Lehrstuhl für Theoretische Informationstechnik | RWTH AACHEN UNIVERSITY

Master Thesis

Processing Resource Allocation in Cloud Networks

Keywords

Cloud Computing, Resource Allocation, Virtualization, Machine Learning, Optimization

Description

Cloud Networks are known for their ability to accommodate the heavy processing required for the increasing data traffic. The concept aims to achieve performance gains by separating the baseband processing units (BBUs) from the remote radio heads (RRHs). Thanks to virtualization techniques, the baseband processing, can now be performed on virtual machines (VMs) which is a priceless tool for improving the processing efficiency, as it provides the opportunity for dynamic allocation and sharing of processing resources. In this work, we investigate the assignment of processing jobs and the allocation of processing resources among the virtual machines using machine learning techniques.

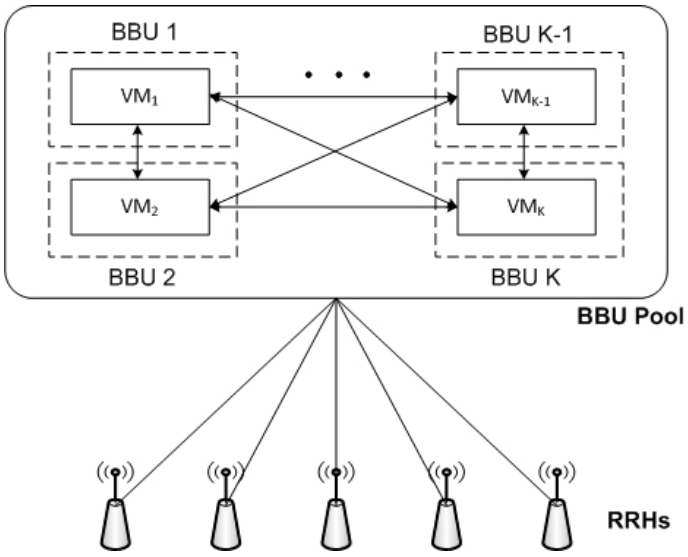

Figure 1: Processing Pool

Requirements

- Basic knowledge on electronic engineering
- Basic knowledge on mathematical optimization
- MATLAB programming skills
- Motivation to learn new material and work efficiently
- Fluent in written and spoken English

Contact

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