

Evaluating Proposed Mechanisms for Content Retrievals in CCN based OppNets

Prerequisites:	- Technical background in communication technologies / protocols
Recommened background:	- Network Simulation
Level:	This topic is appropriate for Master Students
Language:	German or English

INTRODUCTION

Content Centric Networking (CCN) is a new paradigm in networking and a future Internet architecture which treats content as the primitive - decoupling location from identity, security and access - to retrieve content by name. The architecture of CCN operates well with infrastructure based networks. CCN is an ideal networking architecture for building opportunistic networks (OpNets) since content oriented communications are equally valid for application in OppNets.

However, a problematic area is the constant disruptions to connections in OppNets which result in disrupted content retrievals. There are a number of solutions proposed in literature. Each of these solutions are evaluated with different scenarios and thereby is not comparable. The purpose of this work is to perform a comparative analysis of the performance of these mechanisms to identify the most suitable mechanism.

PROJECT DESCRIPTION

The project consist of identifying the different mechanisms proposed to adapt OppNets in CCN, implementing them in a simulator and evaluating the performance. For the evaluation, the OMNeT++ based CCN modelframework *inbaverSim* will be used. The individual steps are as follows.

- Perform a survey of the current proposed mechnisms
- Implement the mechanisms in *inbaverSim* (<https://github.com/ComNets-Bremen/inbaverSim>)
- Identify the scenarios for the comparative evaluation
- Undertake the performance evaluation
- Report findings of the performance evaluation

CONTACT

If you are interested in this work, please contact us via mail: projects@comnets.uni-bremen.de