Title: Introducing FlexNGIA - A Flexible Internet Architecture for the Next-Generation Tactile Internet

Abstract

From virtual reality and teleportation, to telepresence, augmented reality, holograms, and remotely-controlled robotics, these future network applications promise an unprecedented development for society, economics and culture by revolutionizing the way we live, learn, work and play. Unfortunately, today's Internet falls short when it comes to providing the stringent performance requirements imposed by such applications. This is due to several fundamental limitations in the design of the current network architecture and communication protocols. As a result, there is a pressing need to rethink the network architecture and protocols, and efficiently harness recent technological advances in terms of virtualization and network softwarization to design the Tactile Internet of the future.

In this talk, we start by analyzing the characteristics and requirements of future networking applications and highlight the limitations of the current network architecture and protocols. We then draw a rough sketch of FlexNGIA, a Flexible Next-Generation Internet Architecture that is adapted to the future Tactile Internet. We also discuss through some use-cases how FlexNGIA could ensure the service level guarantees required by future applications.
