

Title: *Tools for NDL Elaboration*

Author: *Bc. Elena Myazina*

Department: *Department of Software Engineering*

Supervisor of the master thesis: doc. Ing. Karel Richta, CSc., Dept. of Software Engineering, Faculty of Mathematics and Physics, Charles University in Prague

*Abstract: Current state of research of networks enables end users to create custom connections (lightpaths) for a given application and optical private networks (OPNs). Such adjustments require clear communication between the requesting application and the desired network. Language NDL (Network Description Language) is used to describe such optical networks. NDL is based on the Resource Description Framework (RDF). This thesis analyzes the network description language NDL and its treatment. Current status of the network can be loaded in the form of the description in the NDL and displayed as the graphical representation. The representation enables to find out paths in the network, or edit the network. The result can then be transformed back into NDL format.*

*Keywords: NDL, RDF, optical technology.*