

December 16, 2019

Legal Update

Overview and Implications of 5G+ Spectrum Plan

On December 5, 2019, the Ministry of Science and ICT established the 5G+ Spectrum Plan, with the 5G+ Strategy Committee* announcing the finalized plan. The 5G+ Spectrum Plan will offer optimal 5G spectrum that meets industry and market needs, and is expected to develop and drive 5G-based integrated service markets such as smart factory, self-driving car, drone, digital healthcare, etc.

** Established on June 19, 2019, the 5G+ Strategy Committee is a joint committee of civilian and government ministries composed of 24 members including the Minister of Science and ICT as the co-chairperson, vice ministers from relevant ministries and 14 civilian committee members.*

1. Overview of 5G+ Spectrum Plan

- (Spectrum supply by strategic businesses) The government plans to supply unlicensed bands which do not require spectrum licenses for each strategic business, subject to compliance with technical standards.
 - Smart factory: The government aims to supply unlicensed bands of 6GHz frequency to allow production process management and control through wireless network, revision of relevant technical standards and development of frequency sharing technology.
 - Self-driving car: The government will first review 5.9GHz band as V2X communication-based cooperative driving band.
 - ※ By 2021, finalize between the vehicular communication systems (C-V2X vs WAVE) currently TBD through joint research group between ministries and industry.
 - Drone: The government aims to discover low-frequency band (433MHz band to be reviewed first) that offers advantages in long-distance driving.
 - Digital healthcare: By expanding upon the use of the 77-81GHz band currently designated for radar that prevents vehicle collision, the government aims to supply high-resolution radar frequency for non-contact biometric measurement.
- (Additional 5G spectrum allocation) By 2026m ,the government plans to make additional 5G spectrum available in stages up to 2,640MHz, doubling the current 5G spectrum availability (Currently 2,640MHz → up to 5,320MHz).
- (Improving bandwidth management system) In order to promptly address bandwidth demand, the government plans to ① prioritize based on need for maintenance of frequency bands and publish the evaluation results (band maintenance evaluation and forecast); ② develop technology and revamp system to promote frequency sharing (promotion of frequency sharing); and ③ establish a dedicated band maintenance system (clearing house) for prompt maintenance of bands for which actual use status and supply are set.

2. Implications of 5G+ Spectrum Plan

The announcement of the 5G+ Spectrum Plan established the base for supplying a range of frequencies that meets the demands of each industry, and the amendment to the Telecommunications Business Act in June 2019 significantly eased regulation of entry of facilities-based telecommunications service, with the development of smart mobility solutions for businesses in various related industries including smart factories and self-driving cars expected to get fully under way.

However, the key aspects announced in the 5G+ Spectrum Plan concerns supply of frequency. In order to actually use the frequency band supplied by the government for business, careful analysis and close attention should be paid to the relationship with other systems under the Radio Waves Act and the Telecommunications Business Act, including compliance with relevant technical standards, conformity assessment, and license and reporting for establishment of a radio station, etc.

In addition, as frequency bands used for other purposes are expected to be collected and reallocated for new purposes, the potential impact on business should be analyzed and alternatives prepared accordingly.

Meanwhile, as the substance the 5G+ Spectrum Plan will be made concrete through the 5G+ Strategy Committee meeting scheduled to be held in the future and research groups by theme, the related trends should be watched closely. In addition, if the proposed amendment to the Radio Waves Act announced by the government on November 14, 2019 is passed, the existing policy may be amended according to the proposed amendment, hence legislative trends should also be monitored closely.

Shin & Kim is a premier full-service law firm with many dedicated professionals who have extensive experience and personal networks in radio wave issues. Shin & Kim has provided many companies with expertise-driven advice on various issues related to the Radio Waves Act, including the supply and use of frequency, establishment of radio stations, conformity assessment on broadcasting communications equipment, etc. Please feel free to contact us at any time for more technical questions or concerns.

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