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(54) **TRANSPORT OF RADIO NETWORK-ORIGINATED CONTROL INFORMATION**

(57) **ABSTRACT**

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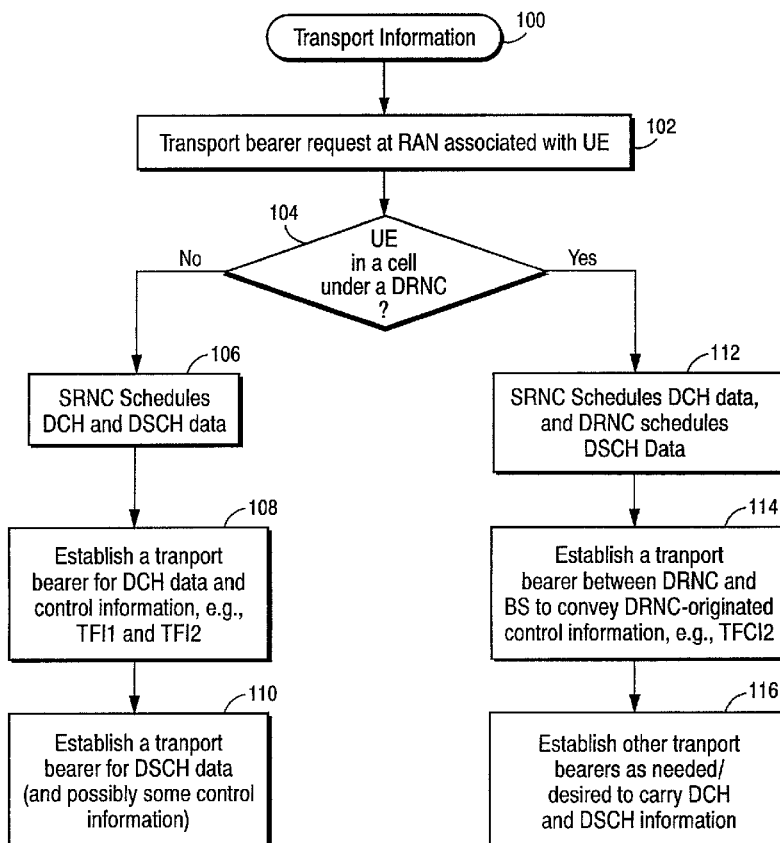
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In a radio access network (RAN) where information may be sent to a mobile radio unit using a shared radio channel shared by other mobile radio units, a first transport bearer is established between a first RAN node, e.g., a drift RNC, and a second RAN node, e.g., a base station, to transport data to be transmitted on the shared radio channel. A second transport bearer is established between the first and second RAN nodes to transport control information originated in the first RAN node that relates to the first transport bearer data. The first RAN node then transmits the control information over the second transport bearer to the second RAN node. The control information might include, for example, scheduling information known to the first RAN node because the first RAN node supervises scheduling of data to be transmitted on the shared radio channel. The control information may provide to the mobile radio unit information needed to decode the data transmitted on the shared radio channel. Such needed information might include, for example, a frame identifier, a specific radio resource like a spreading code, and/or an indication of how different radio resources associated with different connections are multiplexed on the shared radio channel. In one example, non-limiting embodiment, the control information includes transport format indication information such as transmit format combination indicator (TFCI) information employed in third generation Universal Mobile Telephone Systems (UMTS) in accordance with the 3GPP specification.



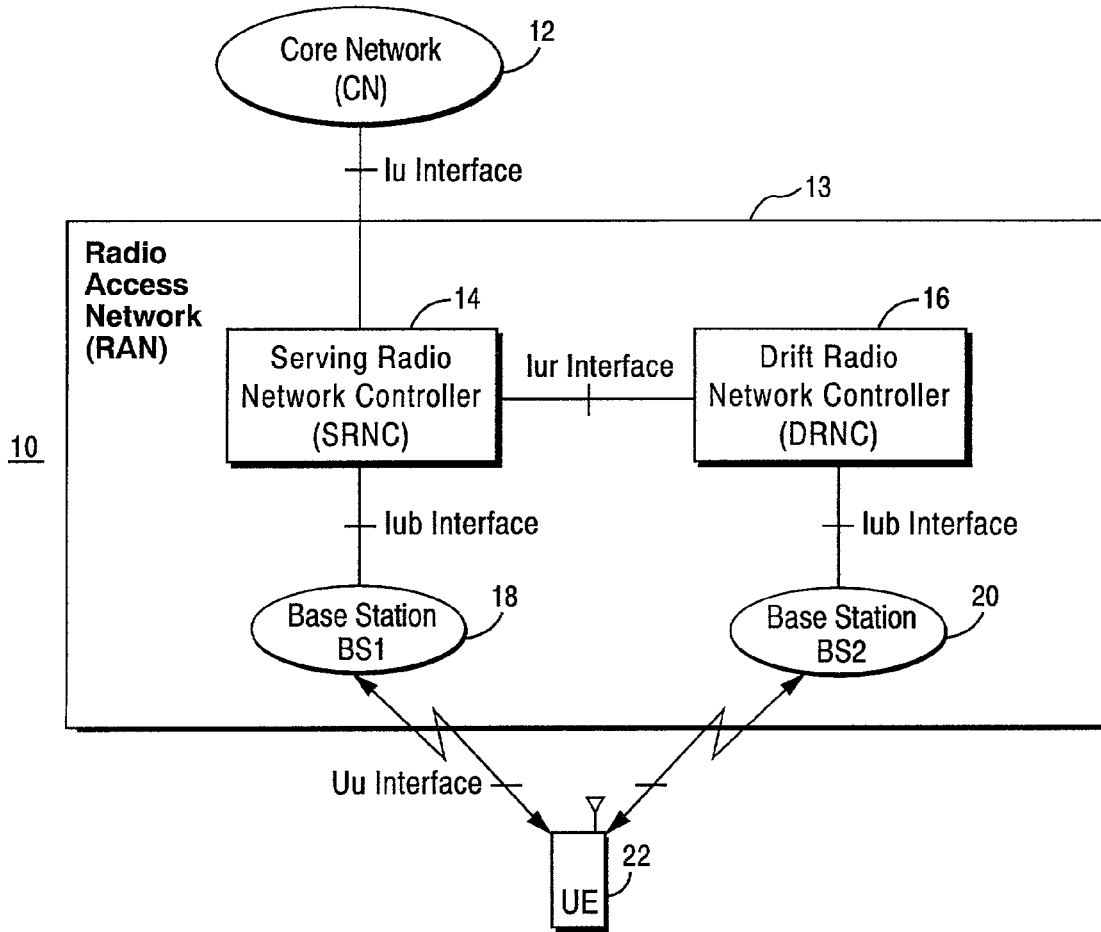


FIG. 1

| |
|-------------------------------|
| Connection Frame Number (CFN) |
| TFI or TFCI |
| Spare |
| Spare Extension |

FIG. 2

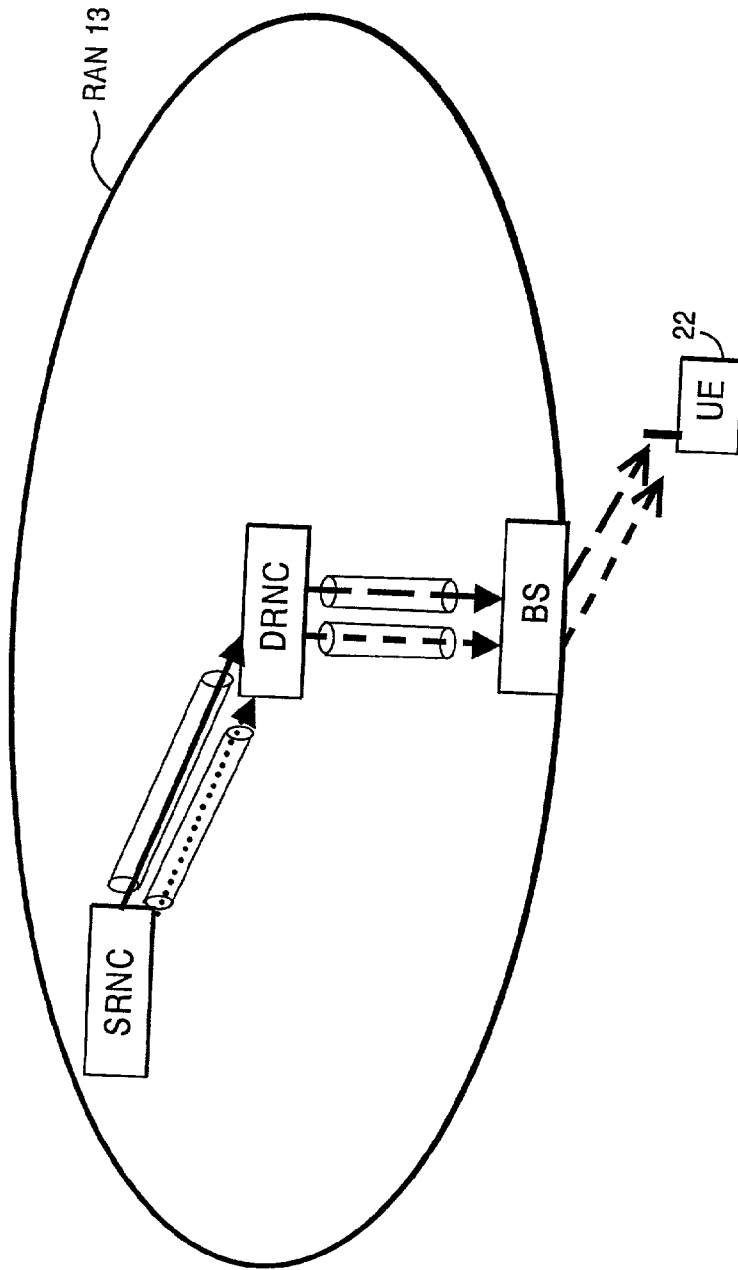







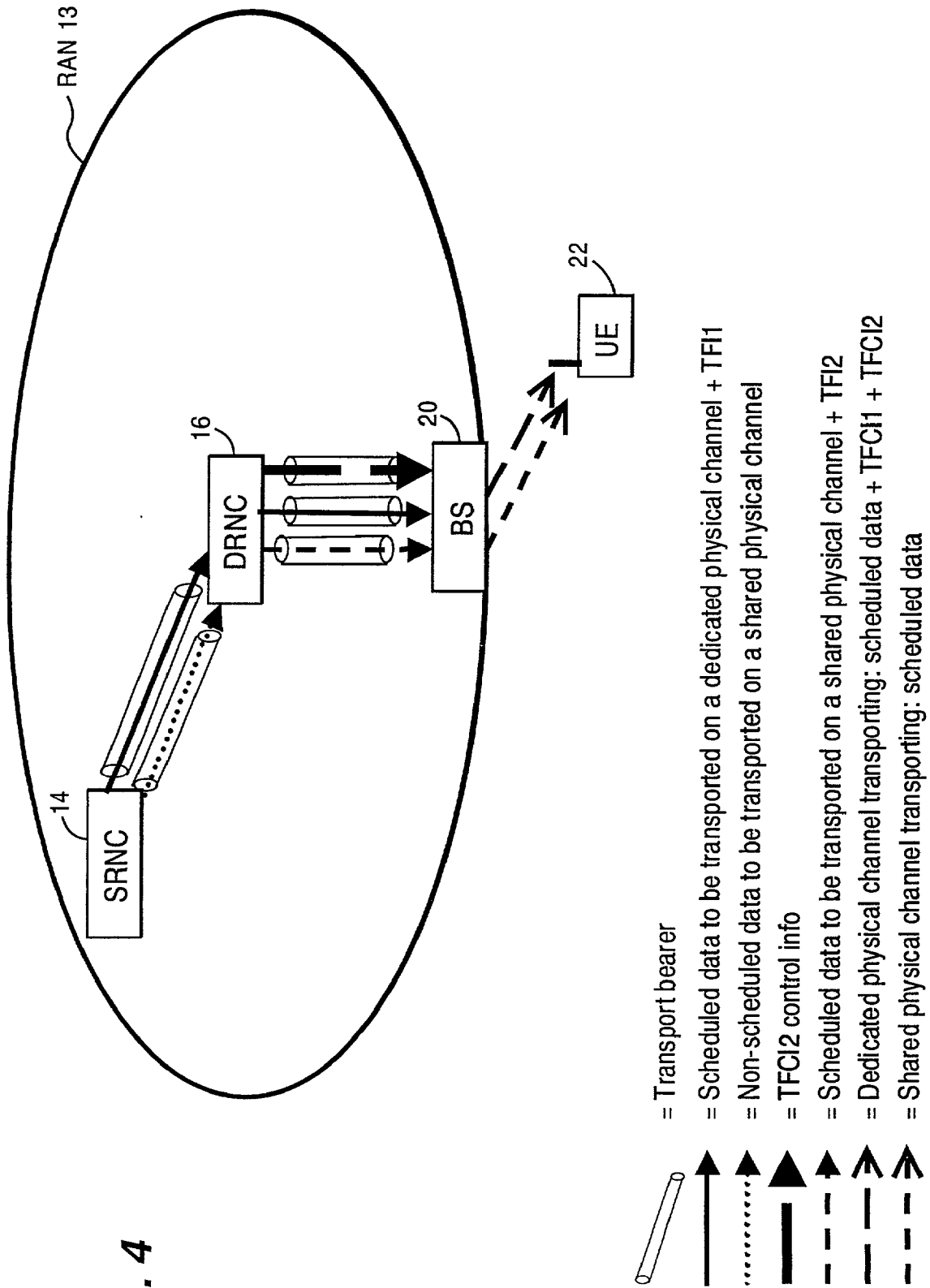


FIG. 3

-  = Transport bearer
-  = Scheduled data to be transported on a dedicated physical channel + TFI1
-  = Non-scheduled data to be transported on a shared physical channel
-  = Scheduled data to be transported on a dedicated physical channel + TFI1 + TFCI2
-  = Scheduled data to be transported on a shared physical channel + TFI2
-  = Dedicated physical channel transporting: scheduled data + TFCI1 + TFCI2
-  = Shared physical channel transporting: scheduled data



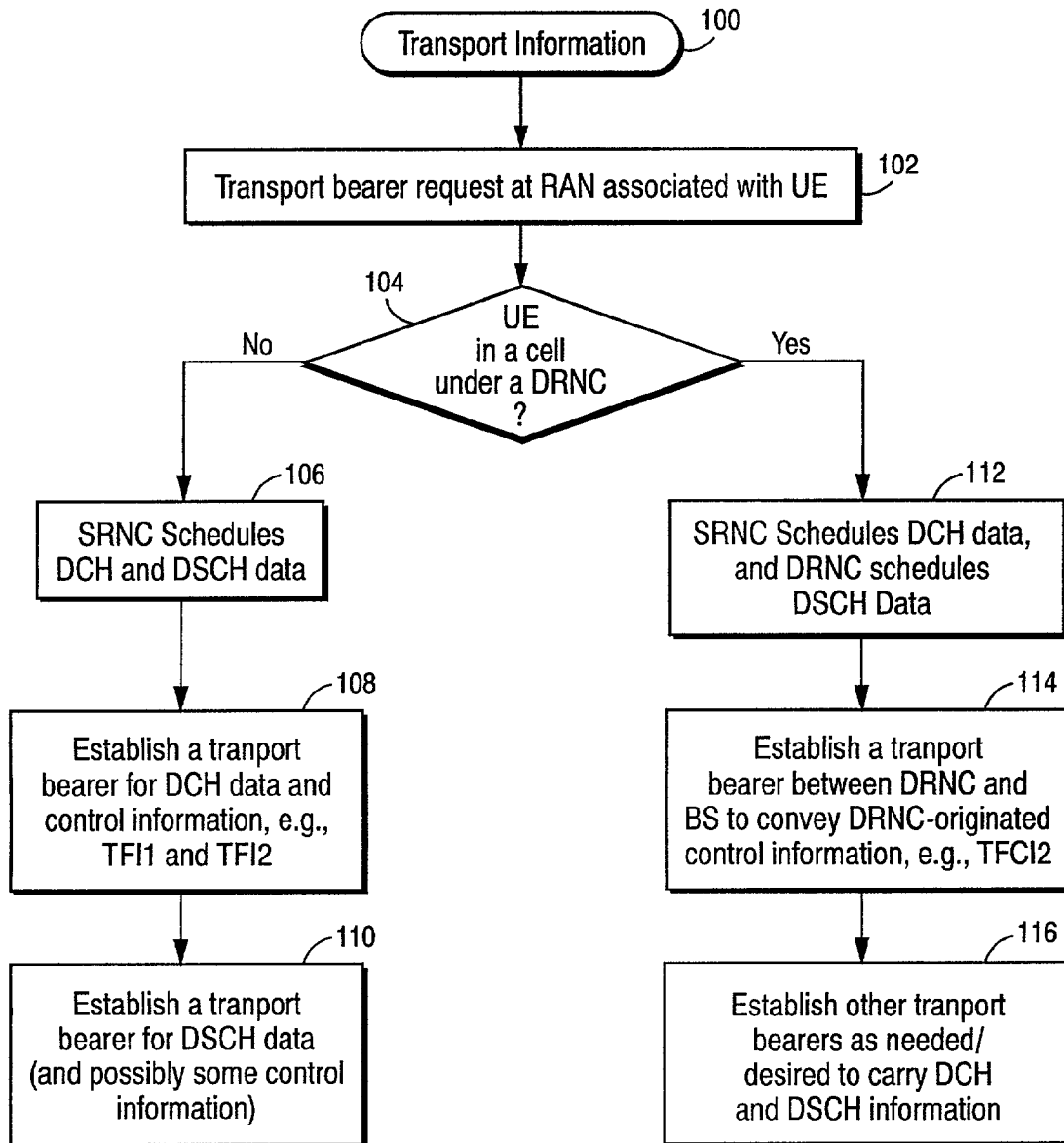


FIG. 5

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