Future Networks in the Year 2030 and Beyond

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What will be the market drivers in the year 2030 and beyond?
Current IP

Packet switching: 2019-1961 = 58 years
TCP/IP (Cerf’s paper): 2019-1974 = 45 years
IPv6 (RFC 1883): 2019-1995 = 24 years
MPLS (RFC 3031): 2019-2001 = 18 years

Innovation above, below, and alongside;
But, limited innovation “inside” the ‘Net;
But, the inside of the network does need to change;
We are desperate to innovate inside

Jennifer Rexford, ACM SIGCOMM 2018 Keynote Speech
New IP Frontier – Market and Business Drivers

- High Precision Communications
  - Lossless Networking
  - Throughput Guarantee
  - Latency Guarantee
    - In-Time Guarantee
    - On-Time Guarantee
    - Coordinated Guarantee
- User-Network Interface

BBE & HPC
Beyond Best Effort and High-Precision Communications

VLV&TIC
Very Large Volume & Tiny Instant Communications

- Holographic Type Communications
- Holographic Teleport (< 7ms)
- Very Large Volume (100s Gbps, even Tbps)
- Digital Senses
- Tactile Internet
- Cloud Driving and/or Tele-Driving
- Industrial Remote Operation
- Qualitative Communications

ManyNets

- Satellite Networks
- Internet-Scale Private Networks
- MEC
- Special-Purpose Networks
- Dense Networks
- Network-Network Interface
- Operator-Operator Interface
You are invited to join us and participate in a side meeting
Room: Orchard
08:30 am – 9:30 am, Wednesday, 20 November 2019