EÖTVÖS LORÁND UNIVERSITY

FACULTY OF INFORMATICS

Thesis Registration Form

Student's Data:

Student's Name: Khanbayov Rasul

Student's Neptun code: GGUSA3

Course Data:

Student's Major: Computer Science BSc

I have an external supervisor

External Supervisor's Name: *Akos Princzinger*

Supervisor's Home Institution: *Ericsson Hungary*

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Supervisor's Position and Degree: *Section Manager, MSc degree*

Supervisor's e-mail address: *akos.princzinger@ericsson.com*

Internal Supervisor's Name: *Dr. Zsók Viktória*

Supervisor's Home Institution: *ELTE IK PNYF ELTE Fac of Informatics, PLC*

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Supervisor's Position and Degree: *Assistant Professor, Ph.D.*

Thesis Title: Mini Ericsson Orchestrator Cloud Manager

Topic of the Thesis:

(Upon consulting with your supervisor, give a 150-300-word-long synopsis os your planned thesis.)

Nowadays Cloud computing is quickly gaining popularity with companies and organizations as a result of its ease, convenience and efficiency. With the help of these technologies your data in applications like Facebook, Twitter and Google Drive is stored virtually. You are able to enter them with the appropriate authentication and procedures, which lets you to access from any device. Cloud technologies also provide Internet Service Provider operators and enterprises with the ability to manage Network Functions Virtualization (NFV) services and IT workloads in a more efficient manner. My thesis is about a "Mini" Ericsson Orchestrator Cloud Manager (EO CM) application, which will provide an integrated platform for managing life cycle of NFV and IT workloads. Furthermore, it will manage virtualization resources in a flexible way, allowing cloud providers to build and grow cloud infrastructure for virtualized applications and VNF-based services as well as it provides a secure GUI and open APIs for all the NFV and IT workload management services. Basically, this application offers a space where users can deploy packages for VIM Zone services. Using GUI the user will be able to operate components on the VIM Zone. The product's security protects against an unauthorized access to Mini EO CM. Provides tenant-based access control, user level authentication, and role-based access control. The product's backend will be done in Java, the container will be needed in Kubernetes, additionally a database will be used to store all cloud objects and their attributes, including those that are instantiated in the VIM zones. After some investigations, it is possible that the GUI will be done in JavaScript and YMER framework. To sum up, Mini EO CM application will handle the life-cycle management of virtual applications.

Budapest, 2021. 12. 09.