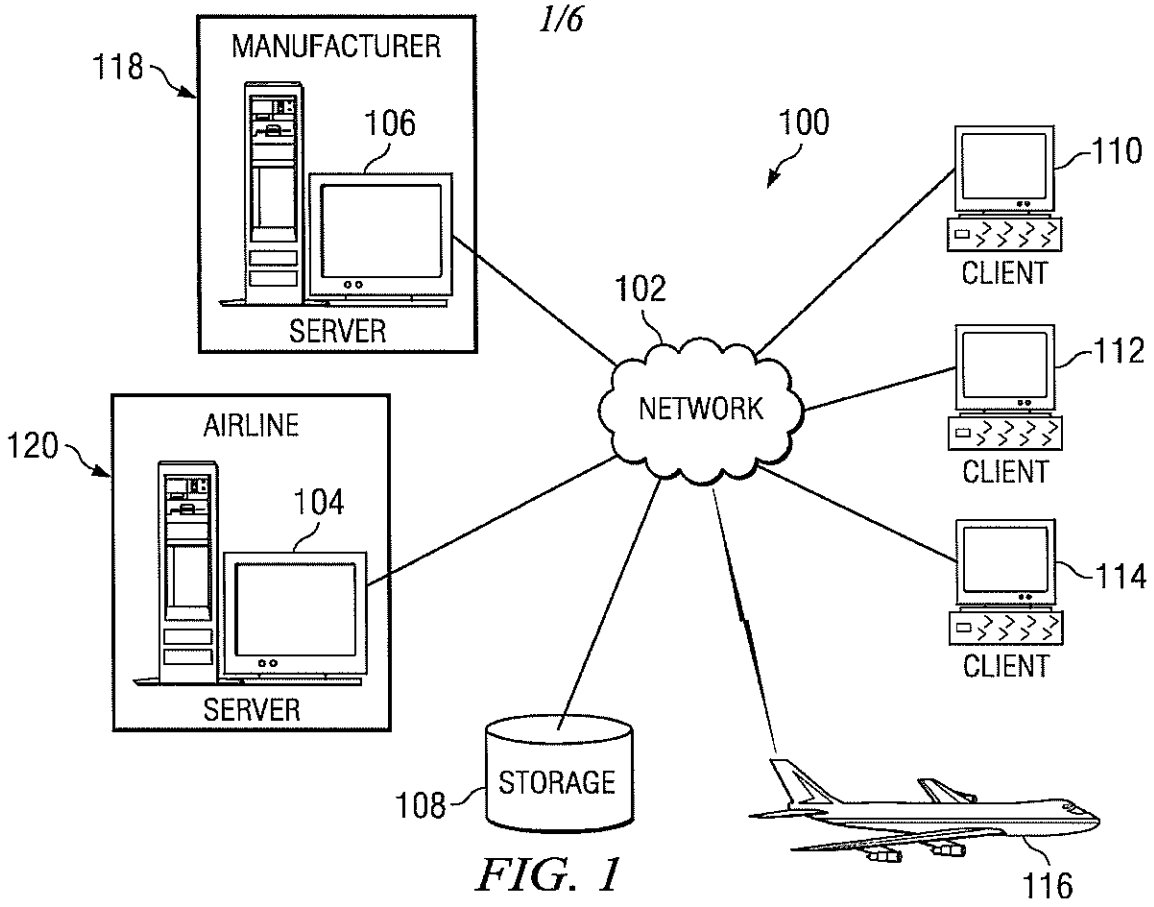

MANUFACTURER
118
106
SERVER
100
110
CLIENT
102
NETWORK
112
CLIENT
AIRLINE
120
104
SERVER
114
CLIENT
STORAGE
108
116

FIG. 1

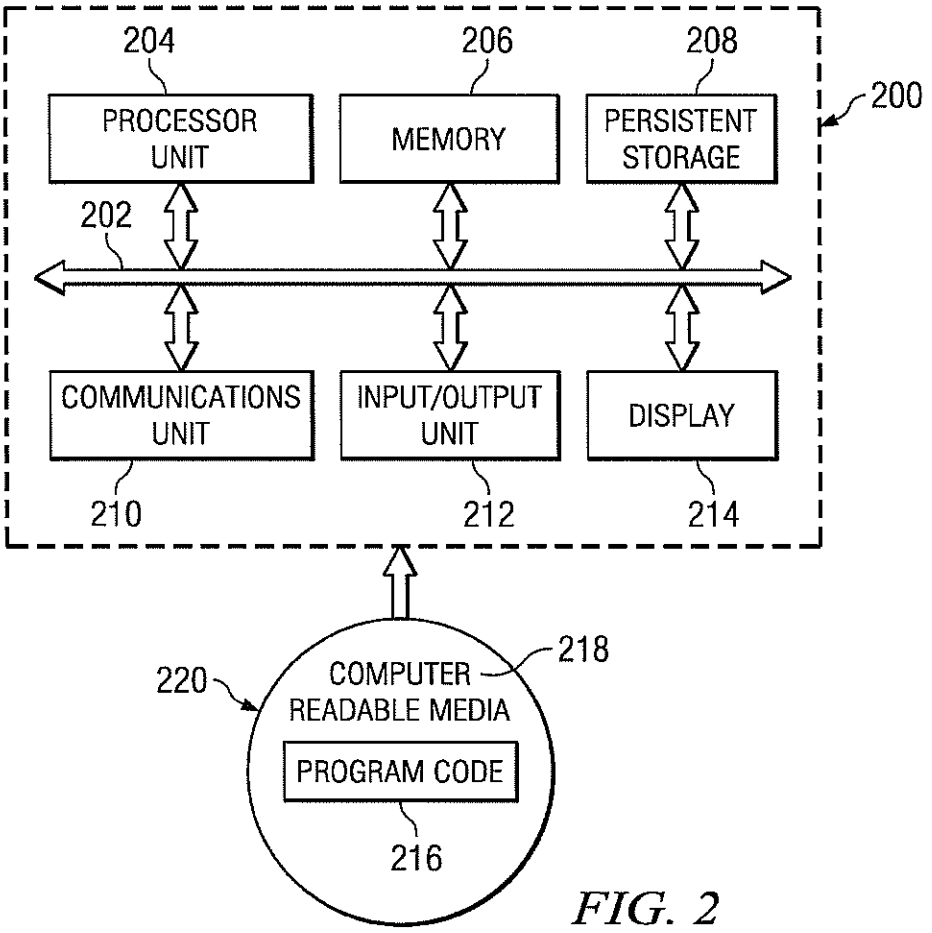

204
206
208
200
PROCESSOR UNIT
MEMORY
PERSISTENT STORAGE
202
COMMUNICATIONS UNIT
INPUT/OUTPUT UNIT
DISPLAY
210
212
214
220
COMPUTER READABLE MEDIA
218
PROGRAM CODE
216

FIG. 2

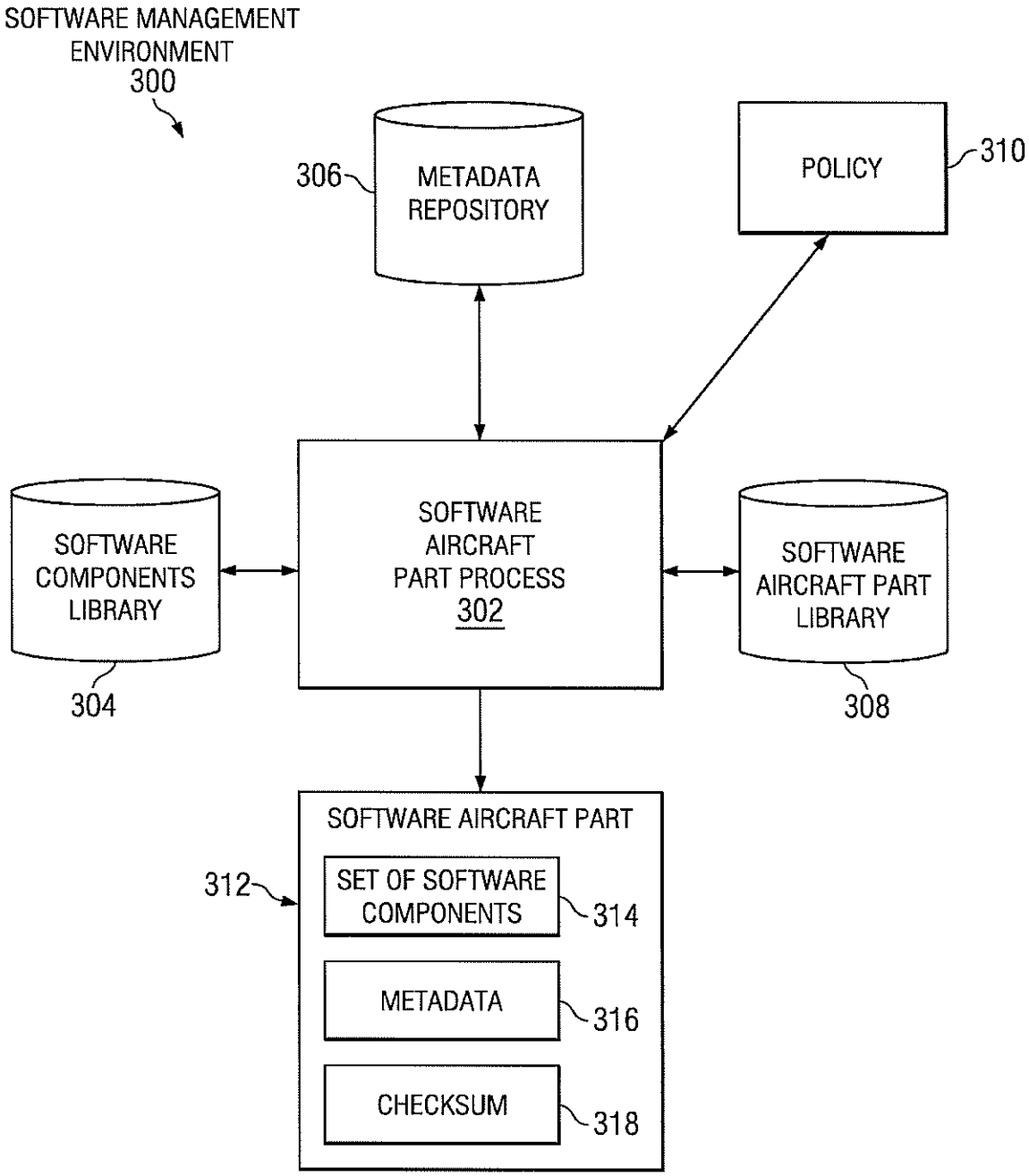

SOFTWARE MANAGEMENT ENVIRONMENT
300
306
METADATA REPOSITORY
POLICY
310
SOFTWARE COMPONENTS LIBRARY
304
SOFTWARE AIRCRAFT PART PROCESS
302
SOFTWARE AIRCRAFT PART LIBRARY
308
SOFTWARE AIRCRAFT PART
312
SET OF SOFTWARE COMPONENTS
314
METADATA
316
CHECKSUM
318

FIG. 3

FIG. 4

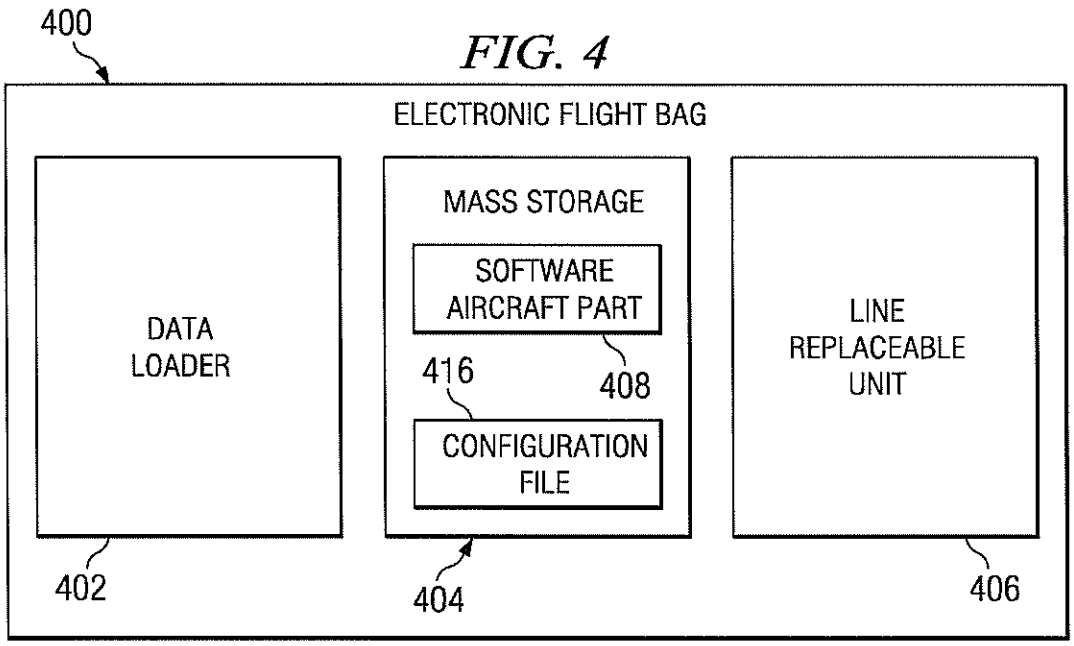
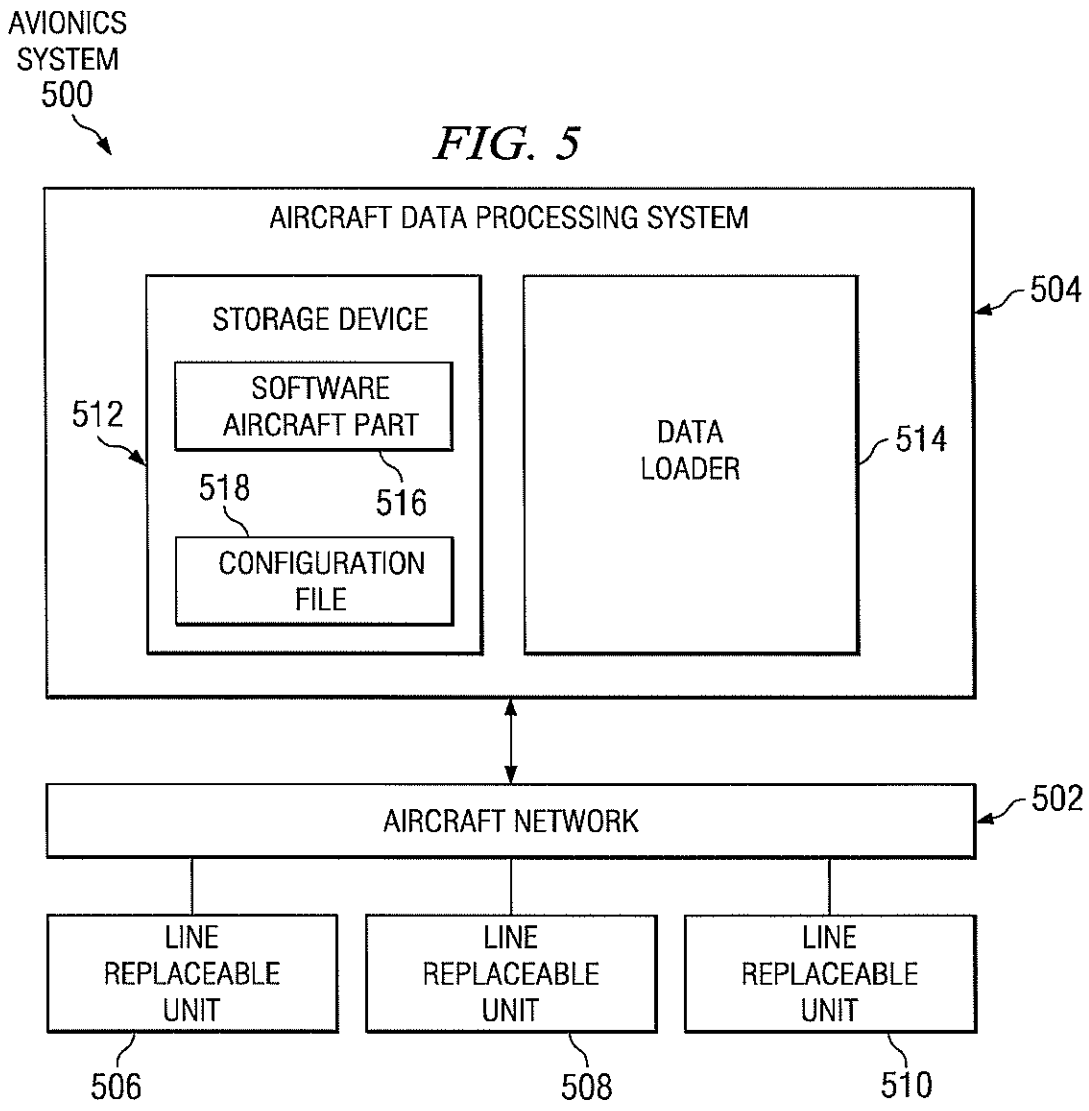

400
ELECTRONIC FLIGHT BAG
DATA LOADER
MASS STORAGE
SOFTWARE AIRCRAFT PART
408
416
CONFIGURATION FILE
LINE REPLACEABLE UNIT
402
404
406

FIG. 5


AVIONICS SYSTEM 500
AIRCRAFT DATA PROCESSING SYSTEM
504
STORAGE DEVICE
512
SOFTWARE AIRCRAFT PART
516
518
CONFIGURATION FILE
DATA LOADER
514
AIRCRAFT NETWORK
502
LINE REPLACEABLE UNIT
LINE REPLACEABLE UNIT
LINE REPLACEABLE UNIT
506
508
510

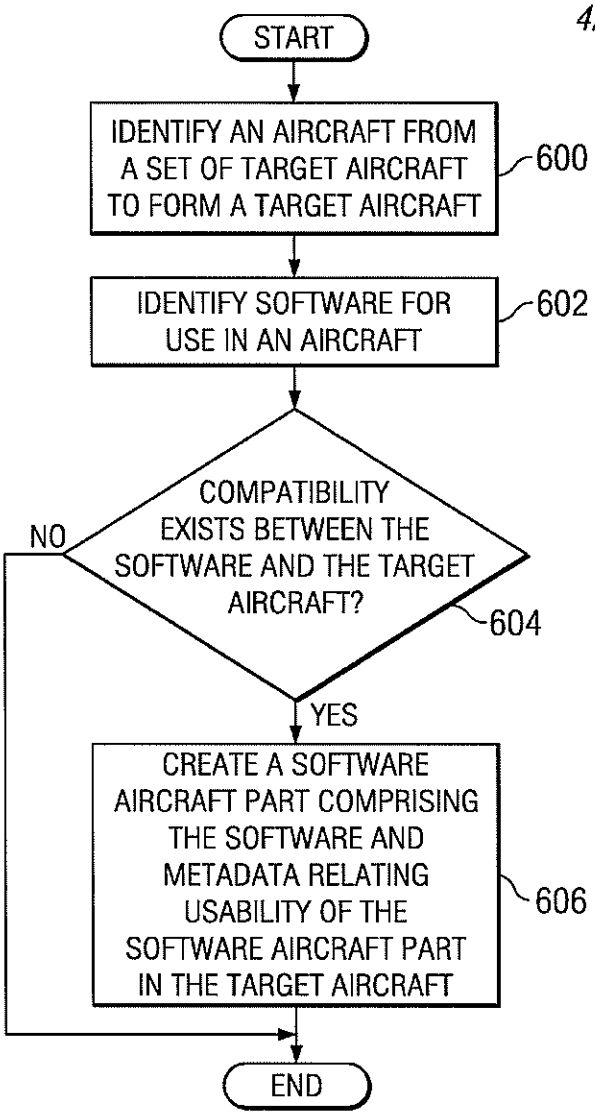

START
IDENTIFY AN AIRCRAFT FROM A SET OF TARGET AIRCRAFT TO FORM A TARGET AIRCRAFT
600
IDENTIFY SOFTWARE FOR USE IN AN AIRCRAFT
602
COMPATIBILITY EXISTS BETWEEN THE SOFTWARE AND THE TARGET AIRCRAFT?
604
NO
YES
CREATE A SOFTWARE AIRCRAFT PART COMPRISING THE SOFTWARE AND METADATA RELATING USABILITY OF THE SOFTWARE AIRCRAFT PART IN THE TARGET AIRCRAFT
606
END

FIG. 6

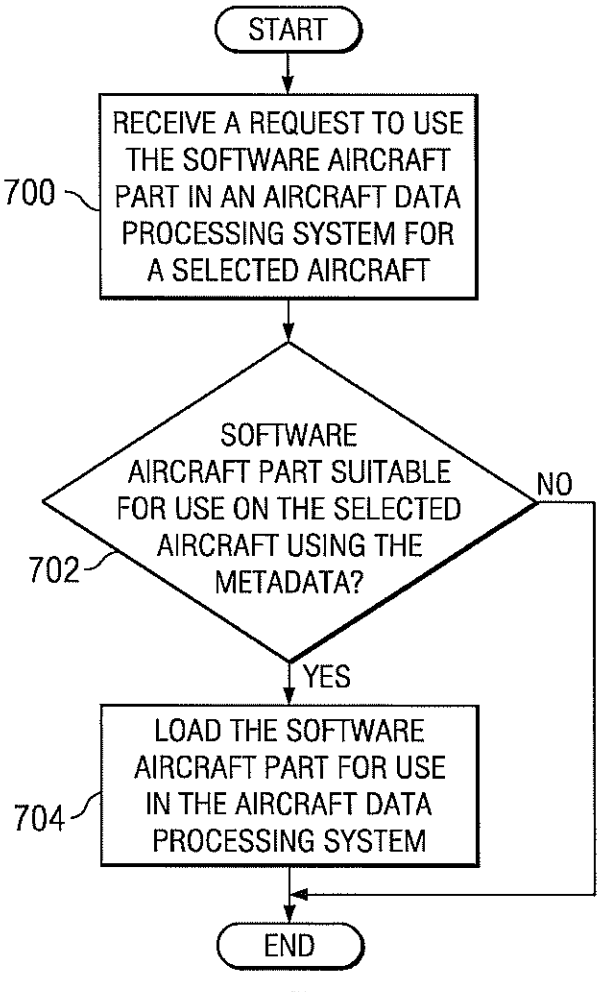

START
RECEIVE A REQUEST TO USE THE SOFTWARE AIRCRAFT PART IN AN AIRCRAFT DATA PROCESSING SYSTEM FOR A SELECTED AIRCRAFT
700
SOFTWARE AIRCRAFT PART SUITABLE FOR USE ON THE SELECTED AIRCRAFT USING THE METADATA?
702
NO
YES
LOAD THE SOFTWARE AIRCRAFT PART FOR USE IN THE AIRCRAFT DATA PROCESSING SYSTEM
704
END

FIG. 7

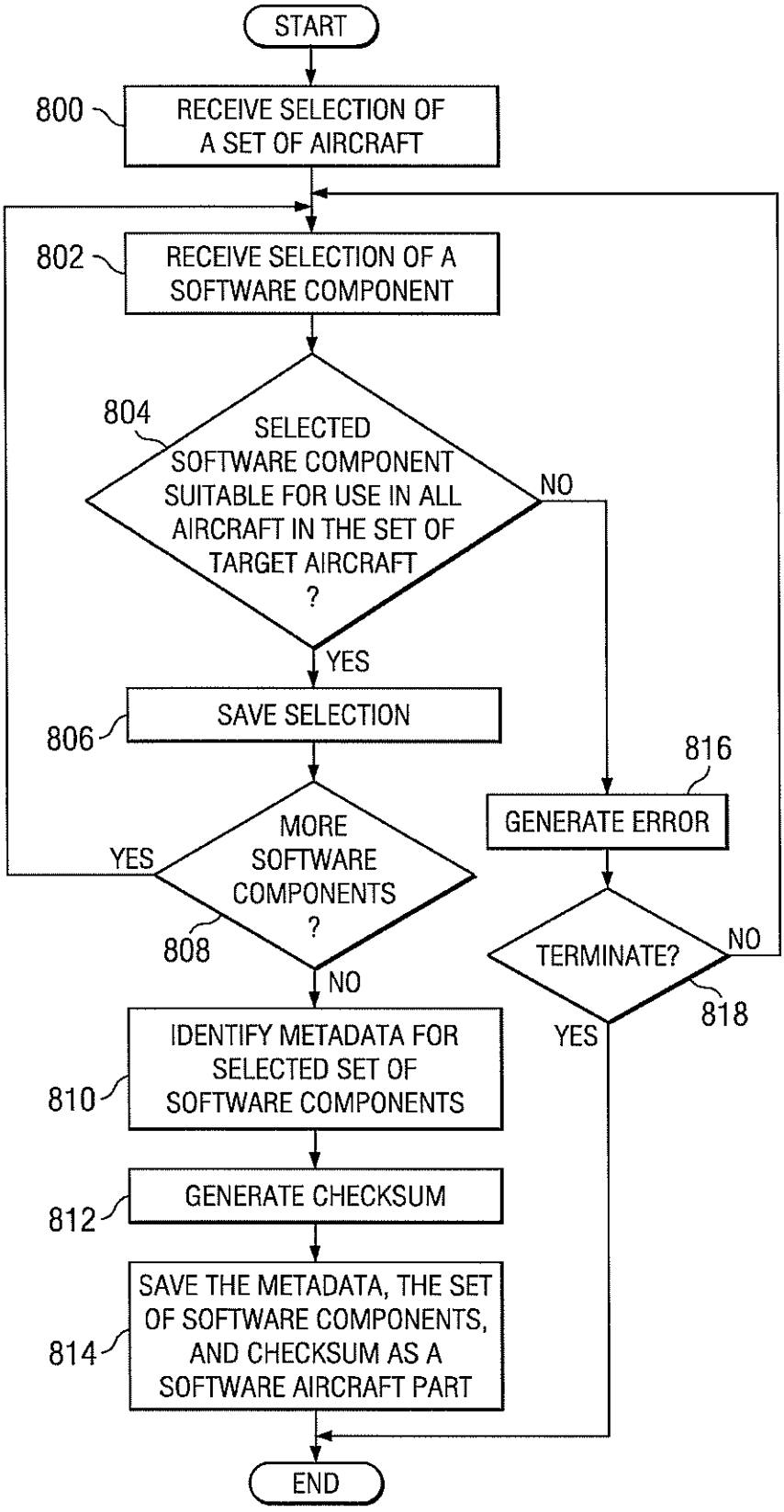

START
800
RECEIVE SELECTION OF A SET OF AIRCRAFT
802
RECEIVE SELECTION OF A SOFTWARE COMPONENT
804
SELECTED SOFTWARE COMPONENT SUITABLE FOR USE IN ALL AIRCRAFT IN THE SET OF TARGET AIRCRAFT ?
NO
YES
806
SAVE SELECTION
816
GENERATE ERROR
MORE SOFTWARE COMPONENTS ?
YES
808
NO
TERMINATE?
NO
818
YES
810
IDENTIFY METADATA FOR SELECTED SET OF SOFTWARE COMPONENTS
812
GENERATE CHECKSUM
814
SAVE THE METADATA, THE SET OF SOFTWARE COMPONENTS, AND CHECKSUM AS A SOFTWARE AIRCRAFT PART
END

FIG. 8

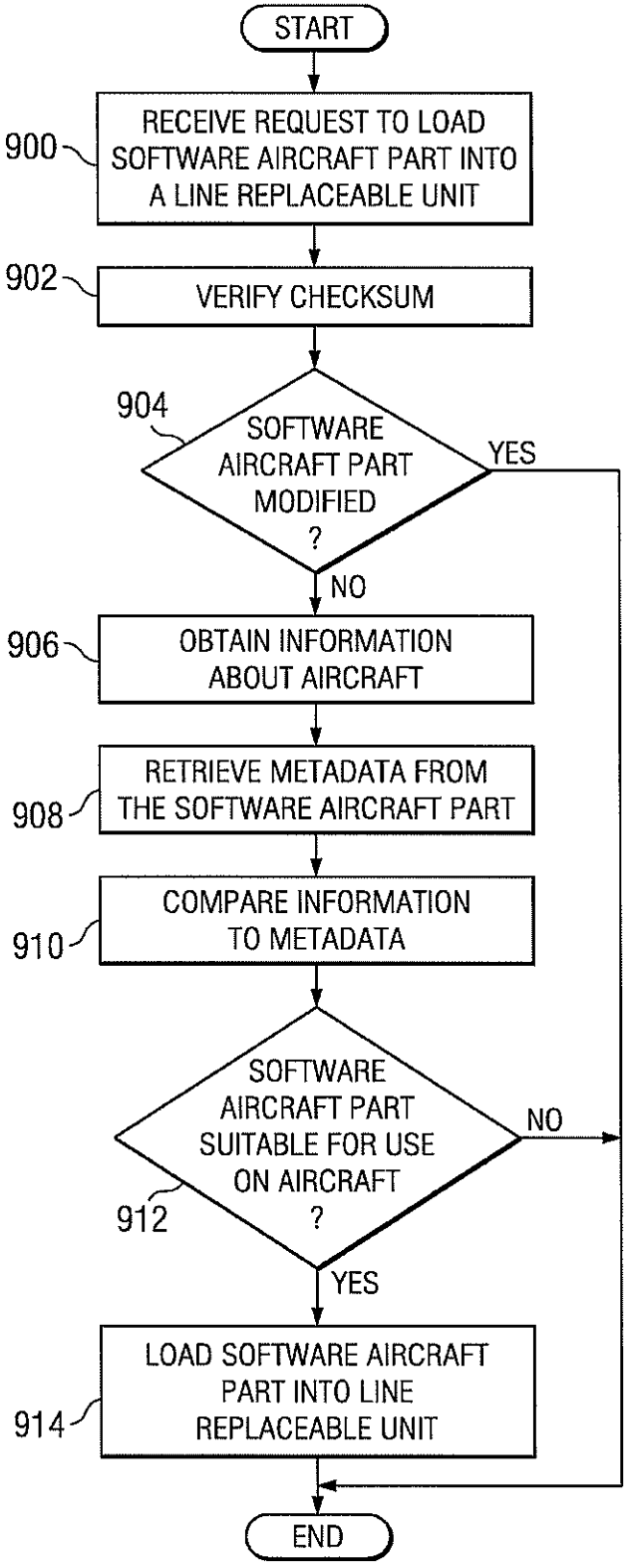

START
RECEIVE REQUEST TO LOAD SOFTWARE AIRCRAFT PART INTO A LINE REPLACEABLE UNIT
900
VERIFY CHECKSUM
902
SOFTWARE AIRCRAFT PART MODIFIED ?
904
YES
NO
OBTAIN INFORMATION ABOUT AIRCRAFT
906
RETRIEVE METADATA FROM THE SOFTWARE AIRCRAFT PART
908
COMPARE INFORMATION TO METADATA
910
SOFTWARE AIRCRAFT PART SUITABLE FOR USE ON AIRCRAFT ?
912
NO
YES
LOAD SOFTWARE AIRCRAFT PART INTO LINE REPLACEABLE UNIT
914
END

FIG. 9