

# NTT DoCoMo Begins Super 3G Experiment

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NTT DoCoMo, Inc. announced today that this month it began testing an experimental Super 3G system for mobile communications. With this experiment, DoCoMo will seek to achieve a downlink transmission rate of 300Mbps over a high-speed wireless network.

Super 3G features low-latency data transmission and improved spectrum efficiency. It is a highly advanced version of High-Speed Downlink Packet Access (HSDPA) and High-Speed Uplink Packet Access (HSUPA), which have been evolved from W-CDMA packet transmission technologies standardized by the 3rd Generation Partnership Project (3GPP). The 3GPP, a telecommunications standards organization, is currently discussing standardization of Super 3G under the name Long Term Evolution (LTE).

DoCoMo will begin with an indoor experiment to test transmission speed using one transmitting and one receiving antenna. The company will then expand the experiment to examine downlink transmission by employing up to four Multiple-Input Multiple-Output (MIMO) antennas for both the base station (transmission side) and mobile station (receiving side); the goal is to achieve a downlink transmission speed of 300Mbps.

MIMO is an antenna technology for wireless communications in which different data streams are spatially multiplexed using multiple antennas for both transmission and reception on the same frequency. Also to be examined is the "handover function" — switching of the connection between two base stations.

DoCoMo will also examine the functionality of applications for voice and image transmission, games and the like, key capabilities impacting the Super 3G system's marketability.

DoCoMo, aiming to achieve sustainable, efficient use of 3G spectrum resources, is leading the discussion over LTE. DoCoMo believes Super 3G will allow the company to make a smooth transition to 4G in the future.

In July 2006, DoCoMo began accepting proposals from suppliers seeking to develop Super 3G equipment and expects to complete development of Super 3G technology by 2009.

Source: NTT DoCoMo

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