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DEVOPS AGILE
SKILLS ASSOCIATION

IMPROVING THE SPECIFICATION OF RESOURCE REQUIREMENTS IN DEVOPS CONTRACTS

Organizations have been purchasing application development throughout the history of IT. As we all know, the two standard models for purchasing software applications are to either specify the required results or the needed resources. Choosing between these two models is ultimately just another way of addressing the eternal “buy or build” question, which will always involve a mixture of strategic, tactical, and operational considerations.

When solving the “buy or build” dilemma, an organization must always consider three things; (1) uncertainty, (2) risk, and (3) the rate of change. The typical procurement approach is to contractually distribute the risks and uncertainties between the customer and the supplier. When following this approach, specifying the result is always more attractive than highlighting the resources.

However, while specifying the result, you assume that the organization and environment will not change. When changes occur, specifications may become obsolete, and the application becomes more or less unusable in that shape and form. It is one reason why specifying resources rather than results may be beneficial. Another important reason is that you retain control of the entire development process. The process then makes it easier to be agile and make necessary adjustments, which is crucial when dealing with ever-changing requirements.

In this whitepaper, we will explore how organizations can specify their resource requirements more adequately by minimizing uncertainty and risk and obtaining a basic understanding of DevOps.

HOW DEVOPS IMPACTS THE SPECIFICATION OF RESOURCE REQUIREMENTS

DevOps opened the communication between development and operations and blurred the traditional boundaries between the two competencies. This significant change directly impacts, of course, the two models for purchasing application development. By integrating competencies in new ways and thus increasing the speed of software production, Agile and DevOps changed the traditional way of specifying the result. Before Agile/DevOps, requirement specifications were supposed to contain an exhaustive list of all requirements. These days, Agile-oriented application requirements focus on the mission and the overriding effects of the application.

HOW HAS THE SHIFT AFFECTED RESOURCE REQUIREMENTS?

Waterfall project methodologies allow resources from different subject areas to produce their part of the result without engaging with other subject areas unless necessary. Specifying resources for such projects can be focused primarily on the subject area and the years spent working there.

It is how we in the IT world ended up with the traditional role definitions we all know so well:

- Junior (less than X years of experience)
- Senior (X to Y years of experience)

- Expert (more than Y years of experience within the subject area)

Add some requirements on formal education and knowledge of specific tools, enough to qualify as a resource.

The world of DevOps is different, as studying scriptures in your cell does not bring any rewards. DevOps requires working with other people and meeting other subject areas' perspectives. It is, therefore, imperative that requirements for DevOps resources reflect the same. A narrow-minded "expert" without a broader perspective might become counter-productive in a cross-functional team.

But how should such requirements be stated, and what are the general competency areas needed in a DevOps team? These questions bring us to the DASA Team Competence Model, which introduces twelve critical skills and knowledge areas. These are reflected through a five-step maturity model to assess DevOps teams' readiness and identify a person's DevOps "fingerprint."



1. Novice / 2. Competent / 3. Proficient / 4. Expert / 5. Master

INTRODUCING THE DASA TEAM COMPETENCE MODEL TO SPECIFY RESOURCE REQUIREMENTS

Through Infocom Group’s partnership with DASA as a DASA Forerunner and in cooperation with some of our clients, we have had the opportunity to use DASA’s maturity model to develop a toolset for contractual requirements regarding DevOps-specific resources.

The number of years an engineer has worked in the IT industry does not correlate with how efficient the person is in a team context. Thus, making the DASA Team Competence Model important. “Old-timers” with 20+ years of experience in a specific domain might have limited experience with DevOps practices and cross-functional teamwork, thereby, can not be regarded as “experts.” Another reason why DASA’s Model is so impactful is that it provides a tool that aids in breaking away from traditional CV-based procurement of competence.

Also, another strategic strength of this tool is that it applies to teams and individuals. The model grants the companies the opportunity to set requirements for the entire DevOps team and gives the training provider the contractual responsibility to ensure that the team’s total competency fulfills these requirements at any time.

The value of the toolset is succinctly explained in the following steps:

- The twelve competence areas of the DASA’s Team Competence model are a part of the contract. They act as a reference point and highlight the requirements of a highly functional team’s competencies. These dimensions provide a comprehensive reference point for the required competence, both on a team and individual levels.
- DASA’s maturity model is then used to rate each team member on a Fibonacci scale from 1 to 8 for the five maturity levels. Spiderweb diagrams are brilliant tools used here to illustrate how each team member fits the expectations.

- Based on the rating at an individual level, an aggregated rating of the team is generated, which provides an agreed team profile in the contract. This profile acts as a reference for future alterations based on changing requirements.
- Based on the degree of fulfillment of agreed deliverables, the supplier will then be responsible for continuously monitoring and revising the competence profile to improve the team's success rate over time.
- On the other hand, the customer will have the tools to discuss more objectively with the supplier whether the team meets the required skills. If not, the supplier must initiate efforts to upskill the team members or scale the team size to meet the changing requirements.

Last but not least, by using the toolset with complete transparency, the identification and improvement of competence gaps become more important than arguing over who is to blame for the inaccurate result. The contract focuses more on the parties' ability to manage the available resources rather than a tool designed to "win in court" (control).

It's fair to state that software applications will only be as good as those developing them. Thus, focusing on people's competence in place of results is beneficial, especially in a world where change at high-speed is always expected. To cater to this, we found the DASA Team Competence Framework to be the most "fit-for-purpose" tool to specify resource requirements in the procurement of resources in Agile and DevOps teams.

ABOUT INFOCOM GROUP

Infocom Group is an independent management consulting company specializing in sourcing, procurement assistance, IT governance, and advisory services to large enterprises in the private and public sectors in the Nordics. Founded in 2000, Infocom supported the introduction and prevalence of Agile development methodologies and DevOps practices.

ABOUT DASA

DASA (DevOps Agile Skills Association) is an independent, open, and members-driven association supporting the development of DevOps training and certification for the global market, advocating the development of High-Performance IT Professionals and Teams through Agile and DevOps initiatives.

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