

dedicated forwarding plane in addition to the control plane function, while some network slices may only include some basic control plane functions.

SUMMARY

This document discloses methods, systems, and devices related to digital wireless communication, and more specifically, to techniques related to reselecting a network in a network sharing split architecture.

In a first aspect, a method for wireless communication comprises 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 the 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.

In an embodiment, a method for wireless communication includes 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.

In another embodiment, a method for wireless communication includes 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.

In another embodiment, a method for wireless communication includes 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.

In a second aspect, a method for wireless communication comprises 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 second network node, one or more network resources, based on the information for selecting the allowed network resources.

In a third aspect, an apparatus for wireless communication comprising a processor and a memory storing instructions that, when executed by the processor, cause the apparatus to perform the method described in the first aspect or the second aspect.

In yet another exemplary aspect, the various techniques described herein may be embodied as processor-executable code stored on a computer-readable program medium.

The details of one or more implementations are set forth in the accompanying attachments, the drawings, and the description below. Other features will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic diagram of a 5G architecture showing issues associated with continuity of service.

FIG. 2A is a signaling process for supporting continuity of service, in accordance with an example embodiment.

FIG. 2B is a signaling process for supporting continuity of service, in accordance with an example embodiment.

FIG. 3 is a signaling process for supporting continuity of service, in accordance with an example embodiment.

FIG. 4 is a signaling process for supporting continuity of service, in accordance with an example embodiment.

FIG. 5A is a signaling process for supporting continuity of service, in accordance with an example embodiment.

FIG. 5B is a signaling process for supporting continuity of service, in accordance with an example embodiment.

CLAIMS

What is claimed is:

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 the 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, 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.
4. 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.

5. 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.
6. The method of claim 1, wherein the first network node is a radio access network (RAN) node and the second network node is a core network (CN) element.
7. The method of claim 6, 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.
8. The method of claim 7, wherein the response message includes information related to core network-side slice re-mapping functionality including 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; and wherein the one or more resources available to the mobile device from the second network node correspond to network slice resources.
9. 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.
10. An apparatus for wireless communication comprising a processor and a memory storing instructions that, when executed by the processor, cause the apparatus to perform the method of any one or more of claims 1 to 9.

11. 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 second network node, one or more network resources, based on the information for selecting the allowed network resources.
12. The method of claim 11, wherein the handover request is received from a core network element, and 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.
13. The method of claim 12, wherein the information for selecting the allowed network resources includes Network Slice Selection Assistance Information (NSSAI) list of the mobile device.
14. The method of claim 12, 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.
15. An apparatus for wireless communication comprising a processor and a memory storing instructions that, when executed by the processor, cause the apparatus to perform the method of any one or more of claims 11 to 14.