

PEOPLE.
TECHNOLOGY.

kt 5G Deployment



Jong-Sik Lee | KT Infra Laboratory

PyeongChang 2018
Olympic Winter Games



OFFICIAL PARTNER

Introduction – KT's Initiative in 5G

'5G Vision' Declaration



MWC 2015
(Mar.2015)

5G Global Collaboration

5G Olympics Preparation Press Conference (Feb.2016)

'PyeongChang 5G-SIG Spec' Agreement : World-First 5G Common Spec (June 2016)

5G Tech. Development Lead

2nd Test Event (Feb.2017)

'5G Commercialization by 2019' Declaration MWC 2017 (Mar.2017)



PyeongChang 5G Service (Feb.2018)

PyeongChang 5G System/ Device/Service Development

5G SIG First Call (Nov.2016)

kt 5G Milestone

Trial service in 2018 & Commercial service in 2019



2015

2016

2017

2018

2019

5G Spec & Infra
Development

5G Common
Specification

5G Trial NW
Deployment

5G Trial Service

5G Commercial
Service

kt 5G Trial in PyeongChang – Services

1st Test Event (‘16.2)



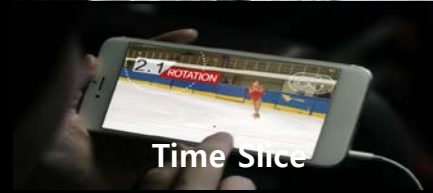
Technology Securement

Rio (‘16.8)



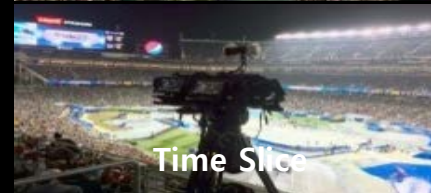
Technology securement
& Public relations

2nd Test Event (‘17.02~03)



Application to
real games

U-20 World-Cup (‘17.05~06)



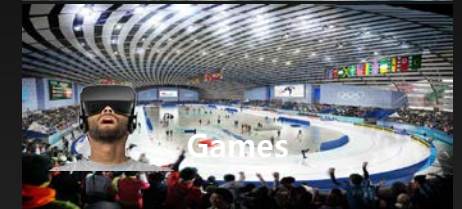
Application to real games
& TV Broadcasting

Media Day (‘17.3.14)



Autonomous Driving

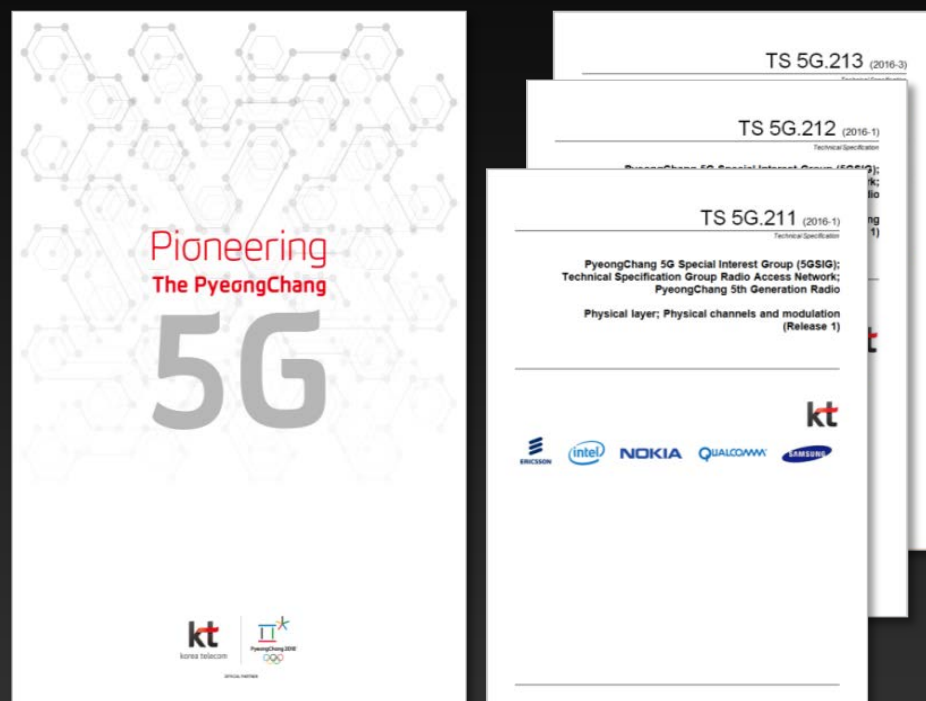
PyeongChang (‘18.02)



KT 5G Technology
Trial Service

kt 5G Trial in PyeongChang – Specification

The World First 5G Common Specification (June 2016)



PyeongChang 5G Common Specification

Components	Details
Throughput	• Max. 20Gbps
Latency	• Less than 1ms (Downlink/Uplink)
Frequency	• 28GHz band / 800MHz BW
Waveform	• OFDM based
MIMO Support	• Hybrid Beamforming

SAMSUNG

NOKIA

ERICSSON

QUALCOMM

intel

kt

kt 5G Trial in PyeongChang – Spectrum

28GHz mmWave selected for PyeongChang 5G trial system/terminal

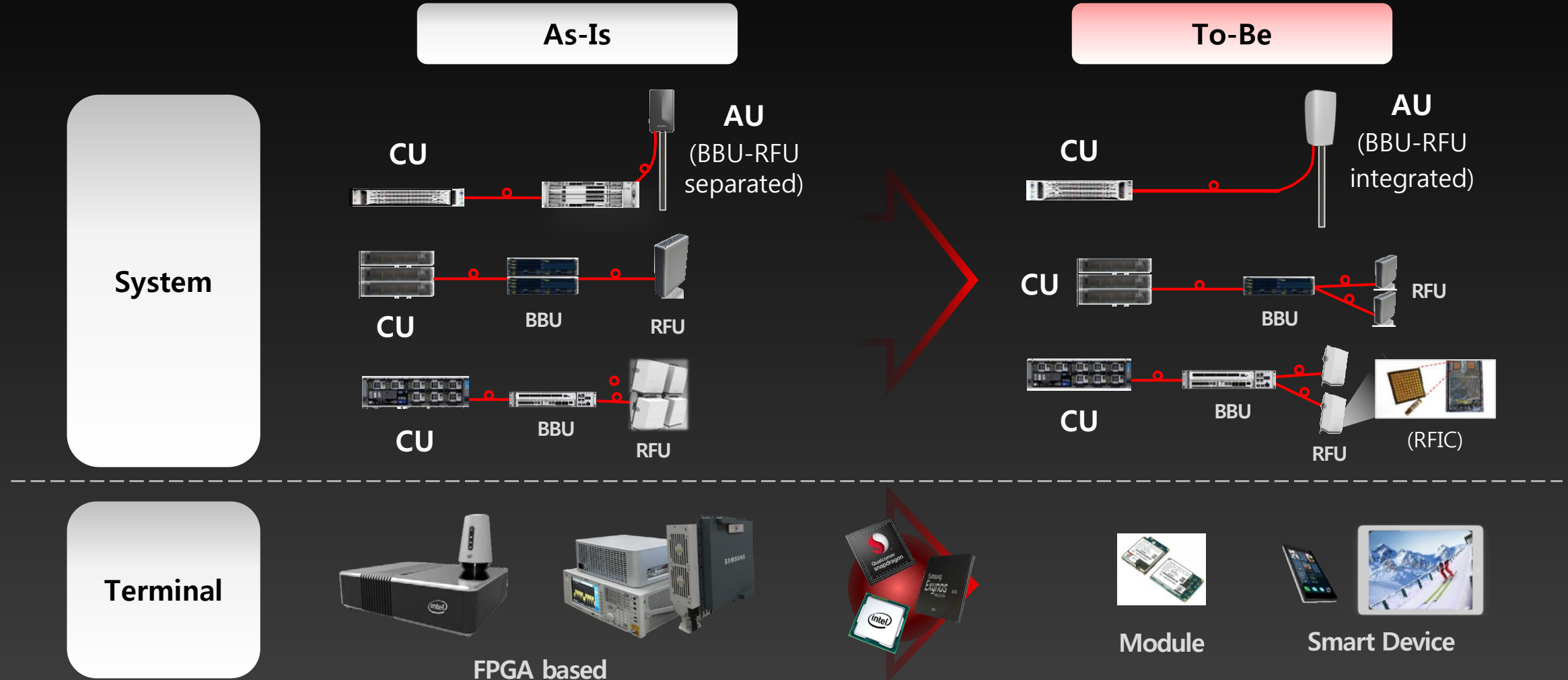


28GHz
(mmWave)

- Peak 20Gbps
- Ultra Wide Bandwidth

kt 5G Trial in PyeongChang – System/Terminal

KT SIG Spec & SOC based 5G trial system & terminal



kt 5G Commercialization – Services

Enhanced Mobile Broadband

Hyper-Realistic Media



All Wireless



Mission Critical Services

Connected Car



Remote Control



Massive IoT

Home IoT



Smart City

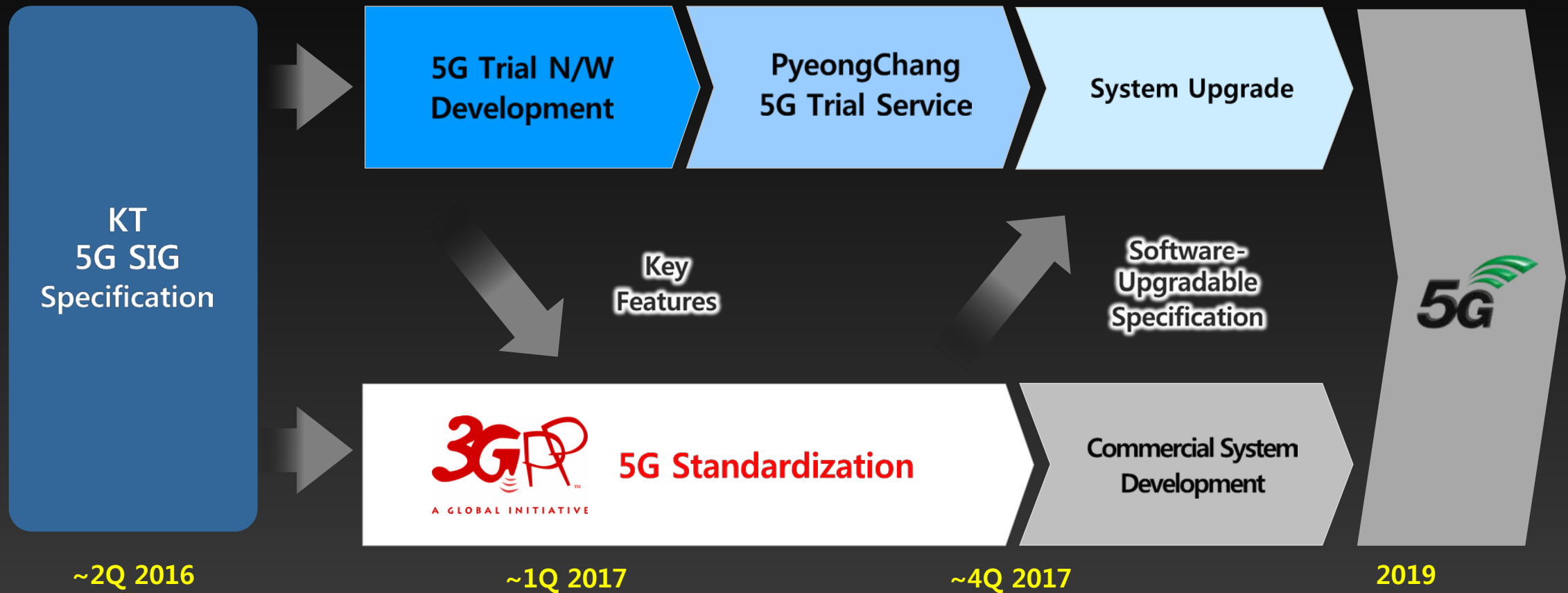


Smart Grid



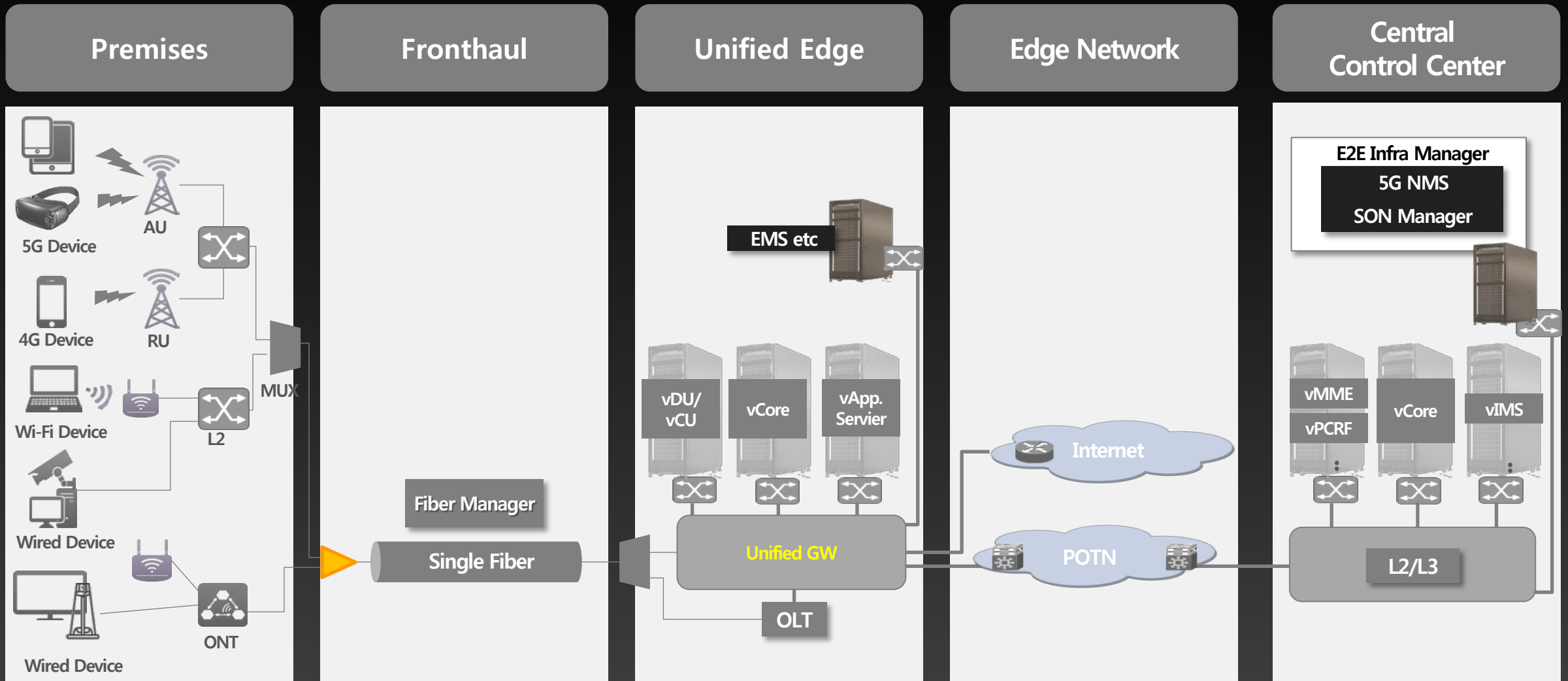
kt 5G Commercialization – Specification

Evolution toward 3GPP-standard compliant 5G systems

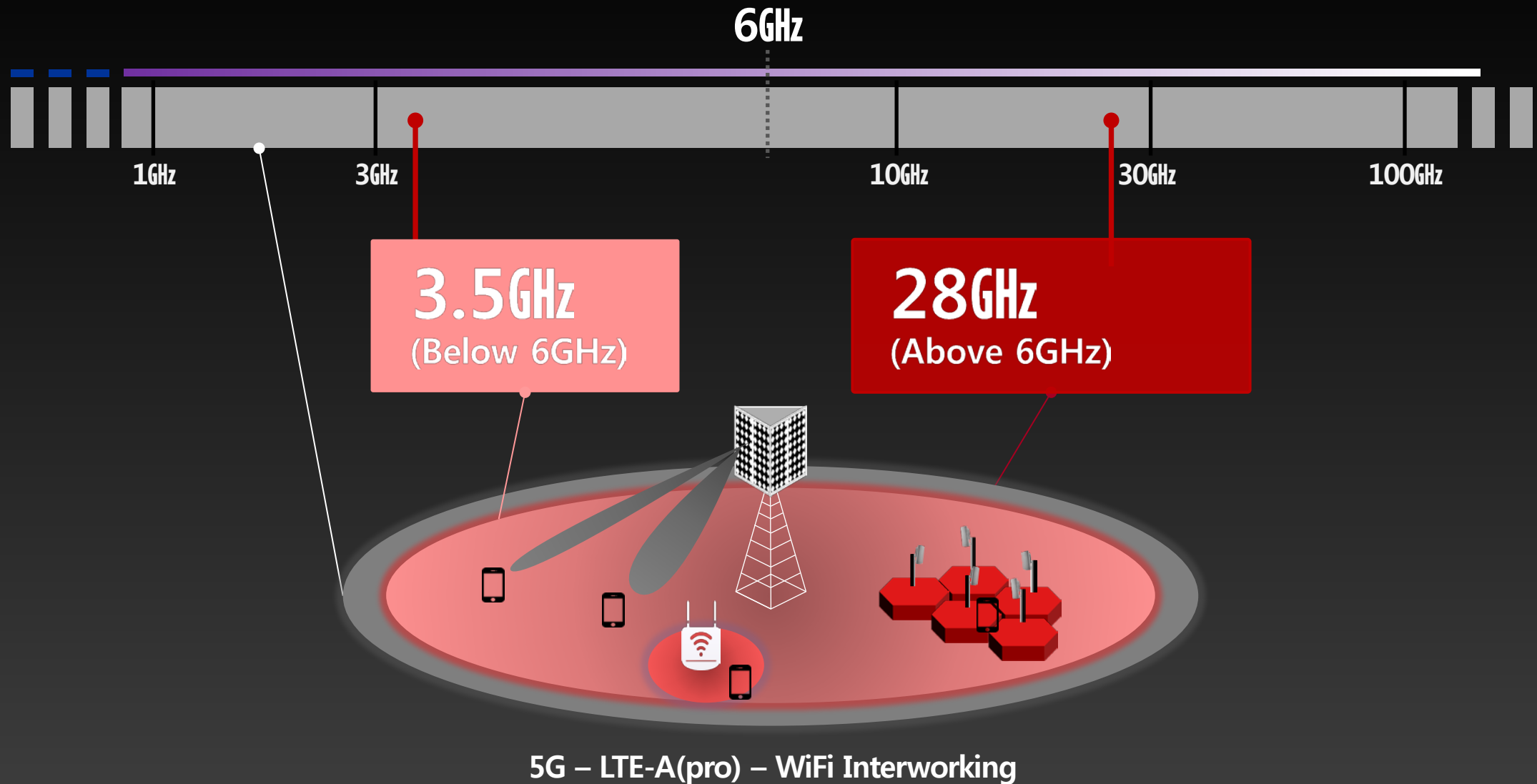


kt 5G Commercialization – Architecture

5G Unified Network Architecture



kt 5G Commercialization – Deployment Scenario



PEOPLE. TECHNOLOGY. 