

ECE 545 Technical Paper

Abstract:

This technical report presents a comprehensive investigation of Network Function Virtualization (NFV) deployment in computer networks. NFV is a promising technology that virtualizes network functions and aims to address the challenges of growing demand for network services and the increasing complexity of network infrastructures. The report provides an overview of NFV technology and its benefits and discusses the key problems associated with NFV deployment, such as security, performance, and management. It also summarizes the existing solutions to these problems, including the use of software-defined networking (SDN), hardware accelerators, and orchestration frameworks. Additionally, the report identifies open issues in NFV deployment and investigates possible solutions. Overall, this report provides valuable insights for network operators and researchers to better understand the benefits and challenges of NFV and pave the way for the wider adoption of this technology in the network domain.

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