

Diploma-Thesis / Master-Thesis

Selecting Communication Services in the Future Network Architectures

Topic

Every user in the network uses communication services to communicate over the network. Currently, the number of those services is limited. In the future network architectures, it is expected that the networks will offer a large number of different types of communication services. With so many services available, determining which service to select and use becomes difficult. This becomes much more difficult when more than one service provide the same functionality. In this circumstance, it is necessary to select the one which is best in terms of application requirements and network constraints. This is the problem of decision making. Several human decision making models are available. Each of them has advantages and drawbacks and is used to take certain types of decision. The purpose of this thesis is to evaluate whether one or more of those decision making models can be used for selecting communication services. If not, then, develop a decision making model for selecting the optimized communication service.

Goal of the Thesis

SP	<ul style="list-style-type: none"> Review the model of selecting service in the future internet architecture Extract the criteria from the model
Conventional Service	<ul style="list-style-type: none"> Review multi-criteria decision making analyses Propose a decision making process to select an optimal communication service.
TCP/IP	<ul style="list-style-type: none"> Evaluate the process in our service oriented network architecture framework.

Requirements

- Bachelor resp. Vordiplom
- Basics of Networking and Service Oriented Architecture (SOA)
- Skill in XML is required. Experience in Ontology and Java is an added advantage.
- Experience in optimization will be appreciated.
- Analytical skills

Key words: SOA, Networking services, Future Internet, Service Selection