

TALLINN UNIVERSITY OF TECHNOLOGY

School of Information Technologies

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**ESTONIAN DEFENCE LEAGUE'S CYBER
DEFENCE UNIT ENHANCING VITAL
SERVICE PROVIDERS' CYBER SECURITY**

Master's Thesis

Supervisor: Rain Ottis, PhD

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Short Summary

In this thesis author investigated Estonian Defence League's Cyber Defence Unit (CDU) capability to enhance vital service provider's (SP) cyber security. The scope of the study was limited to the period when the SP experiences major cyber incident or a series of incidents but no nation-wide state of emergency have been yet declared. The author used case study methodology and conducted qualitative analysis according to the grounded theory to identify the dimensions of the support profile during the first round of semi-structured interviews. The author identified 9 individual and 5 mission support dimensions.

In the second round of semi-structured interviews, the author used these dimensions to measure each dimension on the CDU and on the SP side. Author constructed a Likert-type scale in order to describe and measure the *severity* of each dimension in the data collected during the interviews and available in the CDU planning documents. Author then calculated the mean values of each dimension, which resulted in two *quantified* support profiles, both from the CDU and from the SP perspective.

During the data analysis, author combined the sets of individual and mission support profiles in order to point out the differences in the requirements from the SP side and capabilities from the CDU side. The findings were then validated with additional round of semi-structured interviews on the SP side to verify the hypothesis about the differences between requirements and capabilities.

In the final part of thesis, author provided suggestions for revision of current conceptual documents and possible improvement of CDU's preventive activities in cooperation with EISA based on the findings of current thesis. In general, author answered the research questions and pointed out possible improvement areas. Author believes it will make EDL and CDU in particular a better organisation to empower and motivate its volunteer members by enhancing the national SP-s cyber security in the modern times of IT-enabled digital society.