

Title: End-to-end network operation automation in IMT-2020 and beyond systems

Abstract:

IMT-2020/5G and beyond network systems would be equipped with the capabilities of creating virtual network slices on-demand by analyzing the distinct requirements of application services. In this presentation, we describe our ongoing research on the application of AI/ML for the network services design by analyzing diverse service requirements, on-demand creation and deployment of network slices by translating the service requirements into network resource requirements, fault detection and recovery by analyzing a huge volume of syslog and operation data, and resource adaption by monitoring KPI parameters and meeting the fluctuating network traffic demand. We discuss the functional components and their operations. We also show some preliminary research results to demonstrate the effectiveness of AI/ML techniques for addressing the various issues of virtual network slice operation and management.

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