connection to core/external network. In addition, the same issue may be faced in device-to-device communication within an access network, with or without connection to core/external network

[0007] At least the issues as indicated above are addressed in the example embodiments of the invention as described herein.

SUMMARY:

[0008] This section contains examples of possible implementations and is not meant to be limiting.

[0009] In an exemplary aspect of the disclosure, there is a method, comprising: performing, by a communication device, a communication comprising transmitting packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer to a second device; detecting that further packets of the second traffic subflow are to be transmitted via a second radio bearer to the second device; and based on the detecting, transmitting a packet data unit via the first radio bearer to the second device, wherein the packet data unit comprises an indication of a switch of the second traffic flow to the second radio bearer, and wherein packets of the first traffic flow continues to be transmitted via the first radio bearer.

[0010] In a further example embodiment is a method comprising the method of the previous paragraph is that, based on the second radio bearer being established between the first device and the second device, there is transmitting further packets of the second traffic flow via the second radio bearer to the second device. An additional example embodiment is that, based on the detecting there is causing the second device to establish the second radio bearer. In accordance with the example embodiments of the invention the detecting comprises detecting that the further packets of the second traffic subflow are associated with an application that requires a higher priority. Another example embodiment includes receiving confirmation of reception of the packet data unit from the second device, wherein the confirmation ofreception

may be confirmation of in-order reception of the packet data unit, wherein the transmitting the further packets of the second traffic flow is based on the confirmation. In accordance with a

further example embodiment, the packet data unit comprises a sequence number. In an additional example embodiment the sequence number causes in-sequence delivery of packets for the radio bearers at the second device. In another example embodiment the packet data unit causes the second device to deliver the packets belonging to the second traffic subflow to a higher layer of the second device. In yet another example embodiment of the invention the higher layer is an application layer. In still another example embodiment of the invention there is, prior to transmitting the second traffic flow to the second radio bearer of the second device, buffering the packets at the first device

[0011] In another example embodiment of the disclosure, there is an apparatus comprising: means for performing, by a communication device, a communication comprising transmitting packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer to a second device; means for detecting that further packets of the second traffic subflow are to be transmitted via a second radio bearer to the second device; and means, based on the detecting, for transmitting a packet data unit via the first radio bearer to the second device, wherein the packet data unit comprises an indication of a switch of the second traffic flow to the second radio bearer, and wherein packets of the first traffic flow continues to be transmitted via the first radio bearer.

[0012] In another aspect of the disclosure there is an apparatus comprising: at least one processor; and at least one memory including computer program code, where the at least one memory and the computer program code are configured, with the at least one processor, to cause the apparatus to at least: perform, by a communication device, a communication comprising transmitting packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer to a second device; detect that further packets of the second traffic subflow are to be transmitted via a second radio bearer to the second device; and based on the detecting, transmit a packet data unit via the first radio bearer to the second device, wherein the packet data unit comprises an indication of a switch of the second traffic flow to the second radio bearer, and wherein packets of the first traffic flow continues to be transmitted via the first radio bearer.

[0013] A further example embodiment of the invention is a disclosure comprising the

apparatus of any of the previous paragraphs wherein at least one memory including computer program code is configured with at least one processor to cause the apparatus to: based on the second radio bearer being established between the first device and the second device, transmit further packets of the second traffic flow via the second radio bearer to the second device. An additional example embodiments is wherein the at least one memory including the computer program code is configured with the at least one processor to cause the apparatus to: based on the detecting, causing the second device to establish the second radio bearer. In accordance with the example embodiments of the invention the detecting comprises detecting that the further packets of the second traffic subflow are associated with an application that requires a higher priority. A further example embodiment is wherein the at least one memory including the computer program code is configured with the at least one processor to cause the apparatus to: receive confirmation of reception of the packet data unit from the second device, wherein the confirmation of reception may be confirmation of in-order reception of the packet data unit, wherein the transmitting the further packets of the second traffic flow is based on the confirmation. In another example embodiment of the invention the packet data unit comprises a sequence number. In another example embodiment the sequence number causes in-sequence delivery of packets for the radio bearers at the second device. In another example embodiment the packet data unit causes the second device to deliver the packets belonging to the second traffic subflow to a higher layer of the second device. In still another example embodiment of the invention the higher layer is an application layer. In yet another example embodiment there is, prior to transmitting the second traffic flow to the second radio bearer of the second device, buffering the packets at the first device.

[0014] In a further aspect of the disclosure there is a method, comprising: receiving from a first device a communication comprising packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer; receiving from the first device a packet data unit comprising an indication that further packets of the second traffic subflow are to be received via a second radio bearer, wherein the first traffic flow continues to be received via the first radio bearer; establishing the second radio bearer between a second device and the first device; and based on the establishing, receiving the further packets of the second traffic flow via the second radio bearer.

[0015] In a further example embodiment of the disclosure is a method comprising the method of the previous paragraph, there is receiving instructions to establish the second radio bearer. In another example embodiment there is sending confirmation ofreception ofthe packet data unit to the first device, wherein the confirmation of reception may be confirmation of in-order reception of the packet data unit, wherein the further packets of the second traffic flow is received based on the confirmation. In an example embodiment the packet data unit comprises a sequence number. In another example embodiment the sequence number enables in-sequence delivery of packets for the radio bearers. In a further example embodiment the packet data unit enables the second device to deliver the packets belonging to the second traffic subflow to a higher layer of the communication device. In still another example embodiment the higher layer is an application layer. In yet another example embodiment there is, prior to receiving the packet data unit buffering the second traffic flow at the second device, wherein delivering the packets belonging to the traffic subflow to the higher layer is performed only after receiving the packet data unit.

[0016] In another example embodiment of the disclosure, there is an apparatus comprising: means for receiving from a first device a communication comprising packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer; means for receiving from the first device a packet data unit comprising an indication that further packets of the second traffic subflow are to be received via a second radio bearer, wherein the first traffic flow continues to be received via the first radio bearer; establishing the second radio bearer between the second device and the first device; and means, based on the establishing, for receiving the further packets of the second traffic flow via the second radio bearer.

[0017] In another aspect of the disclosure there is an apparatus comprising: at least one processor; and at least one memory including computer program code, where the at least one memory and the computer program code are configured, with the at least one processor, to cause the apparatus to at least: receive from a first device a communication comprising packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer; receive from the first device a packet data unit comprising an indication that further packets of the second traffic subflow are to be received via a second

radio bearer, wherein the first traffic flow continues to be received via the first radio bearer; establishing the

second radio bearer between the second device and the first device; and based on the establishing, receive the further packets of the second traffic flow via the second radio bearer.

[0018] A further example embodiment of the disclosure is an apparatus comprising the apparatus of any of the previous paragraphs wherein at least one memory including computer program code is configured with at least one processor to cause the apparatus to: receive instructions to establish the second radio bearer. In another example embodiment the at least one memory including the computer program code is configured with the at least one processor to cause the apparatus to: send confirmation of reception of the packet data unit to the first device, wherein the confirmation of reception may be confirmation of in-order reception ofthe packet data unit, wherein the further packets of the second traffic flow is received based on the confirmation. In an additional embodiment the packet data unit comprises a sequence number. In another example embodiment the sequence number enables in-sequence delivery of packets for the radio bearers. In another example embodiment the packet data unit enables the second device to deliver the packets belonging to the second traffic subflow to a higher layer of the communication device. In still another example embodiment the higher layer is an application layer. In yet another example embodiment there is, prior to receiving the packet data unit, buffering the second traffic flow at the second device, and wherein delivering the packets belonging to the traffic subflow to the higher layer is performed only after receiving the packet data unit.

In an aspect, there is provided an apparatus comprising:

means for receiving from a first device a communication comprising packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer;

means for receiving from the first device a packet data unit comprising an indication that further packets of the second traffic subflow are to be received via a second radio bearer. Wherein the first traffic flow continues to be received via the first radio bearer; establishing the second radio bearer between the second device and the first device; and

means, based on establishing, for receiving the further packets of the second traffic flow via the second radio bearer.

In an aspect, there is provided an apparatus comprising:

means for performing, by a communication device, a communication comprising transmitting packets of a first traffic subflow and packets of a second traffic subflow via a first radio bearer to a second device;

means for detecting that further packets of the second traffic subflow are to be transmitted via a second radio bearer to the second device; and

means, based on the detecting, for transmitting a packet data unit via the first radio bearer to the second device, wherein the packet data unit comprises an indication of a switch of the second traffic flow to the second radio bearer, and wherein packets of the first traffic flow continues to be transmitted via the first radio bearer.

BRIEF DESCRIPTION OF THE DRAWINGS:

[0019] The foregoing and other aspects of embodiments of this invention are made more evident in the following Detailed Description, when read in conjunction with the attached Drawing Figures, wherein:

[0020] Figure 1 shows example of packet not in-order case when a new DRB2 is created;

[0021] Figure 2 shows a simplified block diagram of a system in which exemplary embodiments of this invention may be practiced;