## <u>DOCOMO – Continuously Top Five Essential Patent Holder in the world</u> Top among Telecom Operators

-Standard Compatibility Rate increased from Previous Survey-

In the research and analysis report of "New Movements in 5G-SEP, 5G Implementing Essential Patents and 5G Standardization Contributions" ("Survey") \*1 by Cyber Creative Institute Co., Ltd., DOCOMO was ranked as top 5 following the previous survey in Jun 2022 \*2 in the number of patent holdings ("5G Essential Patents") essential in providing 5th generation mobile communication services ("5G"). Among telecom carriers, DOCOMO was ranked as the top.

This is the fifth in a series of surveys (i.e., October 2020 \*\*3, April 2021 \*\*4, November 2021\*\*5 and June 2022) conducted by Cyber Creative Institute Co., Ltd. In these surveys, DOCOMO has consistently been ranked as the world's top holder of essential 5G patents. Ever since the initial launch of 5G to presently ongoing 5G-Advanced \*\*6, discussions for 5G evolutions, DOCOMO as a Japanese telecom carrier has been continuously making technical contributions to the standard setting organizations for 5G specifications, which can be incorporated into the systems in providing better services to customers. Furthermore, we have been actively working on the 6th Generation Mobile Communication Systems ("6G) as the next generation system. We also publicized the "DOCOMO 6G White Paper"\_\*\*7 and are vigorously pursuing studies on communication technologies that will support industries and society in the 2030s.

We will continue to strategically work on IP acquisitions and standardizations in 5G-Advanced and 6G specifications and contribute to the development of telecommunications technology in Japan and elsewhere in the world.

In this Survey of the standard compatibility rate of a patent that is assessed as essential to 3GPP 5G standard over declared as essential, DOCOMO was evaluated as having a more standard compatibility rate than the last survey. DOCOMO after thoroughly examining the patent technologies applicable to the 5G standard has declared FRAND\*9 for approximately 2,000 families\*\*8 of technologies as 5G essential patents. We will continuously take part in an active role in the standardization activities and endeavor to publicize accurate information which can help enhance the transparency of the declarations.

DOCOMO will continue to engage in R&D and standardization activities to provide better services to customers and to pave the way for the future of mobile communications.

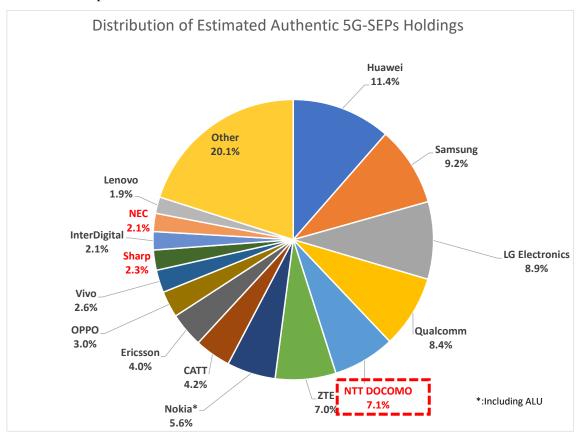
- 1. https://www.cybersoken.com/topics/844/
- 2. <a href="https://www.cybersoken.com/topics/435/">https://www.cybersoken.com/topics/435/</a>
- 3. <a href="https://www.cybersoken.com/topics/402/">https://www.cybersoken.com/topics/402/</a>
- 4. https://www.cybersoken.com/topics/406/
- 5. <a href="https://www.cybersoken.com/topics/431/">https://www.cybersoken.com/topics/431/</a>
- 6. https://www.3gpp.org/specifications-technologies/releases/release-18
- The first edition of the "DOCOMO 6G White Paper" was released in January 2020 and is currently updated to version 5.0
   (https://www.docomo.ne.jp/binary/pdf/corporate/technology/whitepaper\_6g/DOCOMO\_6G\_White\_PaperJP\_20221116.pdf)
- 8. There are approximately 4,400 patent application families related to 5G standards. Among these, a total of approximately 2,000 families have been declared essential (additional declarations are planned). A family is a group of patents for the same invention applied for in multiple countries.
- Abbreviation for Fair, Reasonable and Non-Discriminatory terms and conditions. It means fair, reasonable and nondiscriminatory terms and conditions for licensing.

## \*DOCOMO's standardization efforts

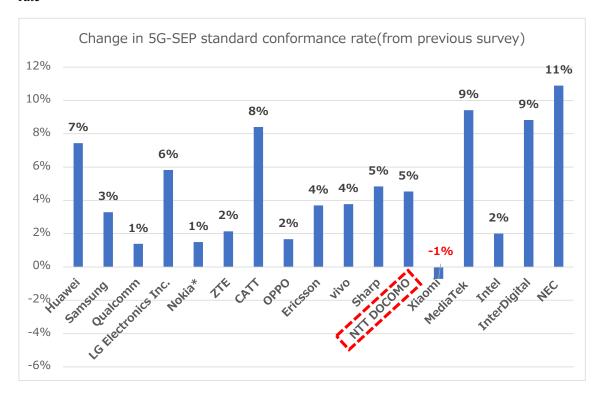
https://www.docomo.ne.jp/corporate/technology/rd/tech/standardization/

reference

## 1. 5G essential patents held



## 2. points of increase/decrease in the top companies that increased their standards harmonization rate



Source: Cyber Research Institute, Inc. press release (May 19, 2023)

https://www.cybersoken.com/topics/844/