FUTURE OF NETWORKS
A SILICON VALLEY PERSPECTIVE

Future of Networks: 6G

Reflecting back on the learnings of the 6G roundtable held at this year's MWC conference in Vegas, here are the main takeaways from the session in collaboration with our partners.

As the ultimate physical and digital worlds experiences' unification occurs across the globe, the 6G telecommunication ecosystem is poised to unleash the potential of all the networks before.

The 5G conversation has taken over the world recently with a shared vision for continued innovation, but what will the next phase of evolution look like? The next generation of mobile networks will be beyond anything that has been developed before, bringing about a new age of technological advancement.

The groundwork for 6G is being laid right now.

On September 30, 2022, in Las Vegas, Deutsche Telekom brought together a curated group of senior corporate executives, founders, investors, and other experts for an intimate roundtable discussion to explore the future of 6G.

Here are our key takeaways from the conversation:

- Simplification of the networks will stay as a key: To achieve full cloudification, 6G needs to get rid of legacy support. Reliable data connectivity is vital for the ever-increasingly intelligent, automated, and ubiquitous digital world.

- The future must be flexible: While 5G will continue to act as a building block for 6G, the future of the network must involve enhancements that will allow the network to grow and change as necessary to avoid the rigidity of 5G networks. Complexity should be kept an eye on as a tradeoff to flexibility.

- Energy concerns loom as energy efficiency becomes the target: Energy-hungry solutions should be kept at bay while sustainable energy sources will become more prominent in the future.

- **6G will be the power behind the metaverses, plural:** The metaverse itself acts as a digital twin to our universe and our reality. As physical and digital worlds converge, 6G will allow for the implementation of digital twins.

- **Global standards only solve for interoperability issues:** The market will decide on the use cases while standards can only help with how things work together. The set of technical specifications that will eventually be known as 6G will begin to emerge in a 3GPP Release 20.

- **No thought goes into connectivity while building a building:** As connectivity becomes central to daily life, new considerations will be taken around the construction of homes and businesses.

6G opens the potential for buildings to essentially become antennas, allowing for a more conscious focus on connectivity in the future of construction. Telecom code can become a requirement alongside building code.

- **Reliable networks will become a basic human right:** Regulations need to be updated and considerations toward emergency situations put into place. It should always remain a basic human right to place an emergency call.

- **Vertical markets are on the rise:** Automotive, media, and manufacturing verticals are on the rise. Precise positioning, roaming, and metaverse with digital twins (of cities, etc.) are the use cases seen on the market.

A big thank you to all participants from partner companies: Technische Universität Dresden, TELUS, Nokia Bell Labs, Samsung Electronics, Intel Capital, Verana Networks, PHYTunes Inc, HEAVY.AI, and immersivecast cloud VR.

See what else Deutsche Telekom is doing to lead on 6G development in this article: https://www.telekom.com/en/media/media-information/archive/telekom-leads-6g-next-research-consortium-1020052.