



The Next-Generation Mobile Network: 6G Vision and Key Tech

China Mobile Hong Kong

Lead Architect - Knight Wei

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01. 6G Vision

02. 6G Potential Key Technology

6G Standard

The Next Generation Mobile Networks



6G Whitepaper

The 3rd Generation Partnership Project



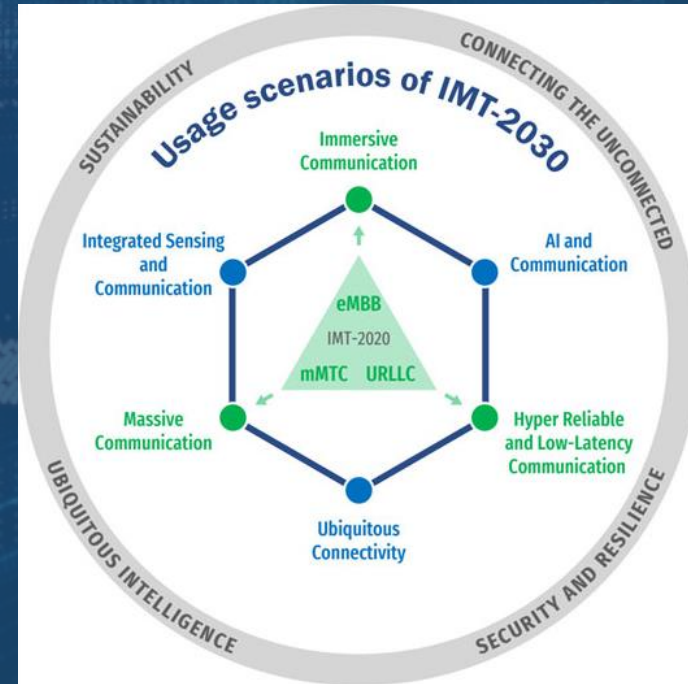
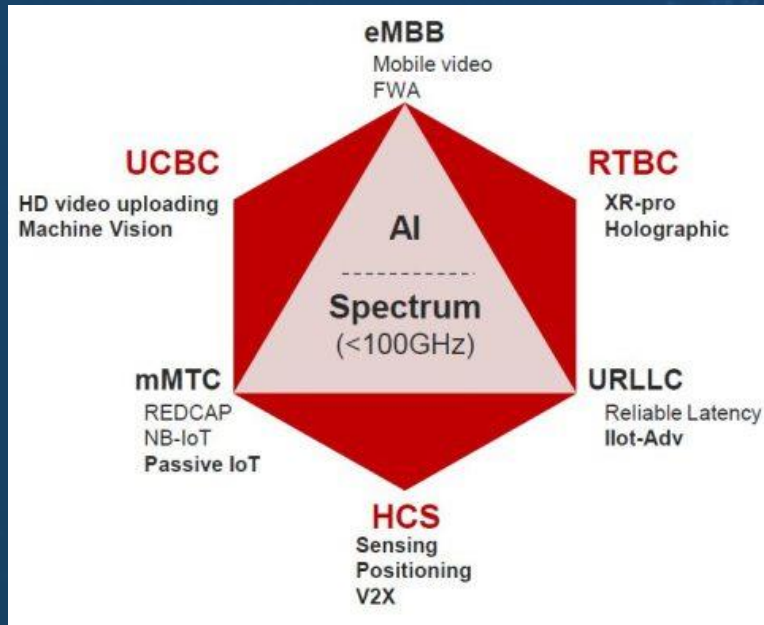
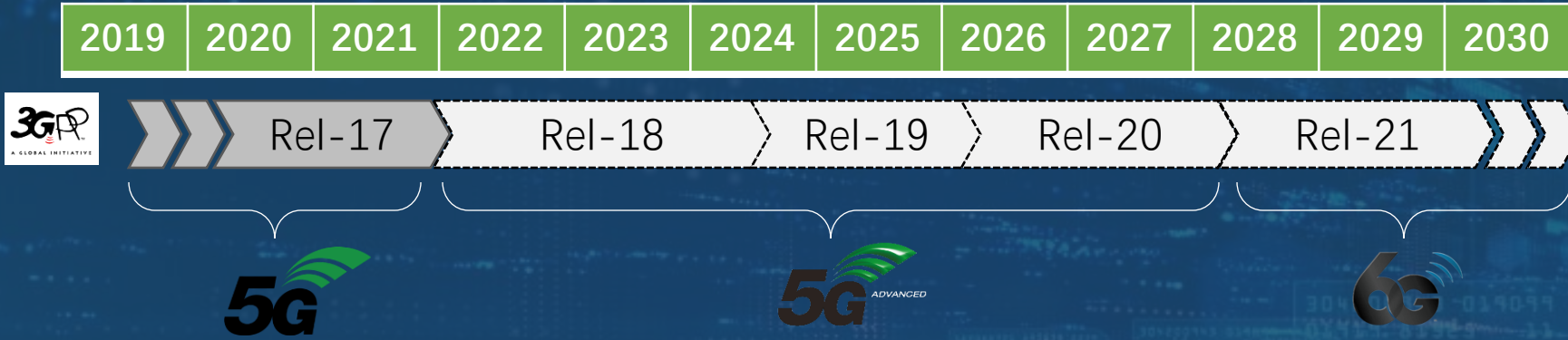
6G Specification

China Communications Standards Association



China
6G Specification

6G Planning



6G Vision Scenarios

1. Extended Reality



Meta, VR, XR,MR

2. Holographic Communication



The ultimate immersive experience

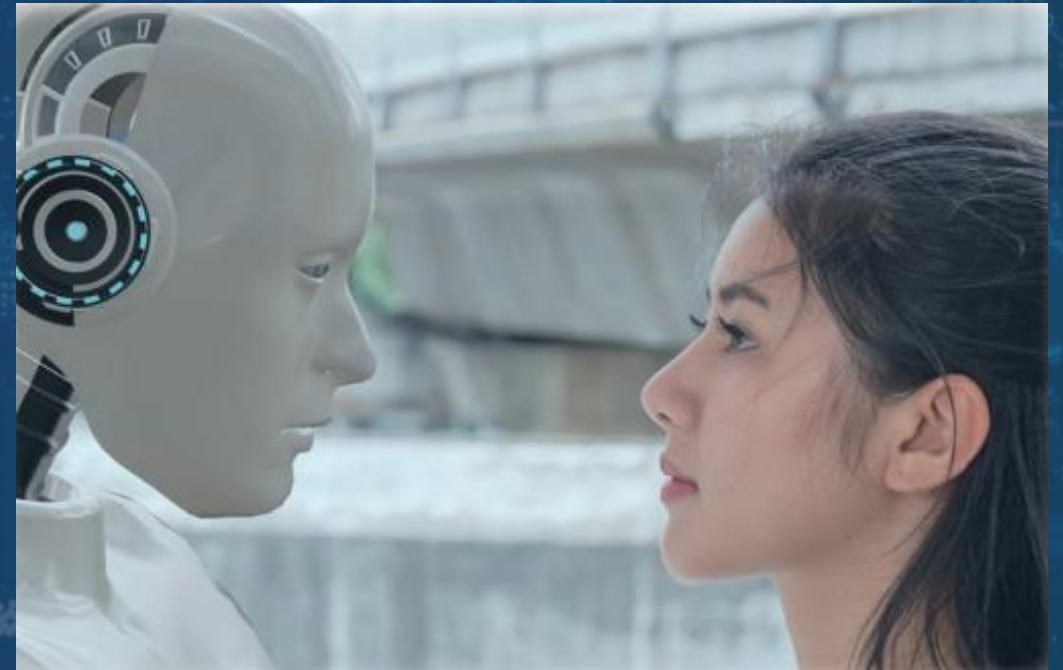
6G Vision Scenarios

3. Multi-sensory connections



Touch, sight, taste, smell and hearing

4. Human-machine connection



Interaction

6G Vision Scenarios

5. ISAC



Integrate Sensing and Communication

6. AI Native



Intelligent Everywhere

6G Vision Scenarios

7. DTN



Digital Twin Network

8. NTN



*Non-Terrestrial Network
Satellite Communications*

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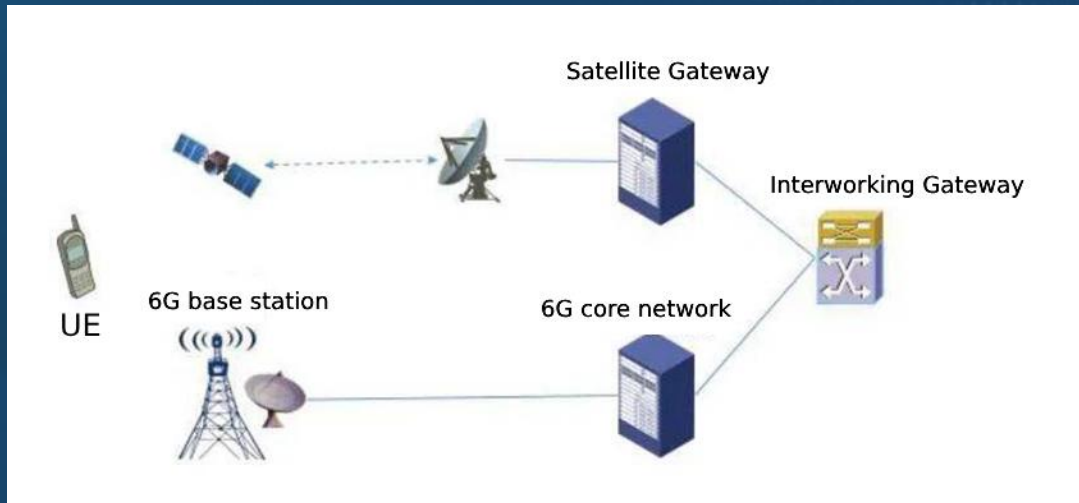
01. 6G Vision

02. 6G Potential Key Technology

6G Potential Key Technology

1. Intelligent Architecture

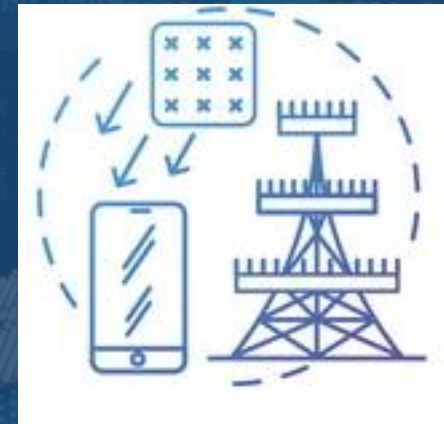
- ① New Air Interface + AI
- ② Network Architecture + AI



➤ AI Enforce Network

2. Enhance Radio New Tech

- ① New Radio Tech and PHY/MAC
- ② Massive MIMO

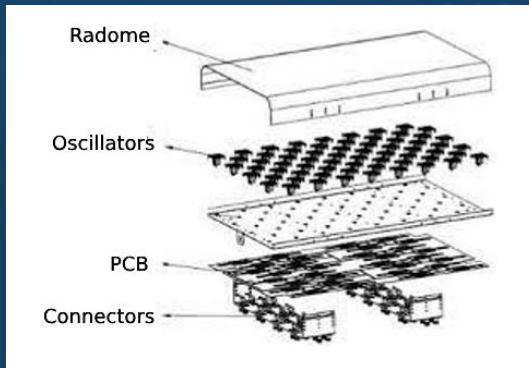


➤ New Tech in RAN

6G Potential Key Technology

3. New Materials

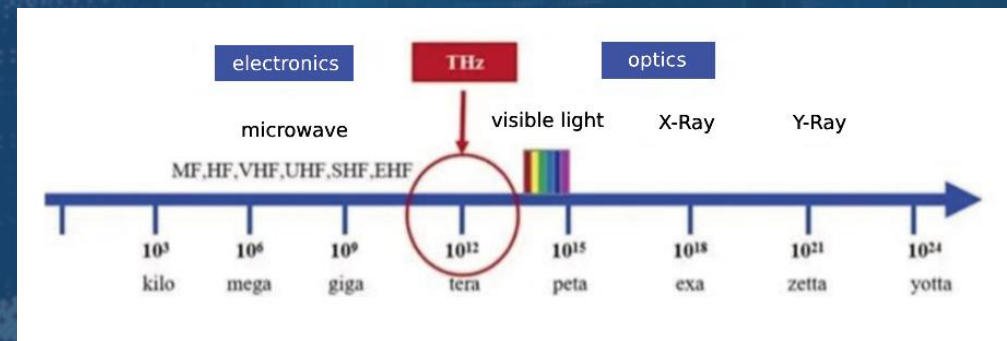
- ① Reconfigurable Intelligence Surface (RIS)
- ② Orbital Angular Momentum (OAM)



➤ **Algorithm with New Materials**

4. THz and LiFi New Tech

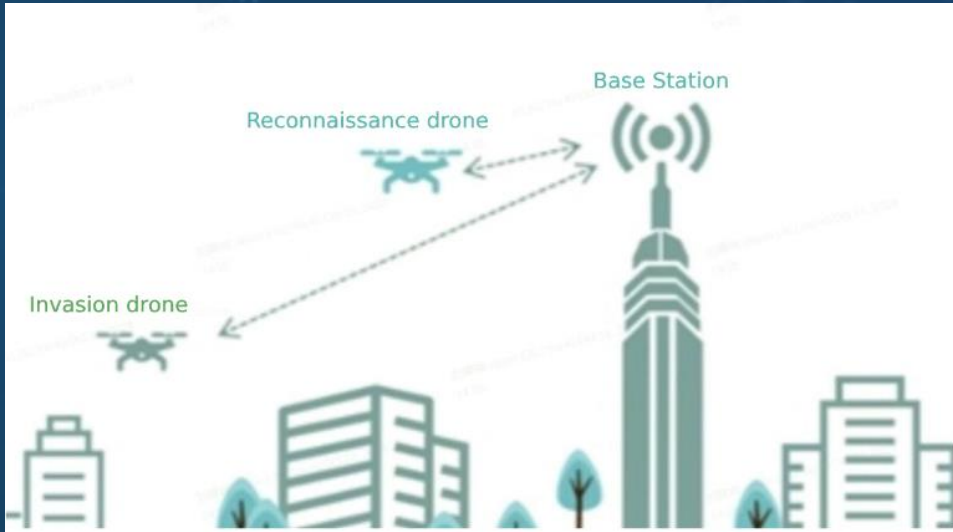
- ① THz TeraHertz (0.1-10THz)
- ② LiFi Light Fidelity (400-800THz)



➤ **New Spectrum**

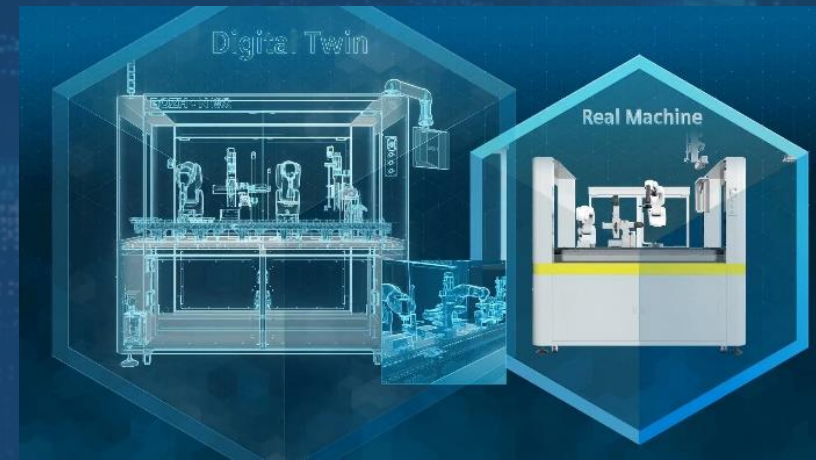
6G Potential Key Technology

5. ISAC



➤ **Scenarios Convergent**

6. Distributed Autonomous Network



➤ **New Architecture**

6G Potential Key Technology

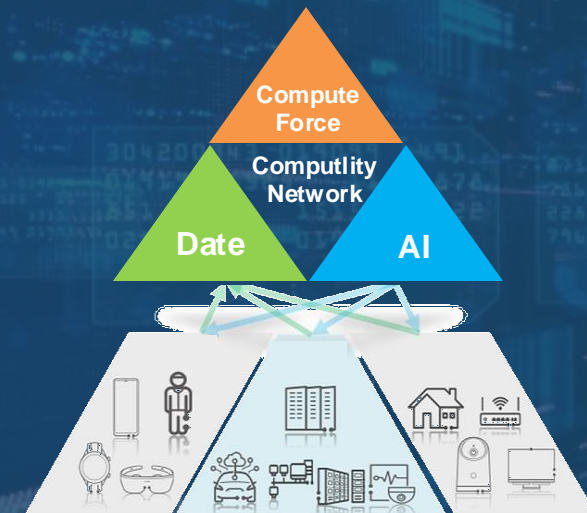
7. TSN

Time Sensitive Network



➤ Vertical Industries

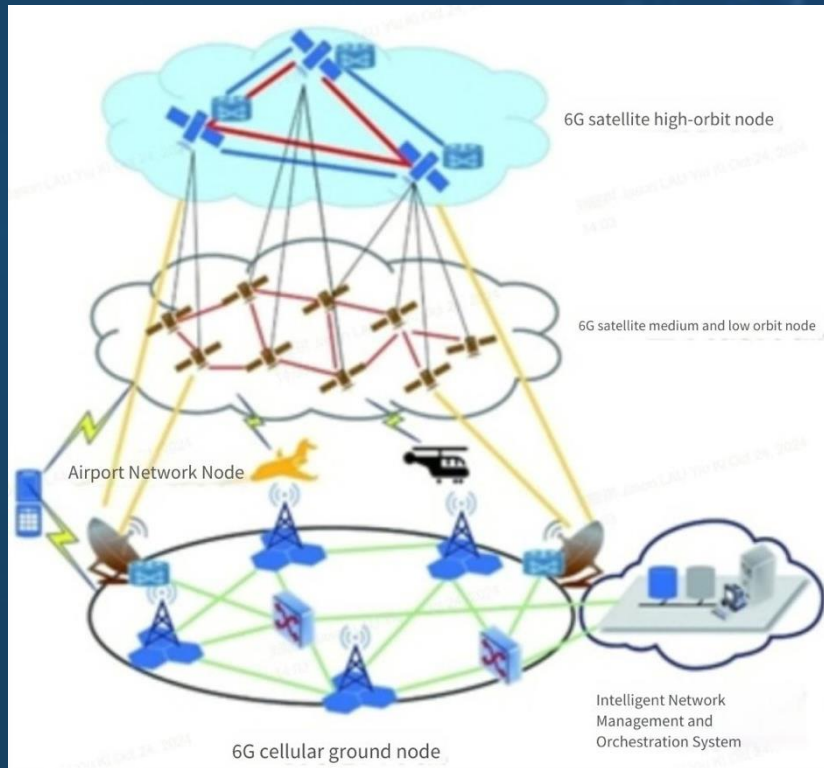
8. Computility Network



➤ Compute Force and Network Converge

6G Potential Key Technology

9. NTN



➤ **Multi-domain integration**

10. Mult Mode Native Security



➤ **Enhance Security**

WHAT IS 6G ?

- ✓ 5G Evolution
- ✓ All Things Connect and Intelligent
- ✓ More Spectrum Utility
- ✓ Multi-Domain and Scenarios Converge



中國移動
China Mobile

5G
未來無限可能

Future First • Future Arrived

Thanks!