CLAIMS

1. A method, comprising:

transmitting information related to IP Multimedia Subsystem (IMS) from a serving base station to a user equipment (UE) in a Next Generation Radio Access Network (NG RAN) serving cell connected to a 5G core network, wherein the information indicates IMS voice over Packet Switched (PS) session is supported over the 5G core network;

receiving an indication of Quality of Service (QoS) flow establishment for IMS voice call via the 5G core network;

determining whether IMS voice over PS (VoPS) session is supported over the NG RAN serving cell with a predefined Quality of Service (QoS) requirement; and

generating a handover command to the UE upon determining that the current NG RAN serving cell does not support IMS VoPS, wherein the base station triggers a handover for the UE from the current NG RAN serving cell to a target cell that supports IMS VoPS for performing an IMS VoPS call setup.

2. The method of Claim 1, wherein the target cell is another NG RAN cell that supports IMS VoPS.

3. The method of Claim 1, wherein the target cell is a 4G LTE cell that supports IMS VoPS.

4. The method of Claim 1, further comprising sending a first indication from the serving base station to the UE, wherein the first indication indicates whether IMS voice over PS session is supported over a 5G system.

5. The method of Claim 1, further comprising sending a second indication from the serving base station to the UE, wherein the second indication indicates whether IMS voice over PS session is supported over the NG RAN serving cell.

6. The method of Claim 1, wherein the handover command is triggered by a Radio Access Technology (RAT) change, and wherein the target cell is connected to the 5G core network.

7. The method of Claim 1, wherein the handover command is triggered by an evolved packet system (EPS) fallback procedure, and wherein the target cell is not connected to the 5G core network.

8. A base station, comprising:

a radio frequency (RF) transmitter that transmits information related to IP Multimedia Subsystem (IMS) from a base station to a user equipment (UE) in a Next Generation Radio Access Network (NG RAN) serving cell connected to a 5G core network, wherein the information indicates IMS voice over Packet Switched (PS) session is supported over the 5G core network;

an RF receiver that receives an indication of Quality of Service (QoS) flow establishment for IMS voice call via the 5G core network;

a Quality of Service (QoS) circuit that determines whether IMS voice over PS (VoPS) session is supported over the NG RAN serving cell with a predefined QoS requirement; and

a handover circuit that generates a handover command to the UE upon determining that the current NG RAN

serving cell does not support IMS VoPS, wherein the base station triggers a handover for the UE from the current NG RAN serving cell to a target cell that supports IMS VoPS for performing an IMS VoPS call setup.

9. The base station of Claim 8, wherein the target cell is another NG RAN cell that supports IMS VoPS.

10. The base station of Claim 8, wherein the target cell is a 4G LTE cell that supports IMS VoPS.

11. The base station of Claim 8, further comprising sending a first indication from the serving base station to the UE, wherein the first indication indicates whether IMS voice over PS session is supported over a 5G system.

12. The base station of Claim 8, further comprising sending a second indication from the serving base station to the UE, wherein the second indication indicates whether IMS voice over PS session is supported over the NG RAN serving cell.

13. The base station of Claim 8, wherein the handover command is triggered by a Radio Access Technology (RAT) change, and wherein the target cell is connected to the 5G core network.

14. The base station of Claim 8, wherein the handover command is triggered by an evolved packet system (EPS) fallback procedure, and wherein the target cell is not connected to the 5G core network.

15. A method, comprising:

receiving an IP multimedia subsystem (IMS) voice over Packed Switched (PS) session is supported indication by a user equipment (UE) in a next generation radio access network (NG RAN) serving cell connected to a 5G core network;

performing IMS registration with an IMS server, wherein subsequently the UE is originating or terminating an IMS voice call setup procedure;

receiving a handover command when IMS voice over PS (VoPS) session is not supported over the NG RAN service cell with a predefined Quality of Service (QoS) requirement, wherein the UE handover from the NG RAN serving cell to a target cell that supports IMS VoPS; and

continuing to proceed with the IMS voice call setup procedure through the IMS server in the target cell.

16. The method of Claim 15, wherein the handover command is triggered by a Radio Access Technology (RAT) change, and wherein the target cell is connected to the 5G core network.

17. The method of Claim 16, wherein the target cell is either another NG RAN cell or a 4G LTE cell that supports IMS VoPS.

18. The method of Claim 15, wherein the handover command is triggered by an evolved packet system (EPS) fallback procedure, and wherein the target cell is not connected to the 5G core network.

19. The method of Claim 18, wherein the UE performs a tracking area update (TAU) procedure or an Attach

procedure with an evolved packet core network (EPC) after handover.

20. The method of Claim 15, wherein the UE performs codec negotiation with the IMS server before or after the handover.