

C L A I M S

1. A method for wireless communication, comprising:
 - sending, by a first network node to a second network node, a first message including information for handling access and mobility management tasks associated with a mobile device, wherein the first network node is serving a mobile device in a coverage area of the first network node; and
 - determining, at the first network node, based on a response message from a second network node, information of one or more resources available to the mobile device from the second network node in a case that the one or more resources are re-mappable from the first network node.
2. The method of claim 1, wherein the information of the one or more resources available to the mobile device in a case that the one or more resources are re-mapped from the first network node includes at least one of: information related to Access and Mobility Management Function (AMF) functionality supported by the first network node and the second network node, information identifying a list of slices that are supported by a coverage area of the second network node, information indicating whether the second network node supports the RAN slice re-mapping functionality, or information indicating whether a core network element electronically coupled to the first network node supports RAN slice re-mapping functionality.
3. The method of claim 1, wherein the first network node and the second network node are network access network (RAN) nodes.
4. The method of claim 1, further comprising:
 - determining, from the response message and the first message, whether the first network node and the second network node belong to the same Access and Mobility Management Function (AMF) or AMF set.
5. The method of claim 1, wherein the first message is transmitted via an Xn interface associated with establishment of a connection between the first network node and the second network node.

6. The method of claim 2, wherein the slice re-mapping functionality includes one or more of the following instructions: an instruction to a network node for supporting re-mapping of a network slice, a list of network slices supported by a network node that are available for re-mapping, an instruction to a network node to send allowed Network Slice Selection Assistance Information (NSSAI) of the mobile device, an instruction to a network node for supporting network slices through pre-configuration of re-mapping, or an indication that resources supported by a network node are insufficient.
7. The method of claim 1, wherein the first network node is a RAN node and the second network node is a core network (CN) element.
8. The method of claim 7, wherein the first message is transmitted via an NG interface associated with establishment of a connection between the RAN node and the core network element.
9. The method of claim 8, wherein the response message includes information related to core network-side slice re-mapping functionality.
10. The method of claim 9, wherein the information related to core network-side slice re-mapping functionality includes one or more of the following: an instruction associated with the core network to support slice re-mapping functionality and a list of slices supported by the core network that are available for re-mapping.
11. The method of claim 1, wherein the case that the one or more resources are to be re-mapped from the first network node occurs upon the mobile device leaving the coverage area supported by the first network node and moving to a coverage area supported by the second network node.
12. The method of claim 1, wherein the case that the one or more resources are to be re-mapped from the first network node occurs upon the first network node experiencing a shortage of resources to serve the mobile device.

13. The method of claim 1, further comprising:
 - receiving a notification message indicating modification of the one or more resources available to the mobile device from the second network node; and
 - sending an acknowledgment to the second network node.
14. The method of claim 13, wherein the notification message corresponds to a NG-RAN CONFIGURATION UPDATE message.
15. The method of claim 13, wherein the acknowledgement corresponds to a NG-RAN CONFIGURATION UPDATE ACKNOWLEDGE message.
16. The method of any one or more of claims 1-15, wherein the one or more resources available to the mobile device from the second network node correspond to network slice resources.
17. A method for wireless communication, comprising:
 - receiving, at a second network node, a configuration exchange message including information of slice resources supported by a coverage area of a first network node for a mobile device served by the first network node, wherein the information of slice resources are used for a handover for the mobile device based on the configuration exchange message in a case that the one or more resources are re-mappable from the first network node to the second network node.
18. The method of claim 17, wherein the first network node is a source base station and the second network node is a target base station.
19. The method of claim 17, wherein the information of the resources supported by the first network node includes slice information supported by a coverage area of the first network node.

20. The method of claim 17, wherein the configuration exchange message is received from a core network element.
21. The method of claim 17, wherein the configuration exchange message is a RAN CONFIGURATION TRANSFER message.
22. The method of claim 17, wherein the information of the resources supported by the first network node includes an AMF set supported by the first network node.
23. The method of claim 17, further comprising:
determining, at the second network node, whether the handover of the mobile device belongs to an intra registration area type handover or an inter registration area type handover, based on the information of the slice resources supported by a coverage area of the first network node.
24. A method for wireless communication, comprising:
sending, by a first network node to a second network node, a handover request for handing off a mobile device, wherein the handover request results in re-mapping of resources to the second network node from the first network node initially serving the mobile device in a coverage area of the first network node.
25. The method of claim 24, wherein the re-mapping of resources occurs at the second network node.
26. The method of claim 24, wherein the first network node is a source base station and the second network node is a target base station.
27. The method of claim 24, wherein the handover request is sent in response to the first network node determining that the first network node is to cease supporting the mobile device.

28. The method of claim 24, further comprising:
receiving, at the first network node, an acknowledgement from the second network node to the handover request.
29. A method for wireless communication, comprising:
determining, at a second network node, a re-mapping of resources from a first network node to the second network node in a case that a mobile device in a coverage area supported by the first network node ceases to be supported by the first network node; and
sending, to the first network node, an acknowledgement to a handover request associated with handing off the mobile device from the first network node to the second network node.
30. The method of claim 29, wherein the first network node is a source base station and the second network node is a target base station.
31. The method of claim 29, wherein the re-mapping of resources is in response to the handover request.
32. A method for wireless communication, comprising:
receiving, at a second network node, a handover request associated with handing off service to a mobile device in a coverage area supported by a first network node, wherein the handover request includes information for selecting allowed network resources for providing the service to the mobile device; and
selecting, at the target network node, one or more network resources, based on the information for selecting the allowed network resources.
33. The method of claim 32, wherein the first network node and the second network node are a source base station and a target base station.
34. The method of claim 33, wherein the handover request is received from a core network element.

35. The method of claim 34, wherein the information for selecting the allowed network resources for providing the service to the mobile device is provided by the first network node to the core network element.
36. The method of claim 34, wherein the information for selecting the allowed network resources includes Network Slice Selection Assistance Information (NSSAI) list of the mobile device.
37. The method of claim 34, wherein the handover request further includes information of one or more resources available to the mobile device from the second network node in a case that the mobile device ceases to be served by the first network node.
38. The method of any one or more of claims 1-37, wherein the re-mapping of resources corresponds to re-mapping network slice resources.
39. The method of claim 38, wherein re-mapping network slice resources includes:
upon determining that service to the mobile device supported by a network slice resource having a first ID is to be re-mapped, changing an association of the service to the mobile device from the network slice resource having a first ID to another network slice resource having a second ID.
40. The method of claim 39, wherein service to the mobile device is identified in accordance with a protocol data unit (PDU) session ID.
41. The method of any one or more of claims 1-40, wherein the resources are included in network slices.
42. The method of claim 41, wherein a network slice is identified by an identifier (ID).
43. An apparatus for wireless communication comprising a processor that is configured to

carry out the method of any one or more of claims 1 to 42.

44. A non-transitory computer readable medium having code stored thereon, the code when executed by a processor, causing the processor to implement a method recited in any one or more of claims 1 to 42.