FDD3314 Performance Monitoring of Telecom Clouds and Software-Defined Networks 9.0 credits

Övervakning av moln- och mjukvarubaserade nätverk

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for FDD3314 valid from Autumn 2014

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the students should be able to:

â€¢ present an overview over the main procedures regarding network monitoring within Cloud and SDN management.

â€¢ evaluate and discuss the differences between the methods, advantages and disadvantages.

â€¢ identify and discuss the most important research challenges concerning network monitoring in Clouds and SDNs.

Course contents

Software-defined networking.

Network management and supervision.

Troubleshooting in Cloud and SDN

Cloud monitoring and management.

Openflow and Openstack.

Probabilistic network management.

Passive and active network monitoring.

Network tomography.

Centralised and decentralised network management approaches.

Header space analysis.

General methods of error detection and localisation in networks.

Online and offline methods.

Management tools.

Research issues.

Scalability and resource efficiency.

Measurement architectures.

Course literature

Course compendium that consists of 20 scientific articles in the area of network management and software-defined network.

Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.