

Moving towards to 5G

- SK Telecom's 5G Field Trials and Achievements

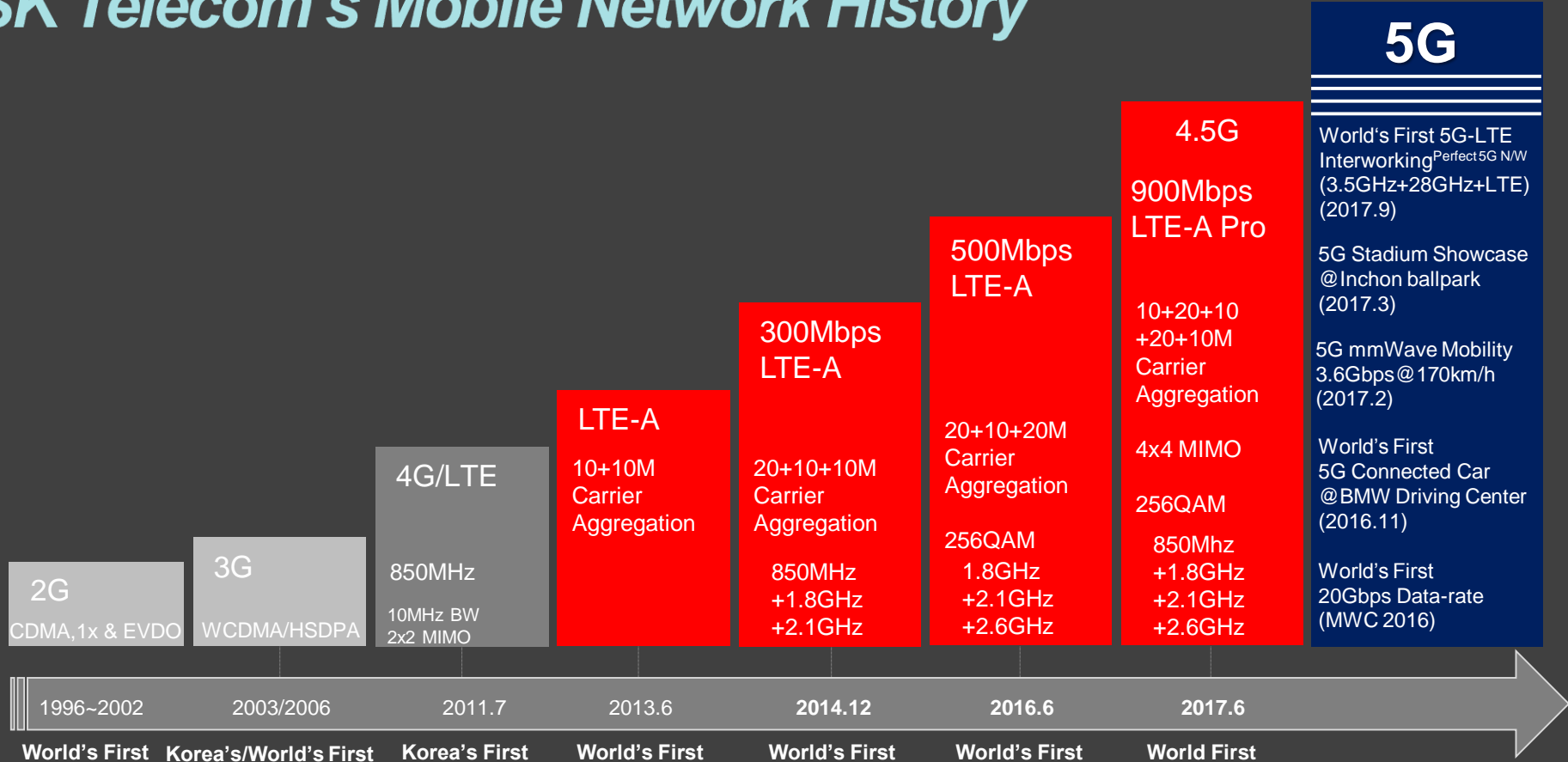
Sungho Jo

**Senior Director, Head of Access NW. Lab,
SK Telecom Corp. R&D Center**

An aerial photograph of a city grid, viewed from an elevated perspective. The image is overlaid with a dark, semi-transparent blue filter. The text "SK Telecom and 5G" is centered in the image in a white, bold, sans-serif font.

SK Telecom and 5G

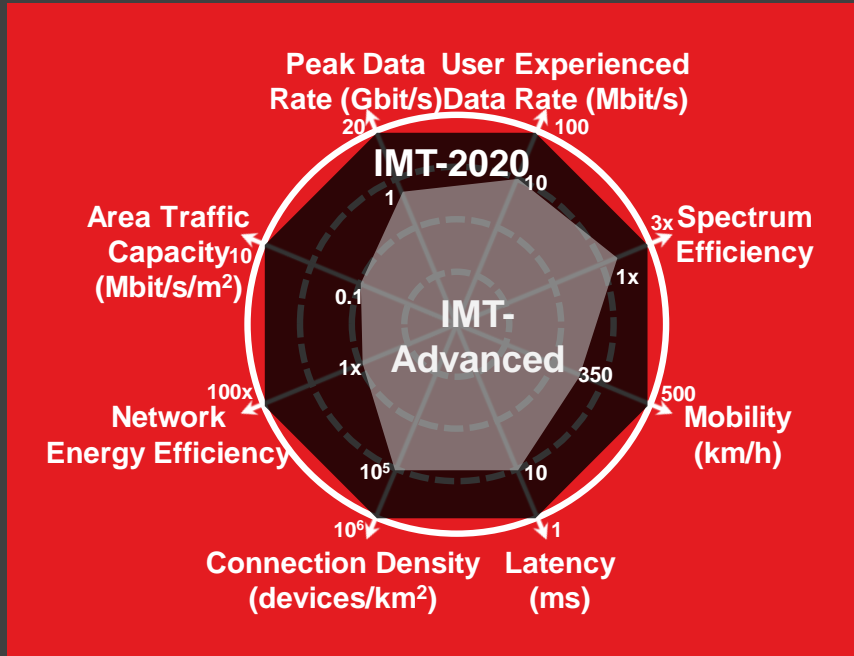
SK Telecom's Mobile Network History



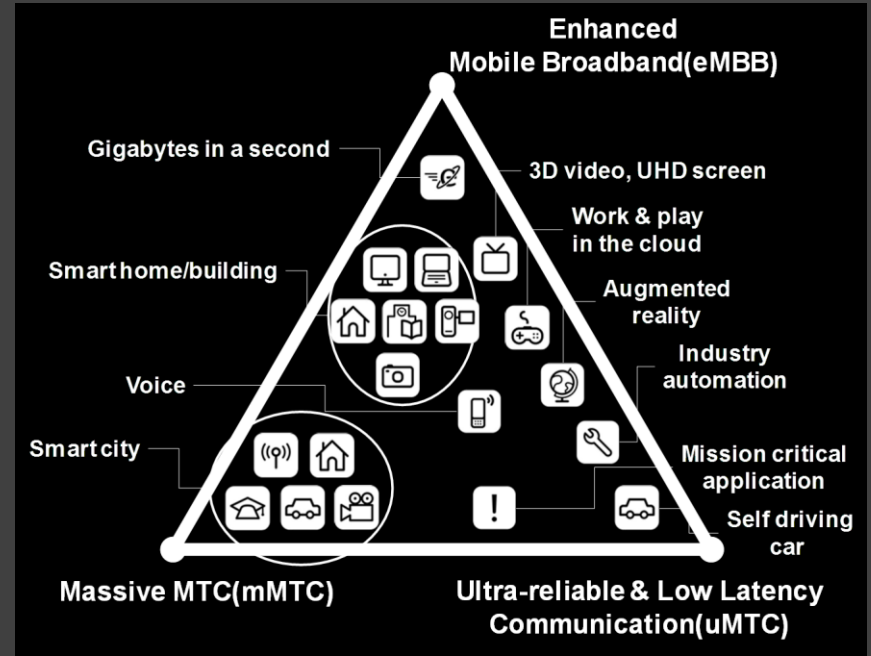
An aerial photograph of a city grid, viewed from an elevated perspective. The image is heavily stylized with a dark blue, semi-transparent overlay that obscures the natural colors of the buildings and streets. The grid pattern of the streets is clearly visible, creating a series of intersecting lines that divide the city into blocks. The overall tone is futuristic and technological.

Key Driver for 5G? Service?

5G Capabilities & Services



Technical Enhancement From 4G to 5G



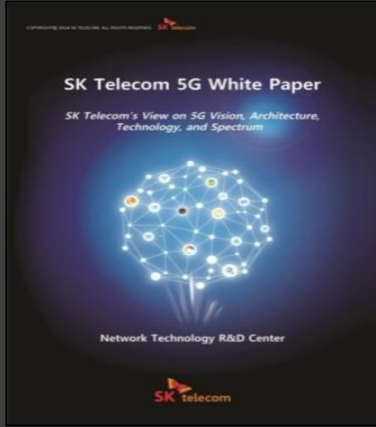
5G Services



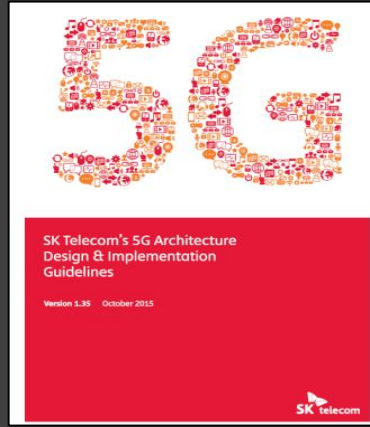
SK Telecom's 5G R&D status

1. Tech. Leadership in 5G Industry

SK Telecom's 5G Vision - Whitepapers



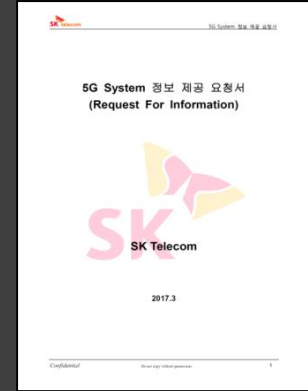
2014.10:
5G Whitepaper



2015.10:
**5G Arch. Design
& Implementation Guidelines**



2016.7:
**ATSCALE & COSMOS
Arch. Whitepaper**



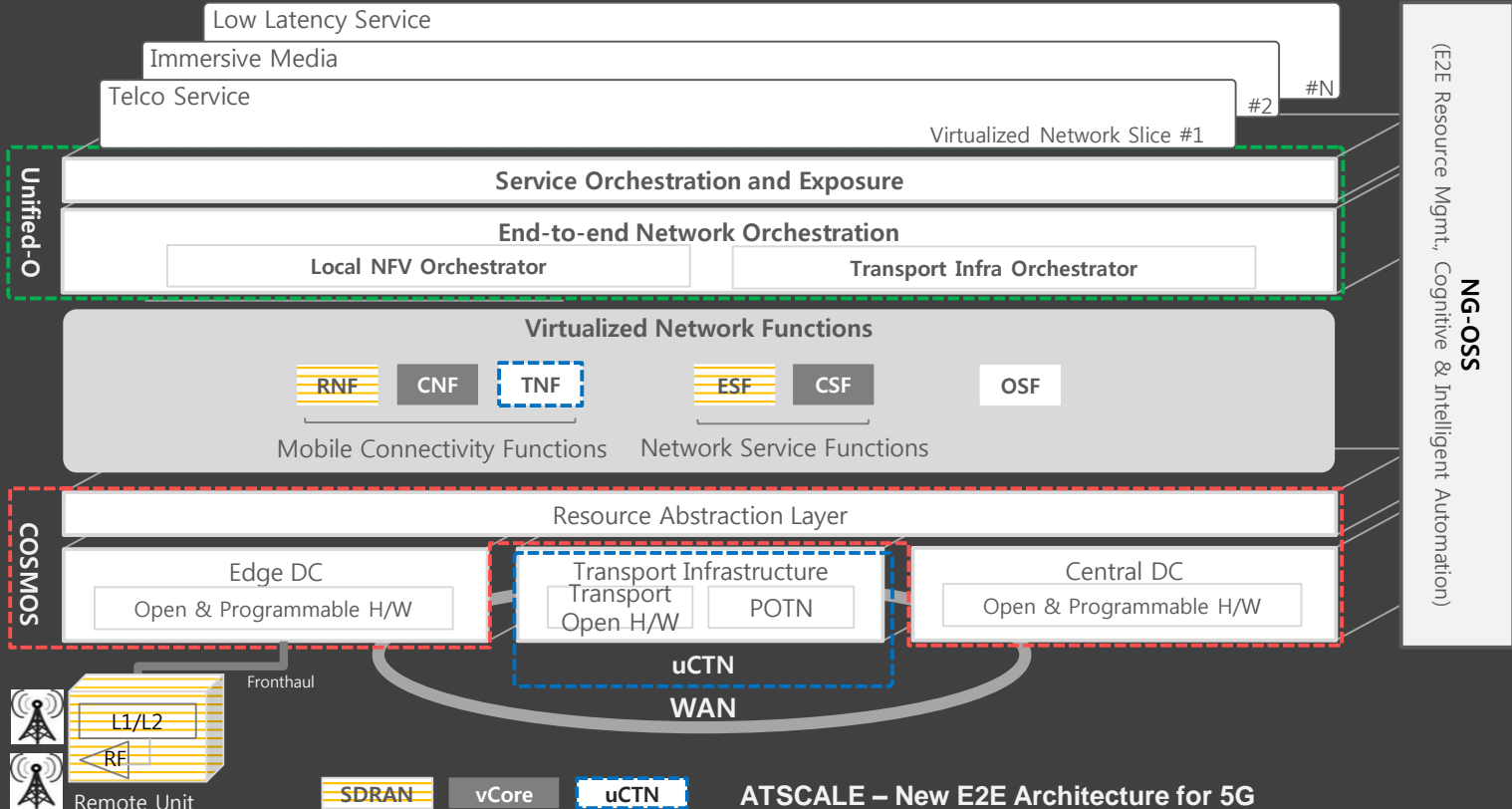
2017.3 / 7:
**5G System
RFI / RFP**

All white papers are publically available to download at <https://developers.sktelecom.com/resource/document/>

5G Architecture



ATSCALE Whitepaper



NG-OSS (E2E Resource Mgmt., Cognitive & Intelligent Automation)

ATSCALE – New E2E Architecture for 5G
COSMOS – Architecture for All-IT telco infrastructure

SK Telecom's 5G R&D status

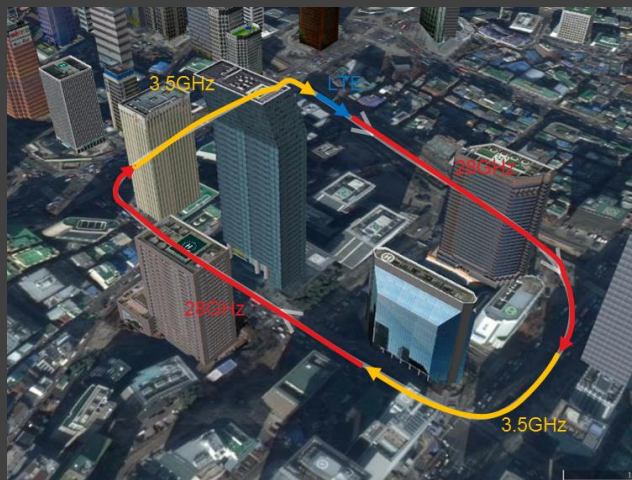
2. World First 5G-LTE Interworking Field Trial

- Perfect 5G Network(3.5GHz + 28GHz + LTE)

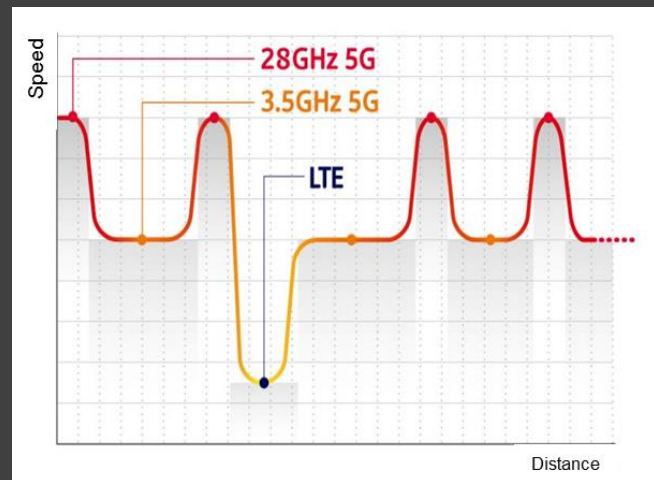
5G-LTE Interworking Field Trial("17.9) **W** World 1st

“Perfect 5G” based on 28GHz 5G - 3.5GHz 5G - LTE Interworking

5G test driving route around SK Telecom T-Tower



28GHz/3.5GHz 5G-LTE Seamless Interworking



5G – LTE Interworking Network

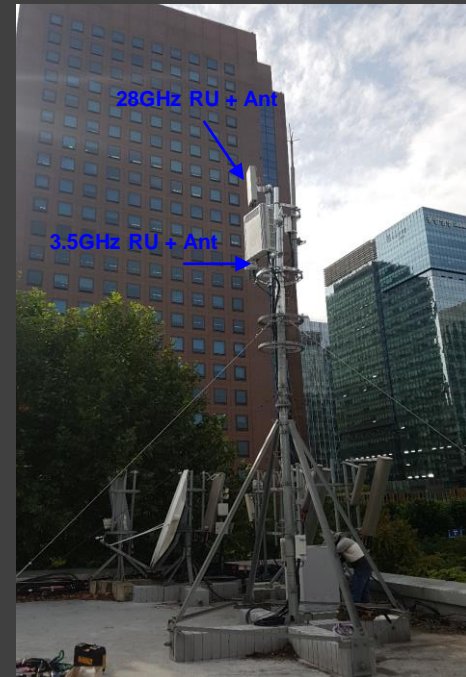
SK Telecom – Samsung 5G Trials



5G Experience Bus



5G Base Station





SK Telecom's 5G R&D status

3. 5G Connected Car Trial
- First Step to 5G Autonomous Car -

5G Connected Car('16.11.15)



World 1st
TechXR8 Award(5G World) 2017- 'Best 5G Trial',
AMO(MMC Shanghai) 2017- 'Best Innovative LTE to 5G Evolution'
Telecom ASIA Award 2017 - 'The Most Innovative Partnership Strategy'



**World First
5G Connected Car**



**Various Services for
Connected Car**

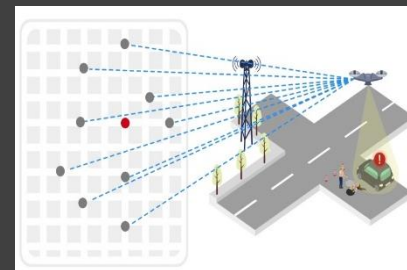
Infra & Services for 5G Connected Car



mmWave Radio
Mobile Edge-Computing



Remote Eye(V2X)
Video Recognition



Drone Helper



True Live Streaming
4K 360 Live VR



UHD Live Conference



5G Experience Bus

Demo Video

VID



SK Telecom's 5G R&D status

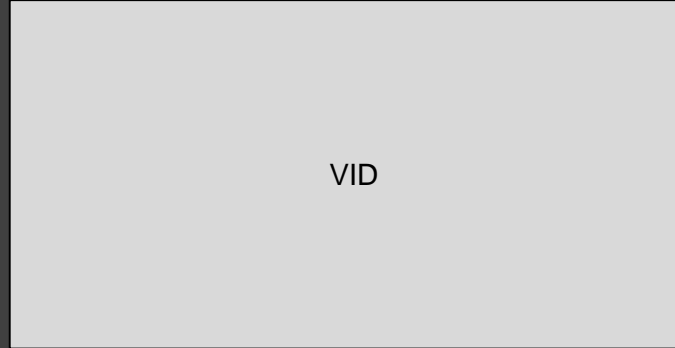
4. 5G Showcase in Baseball Park

5G Stadium Showcase ('17.3)

5G infra and T5 provided immersive experiences to 20K audiences in Incheon Baseball Park



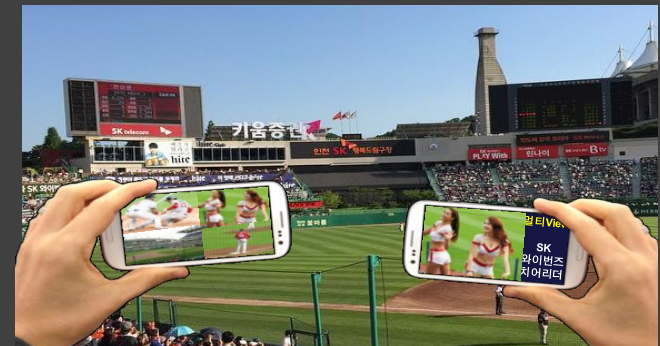
5G Connected Car – T5



AR



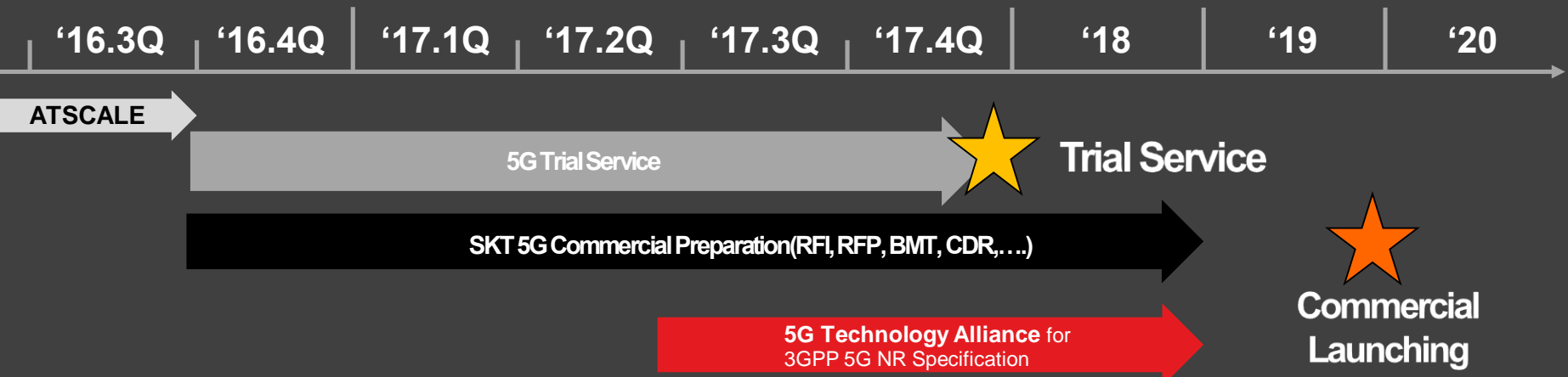
Multi-View, 360 VR



An aerial photograph of a city grid, viewed from an elevated perspective. The image is heavily stylized with a dark blue and teal color palette, creating a futuristic or digital atmosphere. The grid lines of the city streets are clearly visible, and the overall image has a slightly blurred, high-tech feel. The text 'SK Telecom 5G Timeline' is centered in the middle of the image in a white, bold, sans-serif font.

SK Telecom 5G Timeline

SK Telecom 5G Timeline



Welcome to
5G KOREA |  **SK** telecom