

How agile architecture can be applied in large- scale agile environments –

Part 1: What should the
organisational structure of
Architects in large-scale agile
programmes look like?

Agile architecture setup

Peter, the Lead Architect of the Butterfly Programme, has received his assignment to optimise the current IT architecture setup. The very next morning, he looks at the concept he has presented to his manager and first wants to figure out whether the current Architect organisation is appropriate. If not, which roles are required to cover the architecture work on the different levels

from strategy to implementation? And what kind of collaboration model would be suitable for connecting those levels across teams to increase transparency and consistency?

Peter looks for organisational charts in his files and one for the structure of the programme Architects and teams.

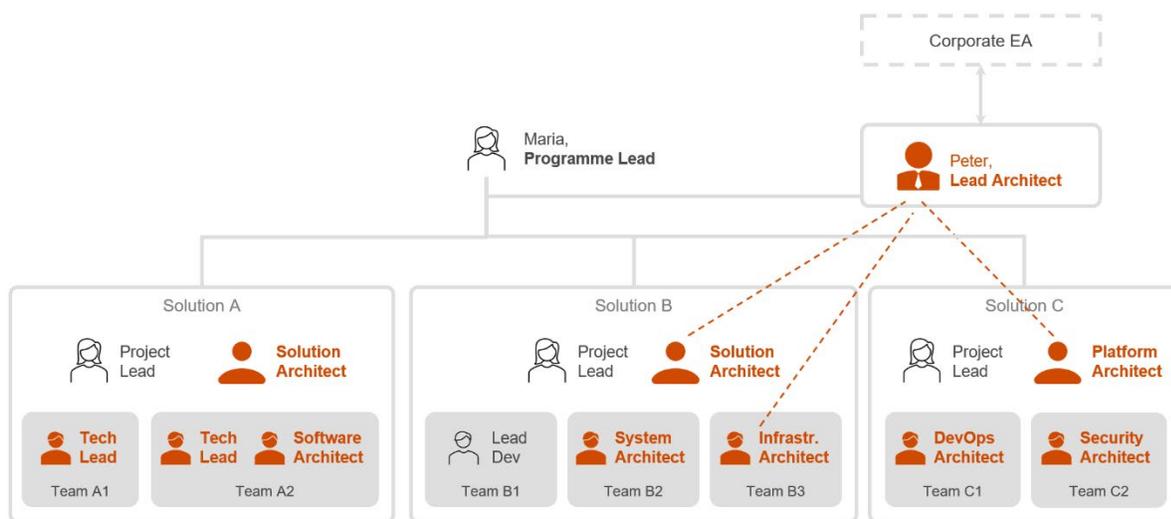


Figure 1: Legacy architecture organisation

He looks at it for a while and soon notices elements which indicate an inconsistent structure. There are some Architects in the individual delivery teams who call themselves “Technical lead” with a focus on a specific technology or product. But there are only a few Architects responsible for cross-team and cross-solution alignment. In addition, only some of the Architects report to him as the Lead Architect, whereas others report to project leads.

Peter has to smile a little when he sees that his own role includes exchange with the EA

department and that he had neglected this task due to the firefighting mode he found himself in the past.

He recognises that the organisational structure needs to be simplified. After a few minutes of pondering, he contemplates Maria’s advice of integrating standard market frameworks.

From a recent conversation with one of the Scrum Masters, he remembers that SAFe is a framework¹ that provides a set of organisational patterns for implementing agile practices in large-scale programmes. The framework also contains a part

¹ See Scales Agile Frameworks
<https://www.scaledagileframework.com>

that deals with agile architecture. Peter opens the SAFe website where he sees the “Full view” of the SAFe graphic. He immediately notices the architectural roles that have been drawn in:

- **Enterprise Architect** (on the portfolio level) to cover strategic topics across different programmes and value streams
- **Solution Architect** (on the programme or large solution level) to work across several systems
- **System Architect** (on the solution level) to plan and design a single system

He looks at the framework in detail and is delighted by the role structure. However, he wants to make some changes to the SAFe terminology to align it with his programme organisation. The Butterfly Programme is very large and aims to transform the IT of an entire domain. So it is no coincidence that Peter, a former Domain Architect, has taken on the role of the Programme Lead Architect. Due to the size of the programme, it consists of many large software solutions requiring multiple delivery teams. Therefore, the programme will also need multiple Solution Architects reporting to him. He in turn is in communication with the EA function.

From his reflections, he arrives at the following conclusions for the Butterfly Programme:

- If an agile programme is tied to a domain, it requires a Domain Architect or dedicated

Programme Architect who is responsible for leading the architecture in that programme and to establish a link between the programme and the EA function.

- Due to the complexity of the programme and the high number of software solutions, full-time Solution Architects and the Domain Architect will be responsible for driving cross-team and cross solution alignment to enhance transparency to all teams.

In addition, Peter believes that a small, dedicated central architecture team, called the Programme Architecture Office, will be useful for strengthening communication horizontally and vertically between the different architecture roles and actively enhancing the overall programme architecture. This team will also support him in implementing and operationalising other measures to restructure the architecture setup. The key tasks of this team will be to provide guidance to the delivery teams (e.g., with domain-specific architecture principles and non-functional requirements) and managing architecture decisions (e.g. the formal and informal processes). The team should also foster cross-team alignment (e.g. via an architecture community) as well as manage the link to other domains, enterprise initiatives and corporate functions like EA, infrastructure and security.

Peter opens his presentation tool and starts to draw an org-chart with the new architecture roles:

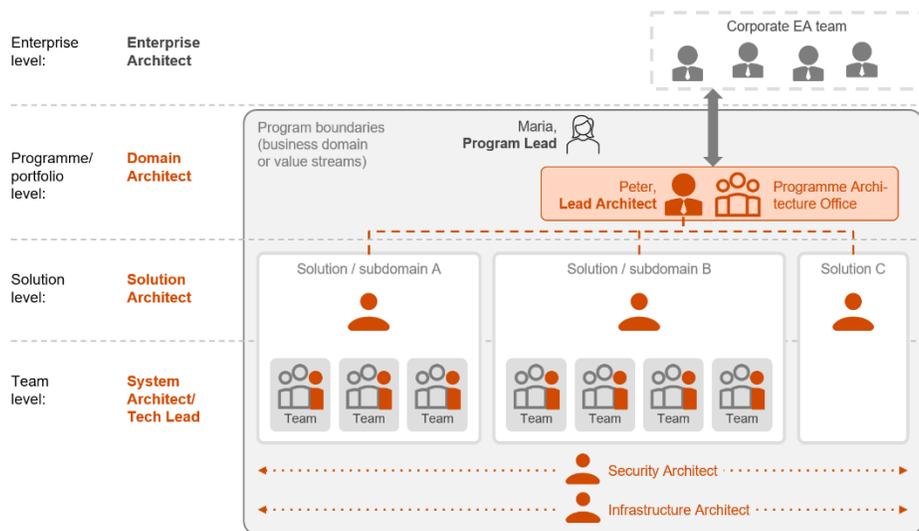


Figure 2: New architecture organisation

Architecture roles and responsibilities

After drawing the new organisational structure, Peter wants to further define the newly created

roles. He creates a list of all roles and their responsibilities:



Figure 3: Architecture roles and responsibilities

After a week of refining the detail of his new organisational structure, including roles and responsibilities, Peter receives an email from a good friend. He works in a different company which also wants to change its way of working by

going agile. Knowing that Peter is in the process of reorganising architecture management in his programme, he asks him for good advice or a framework to start with. Peter responds with the following insights:

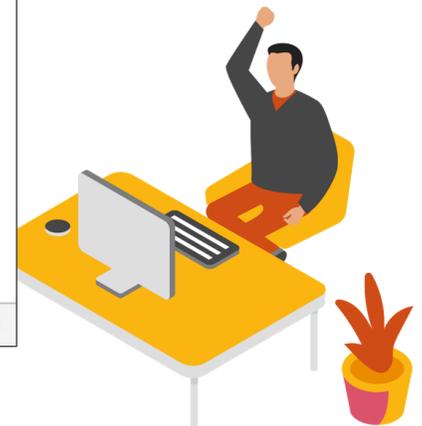
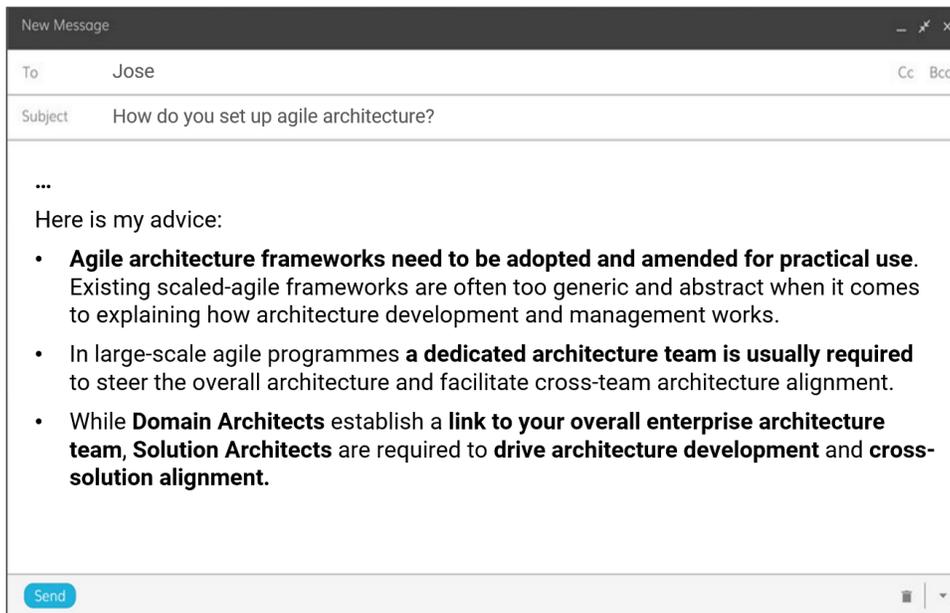


Figure 4: Key takeaways of agile architecture organisation

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