

# Managing Application Portfolios in Merger Situations

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**Abstract:** Today mergers of larger financial institutions are quite common place. You often find conglomerates that stem from a sequence of merger & acquisition activities. In each such case, IT management is confronted with more than one set of applications, often more than one IT service organization and the question is how to deal with such a situation. Typically management likes to reduce cost by migrating to just one application landscape and one IT service organization. This article describes a few observations and patterns how these challenges can be dealt with.

## The Challenge – Merging IT Services

Mergers are very common place in the world of financial institutions today. Large companies are buying smaller ones or companies of similar size merge. After each merger the management typically finds at least two IT application landscapes that do similar things, serve a very similar business and cause significant maintenance costs. They find at least two data centers, two service organizations for WANs, LANs and PCs, two organizations for running ERP software and at least two portfolios of tailor made application software for the core business of the two or more companies. Often it is a driving force behind such mergers to raise all kinds of synergies that justify the merger or acquisition from an economical viewpoint. A subtype of such synergies are typically potential economies of scale in IT services. This article deals with observations how to best handle the merging of IT operations. We use insurance as the running example. Examples have been made anonymous. The observations and patterns might also be valid in other industries. A longer version of the paper, discussing all the influence factors in depth and listing cases could be provided but would exceed the paper format of the workshop this paper has been prepared for.

The paper will refer to two types of examples. The term **conglomerates** is used for groups or holdings who own e.g. 5+ insurance companies, all in a very similar business. The term **merger** is used if we have two companies in the same business, who have merged and are now one legal entity. We will see that there might be implications from whether we have to do with a “merger of equals” or with a takeover. In practice there are almost arbitrary forms of merger-formed companies, as e.g. a conglomerate can be

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\* This paper is not written under the label of my employer AMB Generali Informatik. The cases behind the paper are made anonymous and have been observed at many spots from the European insurance industry over several years. This paper is a personal statement and all opinions expressed herein are my personal ones.

subject of a merger, there can be several mergers one after the other and faster than it takes to clean up the application portfolios.

### **Governance Styles, IT Governance Styles and Integration**

We will use one of several Gartner schemes [G03] for IT governance to narrow the focus of our discussion to so called synergistic enterprises. Governance styles are strongly related to how one manages one's application portfolio in a conglomerate. According to the scheme, IT governance can be based on the idea of:

**Autonomous Enterprises:** Translated to a conglomerate this means that business unit decisions are dominant. The holding company does not interfere much with the business units' decisions concerning IT. If synergies are pursued, these synergies are called selective – that means: people may raise synergies but they are not forced to do so.

**Agile Enterprise:** IT is considered to have a key role in the group's flexibility. Hence people will exchange best practices and cooperate on principles, processes and education. But they might not see a value in having the same IT system in each member of a conglomerate.

**Synergistic Enterprises:** As the name says, these groups look for synergies and manage them consequently. It is not surprising that synergistic enterprises can be found very often in mature industries and markets where competition is based a lot on price. Many insurance groups fall in this category, as insurance is a mature industry.

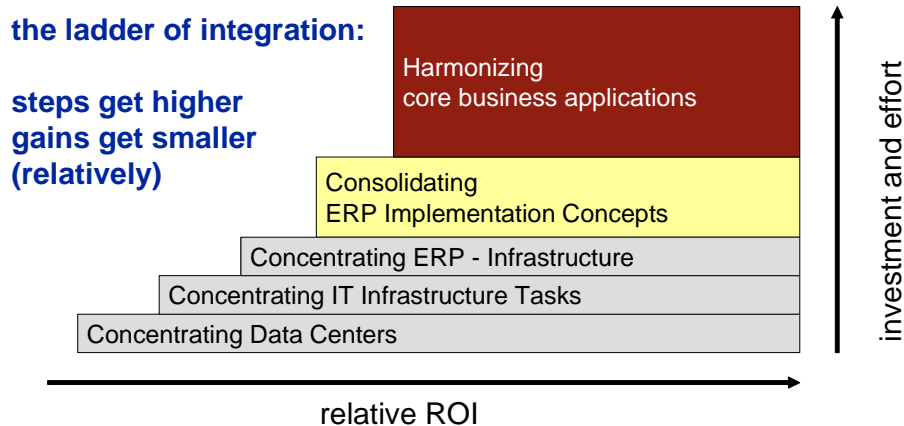
The enterprises that put the most emphasis on managing application portfolios are the synergistic ones – as they are the ones who need to go after cost effects of having more than one application that does a similar job. The other ones might also do it, but would do it for selected items with a low relevance for competition.

### **The Ladder of Integration**

Now assume you are the freshly appointed CIO of a synergistic conglomerate that acts in a mature market – you compete on costs and hence economies of scale play a dominant role. Your task is to manage the IT department of 5 companies under the umbrella of a holding company. You were called to raise synergies – where do you start?

A pattern found very often is the so called "Ladder of Integration". You will first concentrate on quick wins with the highest relative ROI and the lowest risk. You will find these quick wins most likely in infrastructure consolidation. Concentrating data centers pays for itself in most cases. Most big IT service firms have heavily reduced their number of data centers in the past years. The next synergy candidate is consolidating service management for non-central IT devices (vulgo PCs, smaller Servers, ...). Another one is consolidating ERP infrastructure. You might have noticed that there was no discussion about application portfolios yet. Managing the set of applications that support the core business processes is the toughest task. Those portfolios are often made up from

individual software. There is not so much ERP software around in the insurance industry except software for helper processes like accounting, controlling, cash management, HR and the like.



*Figure 1: The Ladder of Integration. The further you are down the road of integration, the higher the investments needed for the next step, the higher the project risks, and the lower the relative ROI*

## High-Level Patterns for Managing Application Portfolios

Before we introduce the styles how to come to decisions concerning consolidation of a multi-company application portfolio, we will present you an informal example of a portfolio. An **Application Matrix** (see *Figure 2*) is a compact means to define a current situation and later a target situation for a set of application portfolios. It has as many columns as you have companies and as many rows as you have application categories. In order to cut the applications in a similar fashion in all companies of your interest you need a **Domain Architecture** that defines what is in an application and what is outside of its scope. If you want to be somewhat more advanced you can also try support for business processes instead of using the term applications. The goal of all your matrix operations is simply speaking to have something close to only one application per row when you're done with your consolidation job.

## Making Decisions: What to choose

After your first weeks or months as a CIO your people will have prepared an application portfolio for all your subsidiaries. Now it is time to make decisions. Which systems of each row will you keep, which ones will you discard and how do you come to decisions? There are many forces involved here: **Functionality** and **quality** are two of them. With that goes **market strategy**. If one of your companies has a unique system for a niche market you will evaluate that separately from the mainstream. Also important is the **lead time** needed to consolidate the portfolio as it will influence the **maintenance costs**.

Application Portfolio as of Jan 2004				
Application System	Subsidiaries ....			
	Company A	Company B	...	Company X
<b>Sales Systems</b>				
for Tied Agents	Salix	SalesPower		Agentix
for Brokers	BrokelT	MoneyLine		BrokeNet
Internet (End Customer)	custom	custom		InsNet
<b>Product System</b>				
Life	n/a	LifeProd		VP/Def
non-life	IPDef	IPDef		VP/Def
<b>Contract System</b>				
Life	n/a	IPDef		VP/Def
P&C	PrivInsur	Telecom		PrivInsur
... and so on ...				

Figure 2: An anonymous sample application matrix. Each column stands for a company / each row stands for an application system. You sure need more information below the top level of such a matrix. But for people who have studied the systems and who have also the context such matrices do a good job.

Other factors are the **risks** of your migration path and also the **costs** you estimate to consolidate the portfolio. These are some of the forces that you will find in proposals how to handle a consolidation.

But there's also a strong human side involved here. In discussions there will be a lot of **developer ego** and also **fear** involved. *They keep my system – they keep my job*. This is a very strong motivation that will seldom make it into the official debate – but be aware of it. It is often present below the negotiating table. Now let's have a look at a few possible decision types:

**New Town:** *Don't like your applications? Build new ones from the drawing board!* It need not be said that this may be risky, expensive, and takes time. Albeit it is a solution often chosen if people cannot agree on which legacy system to choose – so they propose to build all new systems. This may be a valid strategy in very rare cases, if it happens that all of your companies have a hopelessly outdated application portfolio. This way may turn out to be quite risky. Imagine you have representatives from 5+ companies defining requirements for one new system. Likelihood is high the new system becomes bloated – if it ever makes it to the runway at all. Organizations need lots of funds to build a new town. It often requires less investment to simply evolve existing applications. Also the functionality side need not be improved as new systems often need years until they have all the functionality and also the performance of a legacy. Companies with ample financial funds are exposed to this option as problems can be postponed and can be transferred to a long lasting development project.

**Cherry Picking:** This happens when people are left to agree on which application to choose from each row. They will invest a lot of time in persuading each other of the qualities of their systems – the resulting process can be called “**Beauty Contest**”. It can easily take two years with people scrutinizing functionality while having the “*I want to keep my job*” motivation below the table. The major drawback of cherry picking is the time and money you loose in the process and also the integration costs when integrating a portfolio of applications from very different backgrounds. Hence cherry picking is seldom the preferred method when markets push you to act fast. Mergers of equals are exposed to this pattern, as the *equals* don't want to hurt each other right away.

**Steam Roller:** This method is based on the observation that one portfolio of legacy systems is as bad or as good as the other one. When analyzing two legacy portfolios for a very similar set of business processes you often find that each of them covers between 70 and 80 percent of the desired functionality – but “different” 80%, which means one portfolio does the job as good or bad as the other one. If you come to the conclusion (by a very rough screening) that this assumption might be valid in your case, you can choose the “best” column, after a comparably quick screening – which means that you choose one application portfolio and migrate all the other ones to this one portfolio using the “**Keep the Data – Toss the Code**”[BS95, K01] pattern. This method is also called steam roller because you easily roll over a lot of people and their emotions – the ones who loose their applications. The big advantages are: it is fast, you spare the cherry picking phase; it is safe as you migrate on a proven working system, and it is also cheap in terms of integration as you don’t have the need to integrate solutions that were never designed to work together or never did so before. A business downside appears when you roll over systems that serve a profitable niche market segment. The art of applying steam roller is to handle the people so that you keep the ones important to you. You have to calculate whether you gain enough to cover the costs of loosing e.g. some business segment. You need a lot of political power to use the steam roller or a very persuading CIO who can argument that this process is the best one for the company. In reality you need a mixture of both.

## Summary

Governance style and hence IT governance style depends on your market’s needs. Mature markets with high cost pressure tend to produce synergistic, enterprise dominated styles. Multi-company application portfolio management has its home mostly in such environments. You can observe at least three high level patterns of application portfolio management, of which the steam roller method might look tough but it can be very effective. Please observe that steam roller is not a silver bullet – the list of forces that needs to be taken into account would by far exceed a 6 pages article. With all models don’t forget the human factor – it won’t forget you.

## References

- [BS95] Michael M. Brodie, Michael Stonebreaker: Migrating Legacy Systems: Gateways, Interfaces and the Incremental Approach; Morgan Kaufmann Publishers, 1995
- [G02] B. Mack, N. Frey: Six Building Blocks for Creating Real IT Strategies, Gartner Group, Strategic Analysis Report R-17-3607, December 2002.
- [G03] Marianne Broadbent: Tailor IT Governance to Your Enterprise, Gartner Group Document 117510, October 2003.
- [K01] Wolfgang Keller: A Few Patterns for Managing Large Application Portfolios, Proceedings EuroPLoP 2001, Universitätsverlag Konstanz, 2001.