



TenStep Supplemental Paper

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Use Application Architecture to Reduce Redundancy

It might be surprising how many times the issue of redundancy in software programs comes up. On the surface, it would appear that building duplicate applications just boils down to a lack of communication. In fact, that may well be the case. However, there is at least one good reason why a company ends up in that position.

Good and bad reasons for redundancy

The most obvious, and legitimate, reason for application duplication is through mergers and acquisitions. As companies have merged or been acquired, the new company realizes that it has many duplicate applications. In some cases, the duplicate systems are left in place since they work fine and the cost of merging the systems can be astronomical. For example, as mergers have occurred in the telecommunications field, these companies are struggling trying to merge complex and highly customized billing systems.

A second reason, but much less forgivable, is the decision making process that takes place in decentralized organizations. Since these types of companies make most of their business decisions on their own, and in many cases are held to their own profit/loss numbers, they can tend to see themselves as unique companies that need to have their own application solutions. In the past, this was a very common way of thinking. Large corporations, with many autonomous companies might have literally dozens of similar business applications.

The third reason is just a plain lack of communication. Some companies and managers simply do not have a sense for the value of reuse. When an application solution is needed, they don't think to ask whether the solution has already been solved somewhere in the company already. If there are no company-wide processes in place, they can easily reinvent the wheel.

Think application architecture!

So, what can be done to remedy the situation? Your company needs to start thinking of business processes and business applications in terms of architecture, and in particular application architecture. Many people don't like the term architecture, because it conjures up images of specialists and overhead and wasted time. However, that should not be the case.

At the most basic level, application architecture can be thought of as an inventory, and a process for managing and leveraging the inventory to make good business decisions. In fact, if you had a complete inventory of each application in your company, along with what it did, who the customer was, the technologies involved, etc., you would have the basis for an application architecture. For a small to medium sized organization, this does not sound too bad. For large corporations, this process of just identifying all the



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applications can be a major project in itself. However, no matter what you do, you must take the inventory, and have some ongoing process to keep it up to date.

There are a few more things you need to really put an architecture structure into place. You need to go through an exercise of determine the major business processes and subprocesses throughout your company. Again, you might be surprised how much time and effort would be required to put this together in a manner that people can agree to. Once the business process structure is put together, you need to map all of the applications that currently exist against those business processes.

The third process you need is a way to map requests for new projects against the current business processes and business applications. This can be done as a part of the project approval process at your company. When business clients are looking to build new solutions, they can refer to the application architecture to see if something similar might already exist. The people who are making funding decisions can also see what the new projects are, what business processes they relate to, and what applications exist in that space already. They can catch obvious duplications and ensure that redundant applications are not funded.

Summary

As companies get larger, it becomes more and more critical to take an architecture approach to business applications. To get there, you need to understand the major business processes of your company, take an inventory of all current applications, and map what business processes each of them interact with. Then you need to raise visibility of this information and make it a part of the decision-making process. There may still be many reasons why similar features and functions are duplicated. However, let those decisions be made consciously, with a full understanding of the costs and consequences. Without the application architecture, these decisions are made blindly, and there is no telling how much money is being wasted.