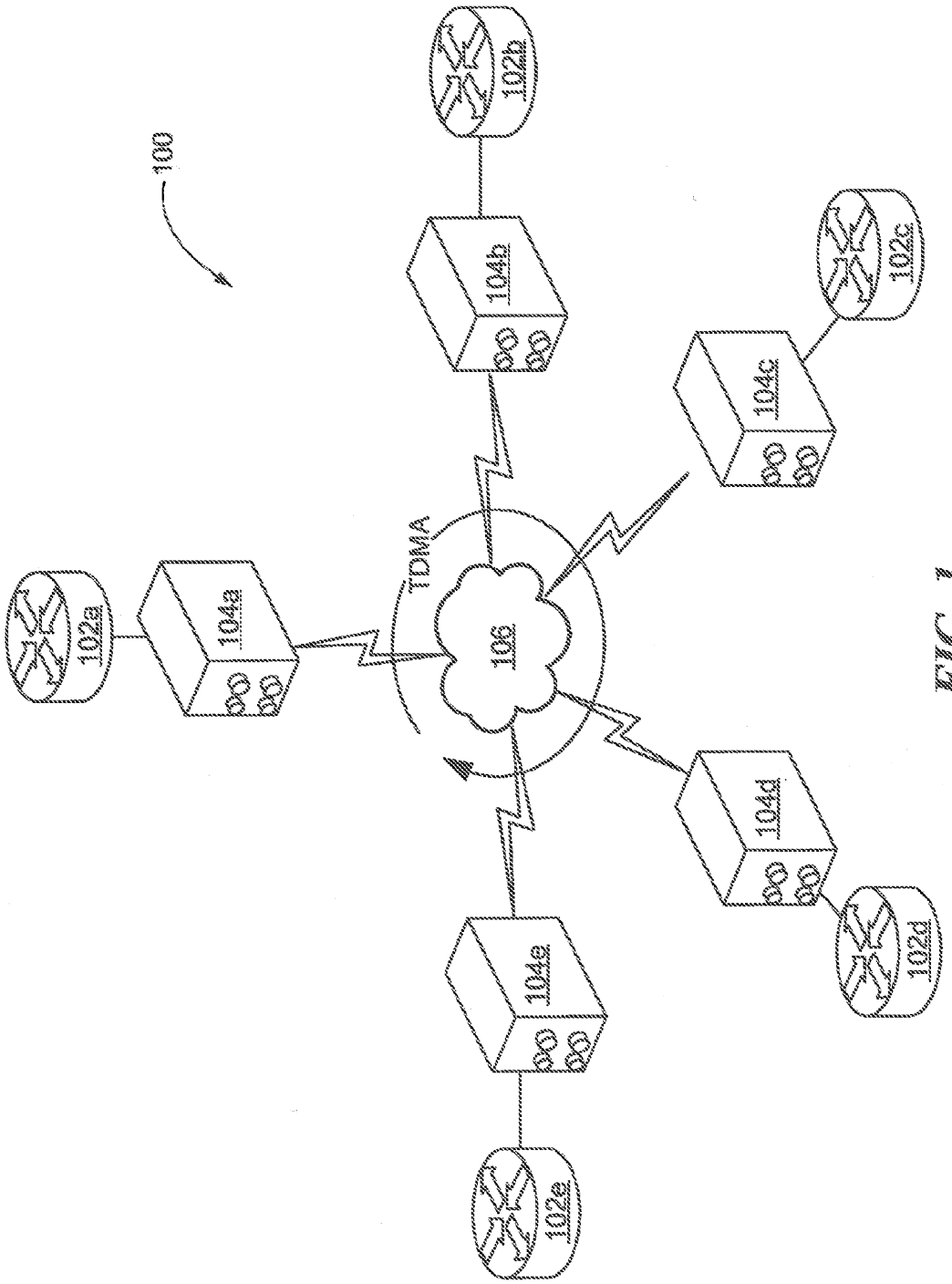
100
102a
102b
102c
102d
102e
104a
104b
104c
104d
104e
106
TDMA

FIG. 1

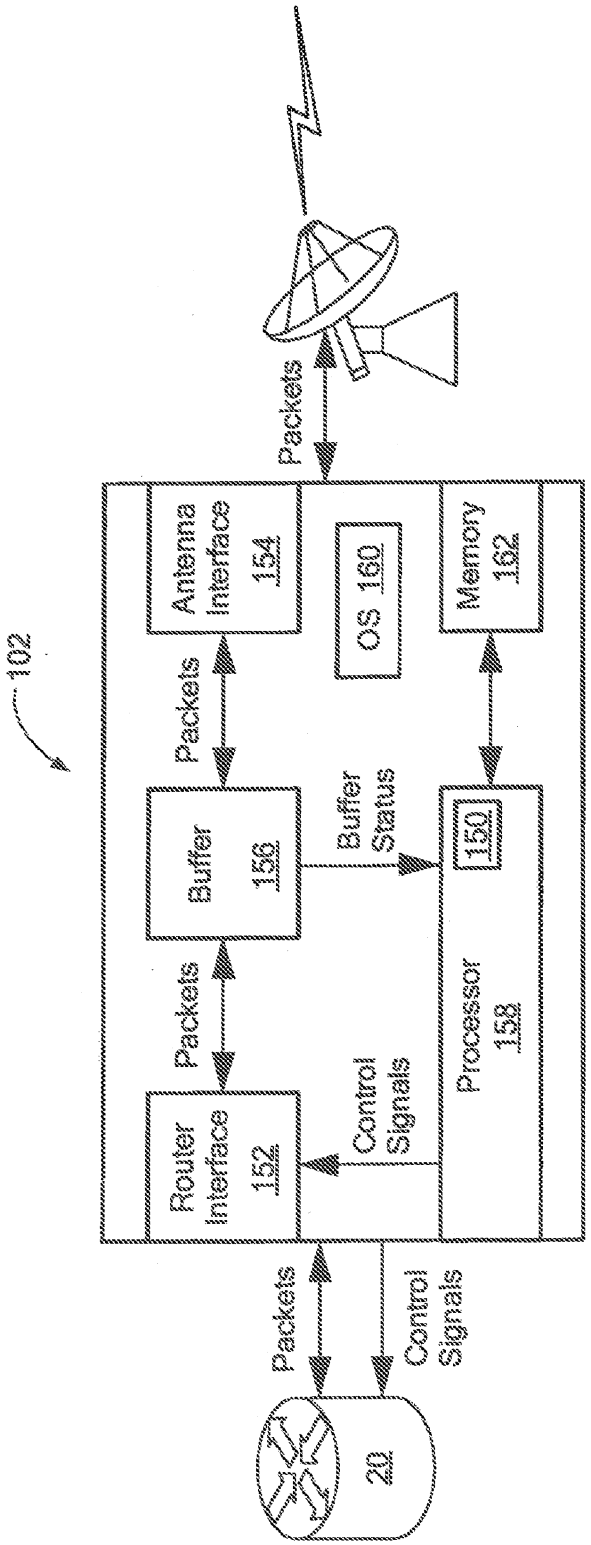
102
Packets
Antenna Interface 154
OS 160
Memory 162
Packets
Buffer 156
Buffer Status
150
Packets
Router Interface 152
Control Signals
Processor 158
Packets
Control Signals
20

FIG. 1A

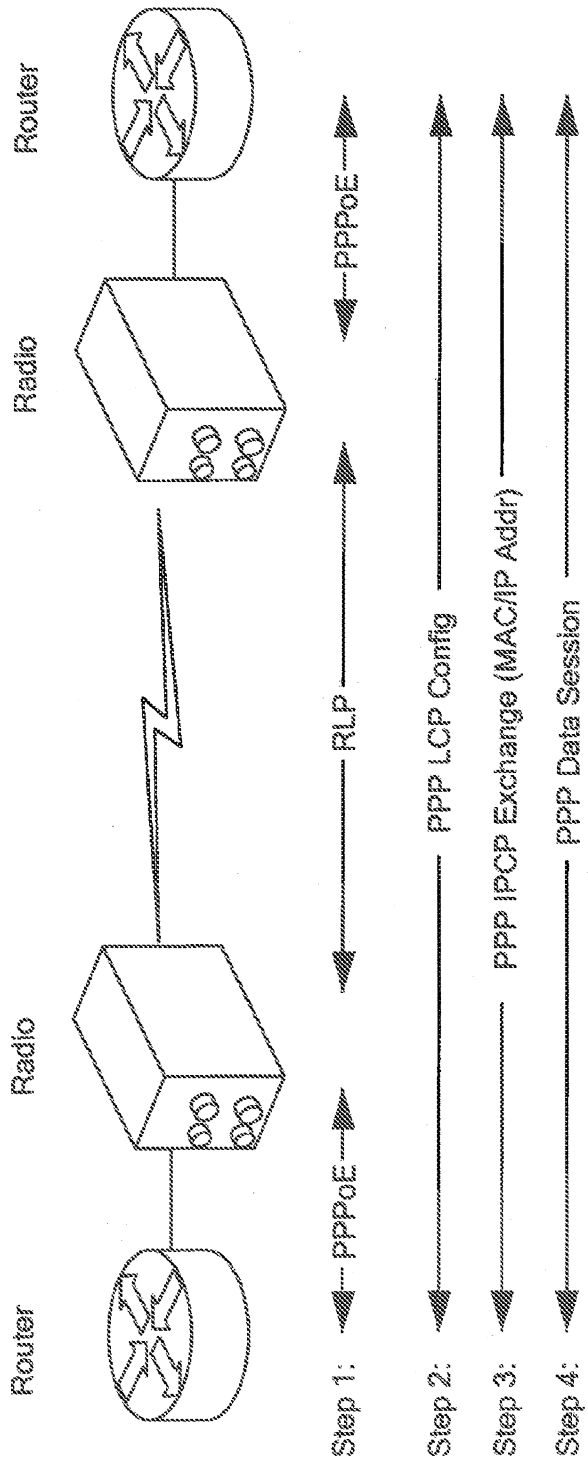

FIG. 2

PRIOR ART

OSI Model

	Data unit	Layer	Function
Host layers	Data	7. Application	Network process to application
		6. Presentation	Data representation, encryption and decryption, convert machine dependent data to machine independent data
		5. Session	Interhost communication
	Segments	4. Transport	End-to-end connections and reliability, flow control
Media layers	Packet/Datagram	3. Network	Path determination and logical addressing
	Frame	2. Data Link	Physical addressing
	Bit	1. Physical	Media, signal and binary transmission

FIG. 2A
PRIOR ART

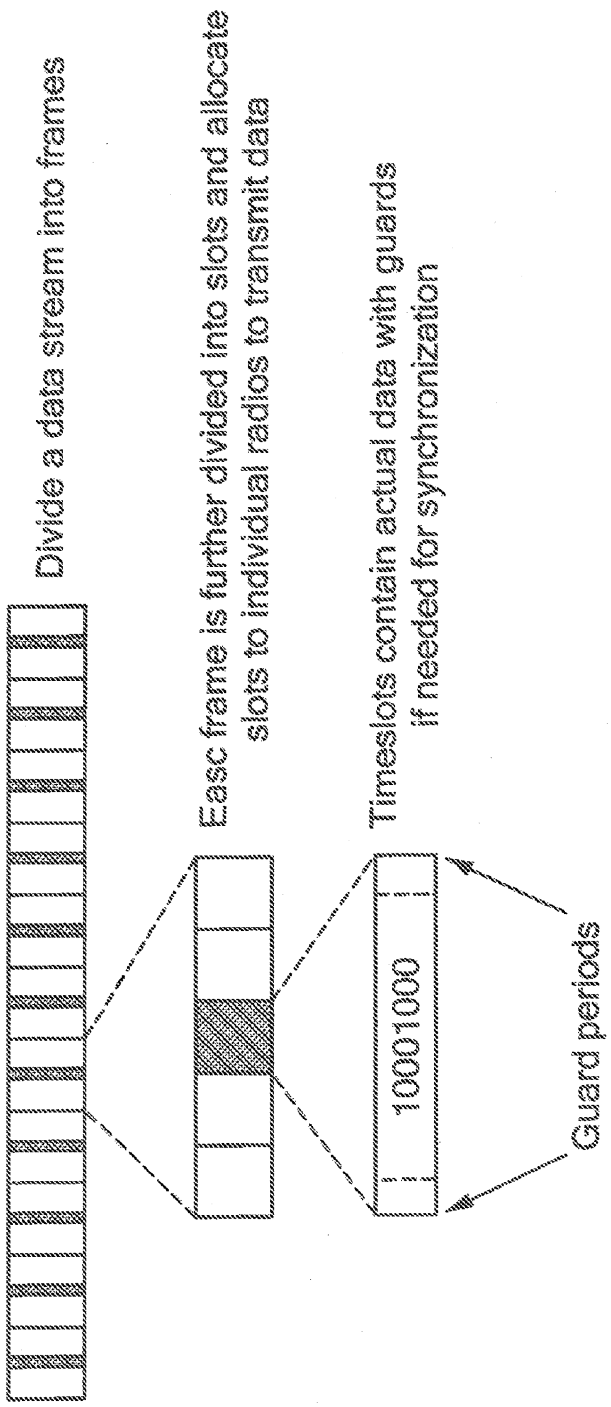

FIG. 3

PRIOR ART

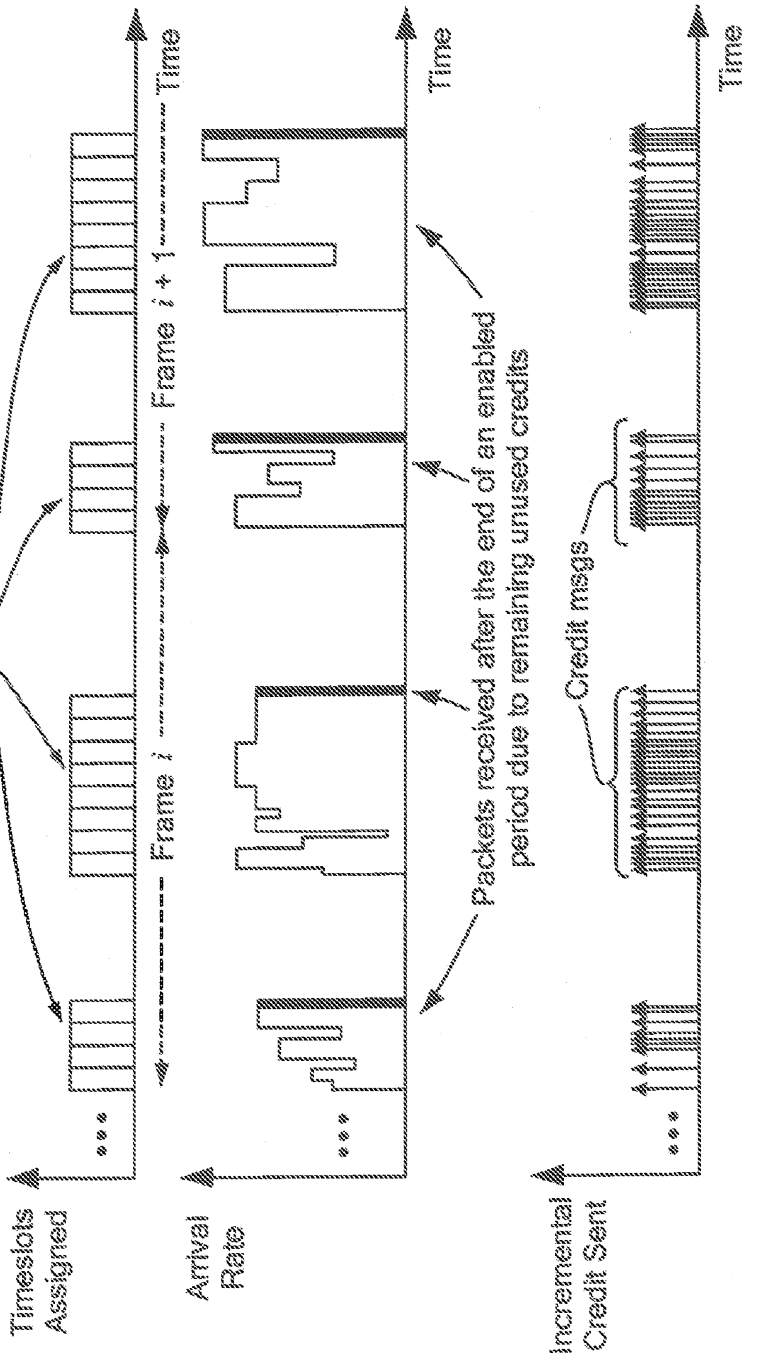

FIG. 4
PRIOR ART

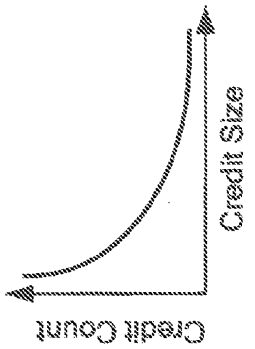

FIG. 5

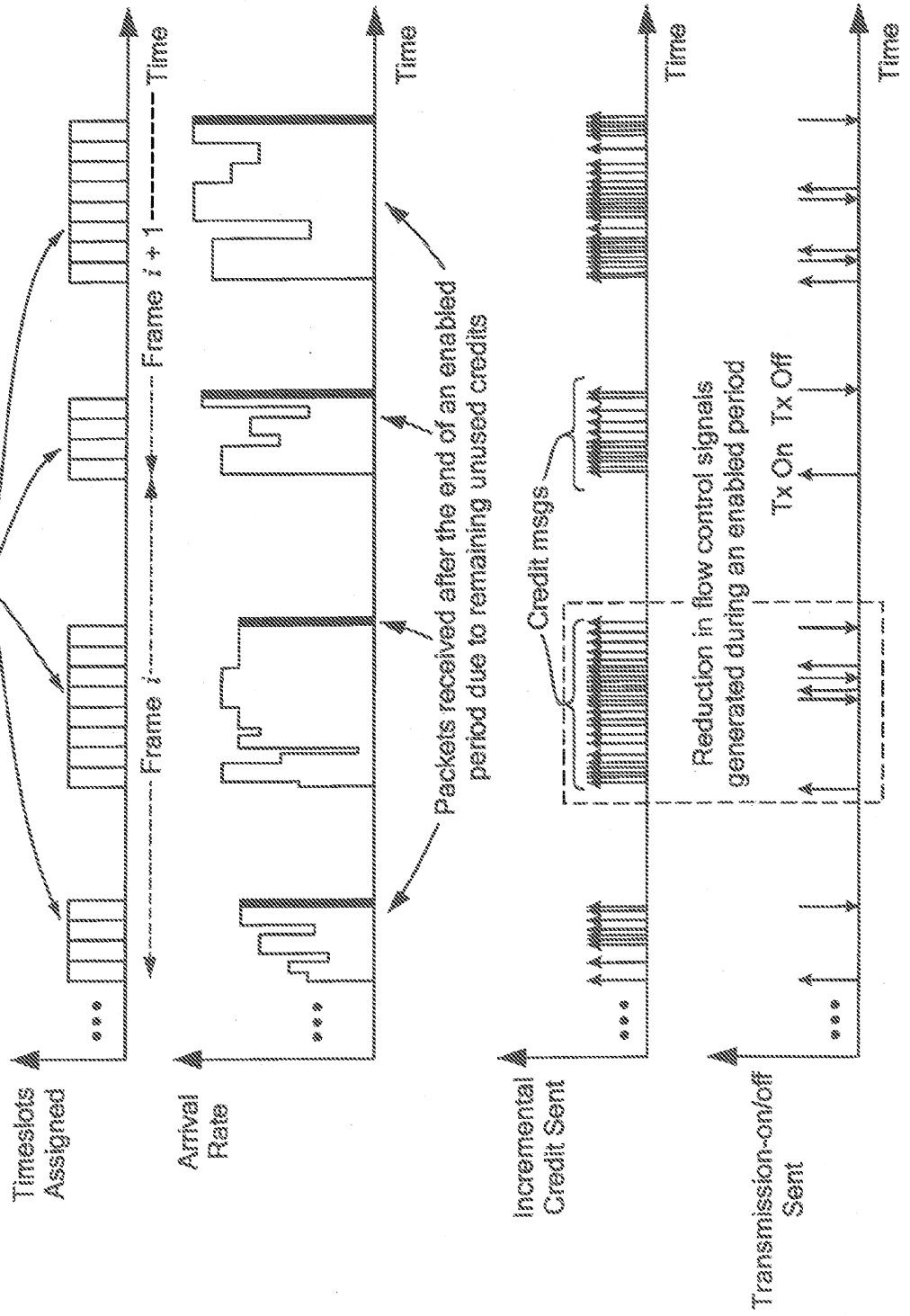
Timeslots Assigned
Enabled periods
Frame i
Frame i + 1
Time
Arrival Rate
Time
Packets received after the end of an enabled period due to remaining unused credits
Incremental Credit Sent
Credit msgs
Time
Transmission-on/off Sent
Reduction in flow control signals generated during an enabled period
Tx On
Tx Off
Time

FIG. 6

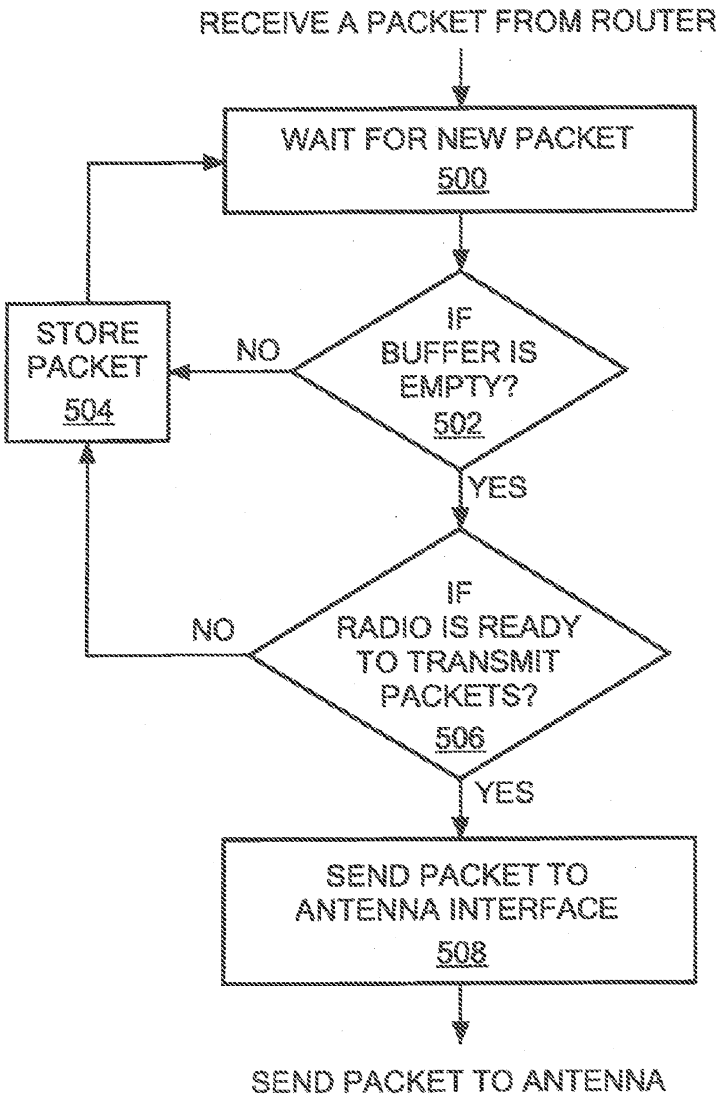
RECEIVE A PACKET FROM ROUTER
WAIT FOR NEW PACKET
500
IF
BUFFER IS
EMPTY?
502
NO
STORE
PACKET
504
YES
IF
RADIO IS READY
TO TRANSMIT
PACKETS?
506
NO
YES
SEND PACKET TO
ANTENNA INTERFACE
508
SEND PACKET TO ANTENNA

FIG. 7

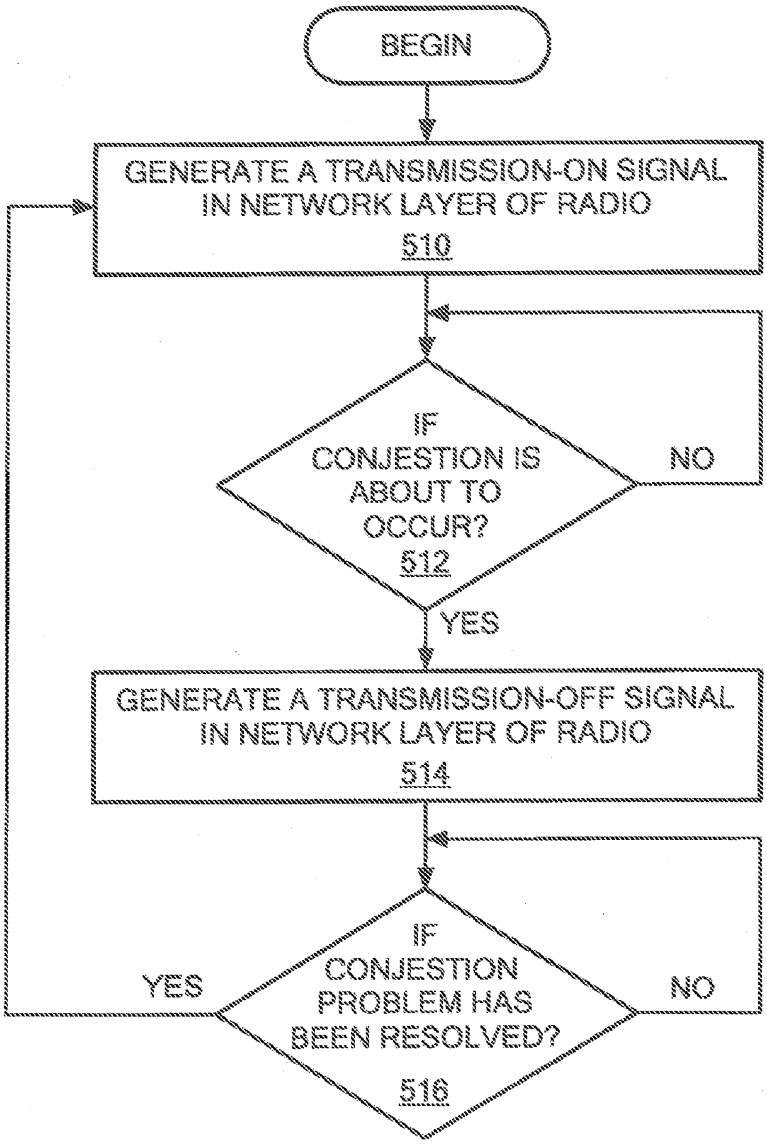
BEGIN
GENERATE A TRANSMISSION-ON SIGNAL IN NETWORK LAYER OF RADIO
510
IF CONJESTION IS ABOUT TO OCCUR?
512
NO
YES
GENERATE A TRANSMISSION-OFF SIGNAL IN NETWORK LAYER OF RADIO
514
IF CONJESTION PROBLEM HAS BEEN RESOLVED?
516
YES
NO

FIG. 7A

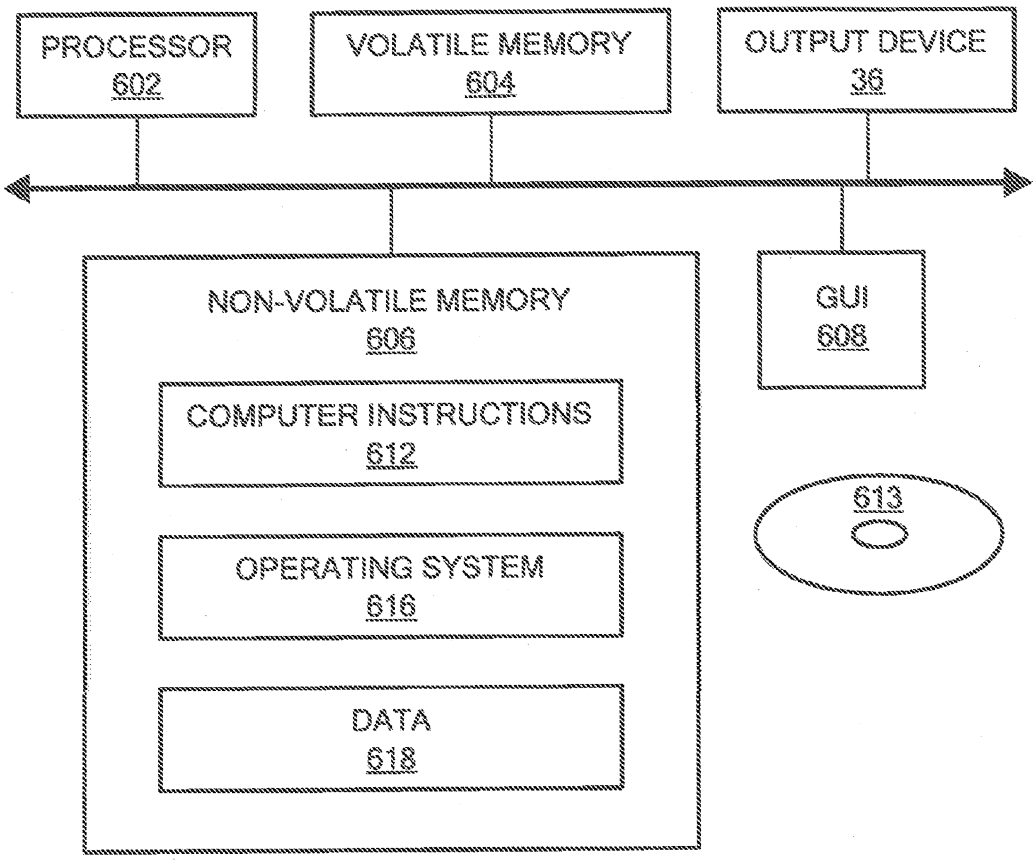
PROCESSOR
602
VOLATILE MEMORY
604
OUTPUT DEVICE
36
NON-VOLATILE MEMORY
606
COMPUTER INSTRUCTIONS
612
OPERATING SYSTEM
616
DATA
618
GUI
608
613

FIG. 8