

Verification of the Applicability of Fifth Generation Mobile Communication Systems to Railway Operations

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The 5th generation mobile communication system(5G), serviced by mobile network operators(MNO), is expected to dramatically improve the three characteristics of “enhanced Mobile Broadband(eMBB),” “Ultra-Reliable and Low Latency Communications(URLLC),” and “massive Machine Type Communication(mMTC),” compared to conventional mobile communication systems. The introduction of 5G services in railways is expected to lead to the introduction of new applications that could not be realized with conventional ground-to-train communication systems. Therefore, this paper reports the outlines of our ongoing research on the introduction of public 5G services provided by MNOs to railway operations and the results obtained so far.