
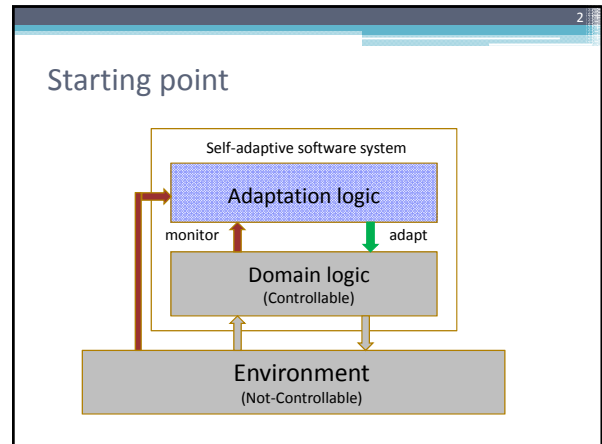


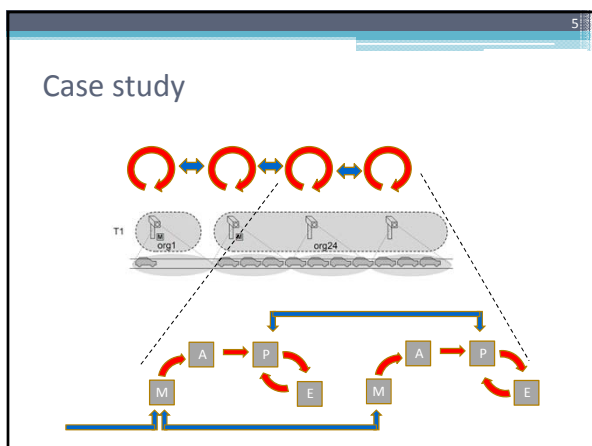
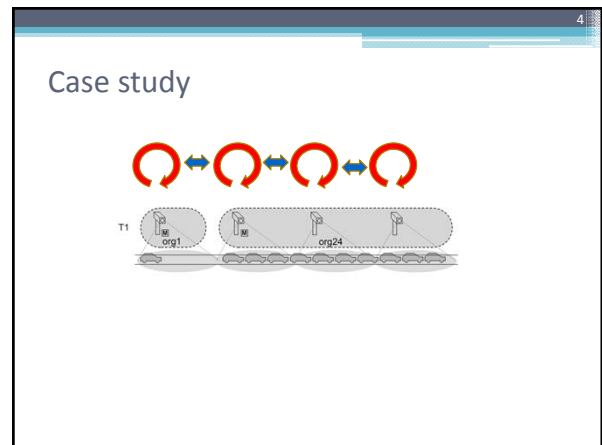
On Interacting Control Loops in Self-Adaptive Systems

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Adaptation logic

- Realized by MAPE loop
- Need for multiple MAPE loops, e.g.:
 - Manage complexity by separating adaptation concerns
 - Deal with local adaptations only for scalability reasons
 - Adaptations that cross multiple ownership domains



Outlook

- Systematic engineering approach to manage the complexity of interacting control loops
- Patterns of interacting control loops
 - Intra-loop and inter-loop coordination mechanisms
 - Distribution of MAPE