

# Automated extraction of value transactions in $e^3$ value

## Background

The  $e^3$  value methodology is an approach for understanding networks of enterprises creating, distributing and consuming things of economic value. The methodology includes an ontology for representing  $e^3$  value models, as well as software tool support for analyzing such models. For more information, see [1,2] and the master-level course e-Business Innovation.

## Problem

An  $e^3$  value model contains amongst others value interfaces, value exchanges and value transactions. Value transactions group value exchanges. Value interfaces can be used to derive which value exchanges should be included in a value transaction. The assignment consists of the following questions:

1. Is it possible always to (automatically) derive value transactions from the way value transfers are connected with value interfaces?
2. What is the algorithm(s) to derive value transactions from the way value transfers are connected with value interfaces?
3. How can this algorithm be build into the  $e^3$  value toolset? (a prototype implementation is required).

## Requirements

- good understanding of  $e^3$  value, preferably you have at least followed the course e-Business Innovation;
- good Java programming skills

## Organization

This is a VU-internal assignment. Participation in the Greeting research meetings is compulsory.

## References

- [1] J. Gordijn and J.M. Akkermans, "Value based requirements engineering: Exploring innovative e-commerce idea", Requirements Engineering Journal, Springer Verlag, Vol. 8, Nr. 2, pp 114-134, 2003
- [2] J. Gordijn and J.M. Akkermans, "e3-value: Design and Evaluation of e-Business Models", IEEE Intelligent Systems, special issue on e-business, Vol. 16, Nr. 4, pp 11-17, 2001.