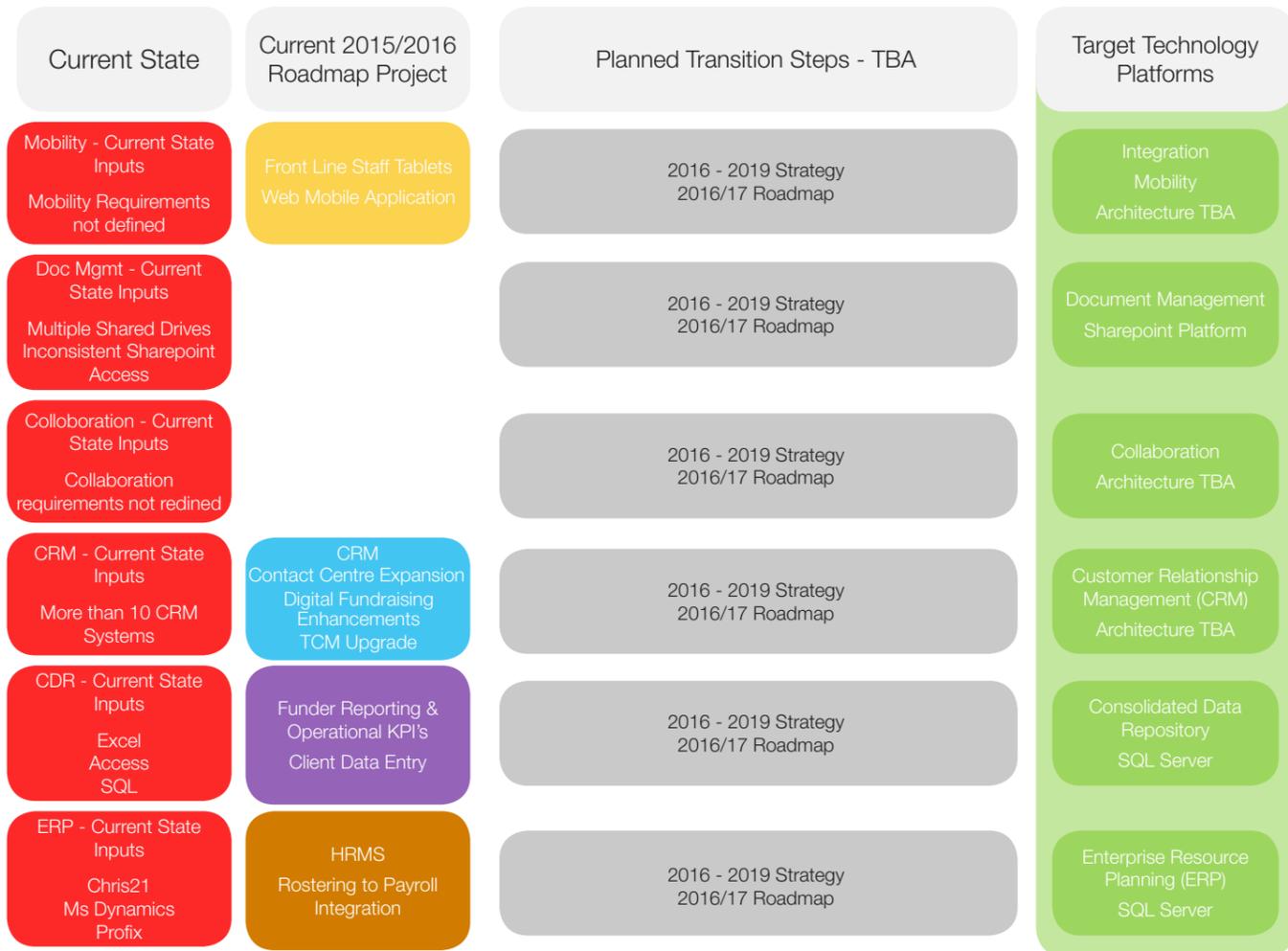


Figure 2: Healthcare Application Platform planning view

Having a view on the transition steps required enables business units to question and engage current Application Planning and how they can leverage the enterprise wide platforms for their benefit.

An Architecture taxonomy for positioning your Application Portfolio also enables a consistent story to be created on the Application journey for engaging your business, technology and project teams. Below is an example of a taxonomy that can be used to support positioning key Platforms and Applications.

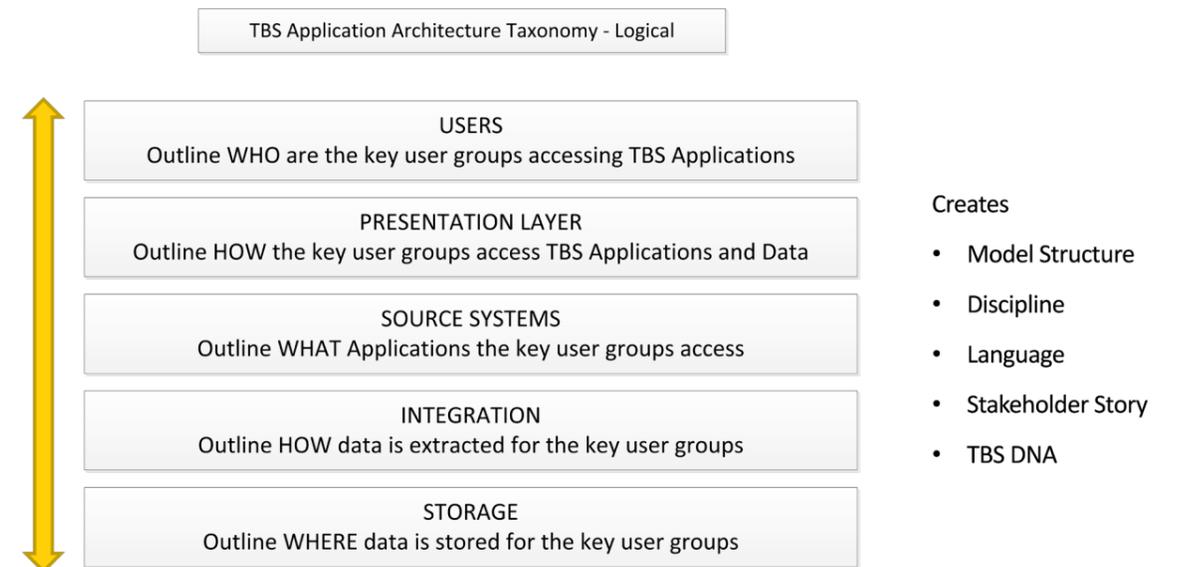


Figure 3: Healthcare Applications Architecture taxonomy for representing your Applications Portfolio

It is important to note there are many approaches to portraying your Applications Portfolio, however an agreed approach with your teams used consistently brings value to your discussions.

Application Governance

According to Gartner's definition (2015), governance focuses on four key areas: decision rights, investment decision making, risk management, and compliance and assurance. Ownership and stakeholder representation are key elements of governance.

Governance practices should be practical and fit for purpose and I strongly favour a centralised governance structure for your Applications Portfolio with support from business unit owners and SME's.

In most cases, business units don't want to own the Applications and make all the underlying decisions required to support and update these applications. In order to get the economies of scale and managed discipline across the whole Application Portfolio it is more effective to manage this discipline out of one area than trying to co-ordinate outcomes amongst multiple ownership and governance structures.

Effective engagement with all stakeholders is a key success factor for many Application Governance disciplines, including Application Strategy, Application Portfolio Management and Application Rationalization. Organizations are more likely to establish agility and quick decision making if the business and IT engagement model is mature and open.

Application Ownership

Having an Application ownership forum is a great way of promoting the Application Portfolio and ensure business users are aware and engaged on the key Applications and Platforms in your portfolio. Including stakeholders in business decisions that impact on those Applications and confirming when licenses are renewed, patches are applied or other business units want to leverage the platform, is a great opportunity to support business and IT alignment.

The role of an asset owner is to manage the asset so that it delivers the best possible return on asset (ROA). Examples of these decisions include whether and when to upgrade, when to invest in additional functionality, and when to retire, decommission and replace the Application.

The ownership challenge with Applications is that they have multiple stakeholders with each stakeholder having different perceptions about value and, therefore, different perceptions about how to manage the Application through its life cycle. The answer to this challenge is to implement an effective Application Governance structure and process that will allow for the active participation of all legitimate Sponsors and Stakeholders in the evaluation of options concerning the Application.

Application Portfolio Approaches

The confluence of mobile devices, integration patterns such as web services and API's, diverging vendor platforms and the changes in ownership driven by more efficient Application Development practices has meant the definition of an Application is becoming blurred. No longer does an organization need to own all of its Applications, store all of its data, manage all of its Infrastructure and have all of their Applications integrated.

The shift in Infrastructure has been taking shape over the last few years with the wide range of cloud based services and move to commodity based Infrastructure and the management of a wide range of vendors and service providers. The same is occurring with Applications, where Application Development becomes an external skill to leverage from the market and not necessarily a capability to be developed and maintained in house.

Obviously, the value of Data Security and Applications Security becomes a critical function to include in your Application Planning outcomes and protecting the business.

"Application Developer" is one of those new jobs appearing that enables all manner of business functionality to be created using web based practices. The quicker your organization can shape the Application Portfolio from an old world owning and managing everything to a more dynamic, agile and disciplined set of Application choices, the more likely the business will strive and thrive with the new competitive forces.



Final Word

Your Applications Portfolio represents a wealth of opportunities to add value to the business strategy and to engage individual business units in supporting their objectives. Those companies that have been in business for a longer period of time will have a constant need to review and optimise the Application Portfolio to leapfrog and leverage the new technologies.

Newer companies would do well to ensure Application Portfolio Management is embedded in early technology processes to ensure the technology capability evolves with the rapidly growing business.

Application Portfolio Management sits well with Infrastructure Management, Data Management and Business Process Management functions as critical disciplines for Architecture to support the Technology value generated for your organization.

Reference

Gartner 2015 “A Primer on Application Ownership”

About Andrew Swindell

Andrew Swindell is a Director of “On a Page”, a company that provides Reference Architectures and Architecture support for a range of clients, and has over 25 years’ experience in the field of Information Technology and Architecture. He has published numerous white papers on Enterprise Architecture topics and has successfully delivered a number of country and company-wide Architecture initiatives in Australia and New Zealand. Andrew has extensive experience in the Mining, Financial Services, Utilities, Health Insurance and Tourism industries and recently presented at the European EA conference in London in June 2016.



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