DOCOMO Declares its Ownership and Licensing of Over 1100 Essential 5G Patent Families -Greatly accelerating commercialization of 5G technologies prior to 5G launch in Spring 2020-

NTT DOCOMO, INC. (DOCOMO) has declared over 1100 patent families*¹ it owns that would be essential for provision of services of the Fifth-Generation Mobile Communications Systems (5G) to the European Telecommunications Standards Institute (ETSI*²).

DOCOMO is ranked in the first place*³ in terms of the number of declared patent families among mobile operators in the world according to a comprehensive study "Application trends of 5G-SEP candidates and 5G-SEP declarations contributing to realization of 5G and trend in contributions*⁴ proposed for standards" conducted by Cyber Creative Institute Co., Ltd.

Organizations such as companies are obliged to disclose their licensing conditions for the patents of technologies they own and consider essential for providing 5G-standard compliant services to SDOs (Standards Development Organizations) of relevant countries. The patent families declared by DOCOMO will be made available under FRAND terms*⁵, enabling all customers to experience fast and comfortable 5G communications technologies early and at a low cost.

DOCOMO is actively engaged in standardization activities and has submitted to 3GPP (an SDO for mobile communications systems) the largest number of proposals (over 5,000 technical contributions*⁶) among telecom operators on radio access schemes and other important technological elements.

The number of patent application families and contributions are seen as a barometer of the degree of a company's technological contributions to standardization activities. DOCOMO has been making great contributions toward commercialization of 5G communications technologies.

For providing better services to customers, DOCOMO will continue our research and development as a pioneer of future mobile communications.

^{*1} A Patent family refers to a set of patent applications filed in different countries but originating from the same patent filing.

^{*2} ETSI is a European Standards Development Organization (SDO) and one of the leading international SDOs engaged in development of telecommunication standards such as 5G.

^{*3} Ranked in 9th among companies in the world.

^{*4} A "Contribution" is a form of document used to submit proposed items for standard specification development.

^{*5} DOCOMO will declare further 5G-standard patent families that conform to 5G standards and make them available under

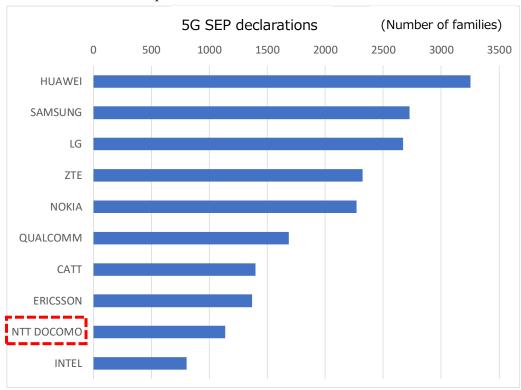
FRAND (Fair, Reasonable And Non-Discriminatory) terms.

*6 DOCOMO ranks 10th among companies in the world.

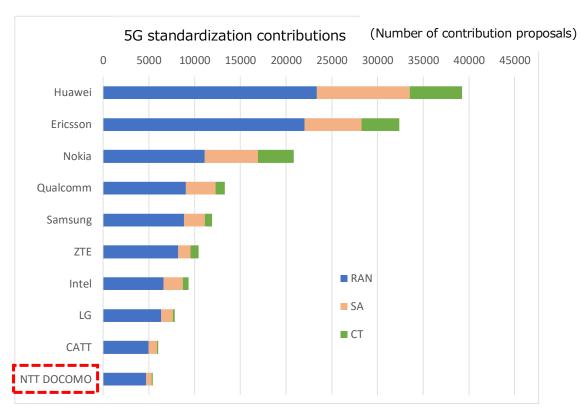
 $*DOCOMO's \ efforts \ toward \ standardization \\ \underline{ \ https://www.nttdocomo.co.jp/corporate/technology/rd/tech/standardization/} \\$

Reference

1. Number of declared patent families related to 5G standards



2. Number of contributions submitted related to 5G standards



Source: Cyber Creative Institute Co., Ltd. "Application trends of 5G-SEP candidates and 5G-SEP declarations contributing to realization of 5G and trend in contributions proposed for standards"