QRC Team Topologies

Based on Team Topologies, QRC by Henny Portman, May 2020

Conway's law: "Organizations which design systems ... are constrained to produce designs which are copies of the communication structures of these organizations."

Team first approach: start with the team for effective software delivery. There are multiple aspects to consider and nurture: team size, team lifespan, team relationships, and team cognition.
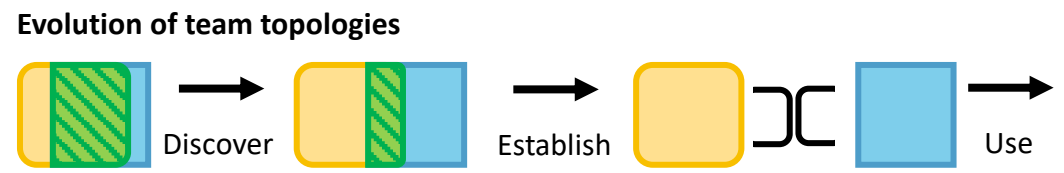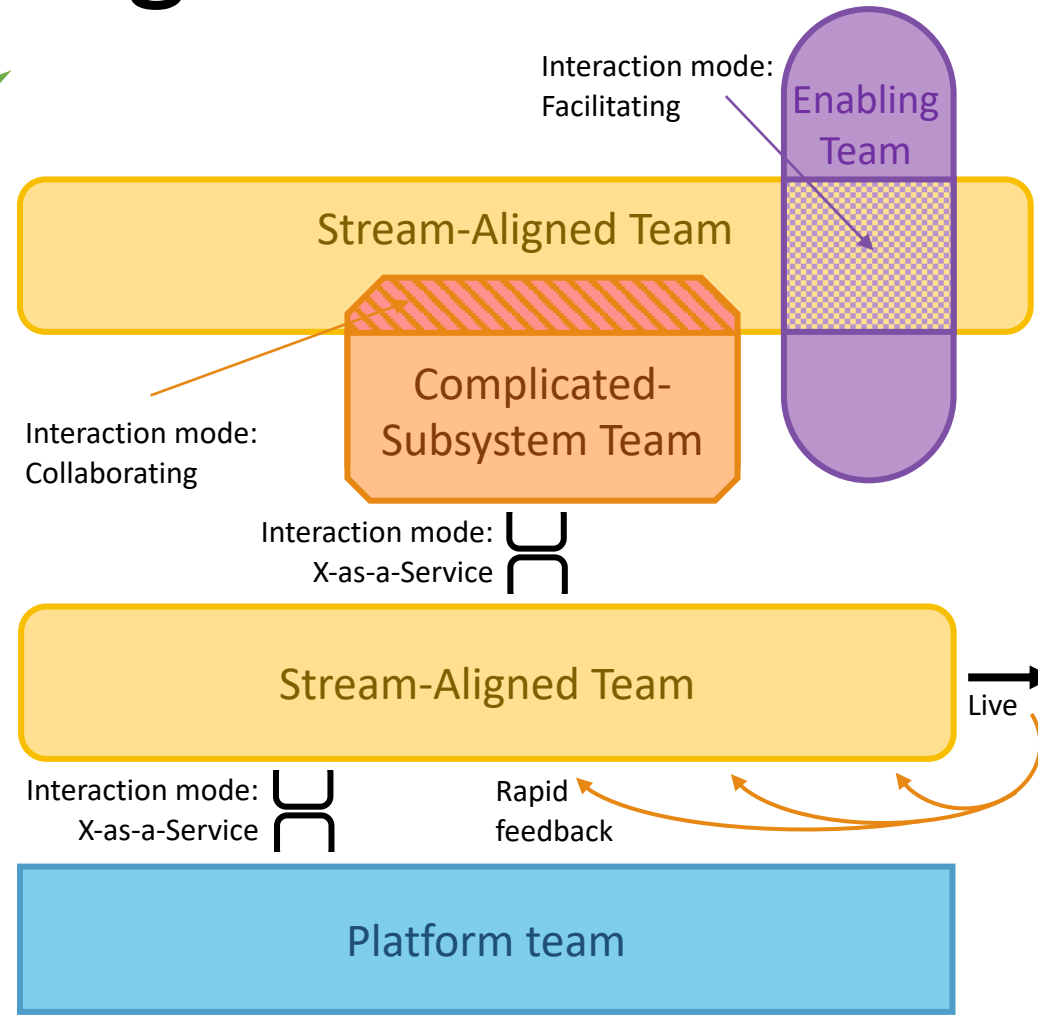
Organizational sensing: expect to adapt and evolve your organization structure.

Scaling teams: Organizational groupings should follow **Dunbar's number,** beginning with around 5-8 people, then increasing to around 15 people, then 50, then 150, then 500, and so on.

Brook's law: "Adding new people to a team doesn't immediately increase its capacity.:

Cognitive load: "The total amount of mental effort being used in the working memory." Restrict team responsibilities to match the maximum team cognitive load.
- **Intrinsic cognitive load** – relates to aspects of the task fundamental to the problem space
- **Extraneous cognitive load** – relates to the environment in which the task is being done
- **Germane cognitive load** – relates to aspects of the task that need special attention for learning or high performance

Interaction mode: Facilitating

Enabling Team

Stream-Aligned Team

Interaction mode: Collaborating

Complicated-Subsystem Team

Interaction mode: X-as-a-Service

Stream-Aligned Team

Interaction mode: X-as-a-Service

Rapid feedback

Live

Platform team

Stream-Aligned Team: a team aligned to the main flow of business change, with cross-functional skills mix and the ability to deliver significant increments without waiting on another team.

Platform team: a team that works on the underlying platform supporting stream-aligned teams in delivery. The platform simplifies otherwise complex technology and reduces cognitive load for teams that use it.

Enabling team: a team that assists other teams in adopting and modifying software as part of a transition or learning period.

Complicated-Subsystem Team: a team with a special remit for a subsystem that is too complicated to be dealt with by a normal stream-aligned team or platform team. Optional and only used when really necessary.

Primary interaction modes for the 4 fundamental team topologies:

Collaboration: working closely together with another team

X-as-a Service: consuming or providing something with minimal collaboration

Facilitating: helping (or being helped by) another team to clear impediments

Evolution of team topologies

Discover → Establish → Use

TEAM TOPOLOGIES

ORGANIZING BUSINESS AND TECHNOLOGY TEAMS FOR FAST FLOW

MATTHEW SKELTON and MANUEL PAIS