Towards Compliance of Cross-Organizational Processes and their Changes

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Motivation – Requirements

→ Combination raises new challenges.
Motivation – Change

Good idea! Let it be the new Process Version!

Migrate running instances?

Deal with conflicts between ad-hoc and changes of the version

Business Process Compliance

G(Admit_patient → (not Release_patient U Make_next_appointment))

Guideline:
After admission, a patient should not be released without making the next appointment.
From Intra-organizational to Cross-organizational
Correctness of Cross-organizational Processes
Conformance

Cross-organizational Compliance

Global Compliance Rule: After a blood test, the blood sample has to be destroyed.

Global Compliance Rule: If an examination or the evaluation of a blood test indicate complications, the patient must be transferred and observed at the hospital.

Assertion (laboratory): Received blood samples will be analyzed.

Assertion (laboratory): After analysis the blood sample is destroyed.
Changing Cross-organizational Processes

Change Propagation

Which running instances can switch to the new version?
Instance Migration

Which process instances can migrate to the new version?

Process-aware Information System 1

Process-aware Information System 2

Process-aware Information System 3

Concurrent Changes?

Challenges

- Modeling cross-organizational compliance rules and assertions
- Ensuring compliance with regard to privacy
- Change propagation
- Efficient Cross-organizational instance migration
- Ensuring compliance at change time
- Adequate user feedback
Thank you for your attention