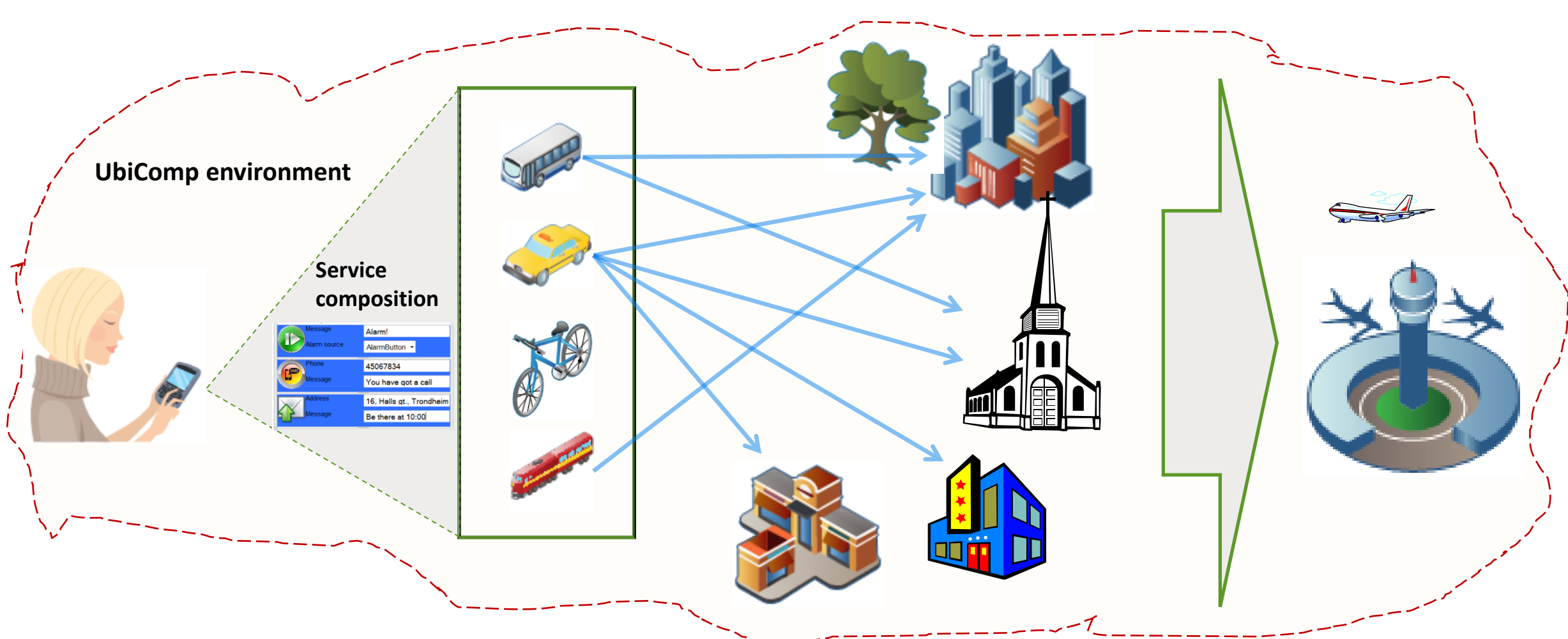


ABSTRACT

Starting with a number of real life scenarios we have been working towards supporting end-users in managing their services in an efficient and user-friendly manner. We observe that these scenarios consist of sub-tasks that can be solved with collaborative service units. Therefore, a composition of such service units will serve the needs of the end-user for the complete scenario. We envisage that a visual formalism and tools can be developed to support these end-users in creating such service compositions. Moreover, methodologies and middleware can significantly reduce the complexity of developing composite services.

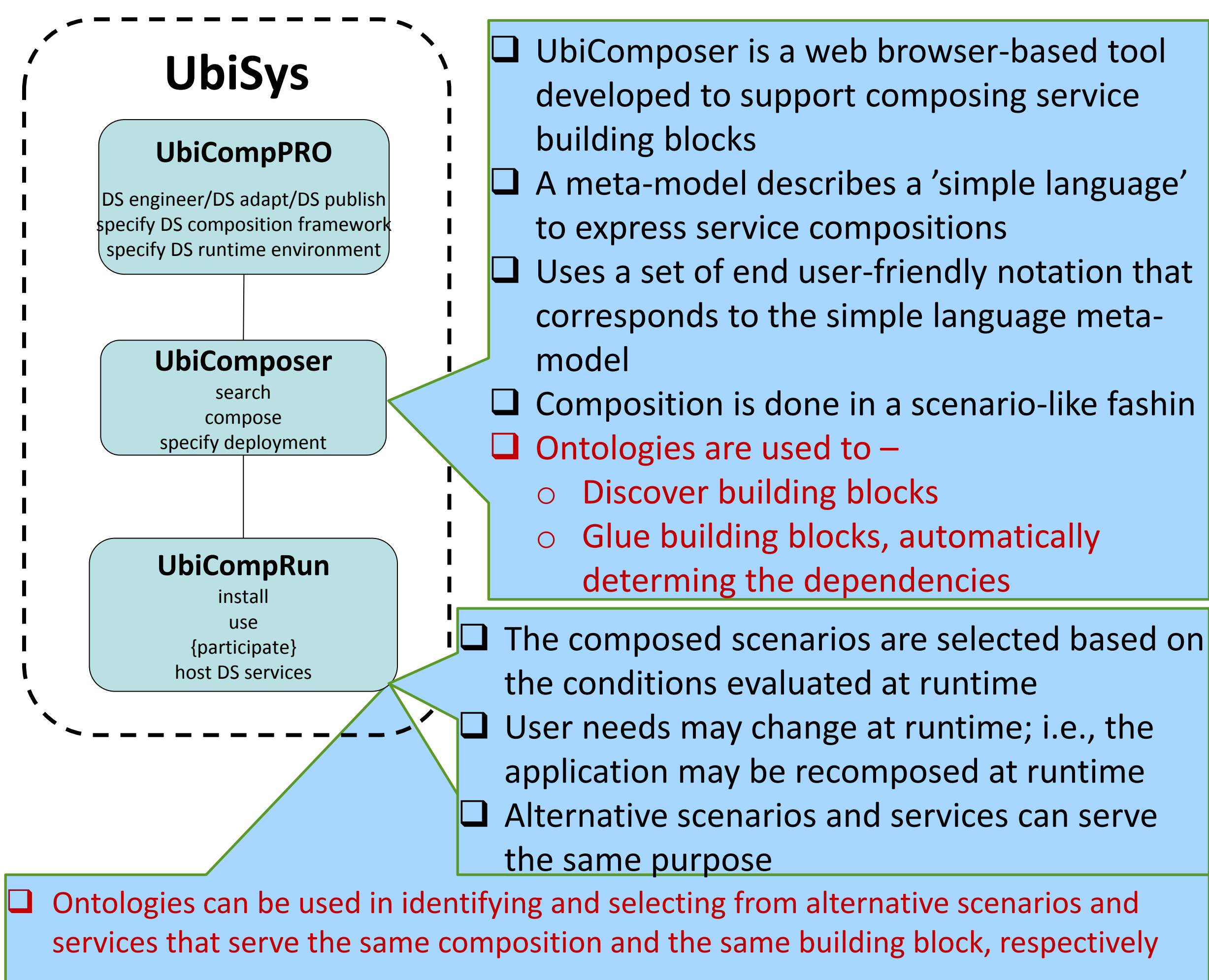
Ontologies can assist the users in selecting appropriate services and setting composition parameters within a composition tool. For our prototype demonstration system we target the open source Android cell-phone architecture supporting a number of different runtime platforms.

Scenario: guiding a tourist in a city



- A tourist wants to visit interesting places in a city between a business meeting and the check-in time at the airport
- Based on the information provided in the composition related to her time schedule, cost allowance etc. she is guided to a tour at a cathedral or at a museum or at a cinema. The transportation means are also selected based on the composition.

Architecture and the need for an ontology

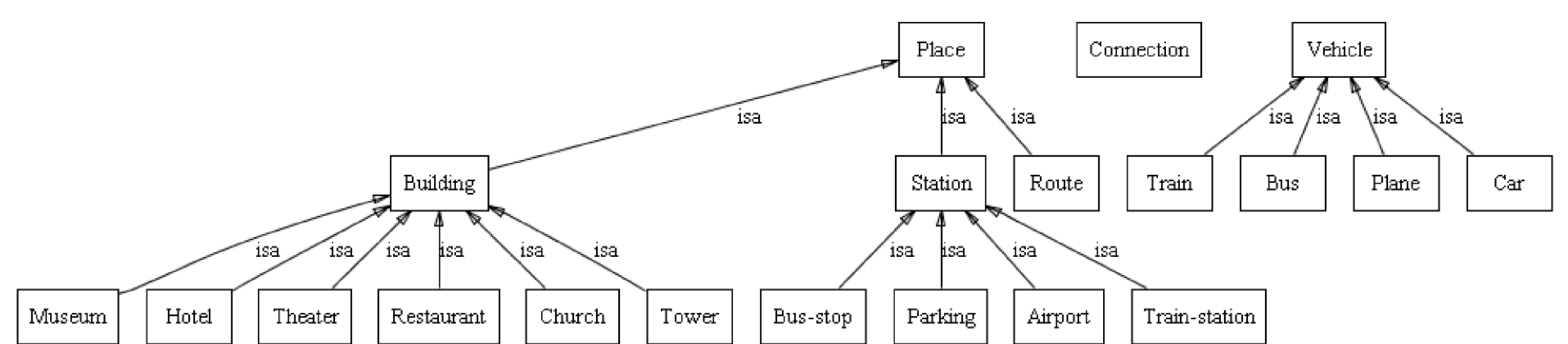


OTHER SCENARIOS

- Incoming call handling
- Doctor's appointment
 - Advertisement

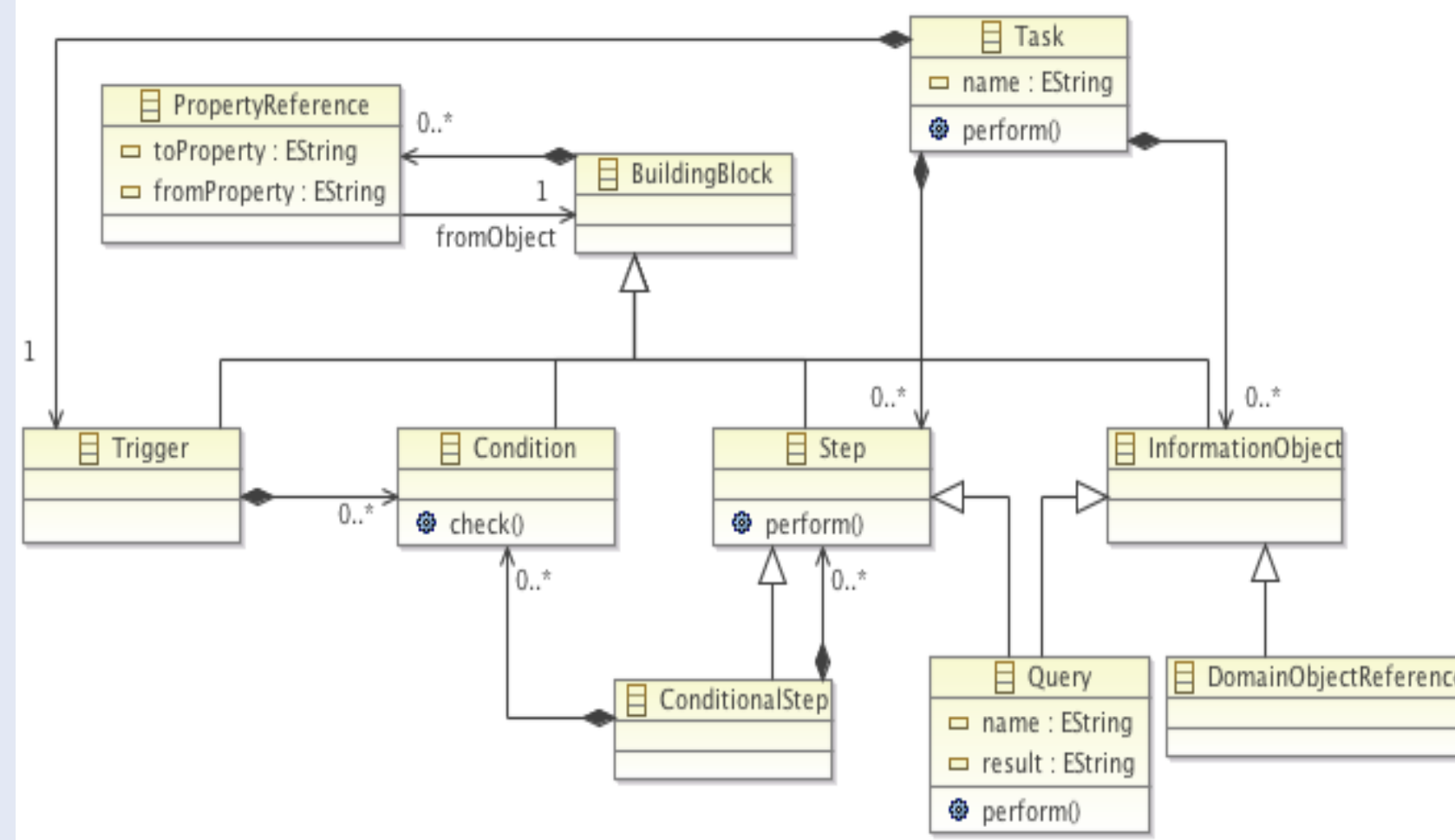
RESULTS

Domain Ontology for the city guide scenario



- Entities, concepts and their relationships are derived from the example scenario
- This knowledge (ontology) is used by UbiComposer and UbiCompRun

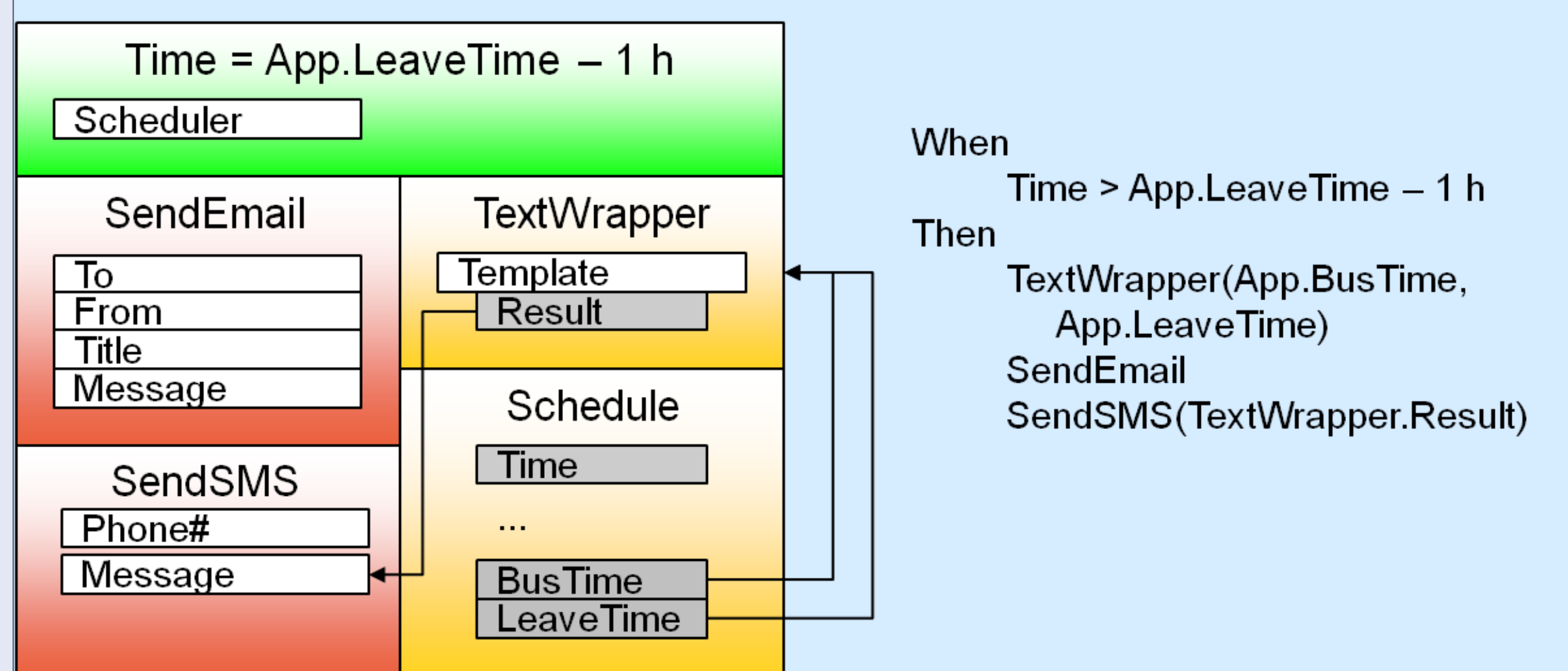
The 'simple language' meta-model



- A composition is activated by Triggers and Conditions

- A Task refers to a composition
- BuildingBlocks are composition units
- A Step performs a particular functionality
- Steps may use Info objects to query about particular information

An Example composition



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