

Press Release

November 30, 2021 NTT DOCOMO, INC.

DOCOMO - 4th largest 5G Essential Patent Holder in the World and Top among Telecom Operators

- Significant contributions to the standard development for 5G enhancement and advanced evolution-

In the commercially available survey of "5G Patent Search Report (3rd edition) and Corresponding Patent List" *1 by Cyber Creative Institute Co., Ltd, ("this Survey"), NTT DOCOMO, INC. ("DOCOMO") was ranked as fourth in the world and first among telecom-carriers in number of holding patents essential to the fifth generation mobile communication system ("5G" for the system and "5G essential patents" for the patents) in executing services under the 5G standard.

This survey is the third in a series, following those conducted in October 2020*2 and April 2021*3. During this period, the 3GPP - standard setting organization for mobile communication systems - has been setting standards for enhancement and advanced evolution of 5G. DOCOMO have continued to keep the top position in the number of 5G essential patent holding including not only the core 5G communication technologies but also those for enhancing and evolving 5G.

In the 5G standardization activities at 3GPP, DOCOMO submitted approximately 5,900 technology contributions *4 - the largest number as a telecom carrier - and declared approximately 1,500 patent families *5 as essential to 5G standards. The number of patent family holdings and technology proposals relevant to standards is a barometer of technical contribution by member companies to the standardization activities. DOCOMO has made significant contributions to the enhancement and advanced evolution of 5G communication technologies.

Standardization activities at 3GPP will continue for further enhancement and evolution of 5G and Beyond 5G ("B5G"). DOCOMO will continue to strategically

acquire intellectual property rights and pursue standardization activities for 5G and B5G and contribute to strengthening Japan's international competitiveness.

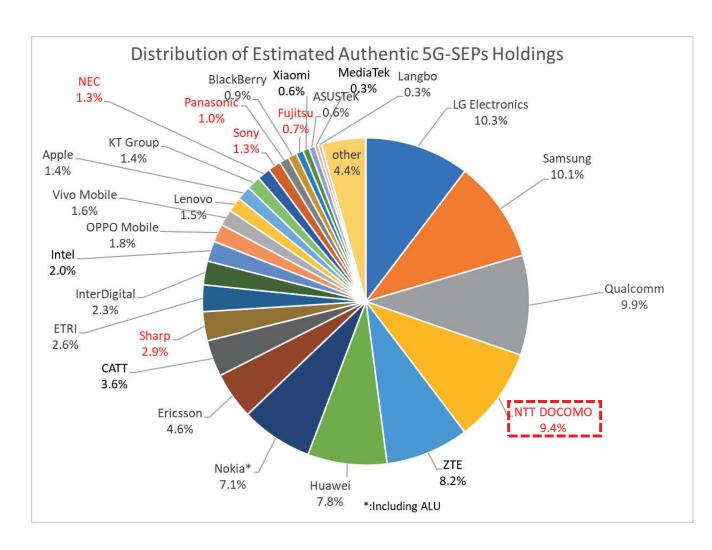
DOCOMO will continuously pursue R&D and standardization activities to provide better services to our customers and to open the future of mobile communications.

- *1 See the topic released on 8/November/2021 (https://www.cybersoken.com/en/topics/2020/10/12/240/)
- *2 https://www.cybersoken.com/file/press_5G_Patents,5G-SEP_en.pdf
- *3 See the topic released on 2/April/2021 (https://www.cybersoken.com/en/topics/2020/10/12/240/)
- *4 Ranked 10ths in the world according to Cyber Creative Institute Co. Ltd. (https://www.cybersoken.com/en/topics/2020/10/12/240/)
- *5 The number of patent application families relevant to the 5G standard is approximately 3,400. Among them, about 1,500 families in total have been declared as essential (more declarations are planned). A family means a group of patents where the same invention has been filed in multiple countries.

*DOCOMO's Approach to Standardization
https://www.nttdocomo.co.jp/corporate/technology/rd/tech/standardization/

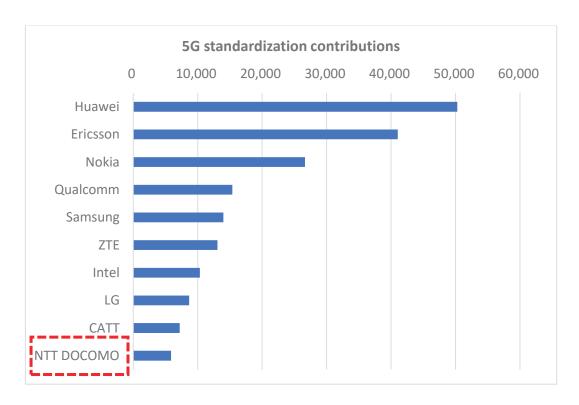
Reference

1 Status of 5G Essential Patents Holding



Source: Press Release by Cyber Creative Institute Co., Ltd. (November, 8, 2021) https://www.cybersoken.com/en/topics/2020/10/12/240/

2 Number of technology contributions from major 5G standardization players



Source: Press Release by Cyber Creative Institute Co., Ltd (April 2, 2021) https://www.cybersoken.com/en/topics/2020/10/12/240/