

Systems Architects And Supporting Processes

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Abstract

The majority of problems that pop up during product creation have a non-technical root cause, for example in people, process, or organization issues. Organizations have many additional processes to support the business and to support the involved stakeholders, such as the architect. These additional processes also need evolution to stay fit for purpose. We discuss the role of the architect in the evolution of supporting processes.

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1 Introduction

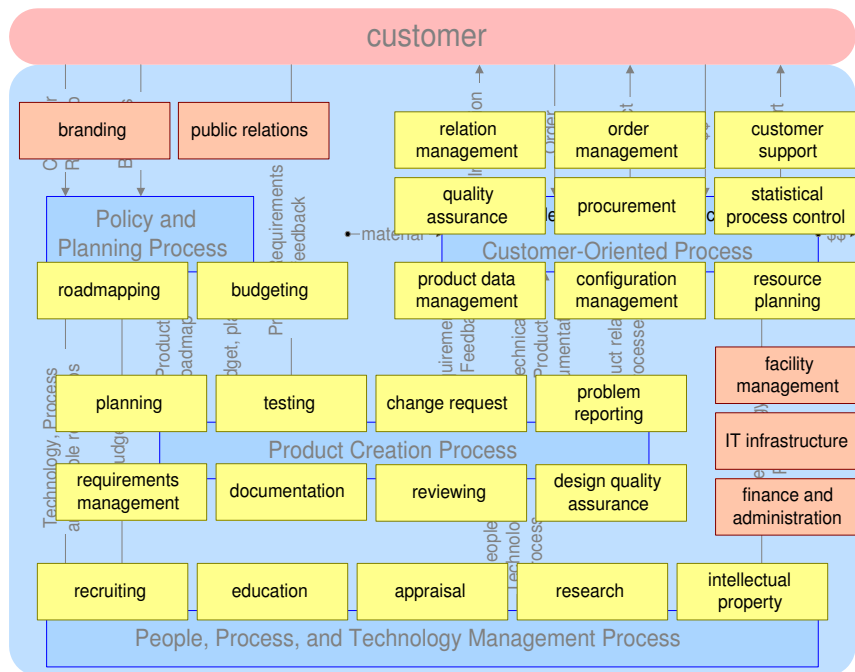


Figure 1: Supporting Processes overlaid on the simplified decomposition of a business

In ?? we discussed a highly simplified decomposition of a business in processes. Figure 1 shows a number of the *supporting processes* as an overlay of Figure ??. These supporting processes are loosely mapped on the main processes. However, many of these supporting processes are more cross boundary than suggested by this diagram. For example, intellectual property is mainly managed in the People, Process, and Technology Management Process, but also plays a significant role in the Product Creation Process.

In established organizations these supporting processes tend to be mature: well-defined and ingrained in the way of working. Normally, these processes evolve over time, following needs and for instance tool developments. However, the processes are not always fit for the current situation. In practice the following situations can be observed:

Not sufficient for current situation , because the product creation challenges have evolved faster than the processes and tools in the company.

Over constraining or slowing down the product creation work. Processes tend to grow and become more heavy over time. The rationale behind control

measures is invalid, but nobody is correcting the situation.

Systems architects are often confronted with the consequences of less fit supporting processes. Architects see the symptoms of problematic processes, and their work suffers from these problems. If architects do not recognize the root cause of the problem, then they tend to look for solutions in their own domain: system specification and design. However, the root cause, the failing process, need to be addressed to solve the problem more fundamental. Solving process shortcomings is not part of the systems architect role. We will discuss the role of the systems architect in the next paragraph. In other sections and papers on the Gaudi site we discuss some of the most common problems in supporting processes, such as documentation, reviewing, and integration.

2 The Critical Role of the Systems Architect

Systems architects often detect problems in supporting processes early, because they hit its consequences in dealing with other stakeholders, or in executing the prescribed procedures. For example, many organizations prescribe many pages of overhead information in their documentation procedures and templates. Systems architects need to fulfil all overhead, wasting valuable time, and their readers often do not have or take the time to search for the actual contents. In this example the good intent of the procedure and template backfires: they do not support the product creation, but rather constrain it.



Figure 2: From problem detection to allocation

Systems architects should not resolve supporting process issues themselves. That is often outside their competence and part of the responsibility of others. Figure 2 shows the steps that an architect can follow in case of poor supporting processes:

Detection of the problem itself by observing the symptoms.

Perform a brief root cause analysis to ensure that the problems and its causes are well understood.

Determine the owner of the problematic supporting process.

Delegate the solution to the owner of the supporting process. The owner is responsible to improve the process.

The architect is one of the stakeholders (and a customer) of the supporting processes. The process owner ought to take detected problems and stakeholder needs serious.

Note that the architect should not push a solution. Pushing a solution is overstepping the boundary of the process owner, which often causes a negative reaction.

Systems architects need to balance between acceptance of existing procedures and their own need to have appropriate supporting processes. Many architects are too lenient, accepting the burden of poor supporting processes, without taking action. The opposite are the systems architects that start to reform the company processes, outside their own competence area. The main risk of architects performing process redesign is that the actual architecting work is not done. The recommended way is to be critical on the fitness of supporting processes and to communicate shortcomings with the process owners.

References

- [1] Gerrit Muller. The system architecture homepage. <http://www.gaudisite.nl/index.html>, 1999.

History

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