

# Application Portfolio Management

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*Abstract: This paper gives a short description about the importance of application rationalization in the enterprise. The management of applications, processes, data transparency not only helps reducing costs but also helps the secure and stable operation in long term.*

*Applications can be analyzed by looking at several attributes, amongst them are: business process support, strategic fit, costs, risks, technical value and business value.*

*An application portfolio rationalization can support the organization. The management can reduce costs and improve business processes with a centralized application portfolio management. Application rationalization allows the organization to look at its systems from a compliance perspective, facilitate transparency, and then manage the application investments from a life cycle management perspective.*

*Keywords: application portfolio, management, enterprise, rationalization*

## 1 Introduction

What is Application Portfolio Management (APM)?

Almost every company today is depending on information technology. Most of the business processes are supported by information applications, IT assets. For different type of business processes different type of information applications are designed and deployed in the organizations.

One of the most important elements in the application portfolio management is to define and categorize the different type of assets.

Establishment of criteria for the category:

Strategic considerations

Business aspect

Technical aspect

„An IT asset is defined as anything in the operational baseline under the domain of IT (e.g., hardware, software, data and information, people, and processes). The IT asset portfolio provides a framework to catalog and continuously monitor the business alignment, value, risks, costs, benefits, and balance associated with infrastructure, software, human capital management, processes, data, and information. It represents the largest expenditure for the IT organization.” [1]

The business runs so many applications, a lot of applications are redundant because information application support the same or similar business processes.

Application rationalization is important for the companies. The purpose of the rationalization can be different. The main aim behind of the application rationalization is to understand the business processes, which supported by applications. It is important to use application rationalization method for all organizations.

The following four aspects are the most important:

- 1.) From where we collect the information about the assets
- 2.) How we collect the data
- 3.) How we analyse the data
- 4.) How the company update the available information about the different assets.

A structured data about the applications will help to reduce the redundancies between applications in long term.

## **2 The benefits of Application Portfolio Management**

There are many benefits to manage application portfolio but one of the most important is the cost savings as long as the transparency of the various complex business processes are given.

1. Reducing duplication: With a good application portfolio rationalization the workflows, business procedures are consolidated.
2. Reducing costs: the application catalogue system support the management decisions because it provides data about the different type of costs (health, maintenance etc.).
3. Prevent unnecessary developments: The developed life cycle provides an opportunity to see existing processes, and functionality of existing applications.

4. Compliance: with a central register system, documented processes, applications the success of the internal and external audit should be decreased and the different rules and policies can be standardized.
5. Accurate information: a well crafted and comprehensive measurement system for the applications helps the efficient and rapid communication within an organization.
6. Time savings: with the centralized and rationalized application management the time of the different decisions are reduced.
7. Future investment savings: A good inventory and efficiency analysis of the application supports the new investment decisions.
8. Effective business controls: the business demand are aggregated and managed by the APM team.
9. Business process improvements: registered business process flows with information applications support the reorganization of business processes.
10. Challenges for IT: Opportunity for application integration and application sunset. Based on the technical characteristics of existing application, possibility of researching new technological opportunities (cloud, mobile).
11. Assessing Risks: Documented and centralized application inventory support the risk management in the organization.

### **3 Connection between Application Portfolio Management and corporate operation**

#### **3.1 Understanding of business processes**

A wide range of services and products lead the company to build up many business processes day by day. Due to the company growth, a strong competition in the market causes less time to document and to understand the business processes. Managing the process is too expensive. The full life cycle of the information assets are in strong association with the business processes.

### **3.2 APM support the strategic management decisions**

The enterprise architecture team with application portfolio managers help to see and analyse the overall picture about the assets in the organization. They provide consistent and appropriate information for the management.

Some area of the management decision where the APM and Enterprise Architecture team should be involved:

- 1.) Project Management
- 2.) Enterprise Financial Management
- 3.) Organizational changes
- 4.) Product development
- 5.) Risk management
- 6.) Compliance

### **3.3 Enterprise Architect and application portfolio management**

Different types of enterprise architecture frameworks are used by organizations such as: TOGAF [1], FEAF [2], doDAF [3], RM-ODP [4].

### **3.4 Project management and application portfolio management**

A typical project - in a large companies- includes hundreds of users, analysts, developers, testers, leads, IT experts from different area.

The aim of the business core team is to finish the projects in the planned time. To achieve business goals many business and information processes, information applications are affected during the project. A new function in a recent application or a new application implementation impact on existing business and information processes or create new business and information processes or terminate existing processes.

### **3.5 Enterprise financial management and application portfolio management**

The enterprise financial management includes the IT Enterprise planning and financial planning. The IT enterprise planning should have three major planning activities:

1. Define enterprise strategic requirements.
2. Analyse, prioritize and define new list of business requirements.
3. Analyse and find, prioritize necessary IT budget items for the above 2 activities.

### **3.6 Risk management and application portfolio management**

Organizations have to face many risks during the operation. Identification and monitoring risks can help to reduce the damage resulting of occurrence. The recent assets have existing and potential risks in the organization. Risk management includes discovering the existing risks and the potential risks, support to avoid more risk, control and monitor the occurred and unavoidable risks.

Based on this it is necessary to create a list, which includes: security data, detailed compliance data, disaster recovery and other relevant issues.

A risk management framework (RMF) provides guideline. The RMF needs to integrate with the application portfolio management and enterprise architecture management. Risk management tasks start with the business requirements, so at the beginning of the system development life cycle. The RMF steps include the categorization of the information system. Collected information is required from the architectural team, as well as different business units. The architectural team and application portfolio lead should provide detailed information about the assets.

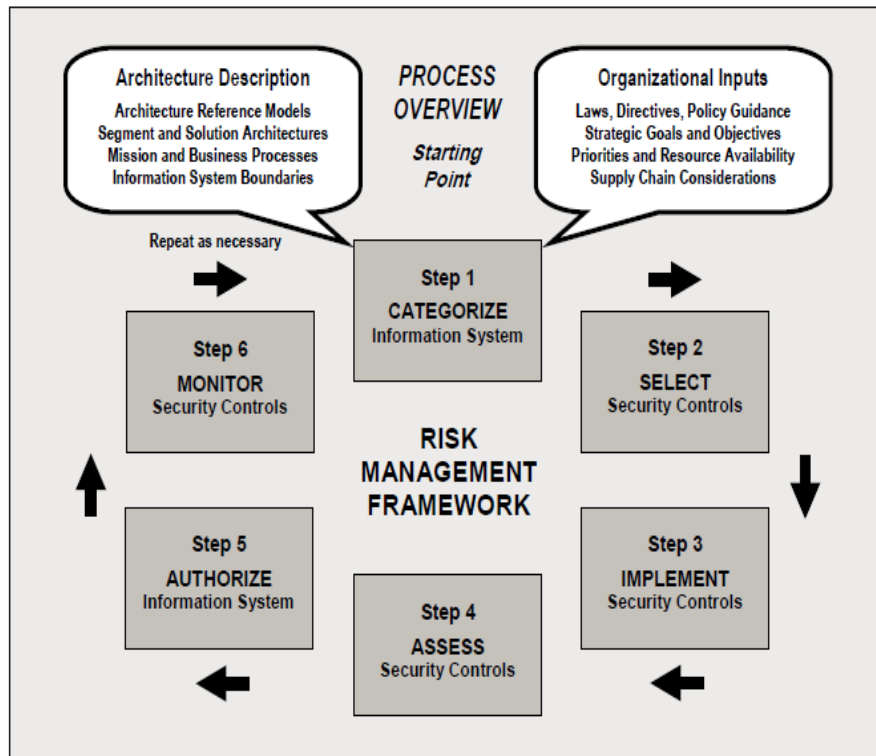


Figure 1

Risk Management Framework

Source: NIST, Guide for Applying the Risk Management Framework to Federal Information Systems, February 2010. Page 8.

#### 4 The typical steps for application portfolio rationalization

1. Catalogue: In this step the different business and IT unit leads needs to collect all available data and information about the assets used in the company. The quantity of the application is just one number but helps to keep an overview about the inventory. We can have the answer for the basic question: How much asset do we have?

2. Database for the application inventory: a transparent and manageable database is the key factor for effective application rationalization in the enterprise. An accurate invention helps the business in planning, transform and running decisions. In these steps, it is very important to involve all affected area in the organization. All available information and documents need to be stored in this database. This inventory will help the different departments to analyse their assets and to make decisions. Depth understandings of the business processes, added value are key information.

Some examples of the necessary stored data: an identification number, asset description, release/version, number of users, business process flow, key contacts and roles and their responsibilities.

3. Analysis: Structured and usable data is needed for an effective and transparent decision. An intelligent data analysing helps the different departments to see and understand the overall picture of the applications. Some typical analyses in these phases: Cost Benefit, Development, Maintenance, Sunset cost analysis etc.

There are several analyses: one example is the Gartner analytics:

A. Logical structures, divided into two categories:

Maintained by the application and used by the application (read-only).

B. Logical inputs, divided into five categories:

Logical forms that maintain unique business data, inputs from other applications, unique controls that provide a list of items to select, logical screens that browse, inquire or display existing data and background processes initiated by the user.

C. Logical outputs, divided into two categories:

Canned reports and

Outputs to other applications.” [5]

4. Define metrics numbers: Before any decision the most important to understand and to know the metrics which are used in the application portfolio. Some examples of these metrics are:

\*different type of costs

\*different type of benefits

\*strategic fit

\*technical information (conditions)

5. Asses the risks: quality of available documents, health check, and disaster recovery are important elements.

6. Application Portfolio creation: creating groups, which are determined by different factors, belong to the same portfolio. Factors may be different, for example:

\*Added business value

\* Daily, monthly, yearly costs spent on applications

\* Organizational goals

7. Taking Actions: it's important to define different scenarios, actions for the future, based on the analysis and reports and strategic goals of the organization. All scenarios impact on business and technology processes, staff (users, support team etc.), budgets and different policies. The management team will take actions based on scenarios.

8. Implementing the decisions: the impact of decisions will generate new projects or change current project aims.





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