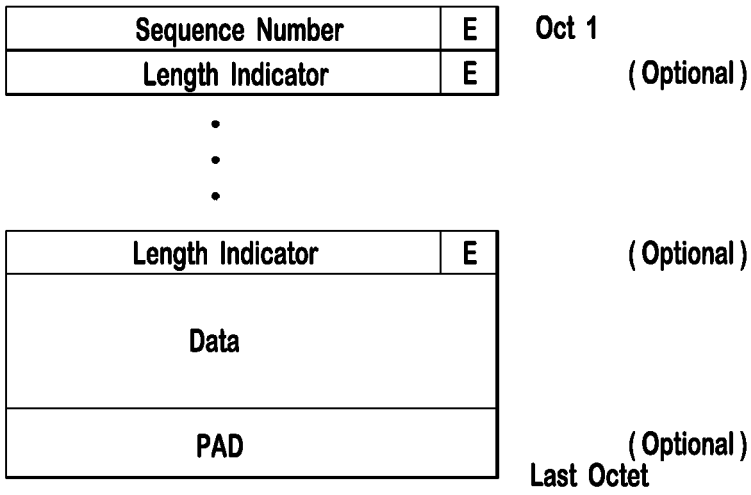


FIG. 1A
(PRIOR ART)

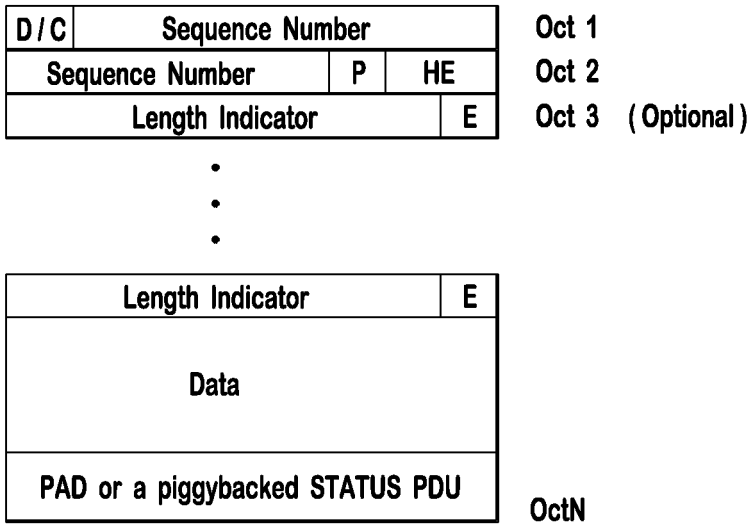


FIG. 1B
(PRIOR ART)

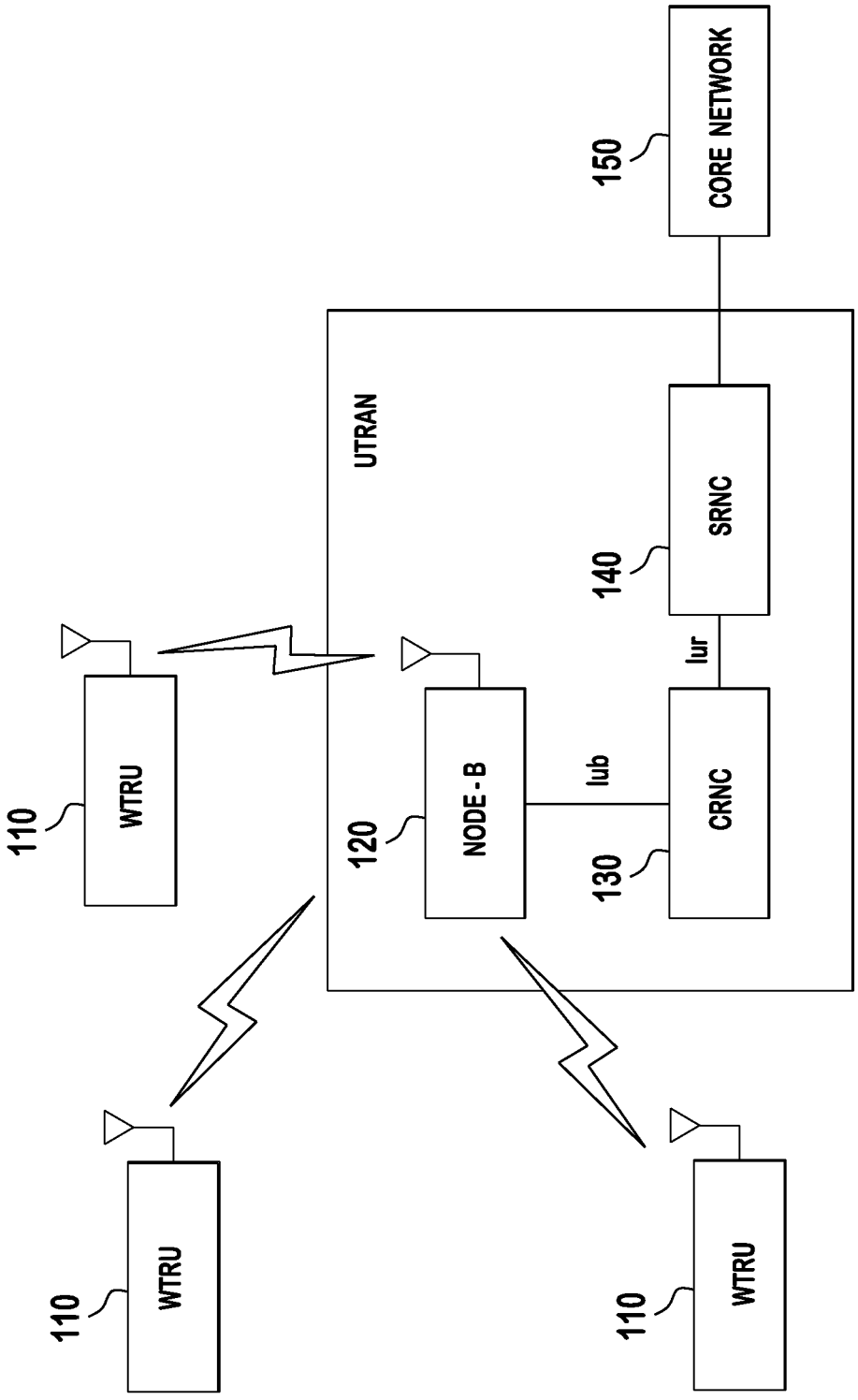

CORE NETWORK
150
UTRAN
SRNC
140
Iur
WTRU
110
NODE - B
120
Iub
CRNC
130
WTRU
110
WTRU
110

FIG. 2

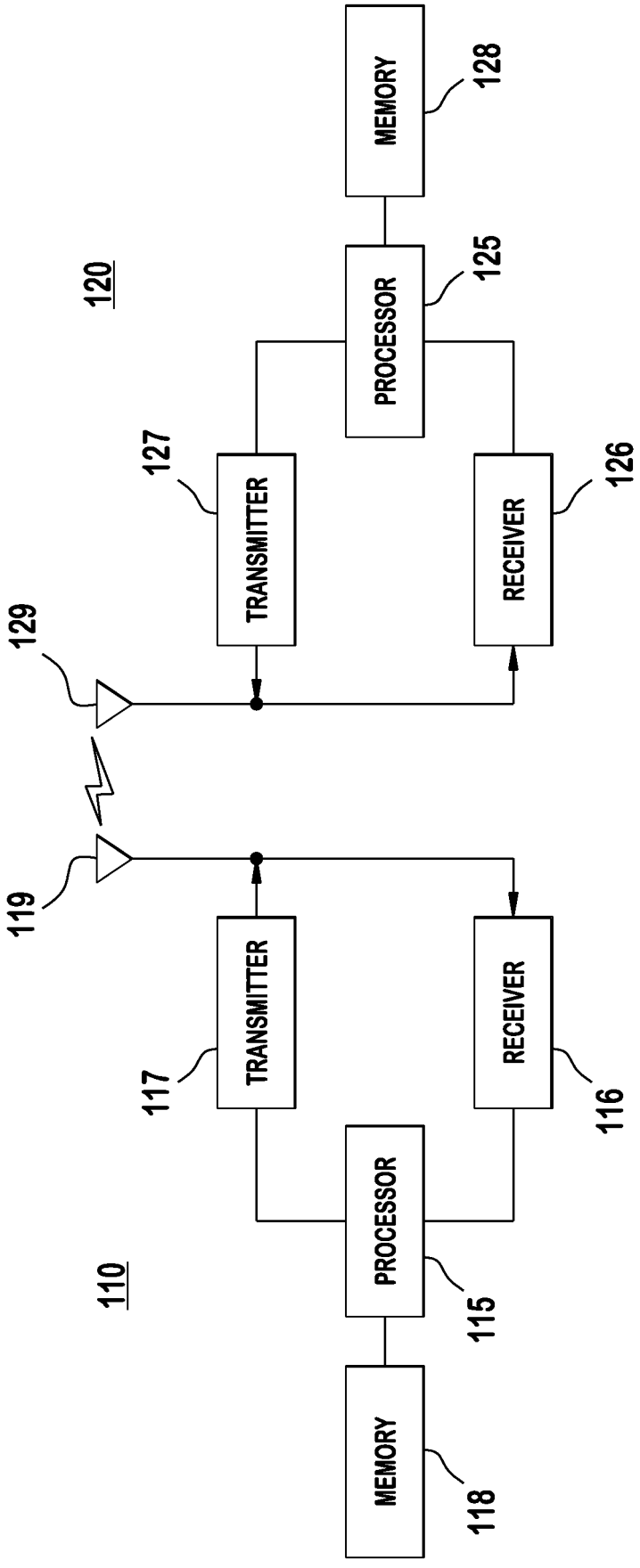

120
MEMORY
128
PROCESSOR
125
127
TRANSMITTER
RECEIVER
126
129
119
TRANSMITTER
117
RECEIVER
116
110
PROCESSOR
115
MEMORY
118

FIG. 3

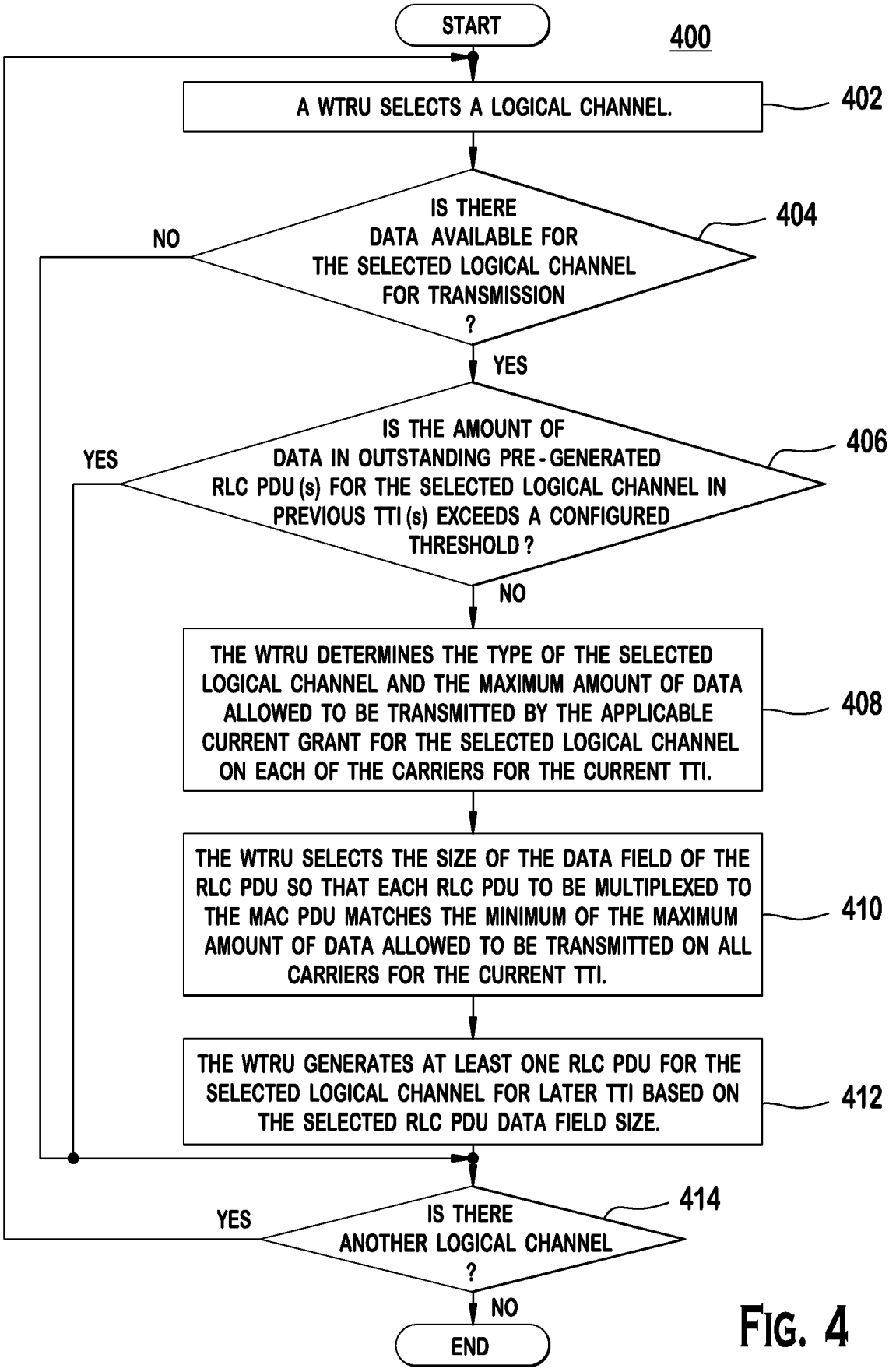

START
400
A WTRU SELECTS A LOGICAL CHANNEL.
402
IS THERE DATA AVAILABLE FOR THE SELECTED LOGICAL CHANNEL FOR TRANSMISSION ?
404
NO
YES
IS THE AMOUNT OF DATA IN OUTSTANDING PRE-GENERATED RLC PDU(s) FOR THE SELECTED LOGICAL CHANNEL IN PREVIOUS TTI(s) EXCEEDS A CONFIGURED THRESHOLD ?
406
YES
NO
THE WTRU DETERMINES THE TYPE OF THE SELECTED LOGICAL CHANNEL AND THE MAXIMUM AMOUNT OF DATA ALLOWED TO BE TRANSMITTED BY THE APPLICABLE CURRENT GRANT FOR THE SELECTED LOGICAL CHANNEL ON EACH OF THE CARRIERS FOR THE CURRENT TTI.
408
THE WTRU SELECTS THE SIZE OF THE DATA FIELD OF THE RLC PDU SO THAT EACH RLC PDU TO BE MULTIPLEXED TO THE MAC PDU MATCHES THE MINIMUM OF THE MAXIMUM AMOUNT OF DATA ALLOWED TO BE TRANSMITTED ON ALL CARRIERS FOR THE CURRENT TTI.
410
THE WTRU GENERATES AT LEAST ONE RLC PDU FOR THE SELECTED LOGICAL CHANNEL FOR LATER TTI BASED ON THE SELECTED RLC PDU DATA FIELD SIZE.
412
IS THERE ANOTHER LOGICAL CHANNEL ?
414
YES
NO
END

FIG. 4