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(54) **SEPARATION OF CONTROL PLANE AND USER PLANE IN NEW RADIO (NR) SYSTEMS**

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(71) Applicant: **Apple Inc.**, Cupertino, CA (US)

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(57) **ABSTRACT**

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(63) Continuation of application No. 17/517,182, filed on Nov. 2, 2021, now Pat. No. 11,632,813, which is a continuation of application No. 16/615,081, filed on Nov. 19, 2019, now Pat. No. 11,197,332, filed as application No. PCT/US2018/038284 on Jun. 19, 2018.

Embodiments of a Next Generation Node B (gNB) are described herein. The gNB may be configured with logical nodes, including a gNB central unit (gNB-CU) and a gNB distributed unit (gNB-DU). The gNB-CU may include a gNB-CU control plane (gNB-CU-CP) for control-plane functionality, and a gNB-CU user plane (gNB-CU-UP) for user-plane functionality. The gNB may initiate an E1 interface setup procedure, a bearer context setup procedure, and a UE context setup procedure to establish a UE context that includes a signaling radio bearer (SRB) and a data radio bearer (DRB) configuration. The UE context setup request message may be configured to include quality-of-service parameters for the DRB configuration.

