

CLAIMS

What is claimed is:

- 1 1. A method of wireless communication comprising:
2 establishing, by a user equipment (UE), a signaling radio link with a cellular
3 access node (AN) via a cellular radio access technology (RAT);
4 transmitting, to a network node via the signaling radio link, a connectivity
5 request comprising a connectivity type for establishing connectivity to a local area network
6 (LAN);
7 establishing a data radio link with the cellular AN based at least in part on an
8 acceptance of the connectivity request, wherein the acceptance of the connectivity request
9 comprises at least one parameter for configuring the connectivity to the LAN; and
10 establishing a data flow for exchanging data link layer packets with the LAN
11 via the data radio link.
- 1 2. The method of claim 1, further comprising:
2 transmitting, to the network node via the signaling radio link, the at least one
3 parameter, wherein the at least one parameter is from a group consisting of: a physical
4 address of the UE, an Ethernet frame type, and an access point name.
- 1 3. The method of claim 1, further comprising:
2 transmitting a second connectivity request comprising a second connectivity
3 type for establishing connectivity to one of the LAN and a second LAN;
4 establishing a second data radio link with the cellular AN based at least in part
5 on an acceptance of the second connectivity request; and
6 establishing a second data flow for exchanging second data link layer packets
7 with the LAN or the second LAN via the second data radio link.
- 1 4. The method of claim 1, further comprising:
2 transmitting a second connectivity request comprising an Internet Protocol
3 (IP) packet data network (PDN) type;
4 establishing a second data radio link with the cellular AN based at least in part
5 on an acceptance of the second connectivity request; and
6 establishing a second data flow for exchanging second data link layer packets
7 with an IP network via the second data radio link.

1 5. The method of claim 4, wherein the second data flow is associated
2 with an IP address of the UE.

1 6. The method of claim 1, wherein the acceptance of the connectivity
2 request is based at least in part on the at least one parameter.

1 7. The method of claim 1, wherein the connectivity request comprises the
2 at least one parameter.

1 8. The method of claim 1, wherein the data flow is associated with a first
2 virtual LAN (VLAN) tag.

1 9. The method of claim 8, further comprising:
2 establishing a second data flow based at least in part on the connectivity
3 request, wherein the second data flow is associated with a physical address of the UE and a
4 second VLAN tag;

5 establishing a second data radio link, wherein the second data flow is
6 associated with the second data radio link; and

7 transmitting the first VLAN tag and the second VLAN tag to the network
8 node.

1 10. A method of wireless communication comprising:
2 establishing, by a cellular access node (AN), a signaling radio link with a user
3 equipment (UE) via a cellular radio access technology (RAT);

4 receiving, via the signaling radio link, a connectivity request for establishing
5 connectivity to a local area network (LAN);

6 forwarding the connectivity request to a network node;

7 establishing a data radio link with the UE based at least in part on receiving an
8 acceptance of the connectivity request from the network node, wherein the acceptance of the
9 connectivity request comprises at least one parameter for configuring the connectivity to the
10 LAN; and

11 forwarding data link layer packets of a data flow between the data radio link
12 and a bridging function to the LAN.

1 11. The method of claim 10, further comprising:

2 transmitting, to the network node, a physical address of the UE; and
3 configuring the bridging function for communicating, to the LAN, data link
4 layer packets that comprise the physical address.

1 12. The method of claim 10, further comprising:
2 transmitting, to the network node, a physical address of the UE; and
3 configuring the bridging function for communicating, to the LAN, data link
4 layer packets that comprise the physical address and a first virtual LAN (VLAN) tag.

1 13. The method of claim 10, further comprising:
2 establishing a second data radio link;
3 configuring a second bridging function for communicating second data link
4 layer packets that comprise a physical address and a second VLAN tag; and
5 forwarding the second data link layer packets of a second data flow between
6 the second data radio link and the second bridging function to the LAN.

1 14. The method of claim 10, further comprising:
2 receiving and forwarding a second connectivity request to the network node;
3 establishing a second data radio link based at least in part on receiving an
4 acceptance of the second connectivity request from the network node; and
5 forwarding second data link layer packets of a second data flow between the
6 second data radio link and a second bridging function.

1 15. The method of claim 14, further comprising:
2 transmitting, to the network node, a second physical address of the UE
3 associated with the second data flow, and configuring the second bridging function with the
4 second physical address.

1 16. The method of claim 10, further comprising:
2 receiving a second connectivity request for establishing packet data network
3 (PDN)-connectivity;
4 forwarding the second connectivity request to the network node;
5 establishing a second data radio link based at least in part on receiving an
6 acceptance of the second connectivity request from the network node; and
7 forwarding second data link layer packets of a second data flow between the
8 second data radio link and a routing function.

1 17. An apparatus for wireless communication comprising:
2 means for establishing, by a user equipment (UE), a signaling radio link with a
3 cellular access node (AN) via a cellular radio access technology (RAT);
4 means for transmitting, to a network node via the signaling radio link, a
5 connectivity request comprising a connectivity type for establishing connectivity to a local
6 area network (LAN);
7 means for establishing a data radio link with the cellular AN based at least in
8 part on an acceptance of the connectivity request, wherein the acceptance of the connectivity
9 request comprises at least one parameter for configuring the connectivity to the LAN; and
10 means for establishing a data flow for exchanging data link layer packets with
11 the LAN via the data radio link.

1 18. The apparatus of claim 17, further comprising:
2 means for transmitting, to the network node via the signaling radio link, the at
3 least one parameter, wherein the at least one parameter is from a group consisting of: a
4 physical address of the UE, an Ethernet frame type, and an access point name.

1 19. The apparatus of claim 17, further comprising:
2 means for transmitting a second connectivity request comprising a second
3 connectivity type for establishing connectivity to one of the LAN and a second LAN;
4 means for establishing a second data radio link with the cellular AN based at
5 least in part on an acceptance of the second connectivity request; and
6 means for establishing a second data flow for exchanging second data link
7 layer packets with the LAN or the second LAN via the second data radio link.

1 20. The apparatus of claim 17, further comprising:
2 means for transmitting a second connectivity request comprising an Internet
3 Protocol (IP) packet data network (PDN) type;
4 means for establishing a second data radio link with the cellular AN based at
5 least in part on an acceptance of the second connectivity request; and
6 means for establishing a second data flow for exchanging second data link
7 layer packets with an IP network via the second data radio link.

1 21. The apparatus of claim 20, wherein the second data flow is associated
2 with an IP address of the UE.

1 22. The apparatus of claim 17, wherein the acceptance of the connectivity
2 request is based at least in part on the at least one parameter.

1 23. The apparatus of claim 17, wherein the connectivity request comprises
2 the at least one parameter.

1 24. The apparatus of claim 17, wherein the data flow is associated with a
2 first virtual LAN (VLAN) tag.

1 25. The apparatus of claim 24, further comprising:
2 means for establishing a second data flow based at least in part on the
3 connectivity request, wherein the second data flow is associated with a physical address of
4 the UE and a second VLAN tag;
5 means for establishing a second data radio link, wherein the second data flow
6 is associated with the second data radio link; and
7 means for transmitting the first VLAN tag and the second VLAN tag to the
8 network node.

1 26. An apparatus for wireless communication comprising:
2 means for establishing, by a cellular access node (AN), a signaling radio link
3 with a user equipment (UE) via a cellular radio access technology (RAT);
4 means for receiving, via the signaling radio link, a connectivity request for
5 establishing connectivity to a local area network (LAN);
6 means for forwarding the connectivity request to a network node;
7 means for establishing a data radio link with the UE based at least in part on
8 receiving an acceptance of the connectivity request from the network node, wherein the
9 acceptance of the connectivity request comprises at least one parameter for configuring the
10 connectivity to the LAN; and
11 means for forwarding data link layer packets of a data flow between the data
12 radio link and a bridging function to the LAN.

1 27. The apparatus of claim 26, further comprising:
2 means for transmitting, to the network node, a physical address of the UE; and
3 means for configuring the bridging function for communicating, to the LAN,
4 data link layer packets that comprise the physical address.

1 28. The apparatus of claim 26, further comprising:
2 means for transmitting, to the network node, a physical address of the UE; and
3 means for configuring the bridging function for communicating, to the LAN,
4 data link layer packets that comprise the physical address and a first virtual LAN (VLAN)
5 tag.

1 29. The apparatus of claim 28, further comprising:
2 means for establishing a second data radio link;
3 means for configuring a second bridging function for communicating second
4 data link layer packets that comprise the physical address and a second VLAN tag; and
5 means for forwarding the second data link layer packets of a second data flow
6 between the second data radio link and the second bridging function to the LAN.

1 30. The apparatus of claim 26, further comprising:
2 means for receiving and forwarding a second connectivity request to the
3 network node;
4 means for establishing a second data radio link based at least in part on
5 receiving an acceptance of the second connectivity request from the network node; and
6 means for forwarding second data link layer packets of a second data flow
7 between the second data radio link and a second bridging function.

1 31. The apparatus of claim 30, further comprising:
2 means for transmitting, to the network node, a second physical address of the
3 UE associated with the second data flow, and configuring the second bridging function with
4 the second physical address.

1 32. The apparatus of claim 26, further comprising:
2 means for receiving a second connectivity request for establishing packet data
3 network (PDN)-connectivity;
4 means for forwarding the second connectivity request to the network node;
5 means for establishing a second data radio link based at least in part on
6 receiving an acceptance of the second connectivity request from the network node; and
7 means for forwarding second data link layer packets of a second data flow
8 between the second data radio link and a routing function.

1 33. An apparatus for wireless communication, comprising:
2 a processor;
3 memory in electronic communication with the processor; and
4 instructions stored in the memory and operable, when executed by the
5 processor, to cause the apparatus to:
6 establish, by a user equipment (UE), a signaling radio link with a cellular
7 access node (AN) via a cellular radio access technology (RAT);
8 transmit, to a network node via the signaling radio link, a connectivity request
9 comprising a connectivity type for establishing connectivity to a local area network (LAN);
10 establish a data radio link with the cellular AN based at least in part on an
11 acceptance of the connectivity request, wherein the acceptance of the connectivity request
12 comprises at least one parameter for configuring the connectivity to the LAN; and
13 establish a data flow for exchanging data link layer packets with the LAN via
14 the data radio link.

1 34. The apparatus of claim 33, wherein the instructions are operable to
2 cause the processor to:
3 transmit, to the network node via the signaling radio link, the at least one
4 parameter, wherein the at least one parameter is from a group consisting of: a physical
5 address of the UE, an Ethernet frame type, and an access point name.

1 35. The apparatus of claim 33, wherein the instructions are operable to
2 cause the processor to:
3 transmit a second connectivity request comprising a second connectivity type
4 for establishing connectivity to one of the LAN and a second LAN;
5 establish a second data radio link with the cellular AN based at least in part on
6 an acceptance of the second connectivity request; and
7 establish a second data flow for exchanging second data link layer packets
8 with the LAN or the second LAN via the second data radio link.

1 36. The apparatus of claim 33, wherein the instructions are operable to
2 cause the processor to:
3 transmit a second connectivity request comprising an Internet Protocol (IP)
4 packet data network (PDN) type;

5 establish a second data radio link with the cellular AN based at least in part on
6 an acceptance of the second connectivity request; and
7 establish a second data flow for exchanging second data link layer packets
8 with an IP network via the second data radio link.

1 37. The apparatus of claim 36, wherein the second data flow is associated
2 with an IP address of the UE.

1 38. The apparatus of claim 33, wherein the acceptance of the connectivity
2 request is based at least in part on the at least one parameter.

1 39. The apparatus of claim 33, wherein the connectivity request comprises
2 the at least one parameter.

1 40. The apparatus of claim 33, wherein the data flow is associated with a
2 first virtual LAN (VLAN) tag.

1 41. The apparatus of claim 40, wherein the instructions are operable to
2 cause the processor to:
3 establish a second data flow based at least in part on the connectivity request,
4 wherein the second data flow is associated with a physical address of the UE and a second
5 VLAN tag;
6 establish a second data radio link, wherein the second data flow is associated
7 with the second data radio link; and
8 transmit the first VLAN tag and the second VLAN tag to the network node.

1 42. An apparatus for wireless communication, comprising:
2 a processor;
3 memory in electronic communication with the processor; and
4 instructions stored in the memory and operable, when executed by the
5 processor, to cause the apparatus to:
6 establish, by a cellular access node (AN), a signaling radio link with a user
7 equipment (UE) via a cellular radio access technology (RAT);
8 receive, via the signaling radio link, a connectivity request for establishing
9 connectivity to a local area network (LAN);
10 forward the connectivity request to a network node;

11 establish a data radio link with the UE based at least in part on receiving an
12 acceptance of the connectivity request from the network node, wherein the acceptance of the
13 connectivity request comprises at least one parameter for configuring the connectivity to the
14 LAN; and
15 forward data link layer packets of a data flow between the data radio link and
16 a bridging function to the LAN.

1 43. The apparatus of claim 42, wherein the instructions are operable to
2 cause the processor to:
3 transmit, to the network node, a physical address of the UE; and
4 configure the bridging function for communicating, to the LAN, data link
5 layer packets that comprise the physical address.

1 44. The apparatus of claim 42, wherein the instructions are operable to
2 cause the processor to:
3 transmit, to the network node, a physical address of the UE; and
4 configure the bridging function for communicating, to the LAN, data link
5 layer packets that comprise the physical address and a first virtual LAN (VLAN) tag.

1 45. The apparatus of claim 42, wherein the instructions are operable to
2 cause the processor to:
3 establish a second data radio link;
4 configure a second bridging function for communicating second data link
5 layer packets that comprise a physical address and a second VLAN tag; and
6 forward the second data link layer packets of a second data flow between the
7 second data radio link and the second bridging function to the LAN.

1 46. The apparatus of claim 42, wherein the instructions are operable to
2 cause the processor to:
3 receive and forwarding a second connectivity request to the network node;
4 establish a second data radio link based at least in part on receiving an
5 acceptance of the second connectivity request from the network node; and
6 forward second data link layer packets of a second data flow between the
7 second data radio link and a second bridging function.

1 47. The apparatus of claim 46, wherein the instructions are operable to
2 cause the processor to:
3 transmit, to the network node, a second physical address of the UE associated
4 with the second data flow, and configuring the second bridging function with the second
5 physical address.

1 48. The apparatus of claim 42, wherein the instructions are operable to
2 cause the processor to:
3 receive a second connectivity request for establishing packet data network
4 (PDN)-connectivity;
5 forward the second connectivity request to the network node;
6 establish a second data radio link based at least in part on receiving an
7 acceptance of the second connectivity request from the network node; and
8 forward second data link layer packets of a second data flow between the
9 second data radio link and a routing function.

1 49. A non-transitory computer-readable medium storing code for wireless
2 communication, the code comprising instructions executable to:
3 establish, by a user equipment (UE), a signaling radio link with a cellular
4 access node (AN) via a cellular radio access technology (RAT);
5 transmit, to a network node via the signaling radio link, a connectivity request
6 comprising a connectivity type for establishing connectivity to a local area network (LAN);
7 establish a data radio link with the cellular AN based at least in part on an
8 acceptance of the connectivity request, wherein the acceptance of the connectivity request
9 comprises at least one parameter for configuring the connectivity to the LAN; and
10 establish a data flow for exchanging data link layer packets with the LAN via
11 the data radio link.

1 50. A non-transitory computer-readable medium storing code for wireless
2 communication, the code comprising instructions executable to:
3 establish, by a cellular access node (AN), a signaling radio link with a user
4 equipment (UE) via a cellular radio access technology (RAT);
5 receive, via the signaling radio link, a connectivity request for establishing
6 connectivity to a local area network (LAN);

7 forward the connectivity request to a network node;
8 establish a data radio link with the UE based at least in part on receiving an
9 acceptance of the connectivity request from the network node, wherein the acceptance of the
10 connectivity request comprises at least one parameter for configuring the connectivity to the
11 LAN; and
12 forward data link layer packets of a data flow between the data radio link and
13 a bridging function to the LAN.