

# New IP: Intent, Motivations and Applications

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## **Abstract**

The 5G advancement has been making the networking challenges shifting from the radio access network to the fixed network for emerging applications such as industrial manufacturing and control, driverless vehicles, space-terrestrial integrated networks, and holographic type communications. I will discuss a new network protocol design, called New IP, with focus on its intent, motivations and applications. In particular I will discuss a free-choice addressing mechanism to connect and converge various vertical communication networks, a FedEx-like KPI binding mechanism for stringent real-time performance requirements, a packet loss reduction mechanism for volumetric VR/AR/Hologram applications, among many others. New IP is being designed as an extension and optimization of the current IP to get the Internet ready for the next wave of upcoming applications and emerging industry verticals.

## **Bio**



Dr. Richard Li is Chief Scientist and Vice President of Network Technologies at Futurewei, USA. Richard also serves as the Chairman of the ITU-T FG Network 2030. Previously he was the Vice Chairman of the Europe ETSI ISG NGP (Next-Generation Protocols) from January 2016 to December 2019. He has also served as Chair of steering committees and technical program committees of some academic and industrial conferences. Richard is extremely passionate about advancing ICT infrastructure technologies and solving problems in their entirety, thus creating a bigger and long-term impact on the networking industry. During his career, Richard spearheaded network technology innovation and development in Routing and MPLS, Mobile Backhaul, Metro and Core Networks, Data Center, Cloud and Virtualization. Currently he leads a team of scientists and engineers to develop technologies for next-generation network architectures, protocols, algorithms, and systems in the support of forward-looking applications and industry verticals in the context of New IP and Network 2030.