

An architecture of 5G based on SDN NV wireless network

ABSTRACT

The unexpected increase demand growth of broadband traffic, rapid advancement in networking and internet technology led to the growth in Internet-connected devices to sensor networks, and machine type communication devices. These increases bring more challenges in network capacity and connectivity. The use of the new 5G technology continues to address these challenges by providing high data rates, low latency, and more mobility with highly and densified HetNe deploiment. This densified network brings new challenges to service provisioning in future networks based on the recent network paradigm innovations, Network Virtualization and Software Defined Networking to cope with massive broadband connectivity and enhancement of capacity, flexibility, and scalability. This study sets out to present the key features and requirements for 5G HetNet, SDN and NFV. The results of this study generally justify the challenges and how to integrate them into future wireless networks through a proposed 5G-based SDN-NV wireless network architecture to enable best network performance and resource management.

Keyword: 5G; SDN; NV; Future network