

Agile Architecture in the Digital Age

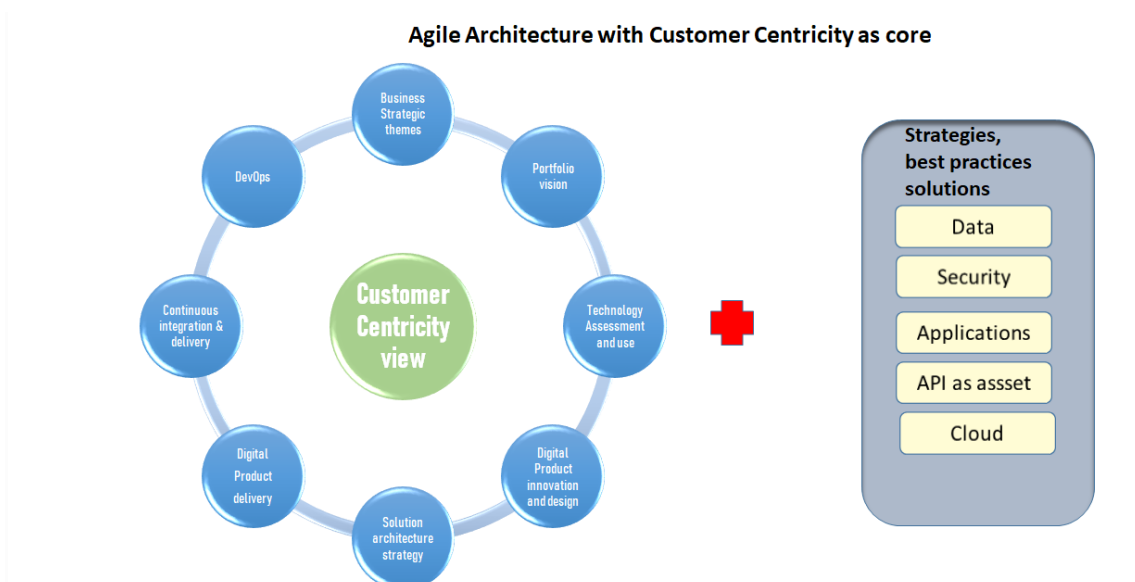
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Architecture embracing Agile

The disruptive nature of the technology trends and business vision are pushing to the enterprises to new models and accelerated architecture's frameworks, supported by its agile roles and responsibilities. In this paper is described how those are changing the architecture in practice. Transforming from a mostly technical discipline to new approaches such as participate in the business strategic themes i.e., helping to traditional companies compete with digital disruptors actors.

The agile architecture is based on customer 360 vision as core of any digital design and strategy i.e. the architecture in enterprise level supports strategic themes and portfolio vision understanding the portfolio backlog, product vision and roadmap and translating that into technology vision, solution and its integration with other digital assets or system.

The below picture shows the architecture in practice based on customer centric as core.



Looking at above picture, the activities involved as part of agile architecture are such as business strategy, portfolio vision, technology assessment, digital product innovation and design, solution architecture, product delivery, continuous integration (CI) and continuous deployment (CD) and DevOps. This new model is supported with other matters such as data, security, applications, APIs and cloud. This combination enables create and design end to end architectures covering both strategic and technical level with customer centricity as core.

Agile architecture is designed based on real business cases; the implementation is recommended to do case by case in order to make sure the solution in real world. i.e the architects can work inside agile team as part of product team. The architectural decisions are taken by architects and stakeholders at both strategic and technical level.

How is the Agile Architecture adding business value?

The new architecture approach is enabled to provide to business innovative digital models and technologies.

- Based on portfolio backlog and vision, analysing what solution or platform should be new and what solution or component should be reused in order to optimize the cost.

- Based on IT digital strategy decide to choose new technology in accordance with business requirements
- The enterprise architects are bridge between lean portfolio management and high-level vision of enterprise solutions and developing initiatives e.g., collecting, generating, designing, and analysing innovative ideas and technologies to use across the business portfolio vision (1).
- Supporting the solution assessment in terms of benefit cost into ecosystem and aligned with business strategy, stakeholders and portfolio requirements.
- Supporting the implementation of proposed design, i.e., working closing the solution architects inside agile teams during product delivery, CI and CD and DevOps. Being reality the designed and be in practice the business and digital strategy.

It is allowing to be optimising the budget and cost efficient of the digital product or asset as part of technology investment and supporting the business vision and product delivery.

Agile Architecture roles in practice

The architects are playing a horizontal connector role because they typically combine a technical foundation with business acumen and communication skills.

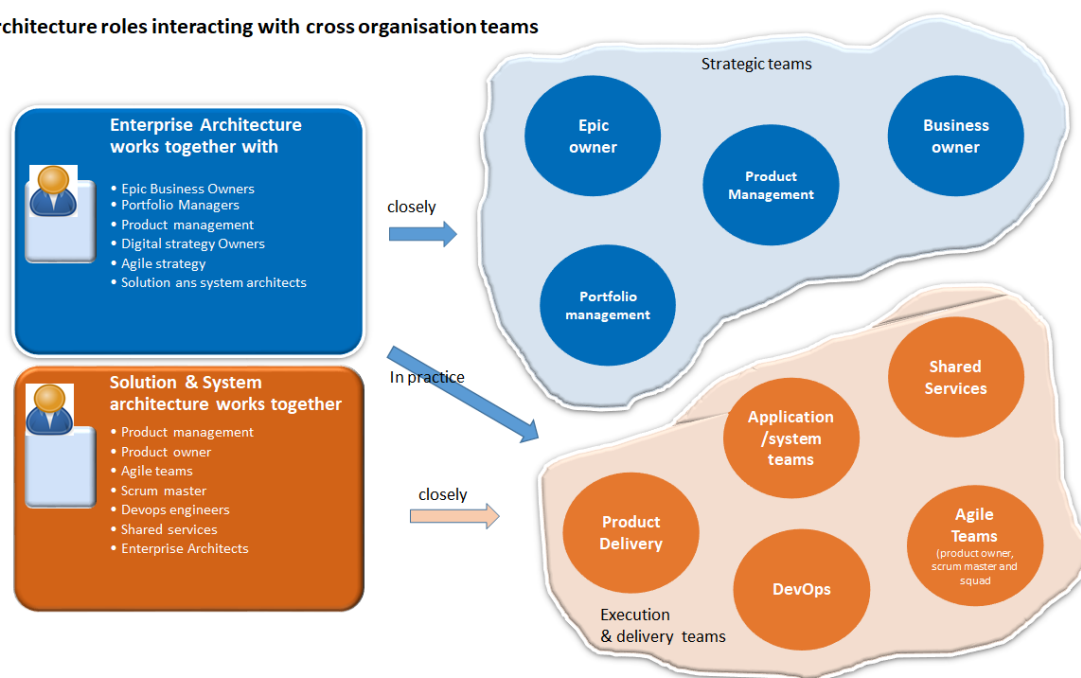
In this era of fastest changes, it is required architects who can act as mentors and bridge builders among project teams, across domains and among different layers of the organization and with strong technical skills too. It is a skill combination both business knowledge and technical knowledge.

Agile architecture roles distinguish the responsibilities among Enterprise Architect, Solution Architect and System Architect (1). They collaborate different levels of business and services domains. In practice, this means as follows.

- **The enterprise architects (EA)** are bridge between lean portfolio management and high-level vision of enterprise solutions and developing initiatives. Involved in any strategic themes, portfolio vision, product roadmap, portfolio backlog working together with business epics owner and other stakeholders (look at the picture below). The EA are collecting, generating, designing and analysing innovative ideas and technologies to use across the business portfolio vision.
- **The solution architect and system architects** as part of agile team i.e., part of a tribe or squad in order to participate directly in the solution implementation or product delivery and deployment. They provide technical design of each case in product delivery.
- There are some architectures such **data architecture, security architecture, business architecture** what are part of **shared service centre**. These roles are considered as solution & technical architects too.

The below picture we can see the architecture roles and responsibilities.

Architecture roles interacting with cross organisation teams



Benefits and challenges of the evaluated approach

- Agile architecture is focused on customer centric i.e., customer 360 view approach as core of any digital asset design and digital decision making.
- Agile Architects are both areas strategy, delivery and execution i.e., cross collaboration in agile organisation.
- The agile architecture enables accelerate the digital designs because the solution and system architects are involved inside agile teams called squads or tribe too.
- The enterprise architects are involved as part of business strategy working together with portfolio management and strategic themes. The EA is responsible of transforming and designing the business vision in a digital solution (first level design and decision).
- The solution or system architects are responsible of the technical designs based on digital solution approach and digital strategy delivered by EA. i.e., design in the practice in order to build the solution or product.

Discussion and Conclusion

- Customer centric as CORE of Agile Architecture.
- Agile Architecture in practice has evolved from a mostly technical discipline to new approaches such as participate in the business strategic themes, customer centricity view, portfolio vision etc. which help traditional companies compete with digital disruptors actors.
- Needed architects with combined skills both business and technical in order to provide digital solution from business vision to solution implementation in accordance with business and technology strategy.
- Agile Architecture enables to architects be part of agile teams.

References

- (1) SAFE recommendation at <https://www.scaledagileframework.com/enterprise-architect/>
- (2) the Open Group <https://www.opengroup.org/AgileArchitecture>