

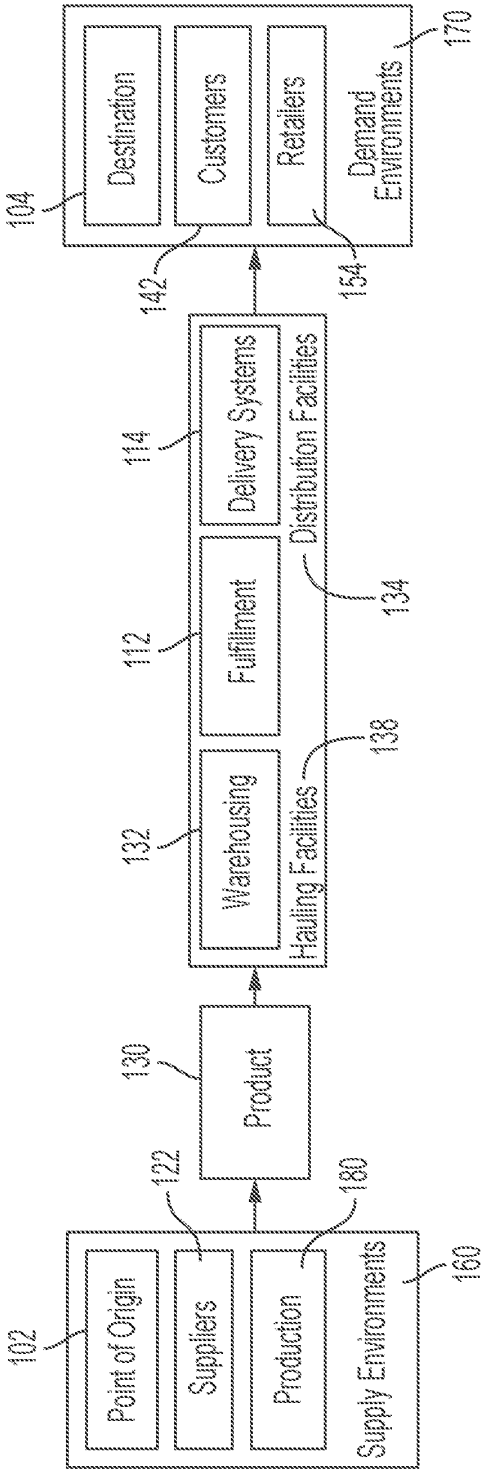


FIG. 1

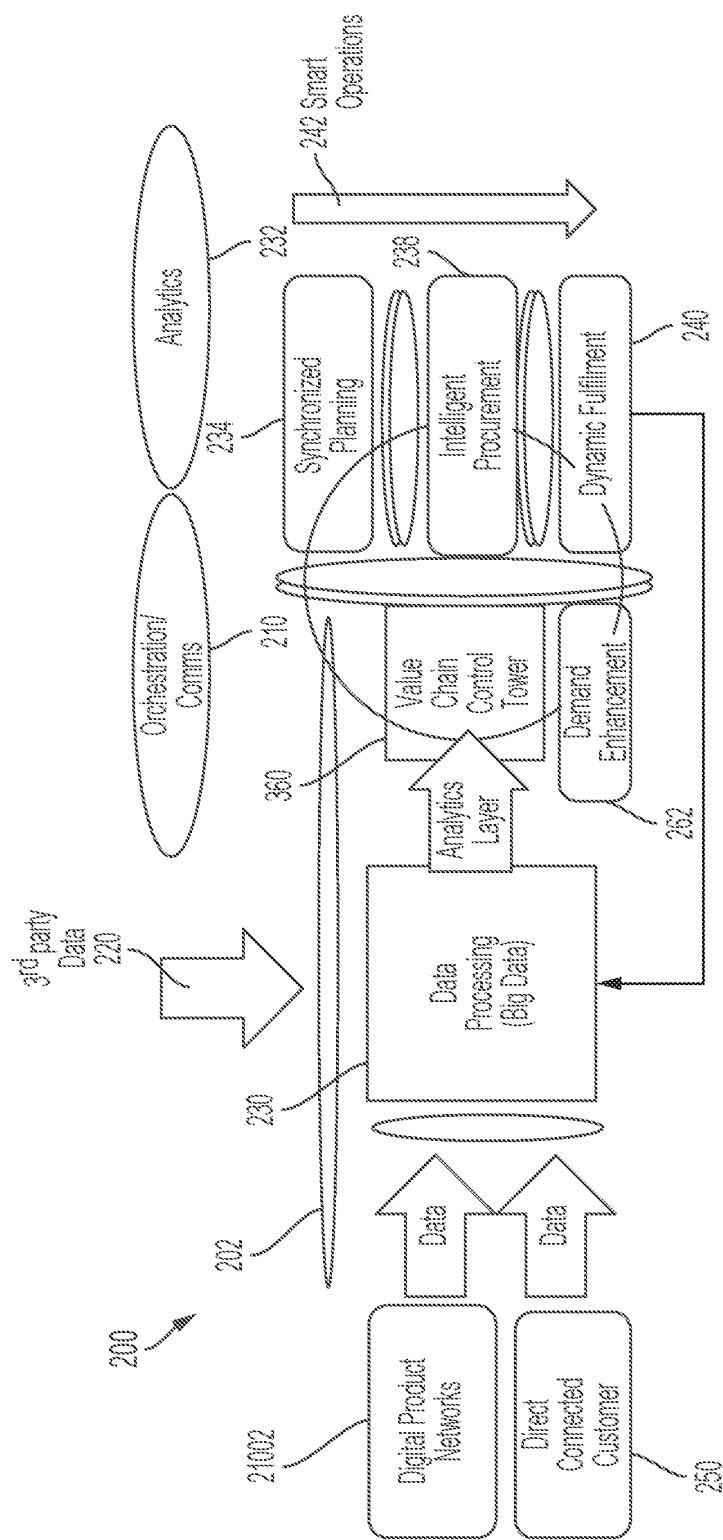


FIG. 2

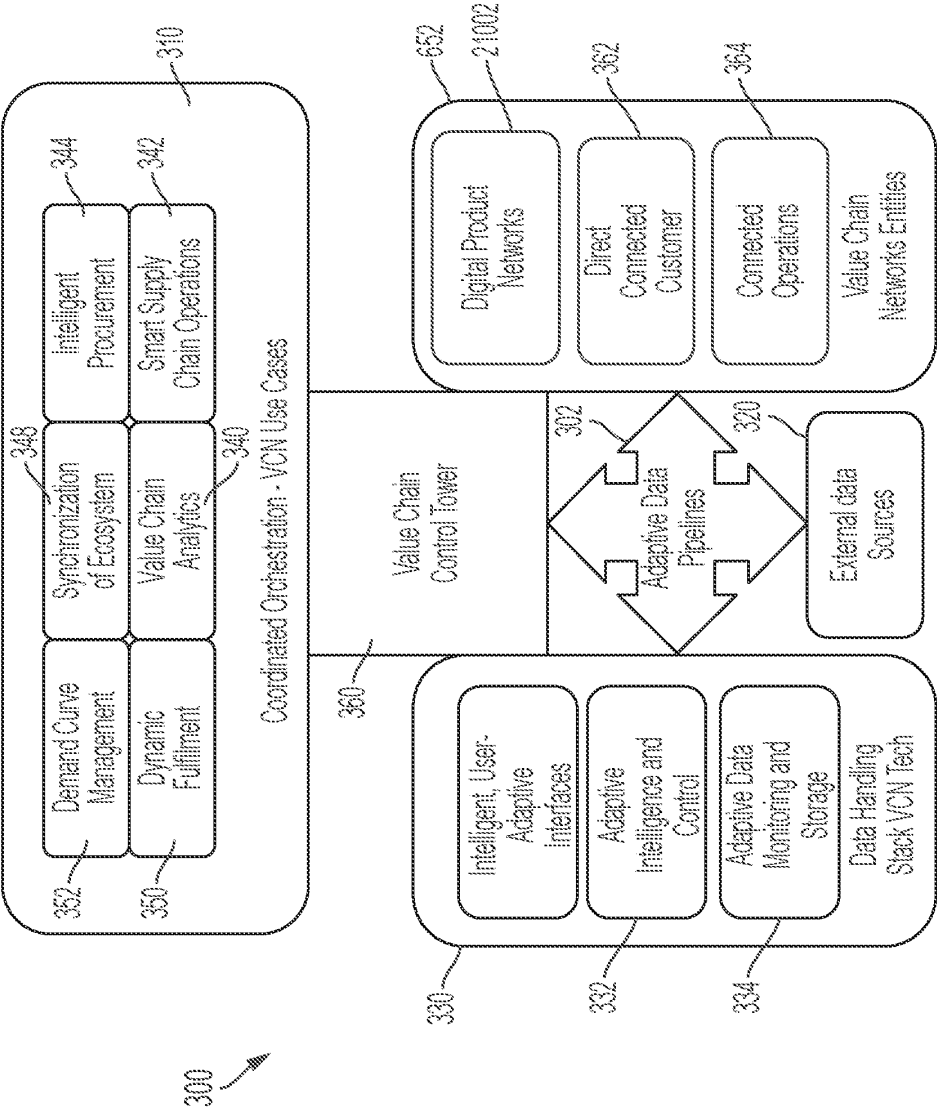


FIG. 3

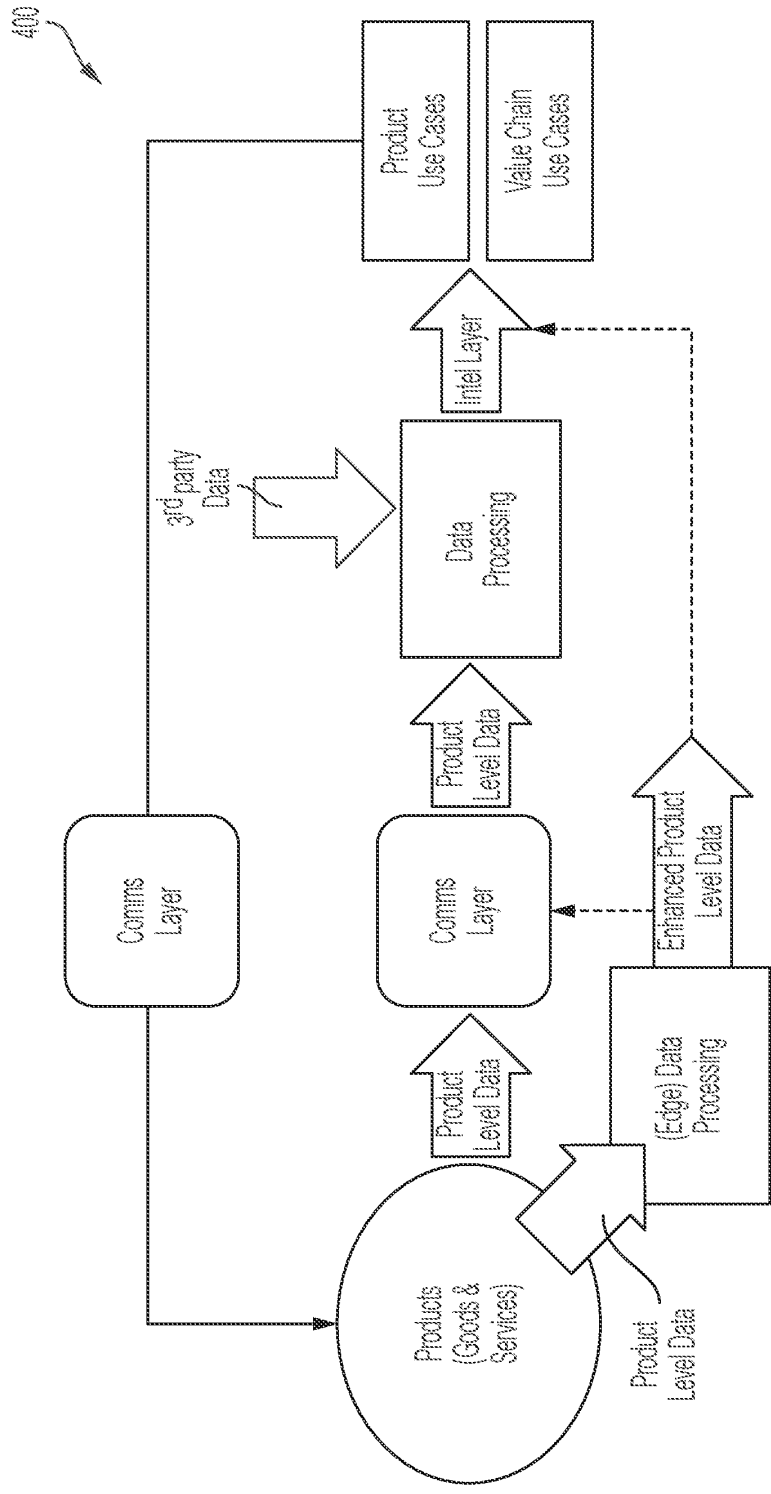


FIG. 4

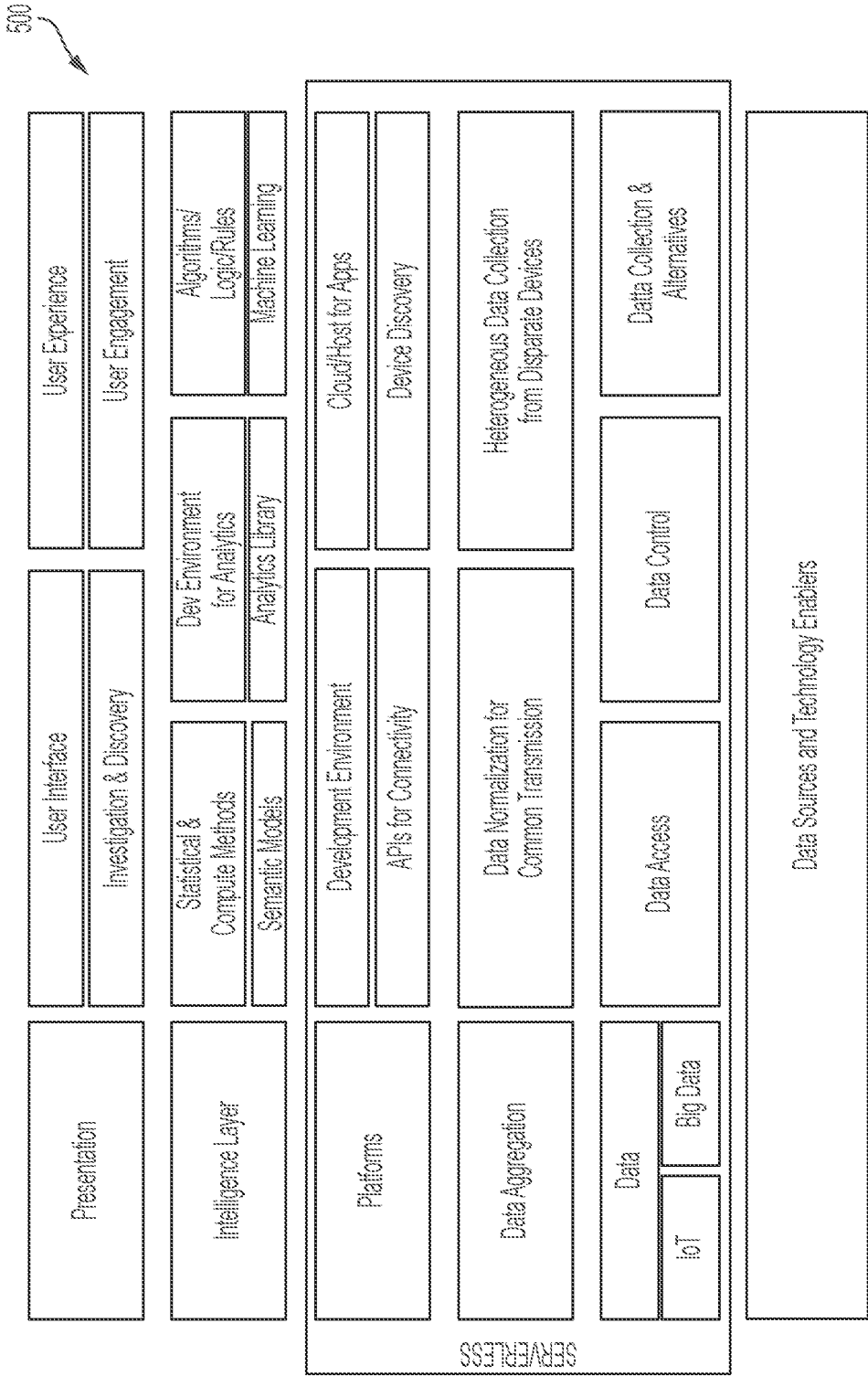


FIG. 5

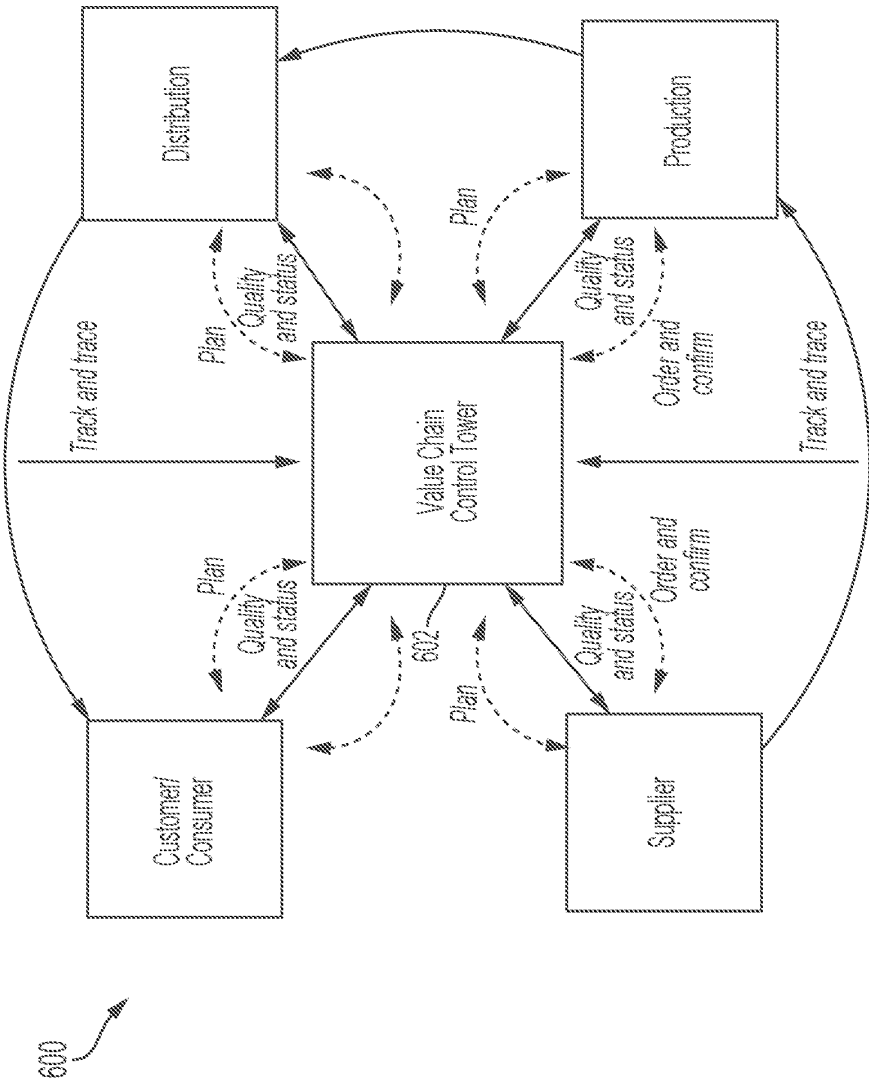


FIG. 6

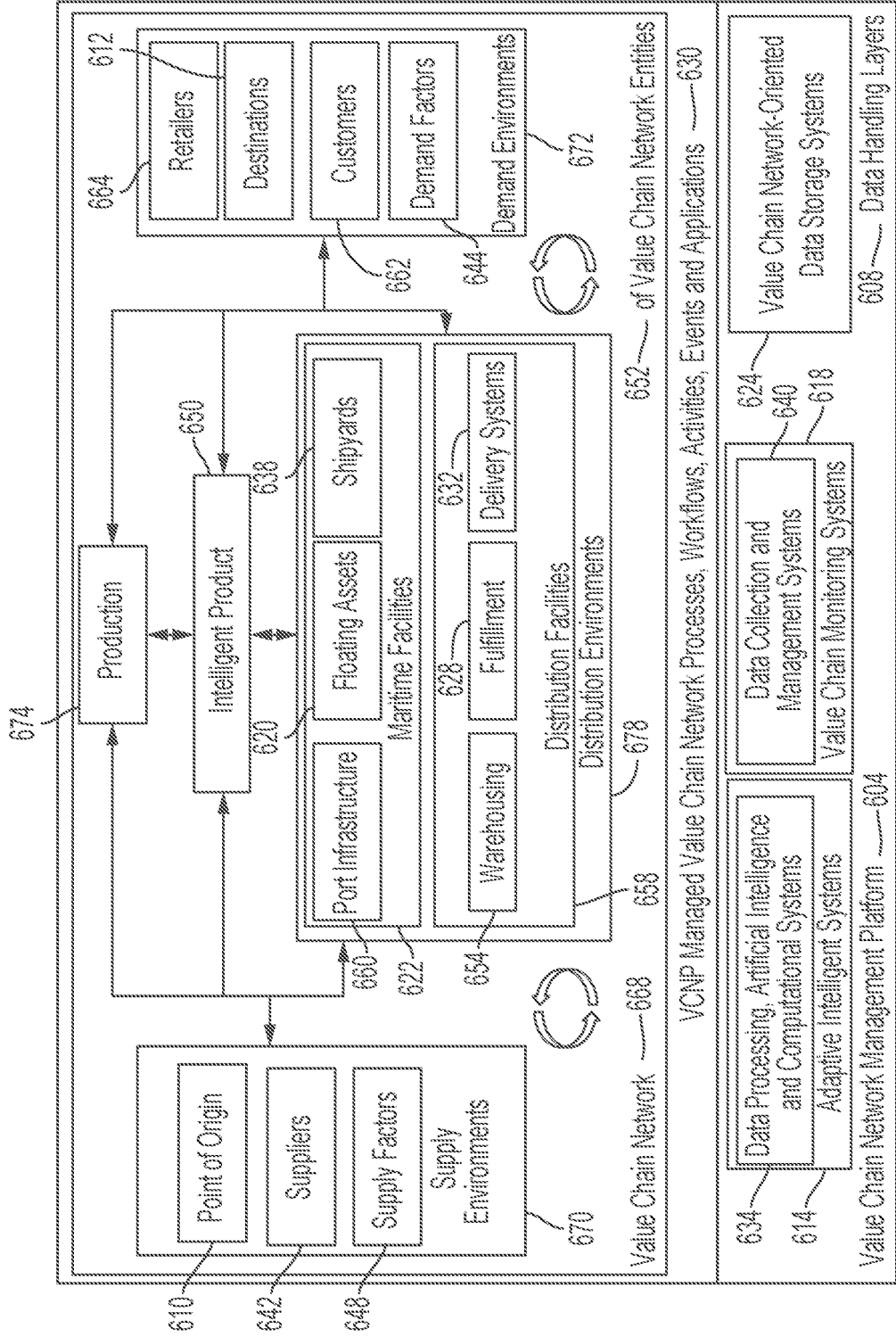


FIG. 7

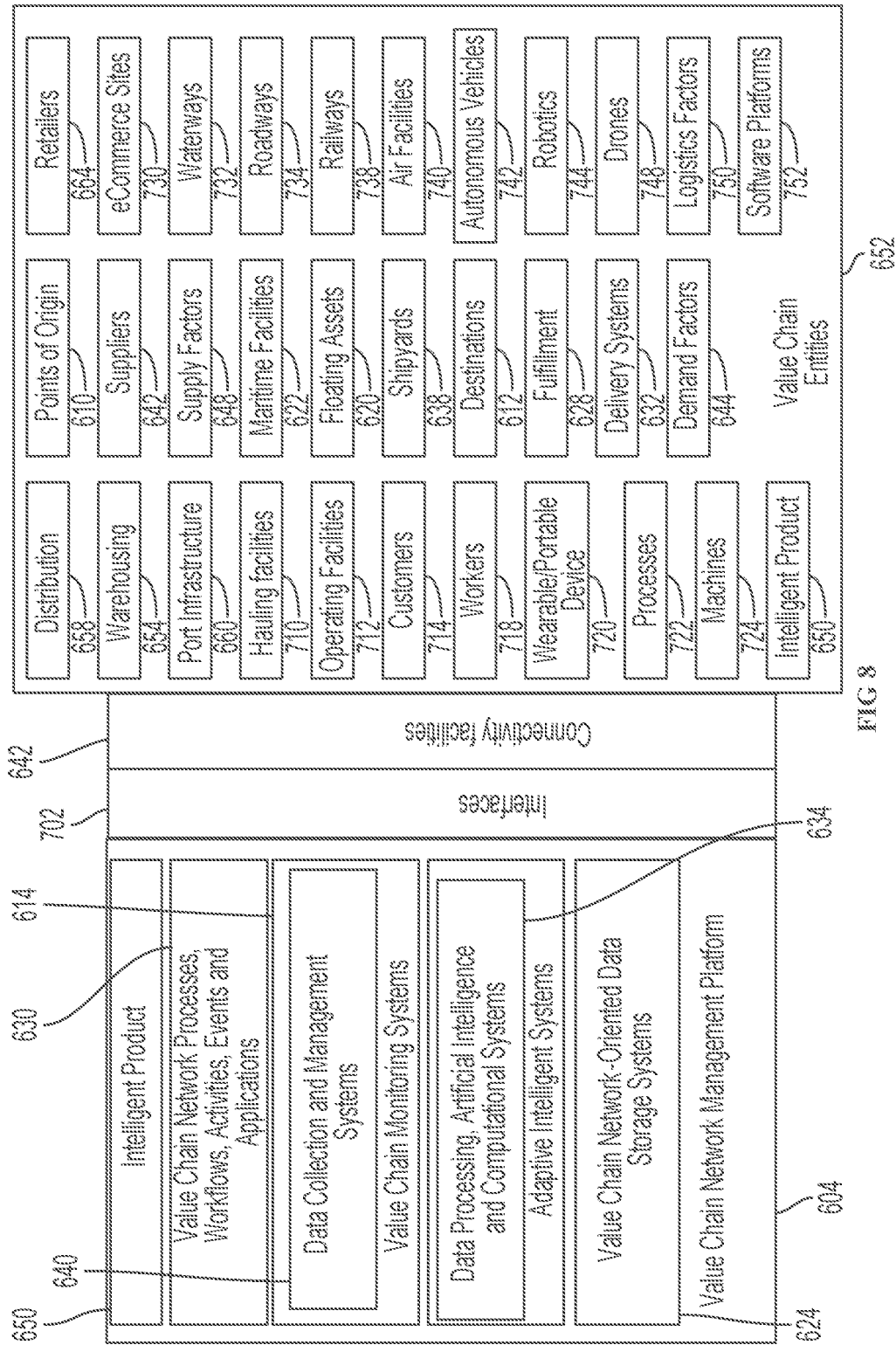


FIG 8

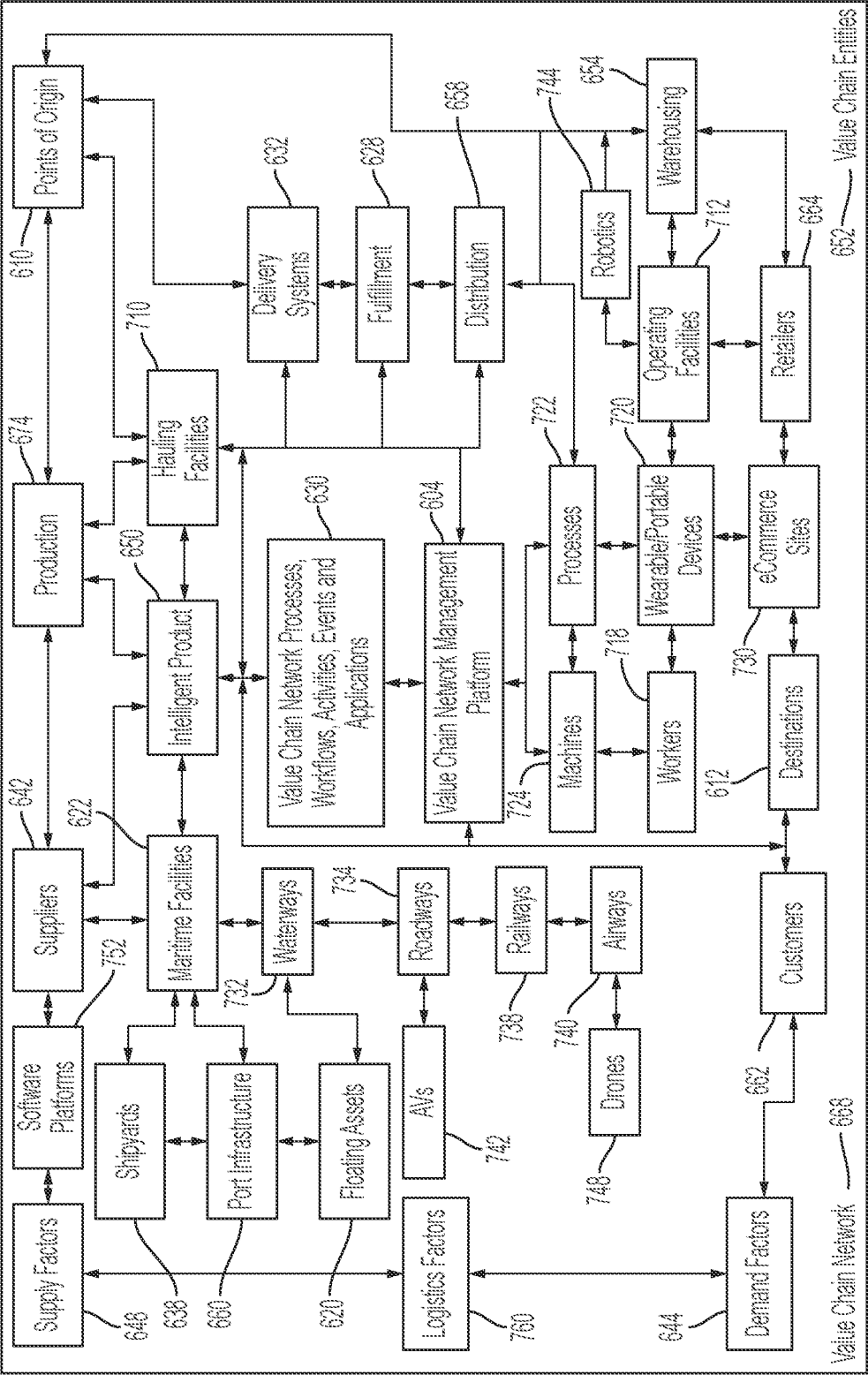
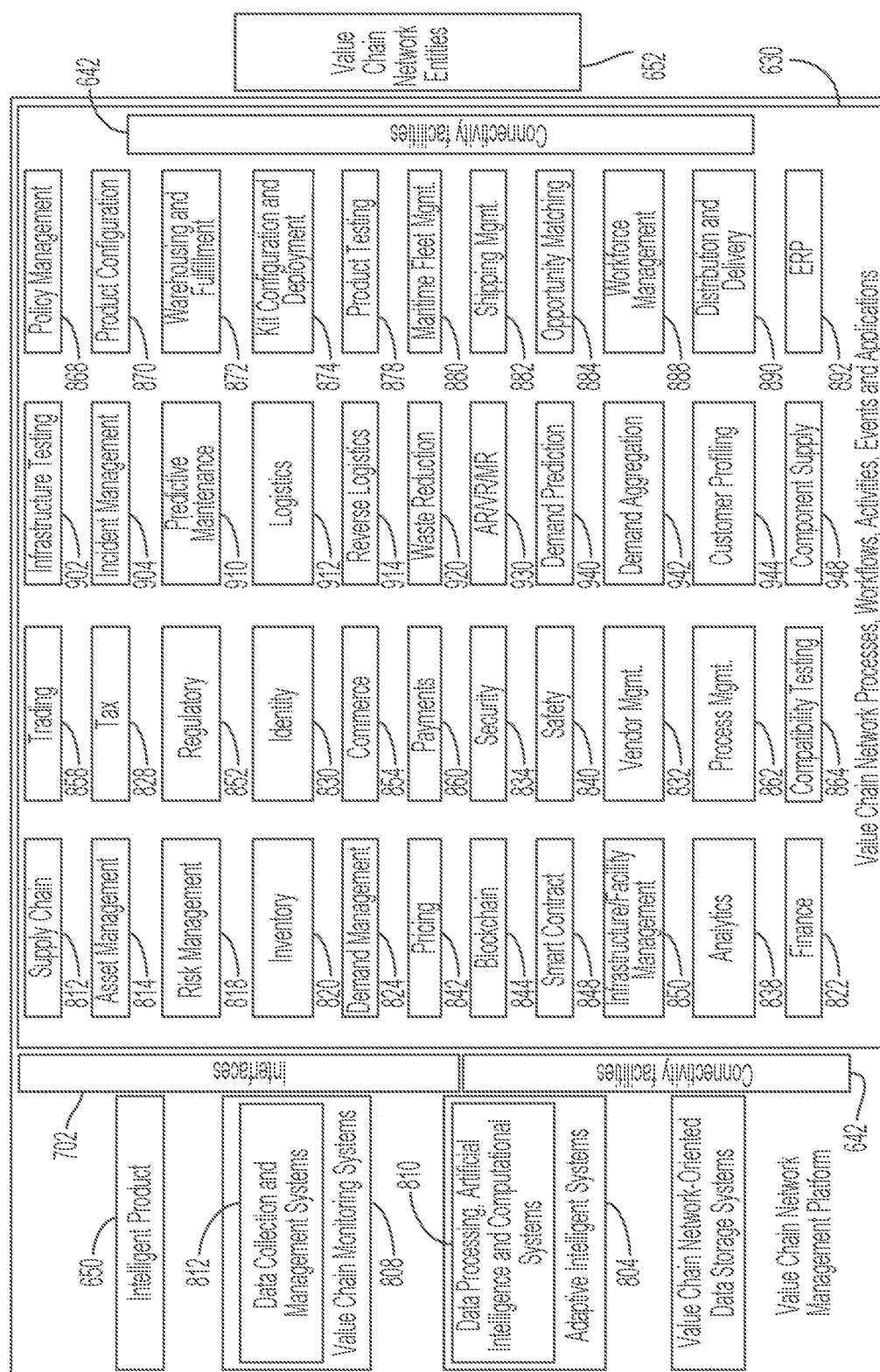
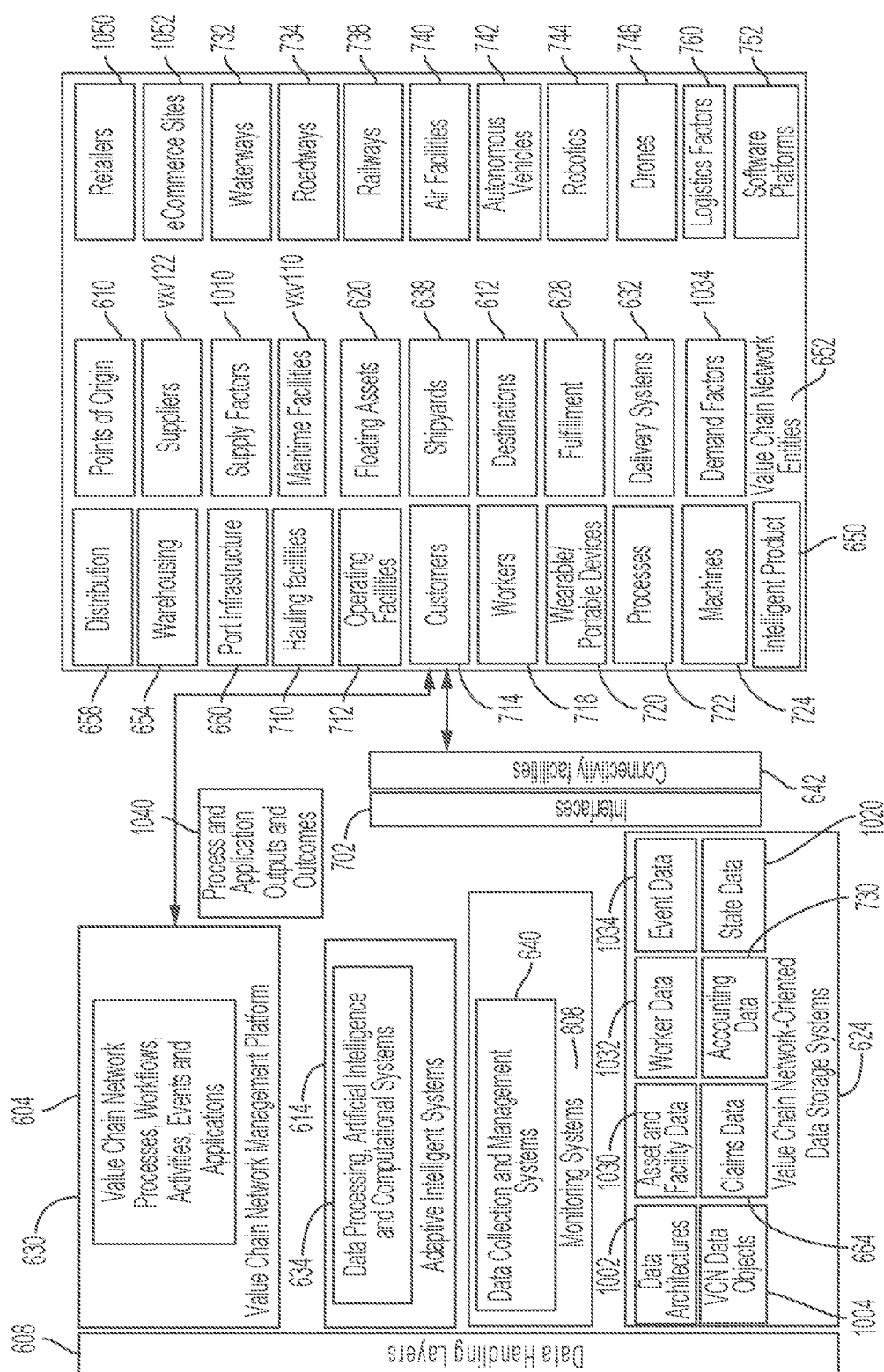


FIG. 9





11

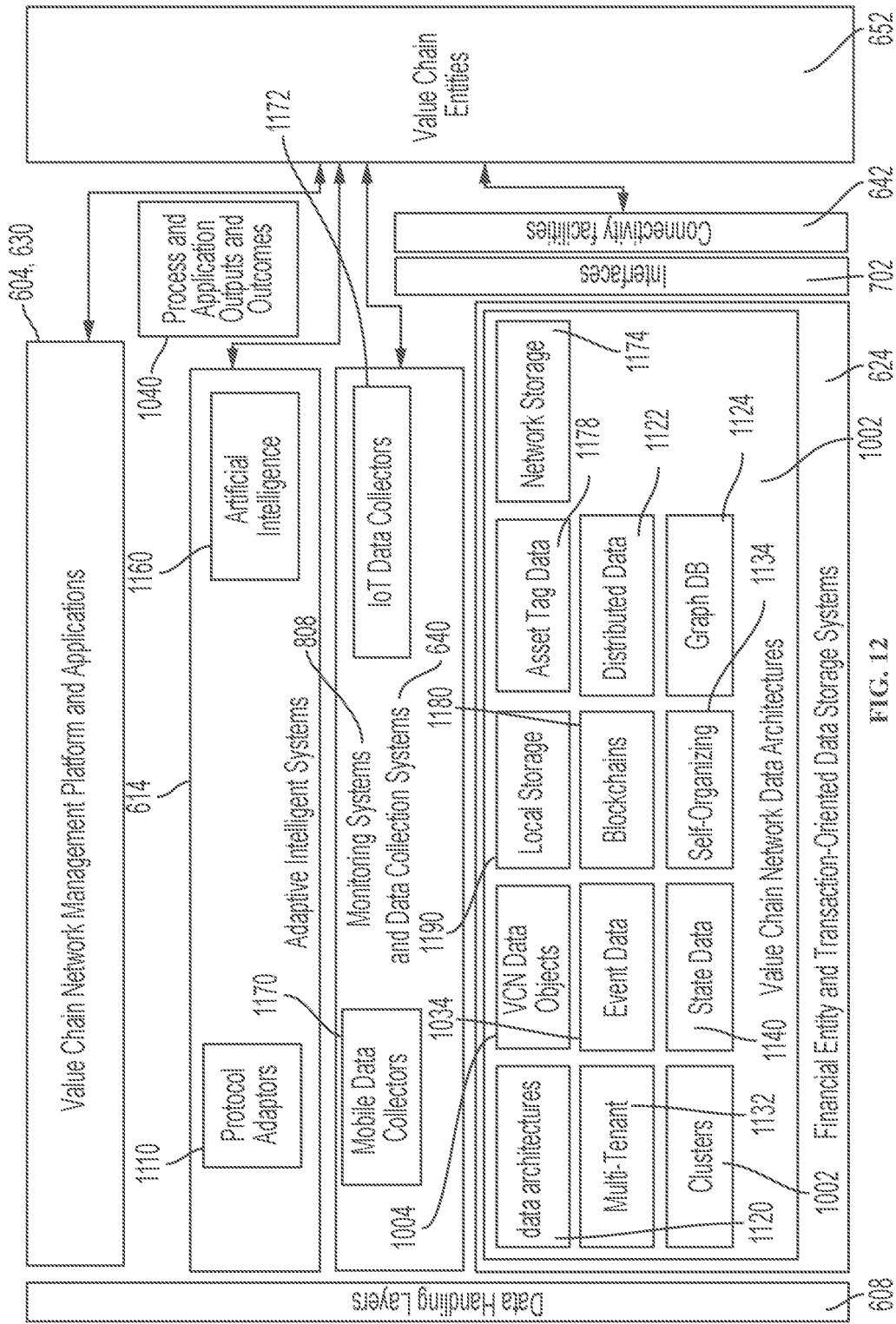


FIG. 12

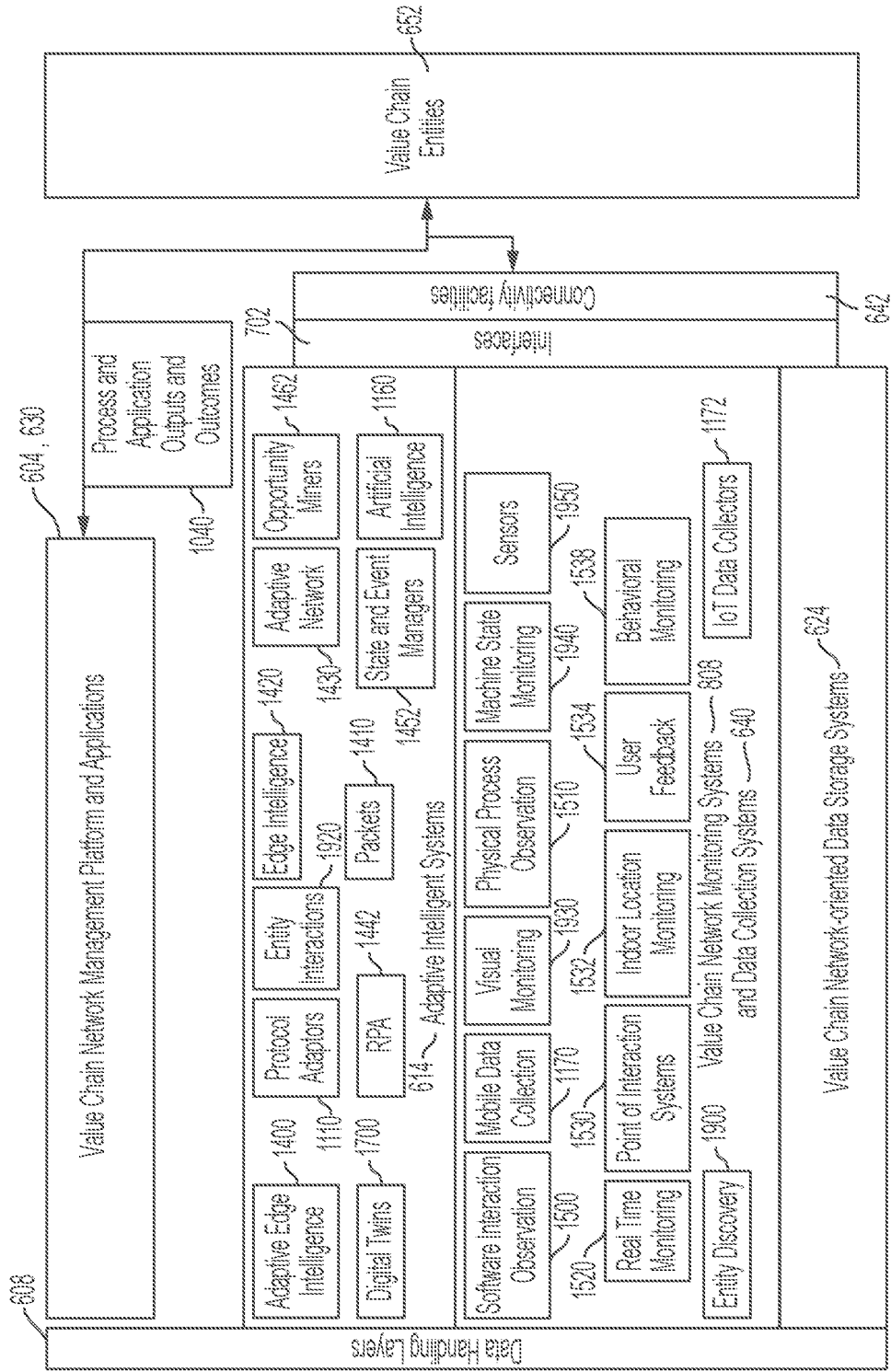


FIG. 13

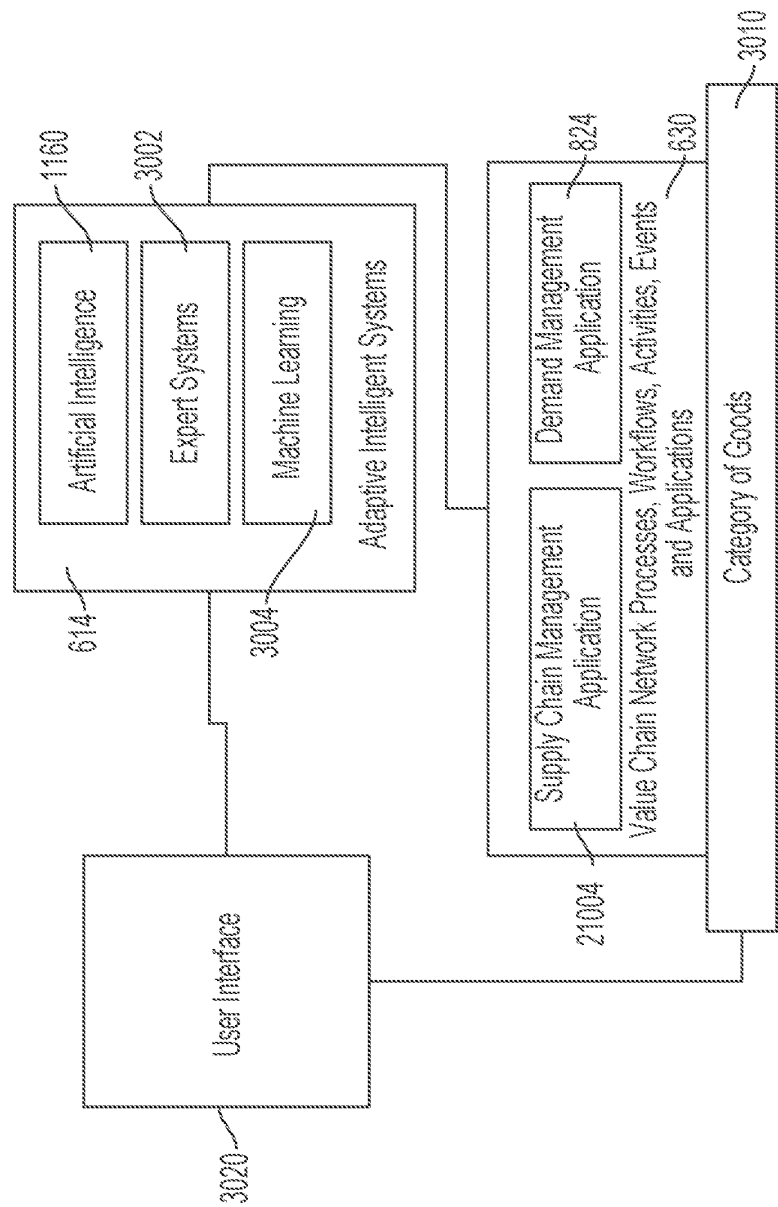


FIG. 14

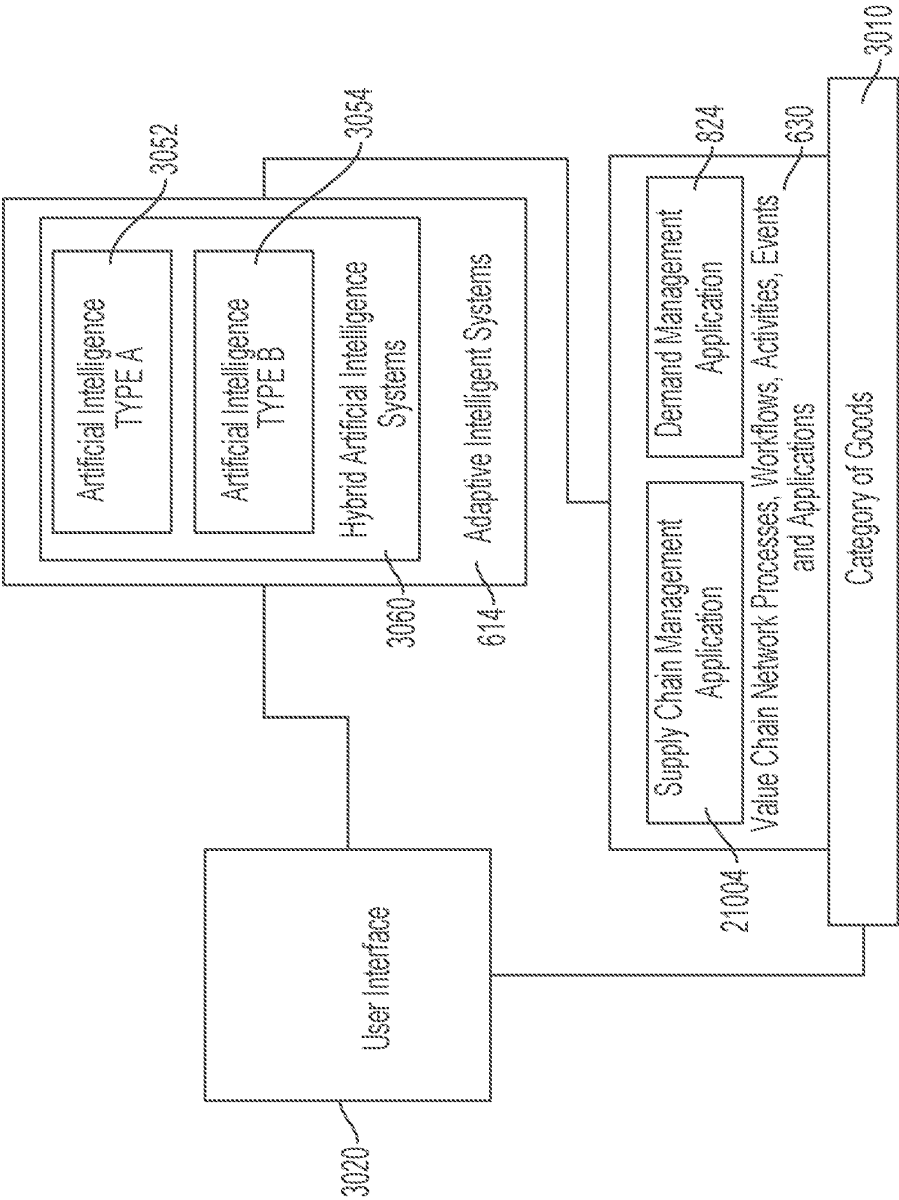


FIG. 15

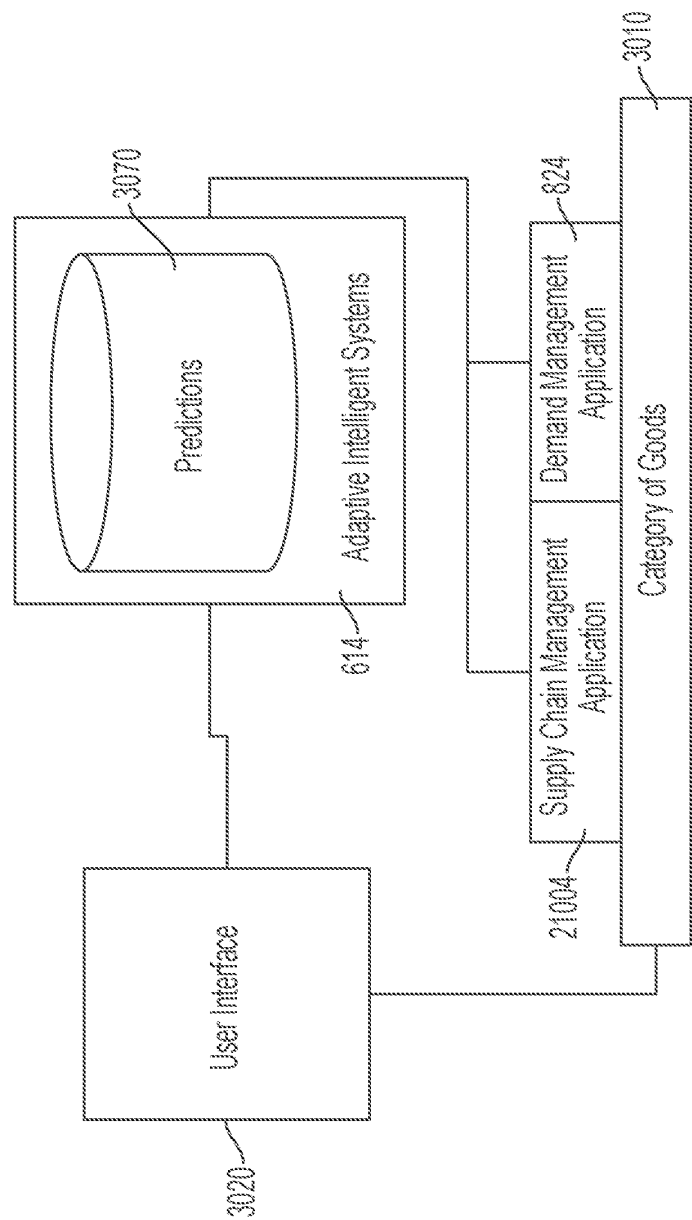


FIG. 16

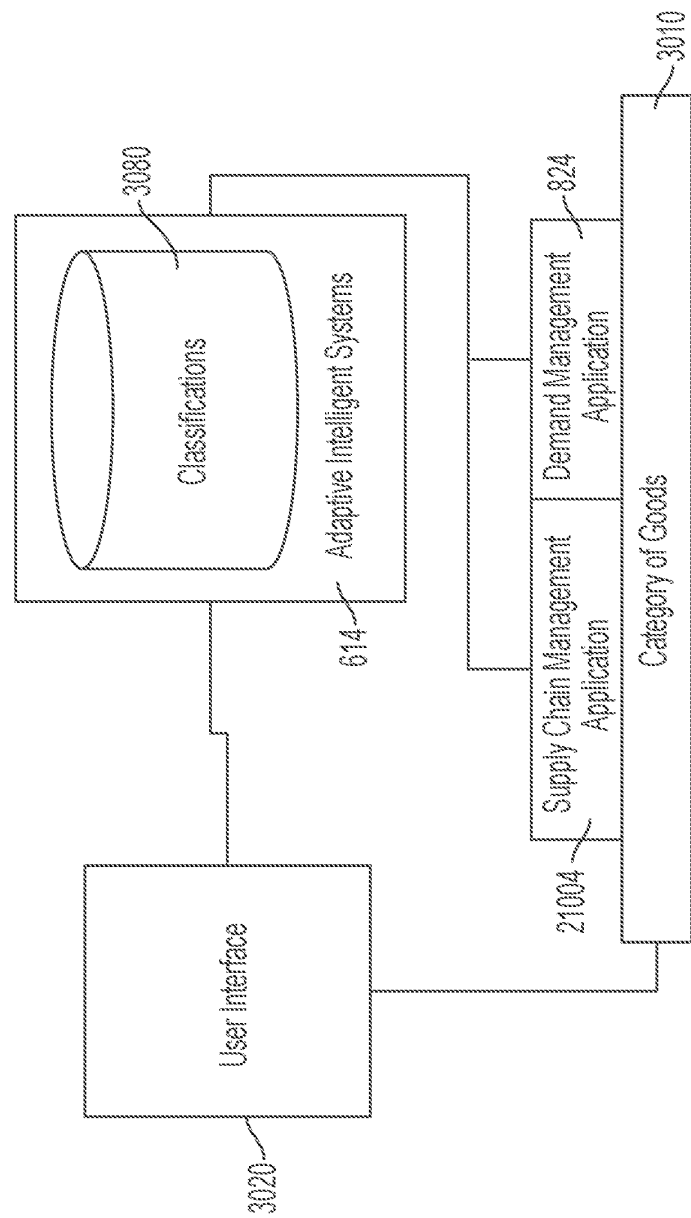


FIG. 17

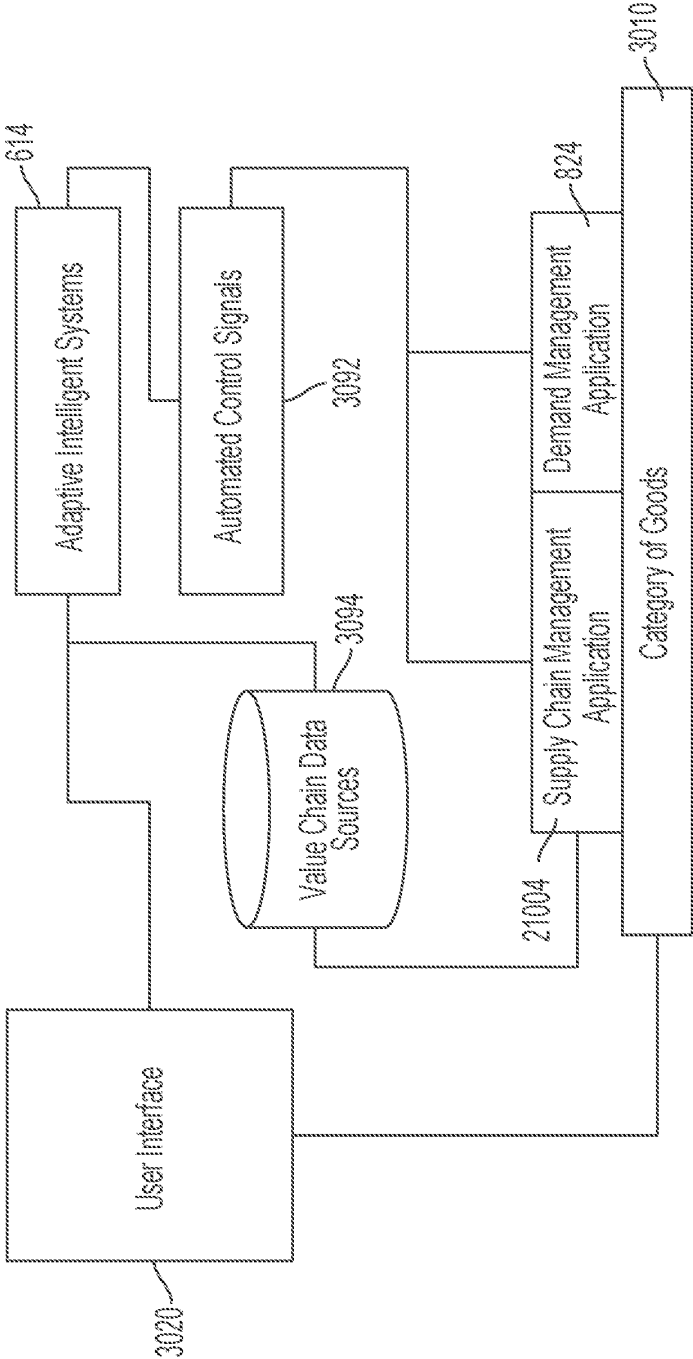


FIG. 18

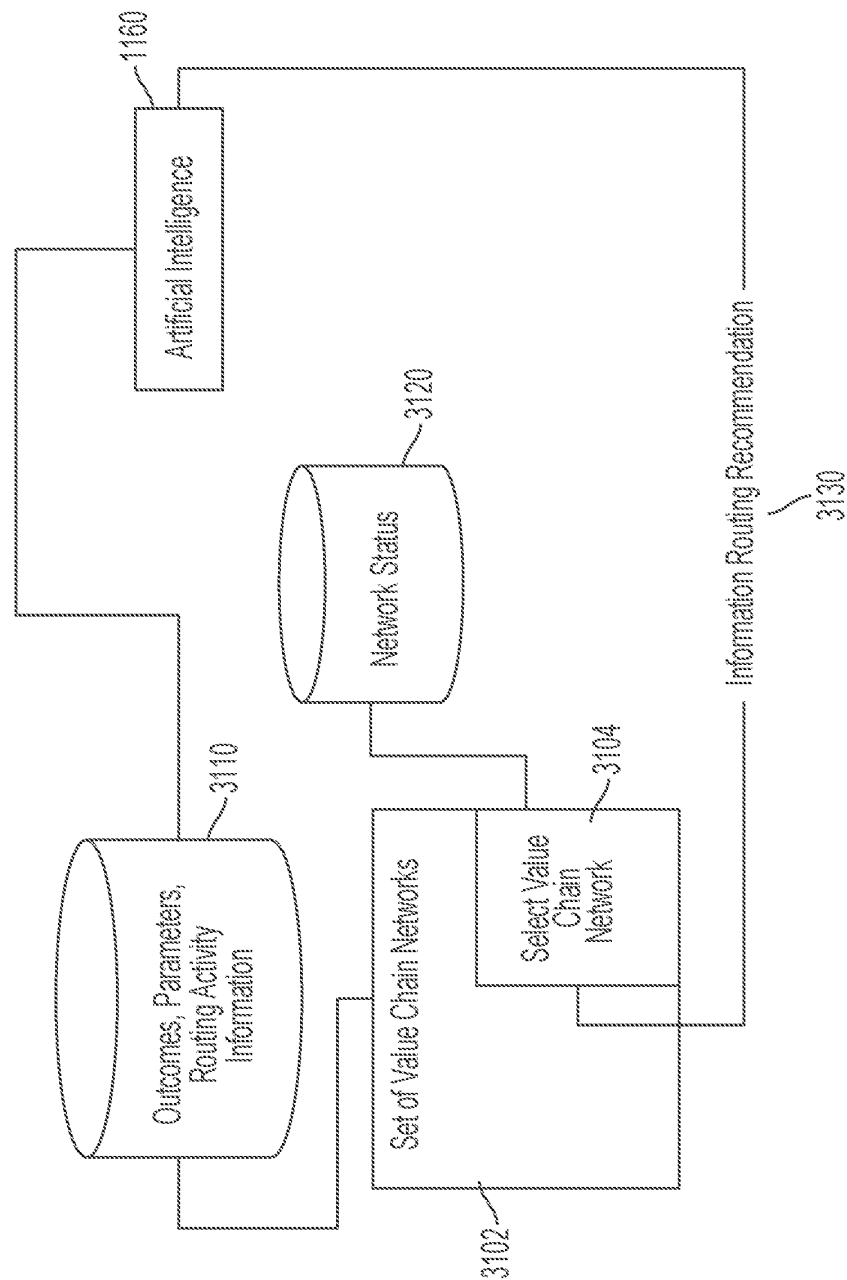


FIG. 19

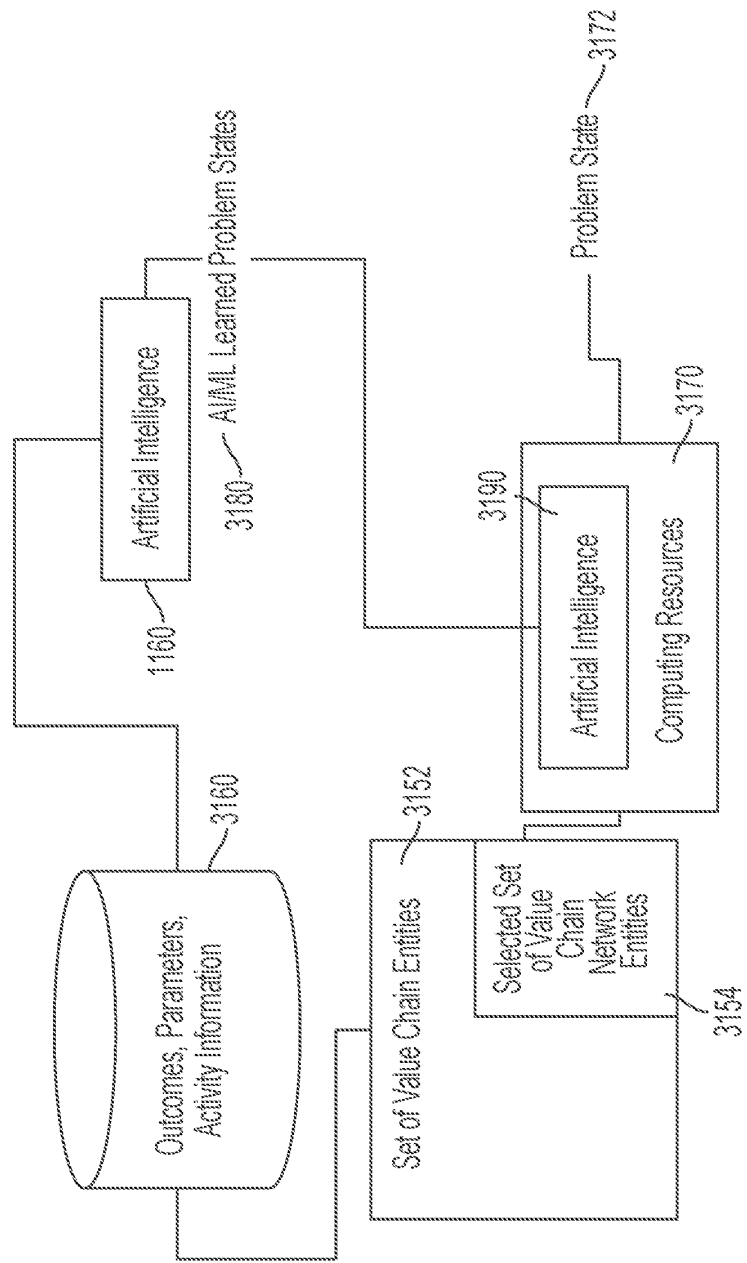


FIG. 20

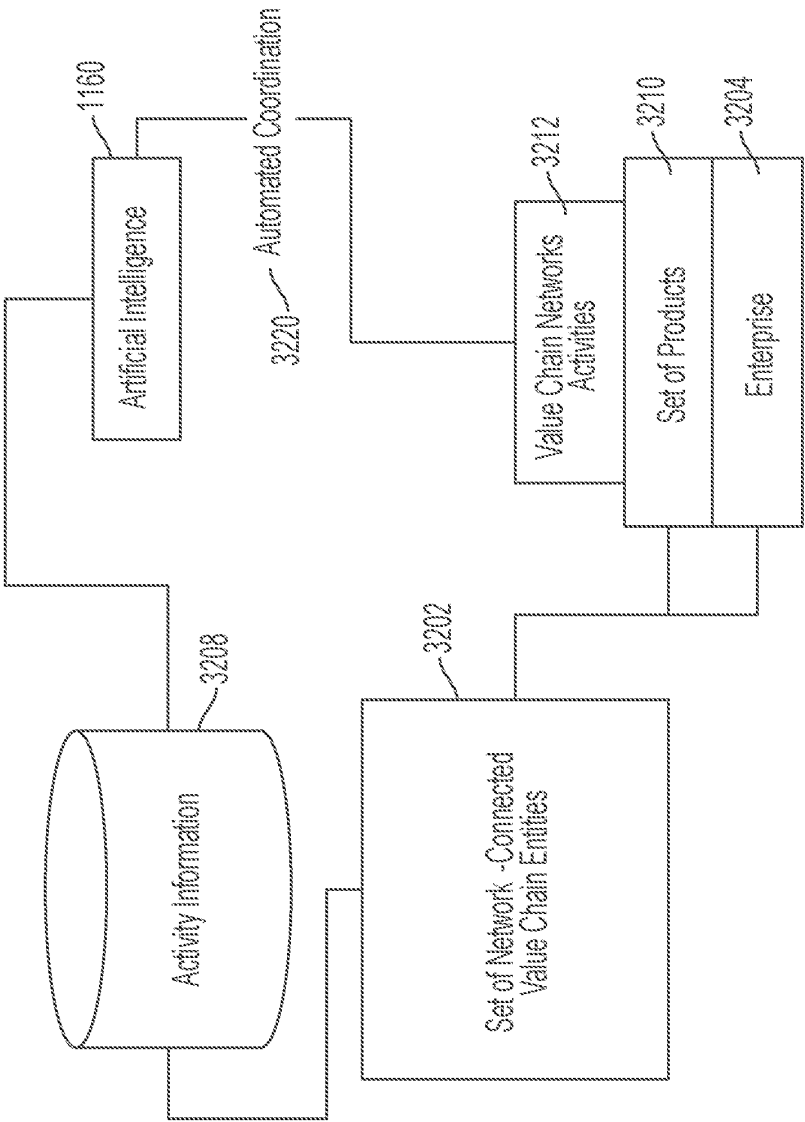


FIG. 21

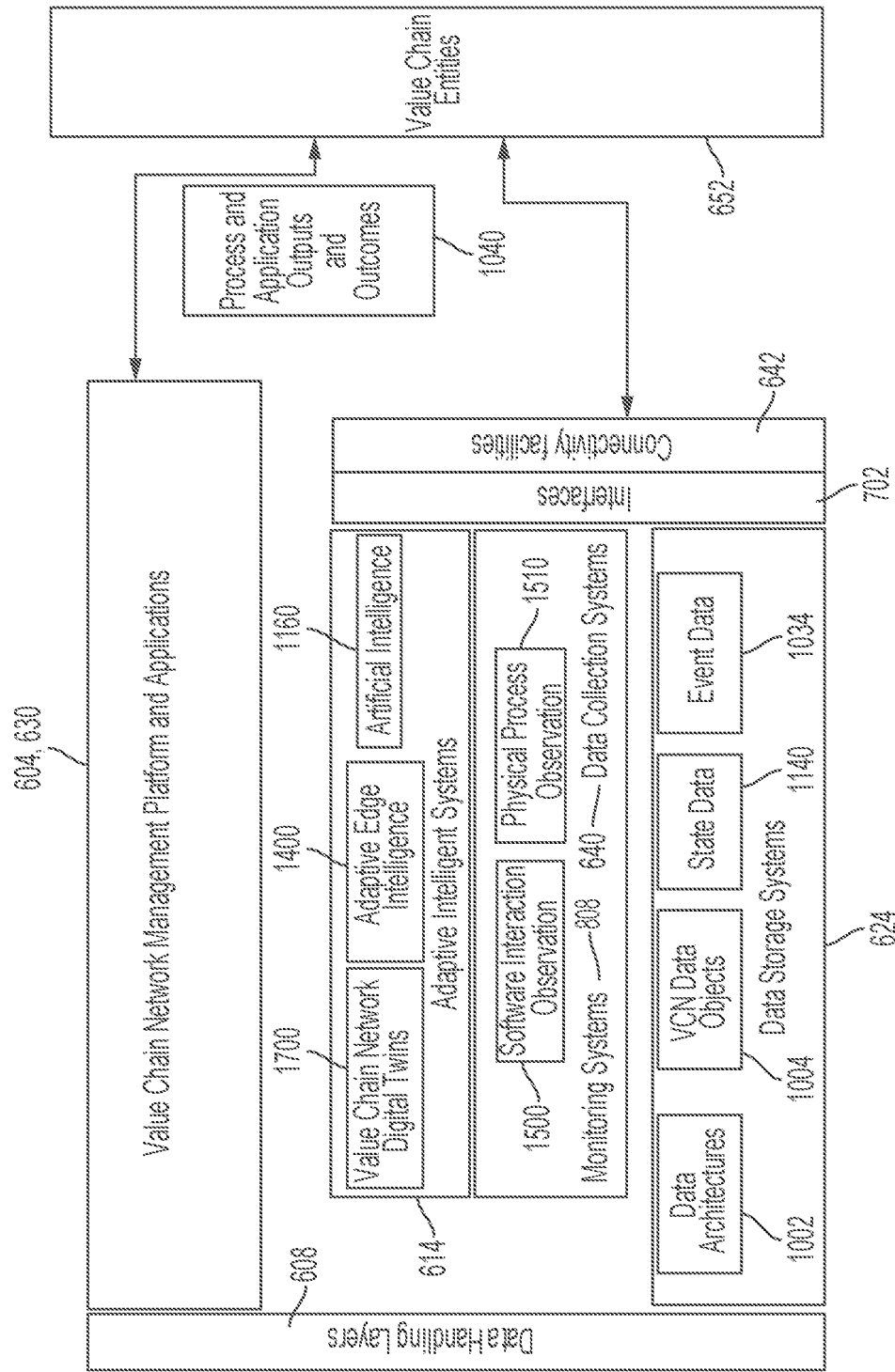


FIG. 22

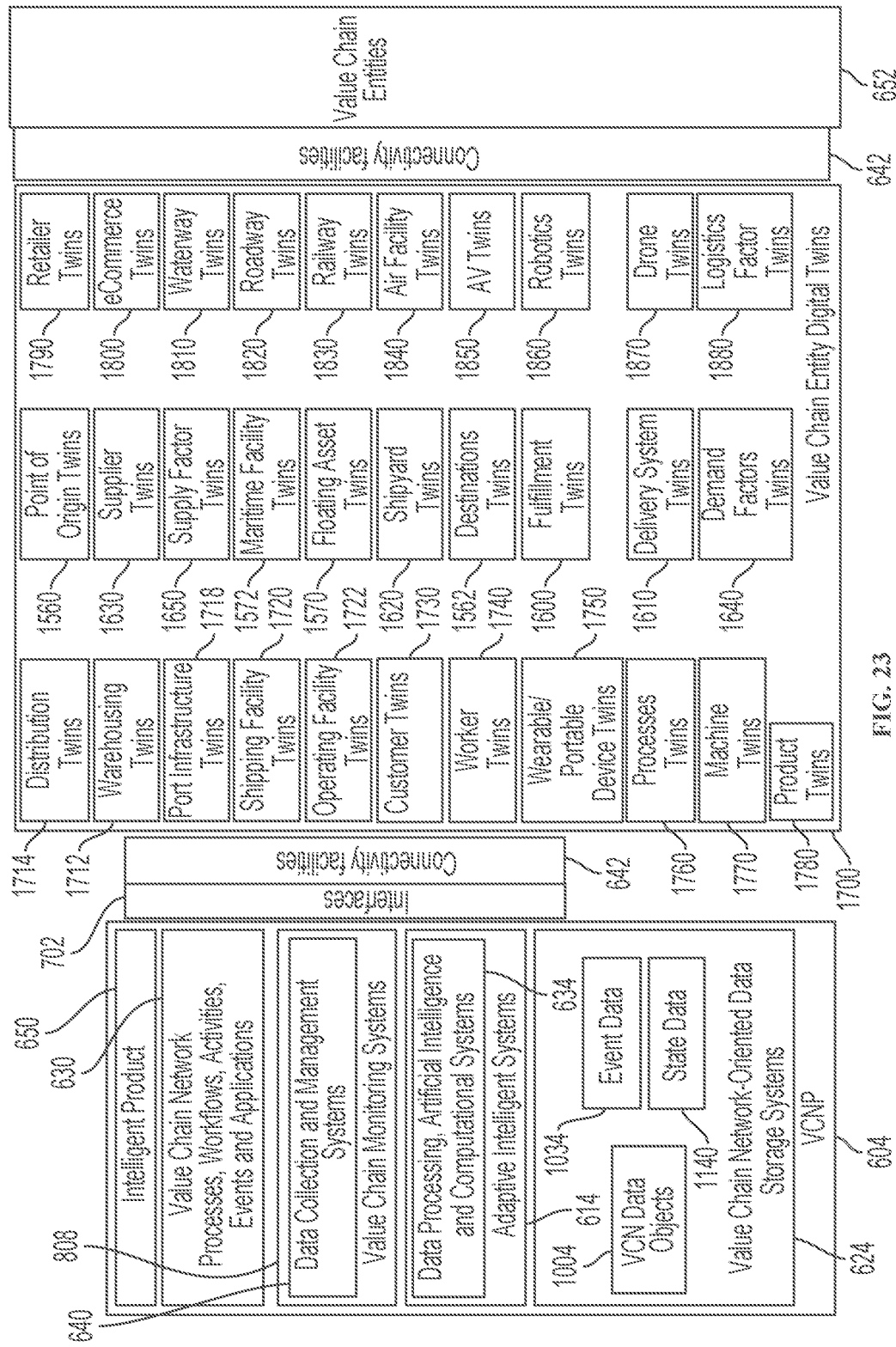


FIG. 23

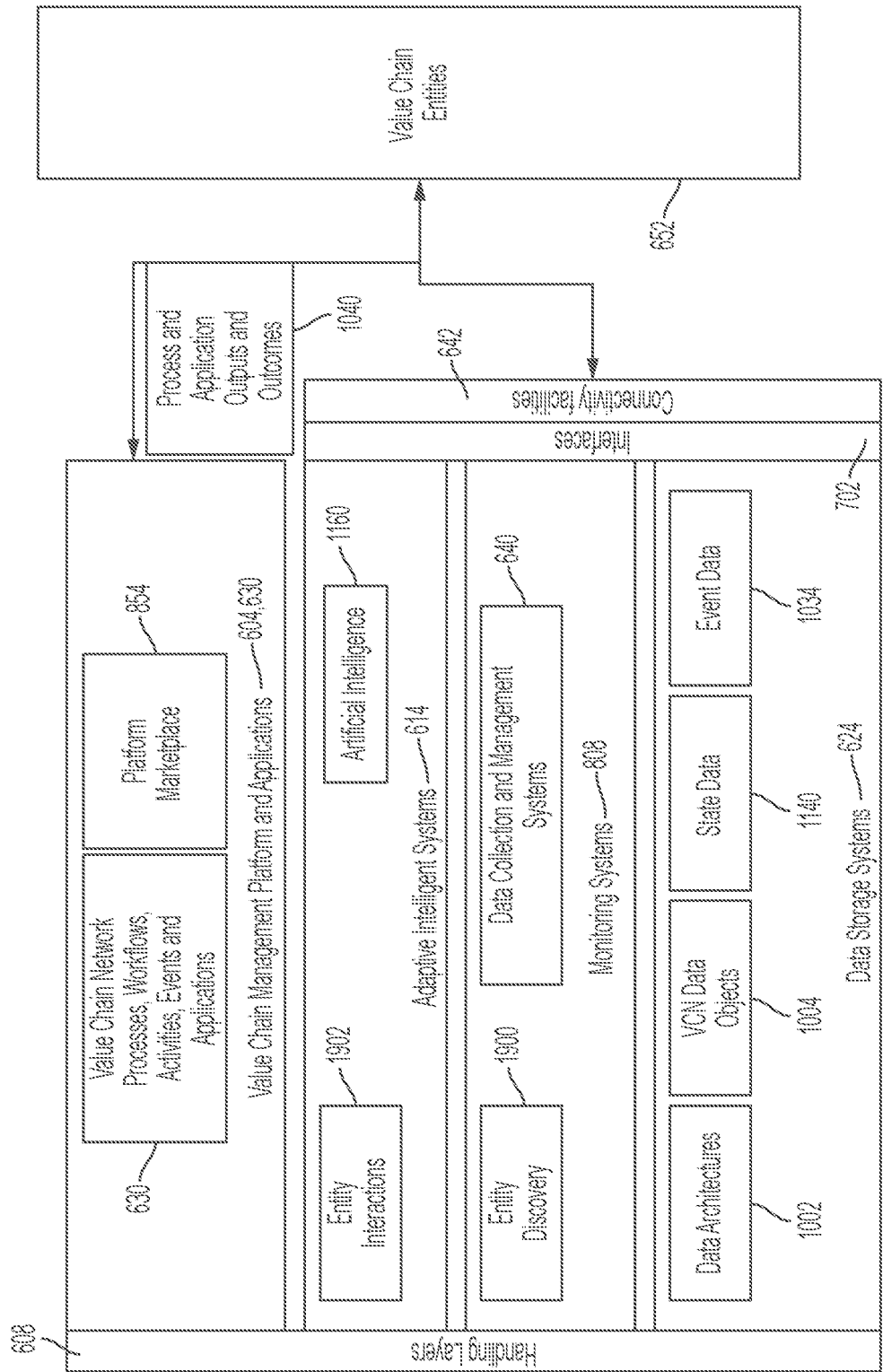


FIG. 24

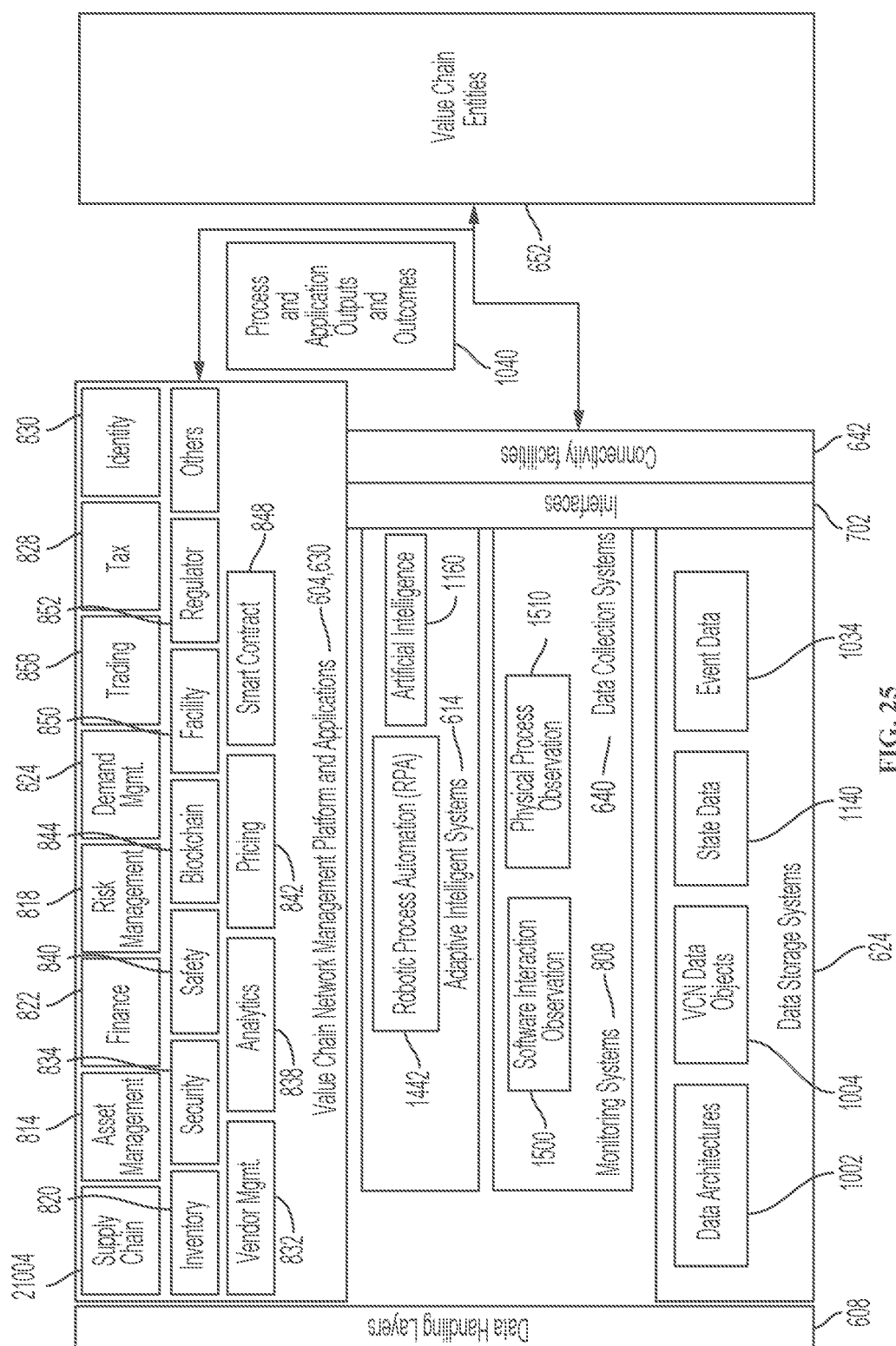


FIG. 25.

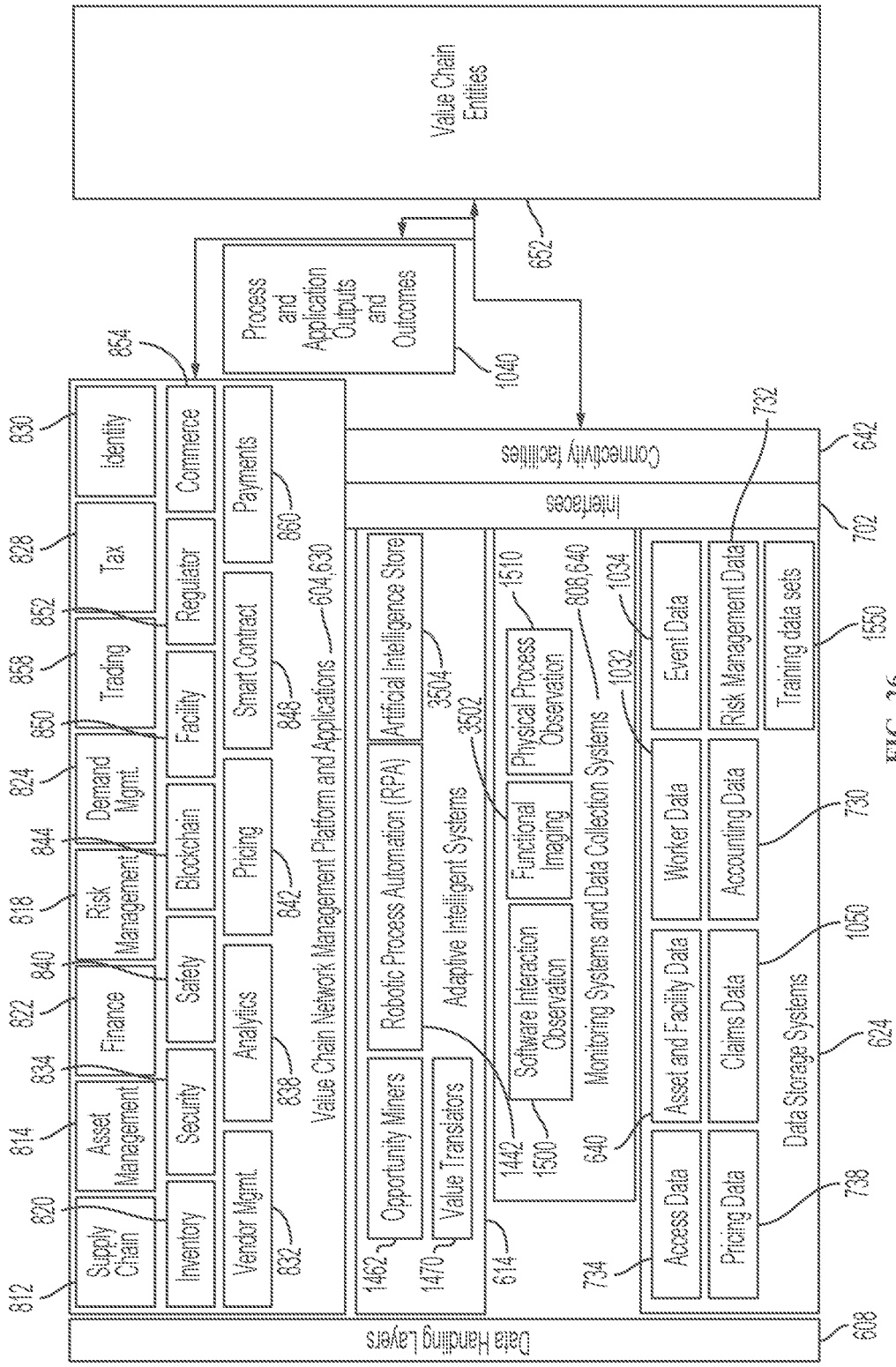


FIG. 26

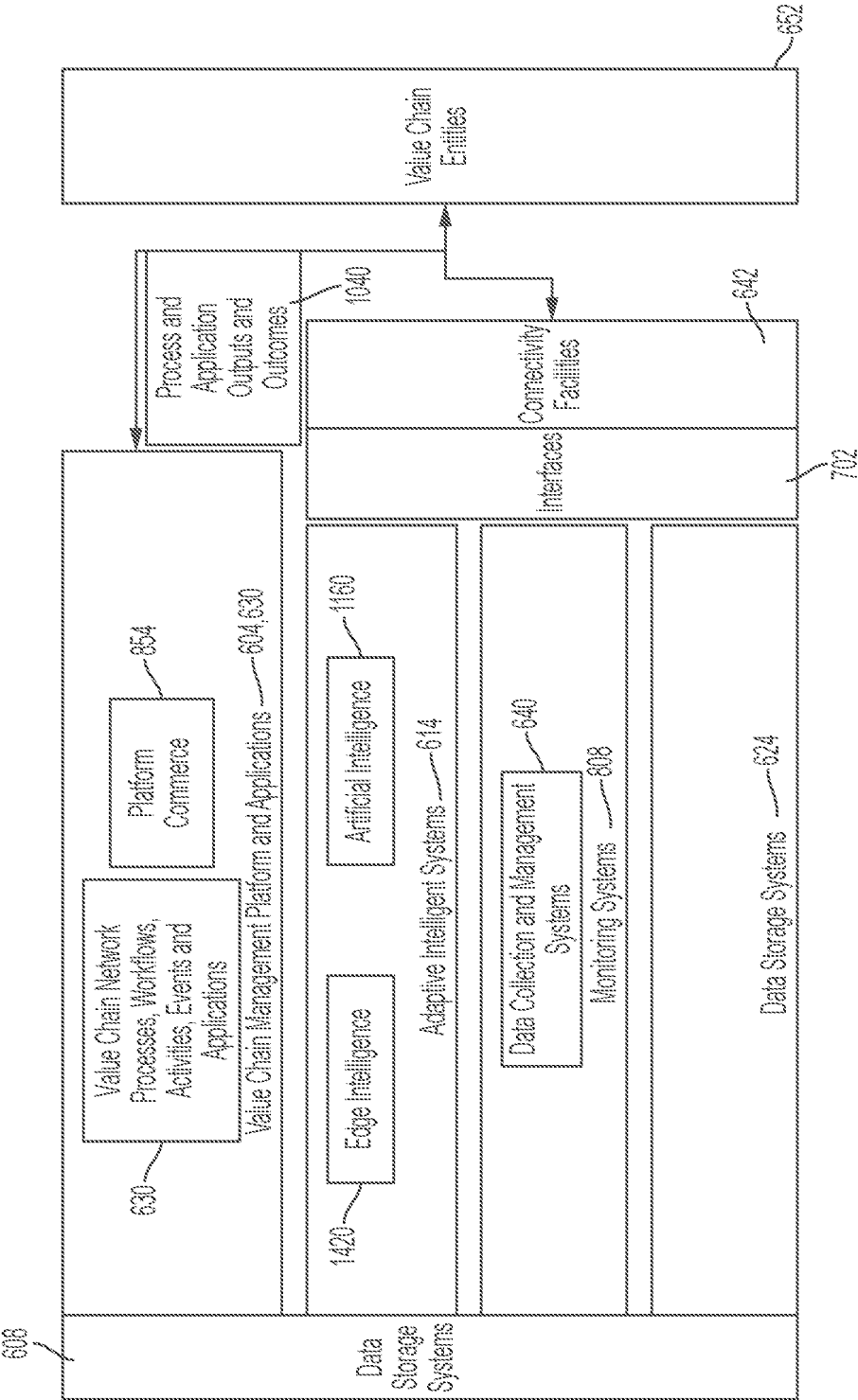


FIG. 27

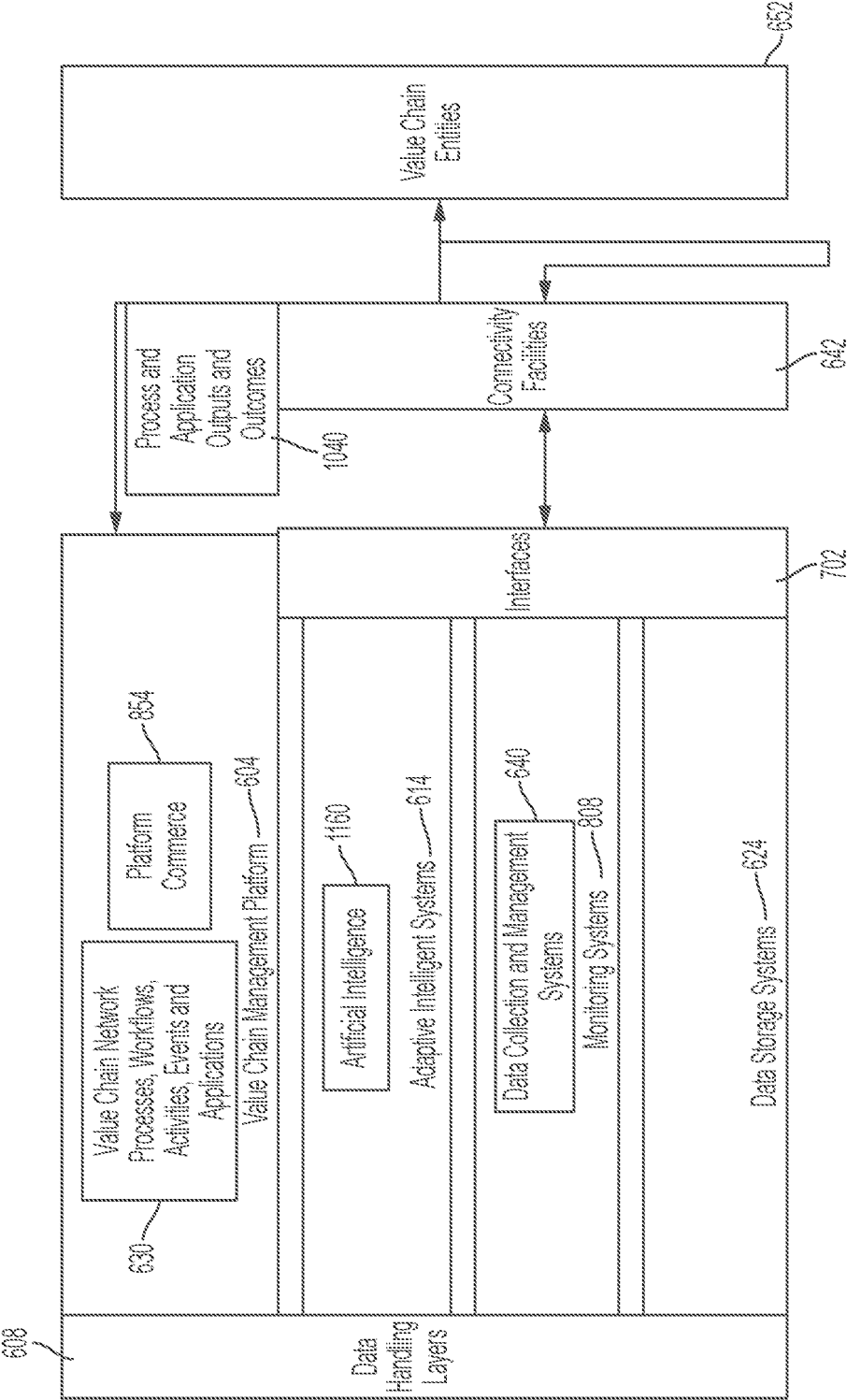


FIG. 28

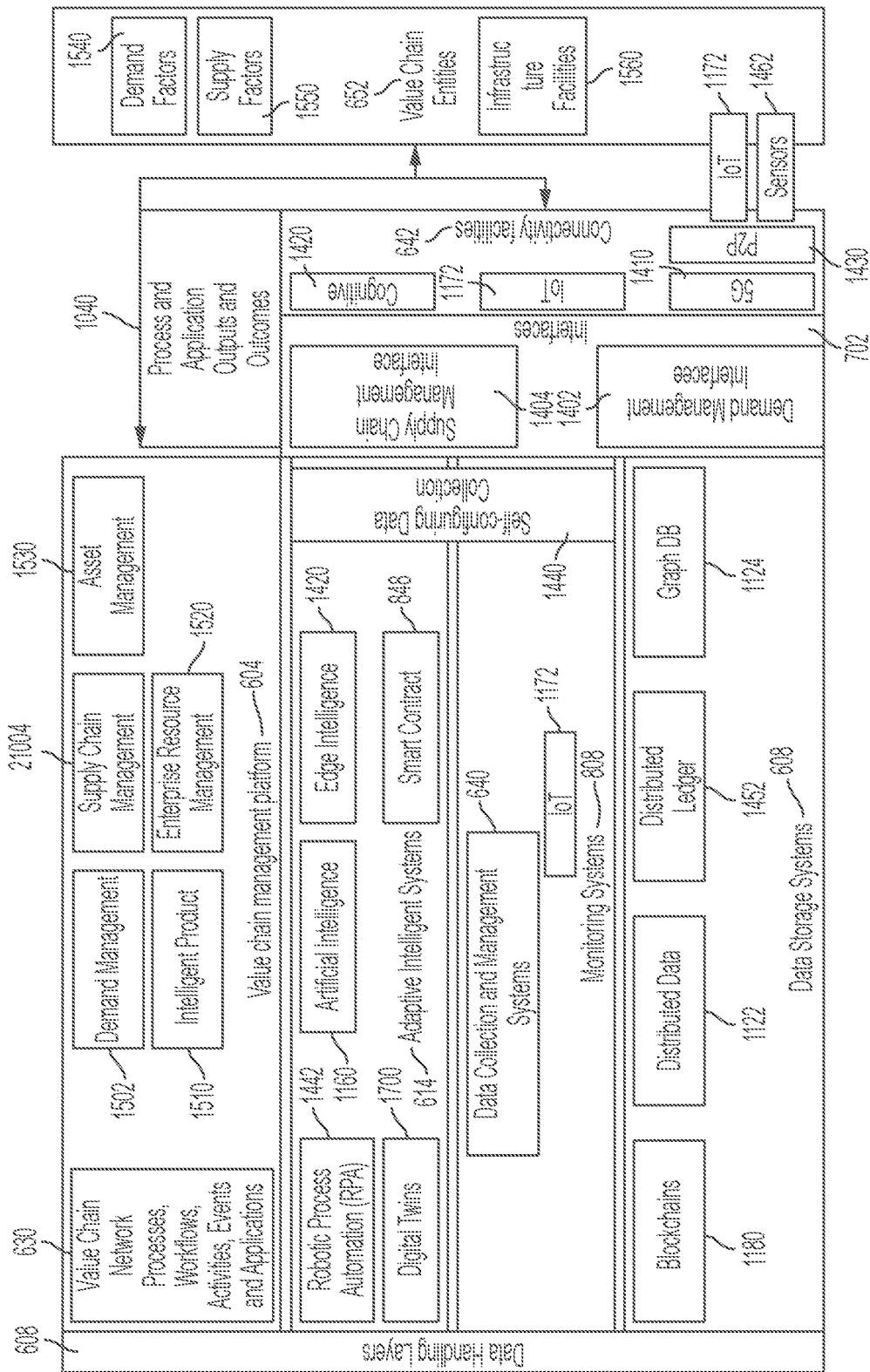


FIG. 29

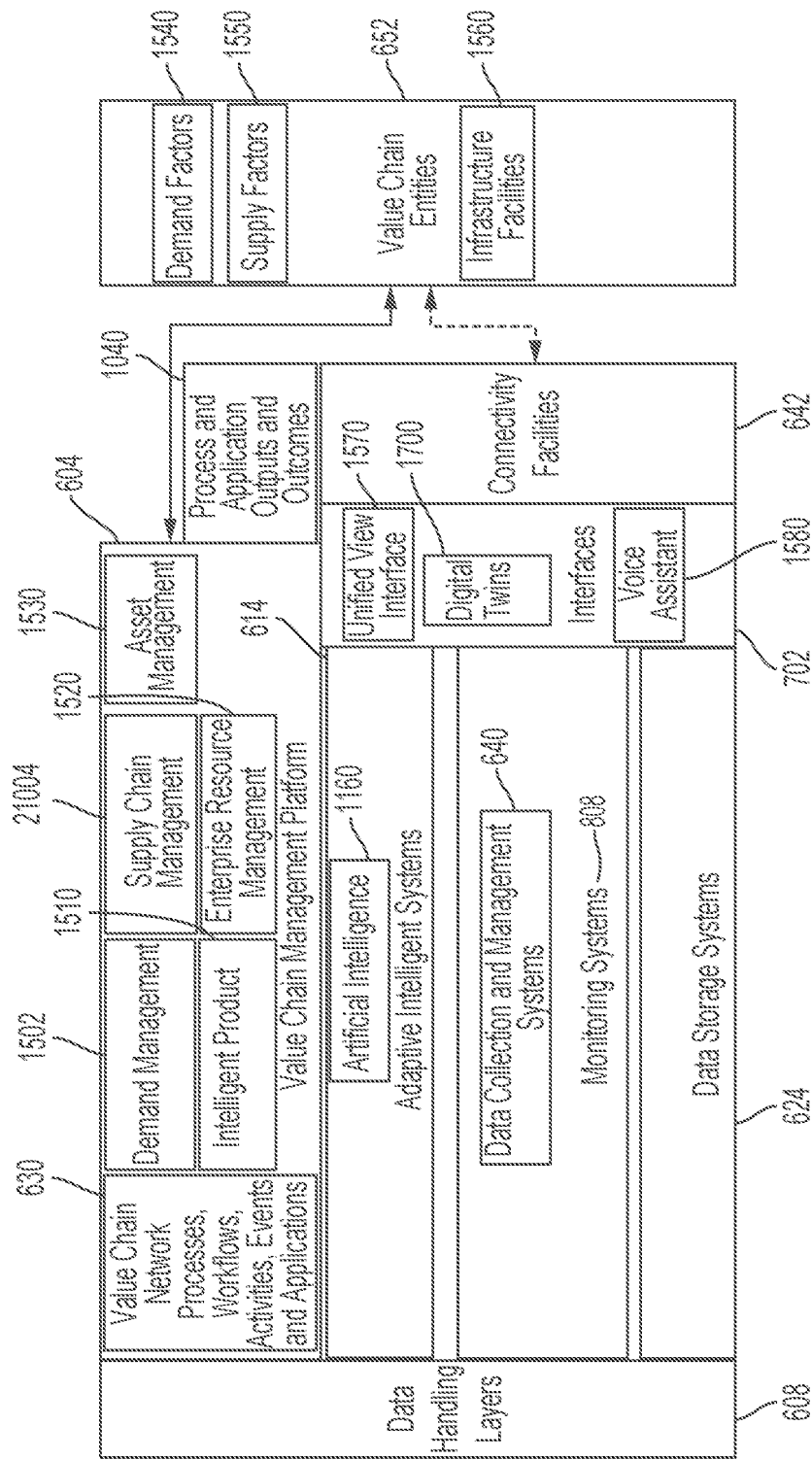


FIG. 30

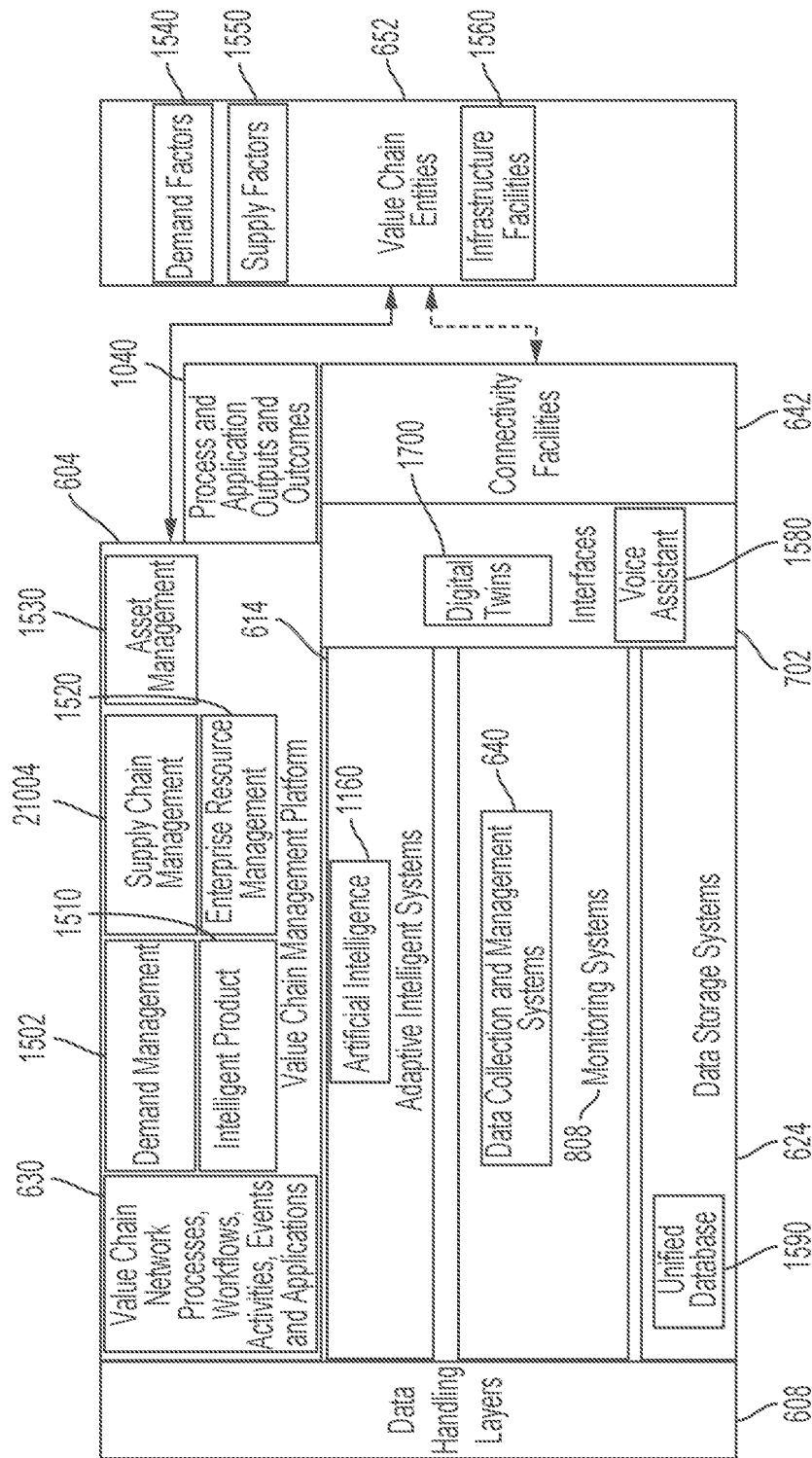


FIG. 31

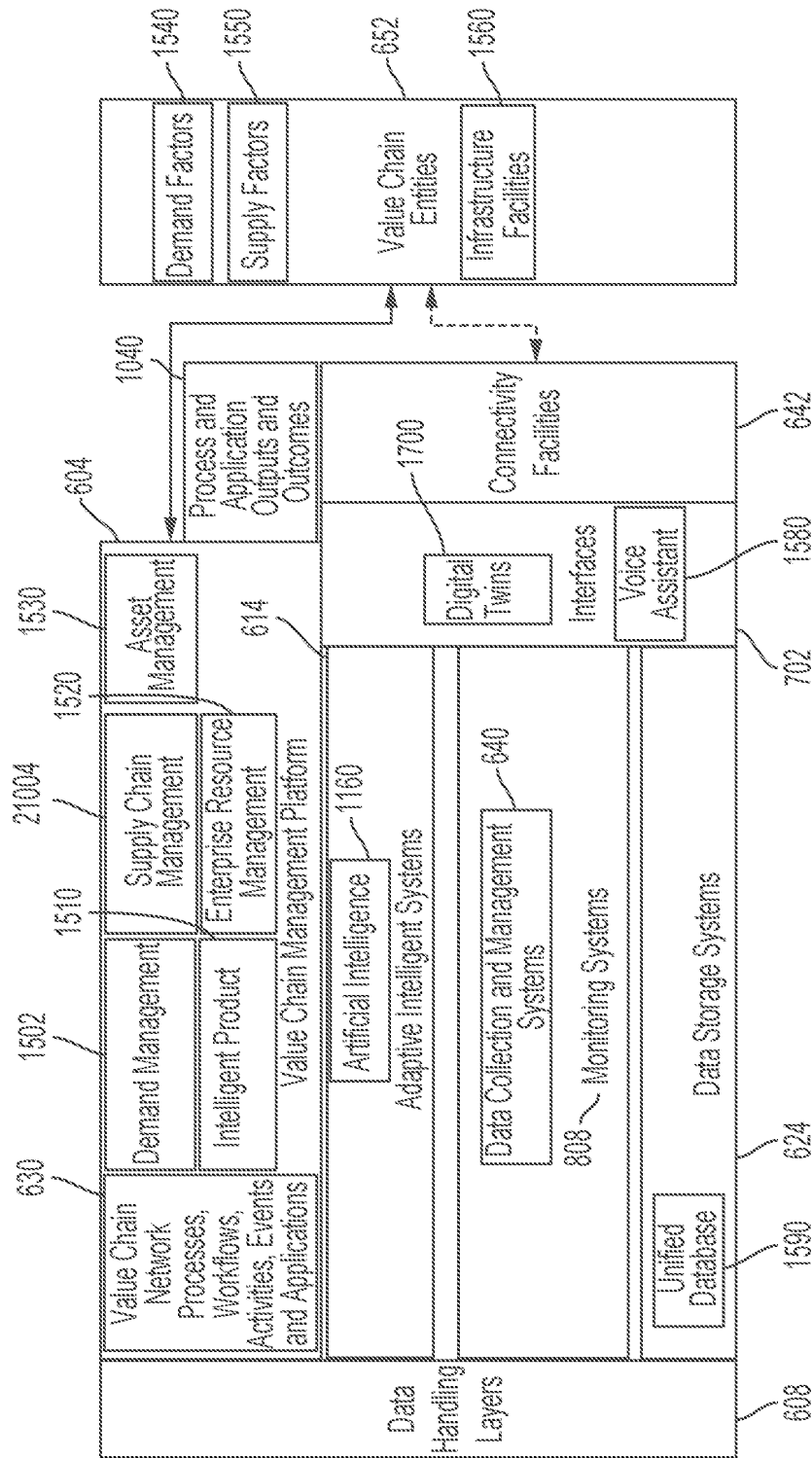


FIG. 32

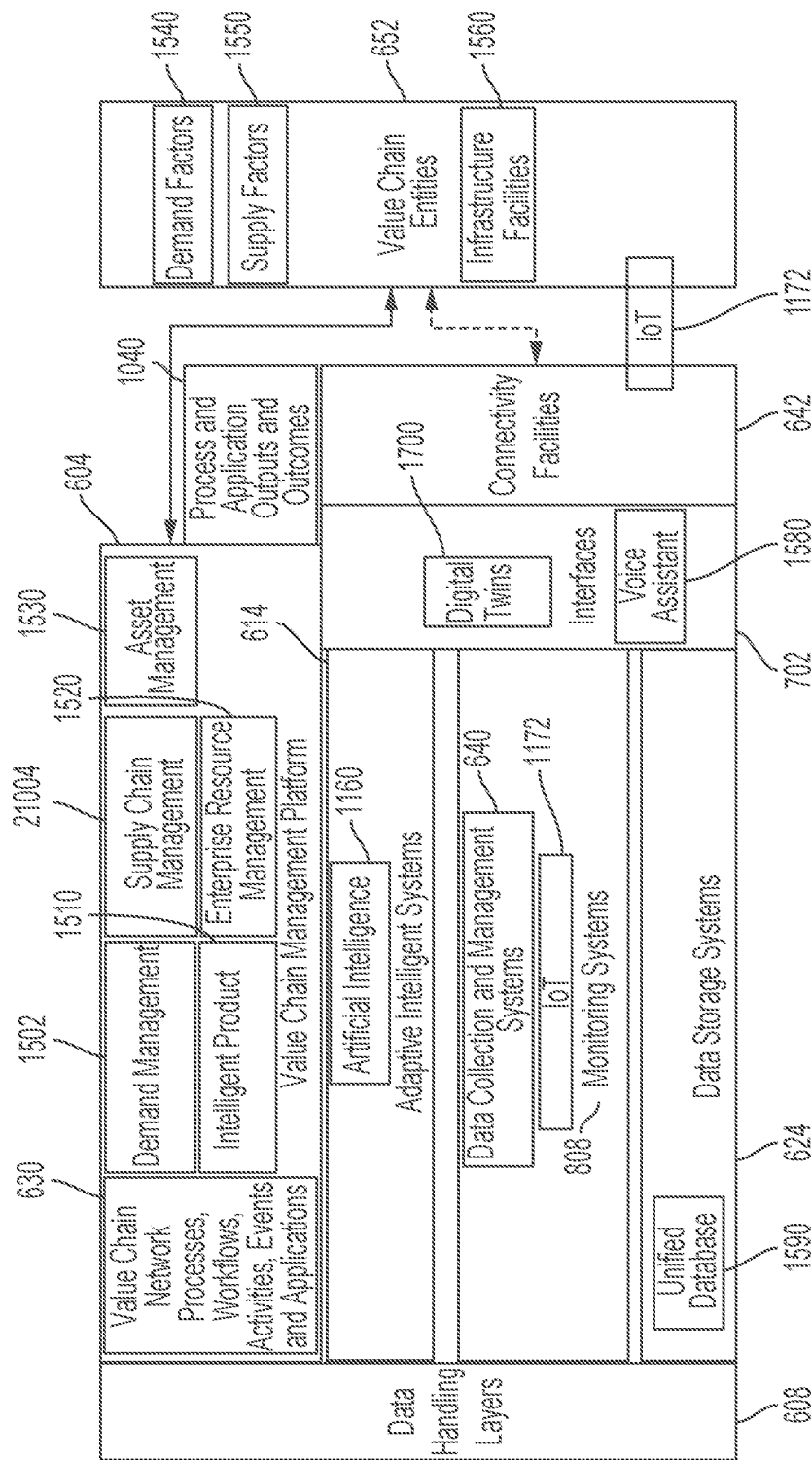


FIG. 33

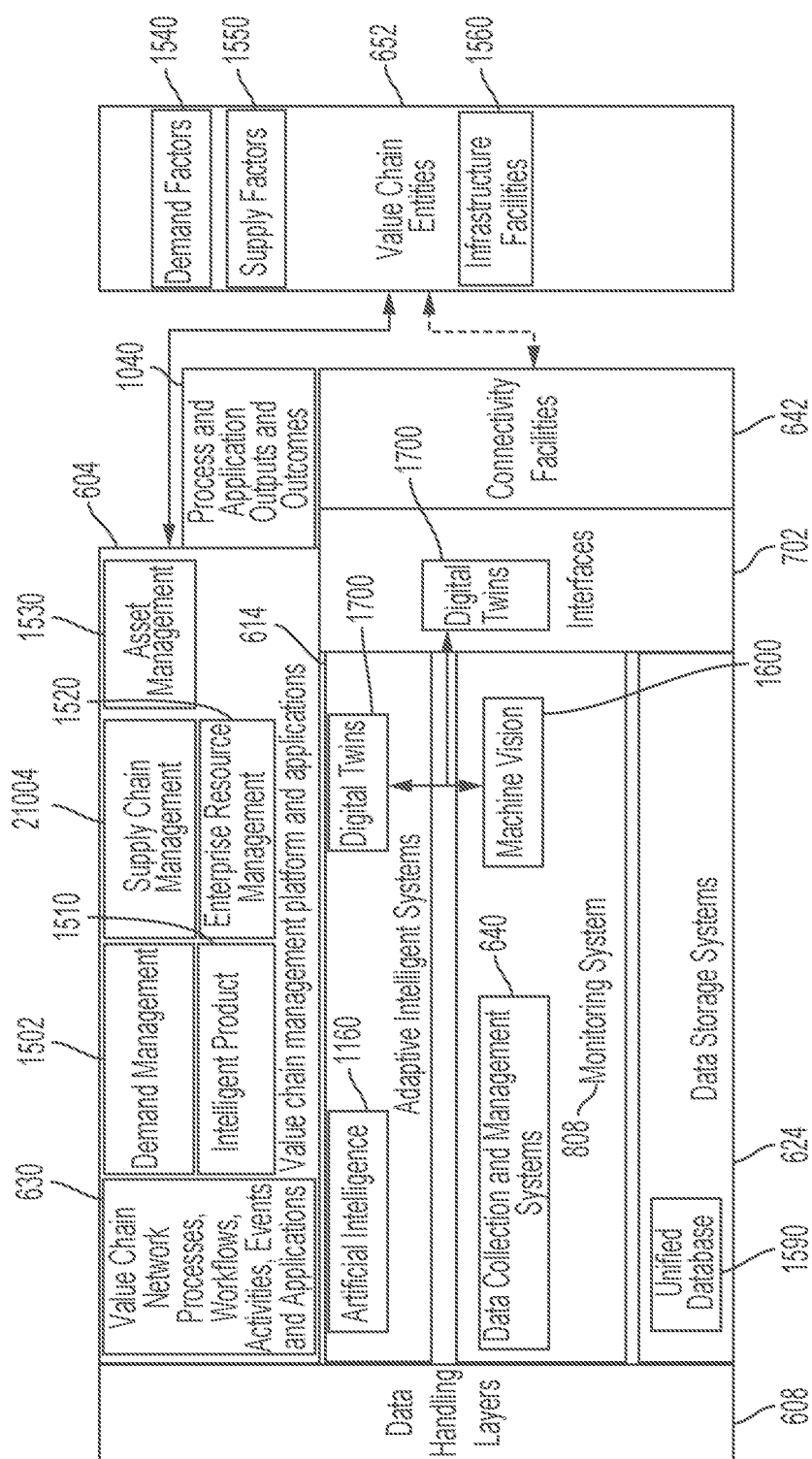


Fig. 3

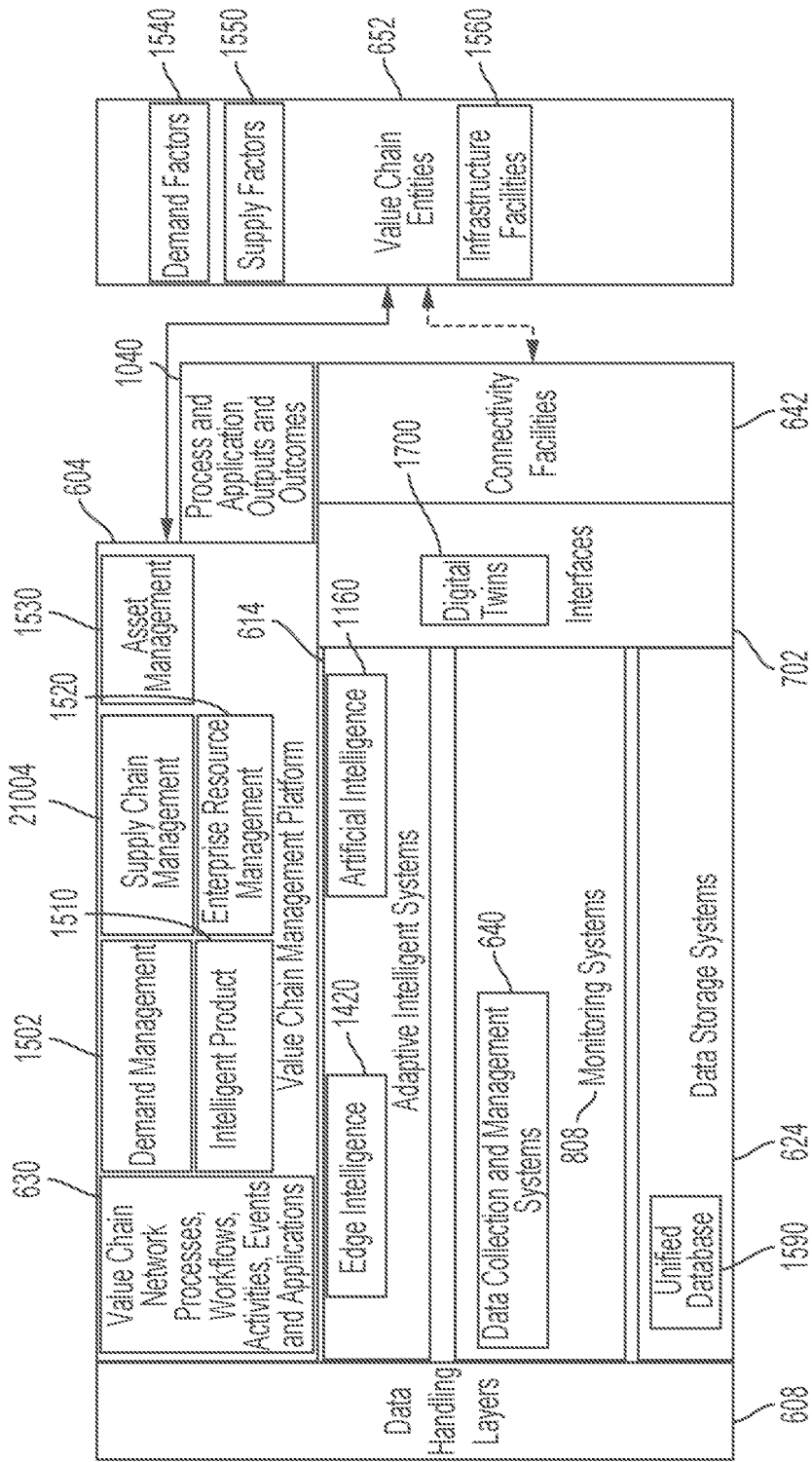


FIG. 35

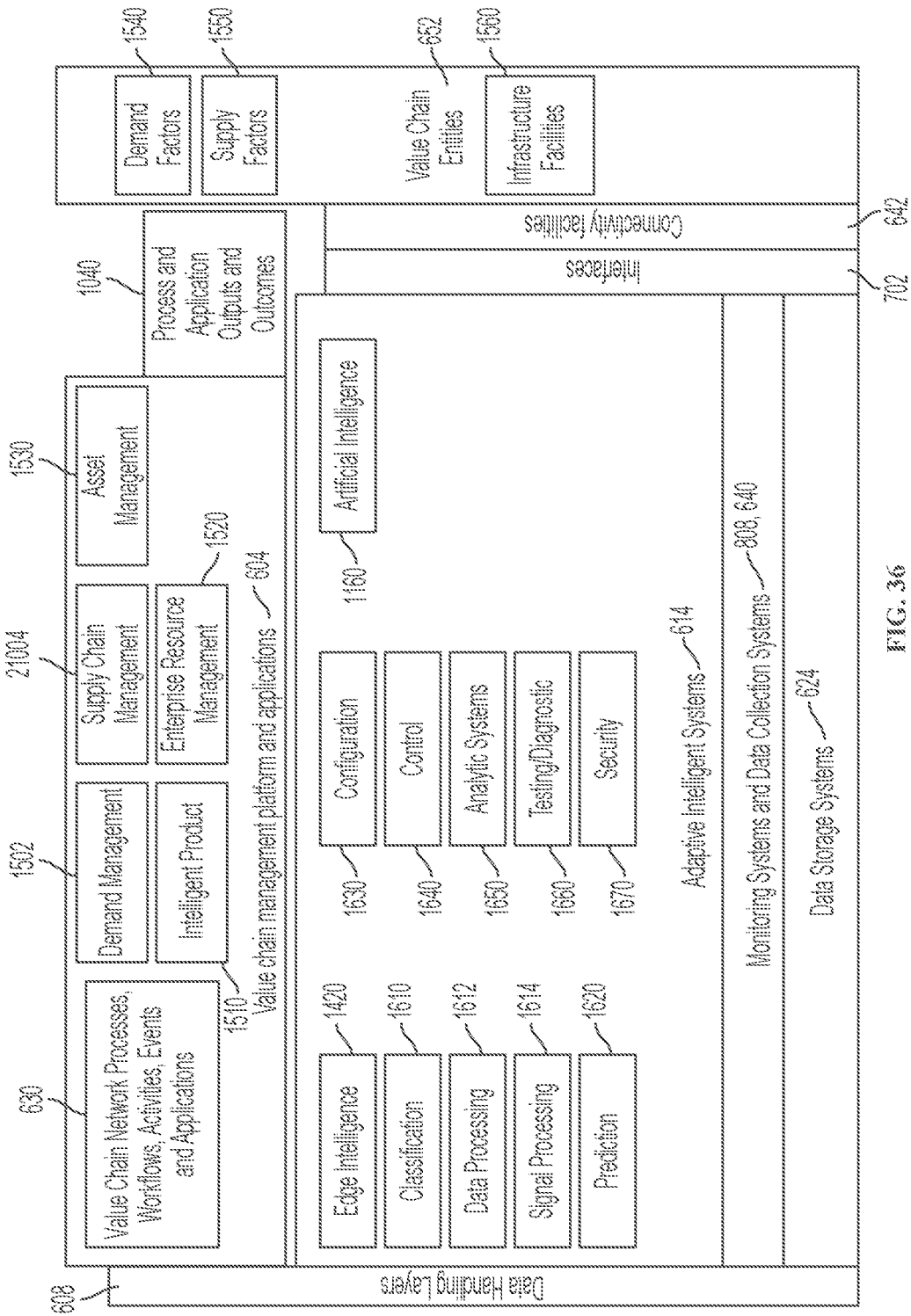


FIG. 36

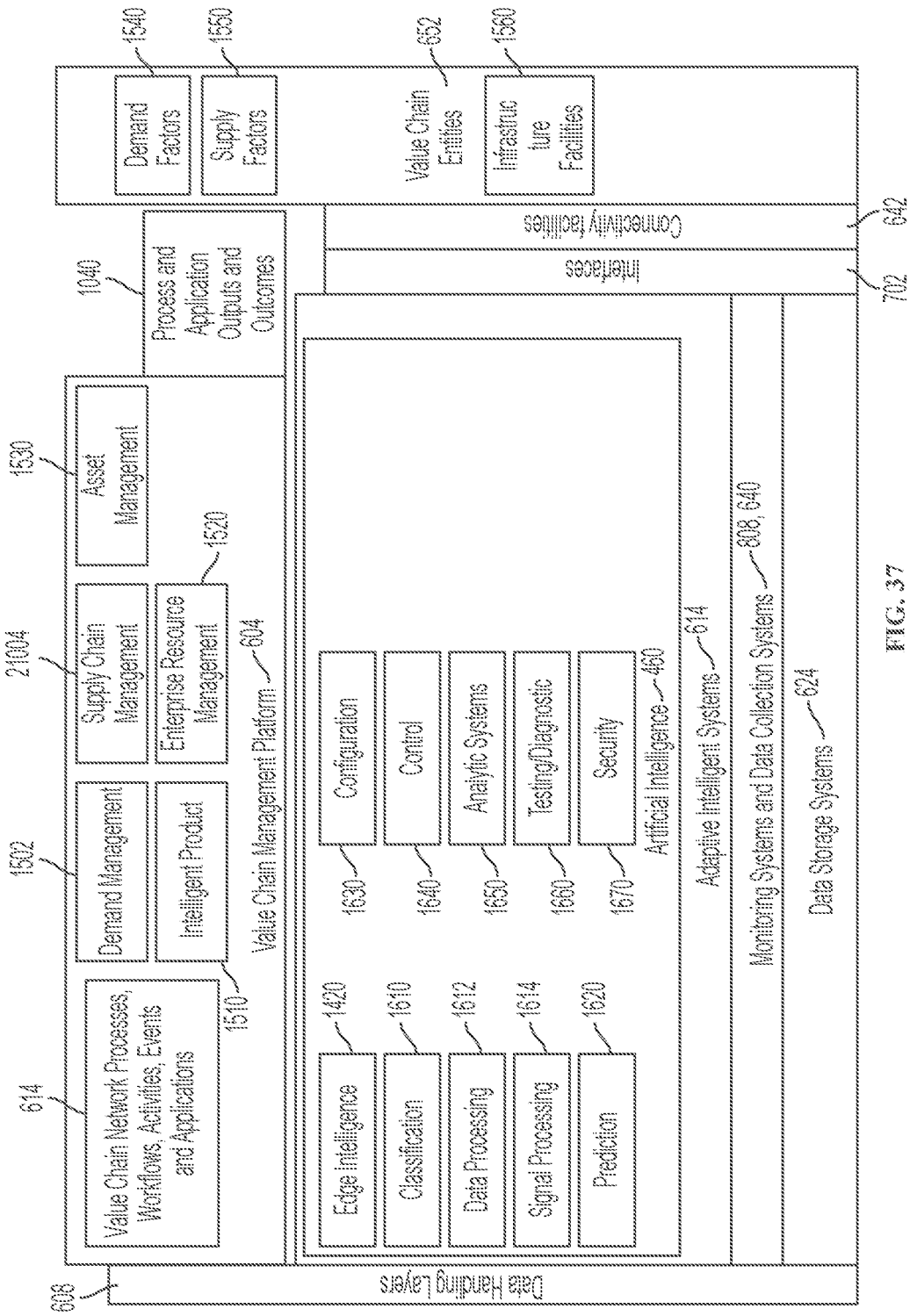


FIG. 37

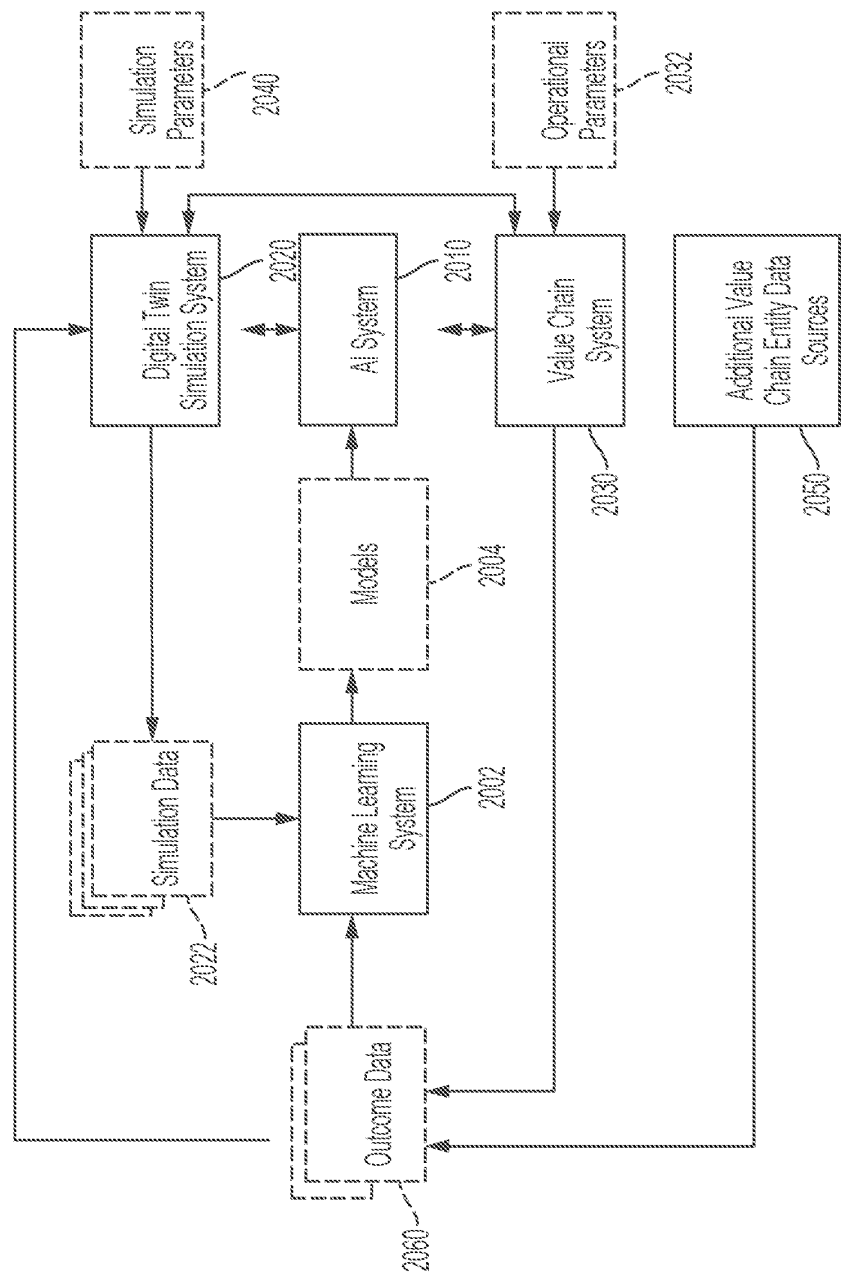


FIG. 38

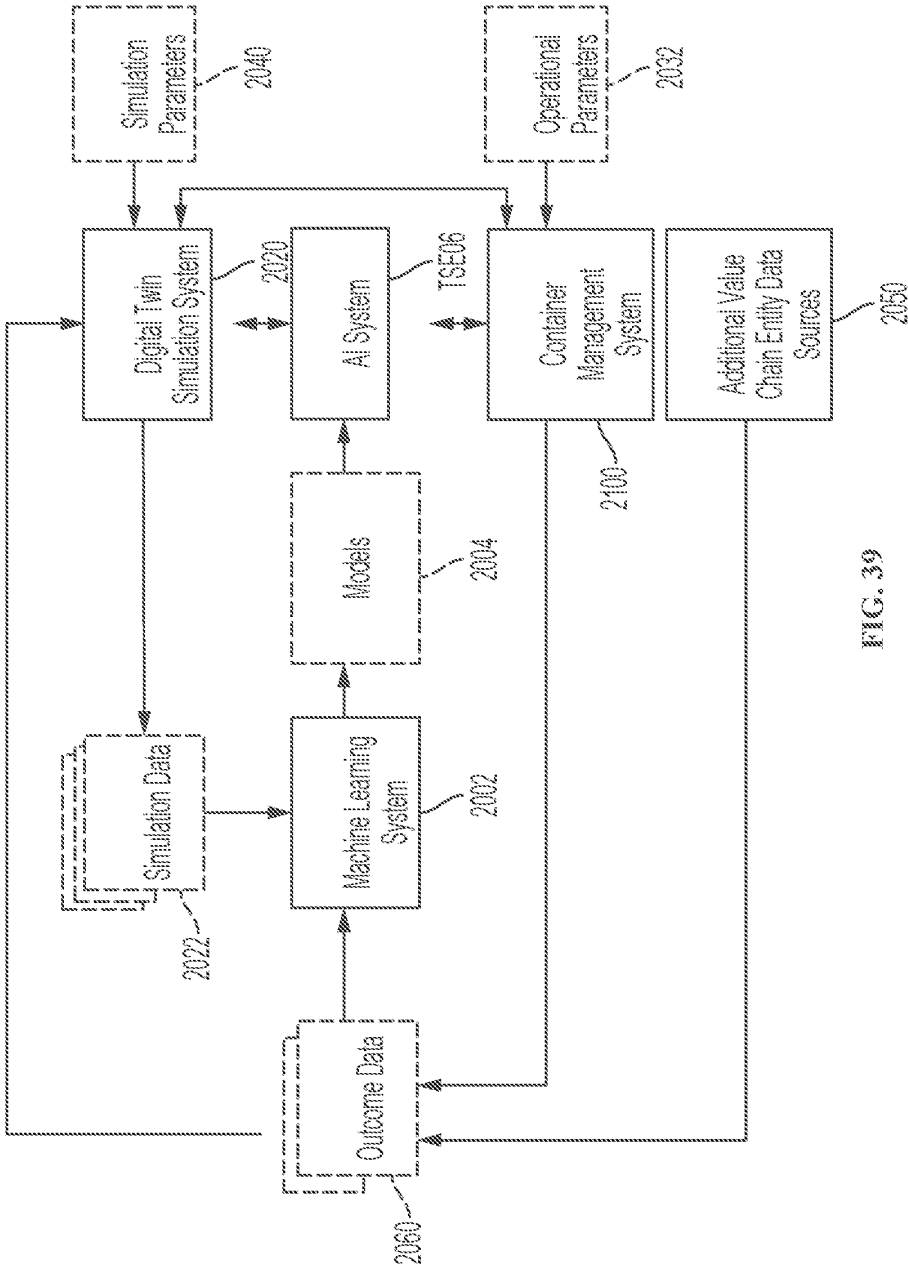


FIG. 39

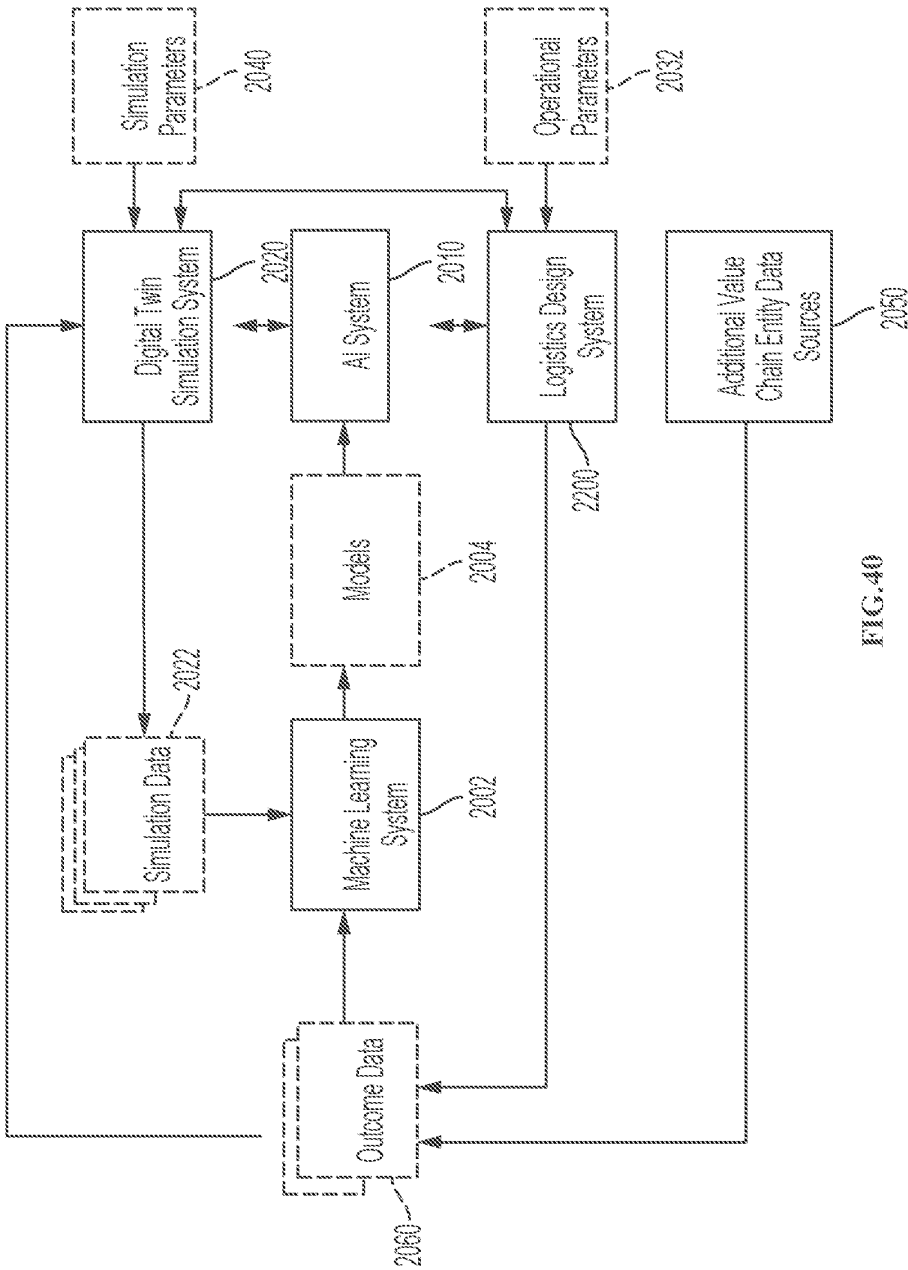


FIG. 40

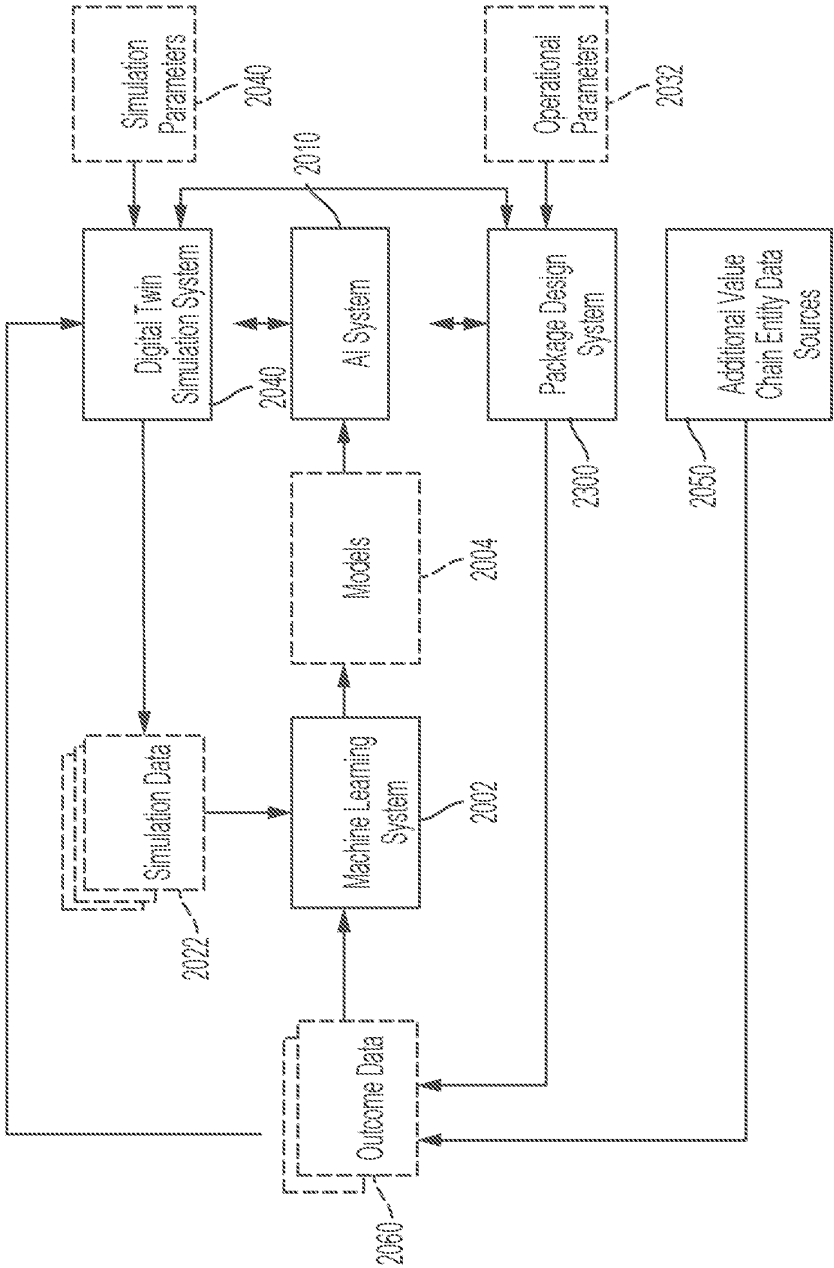


FIG. 41

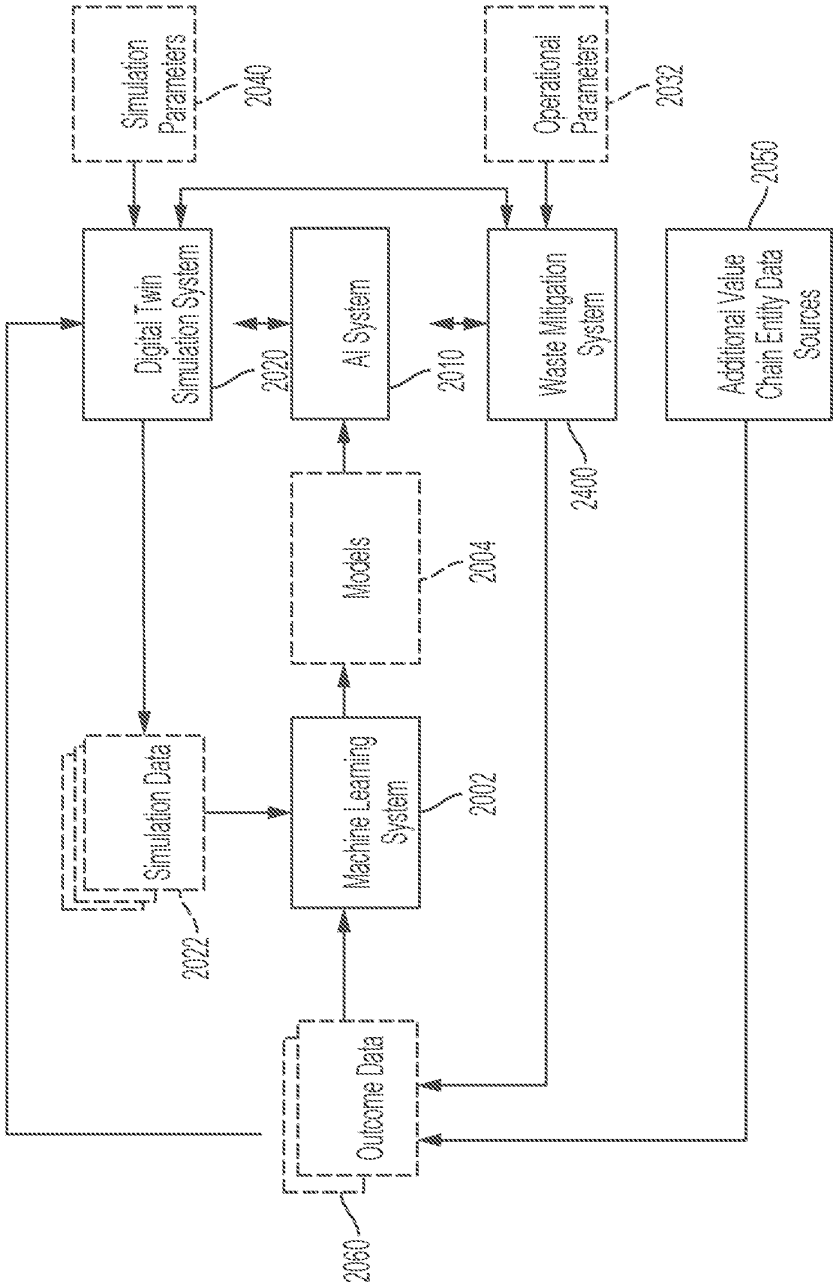


FIG. 42

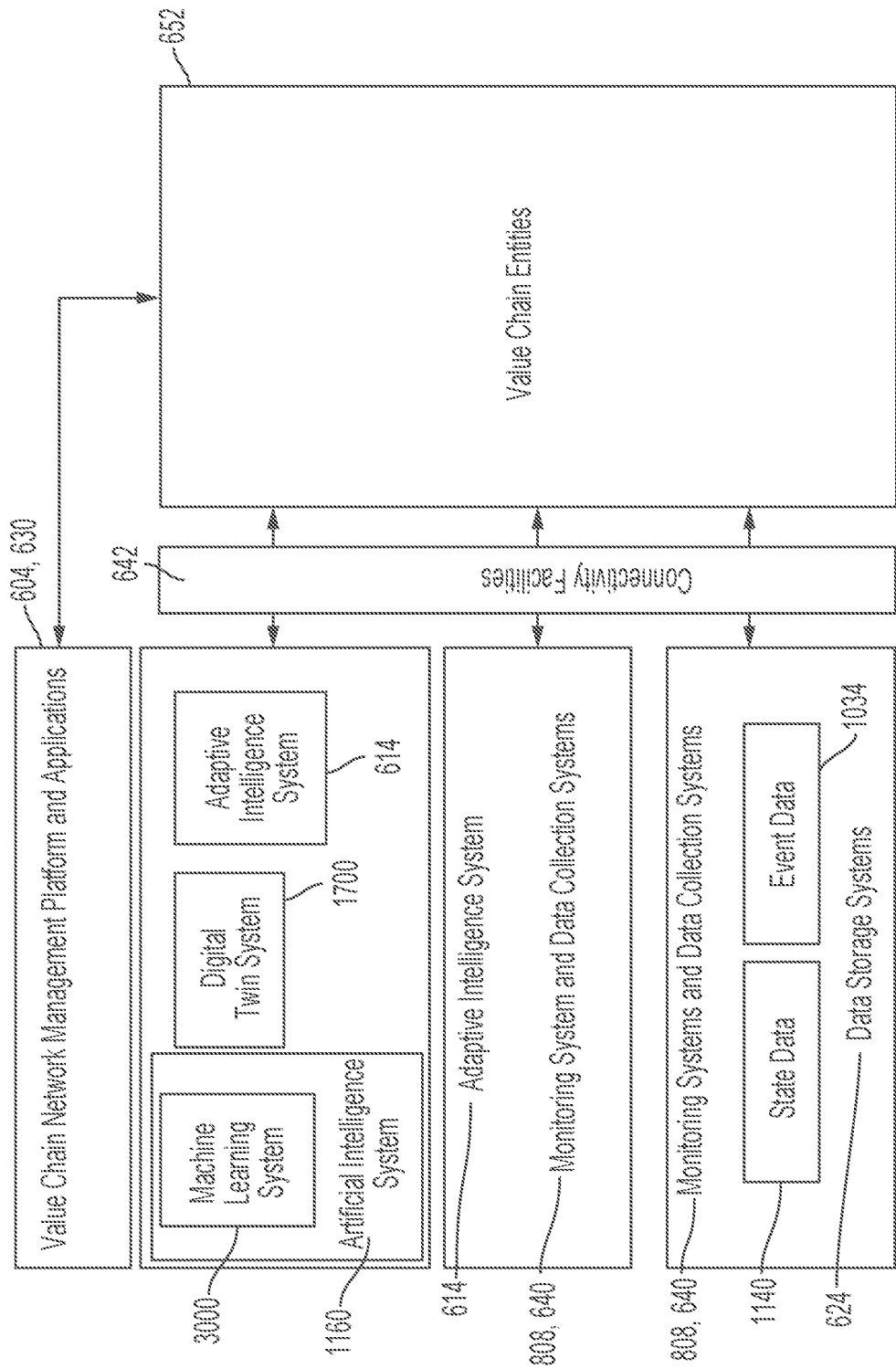
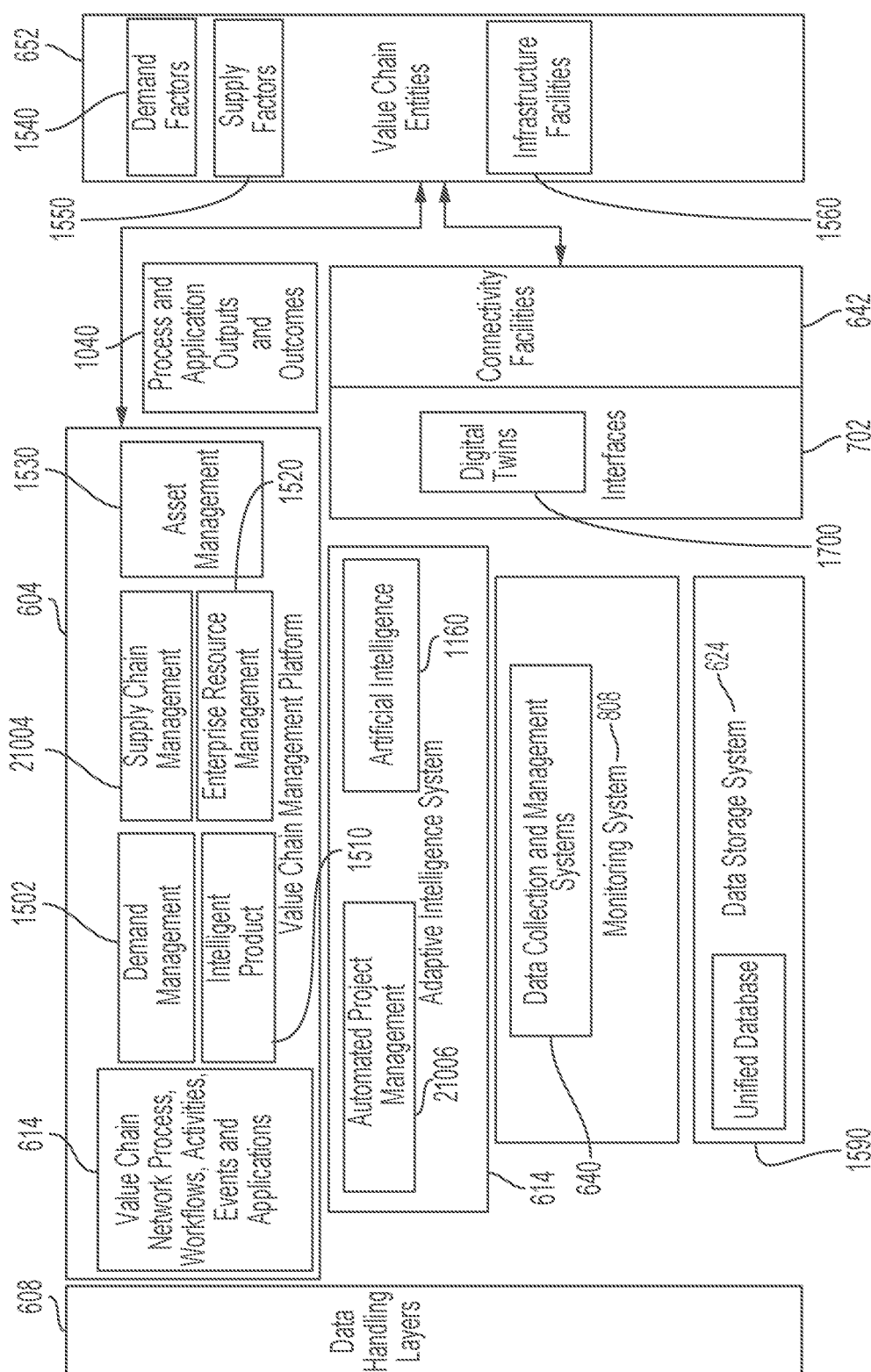


FIG. 43



ENC. 44

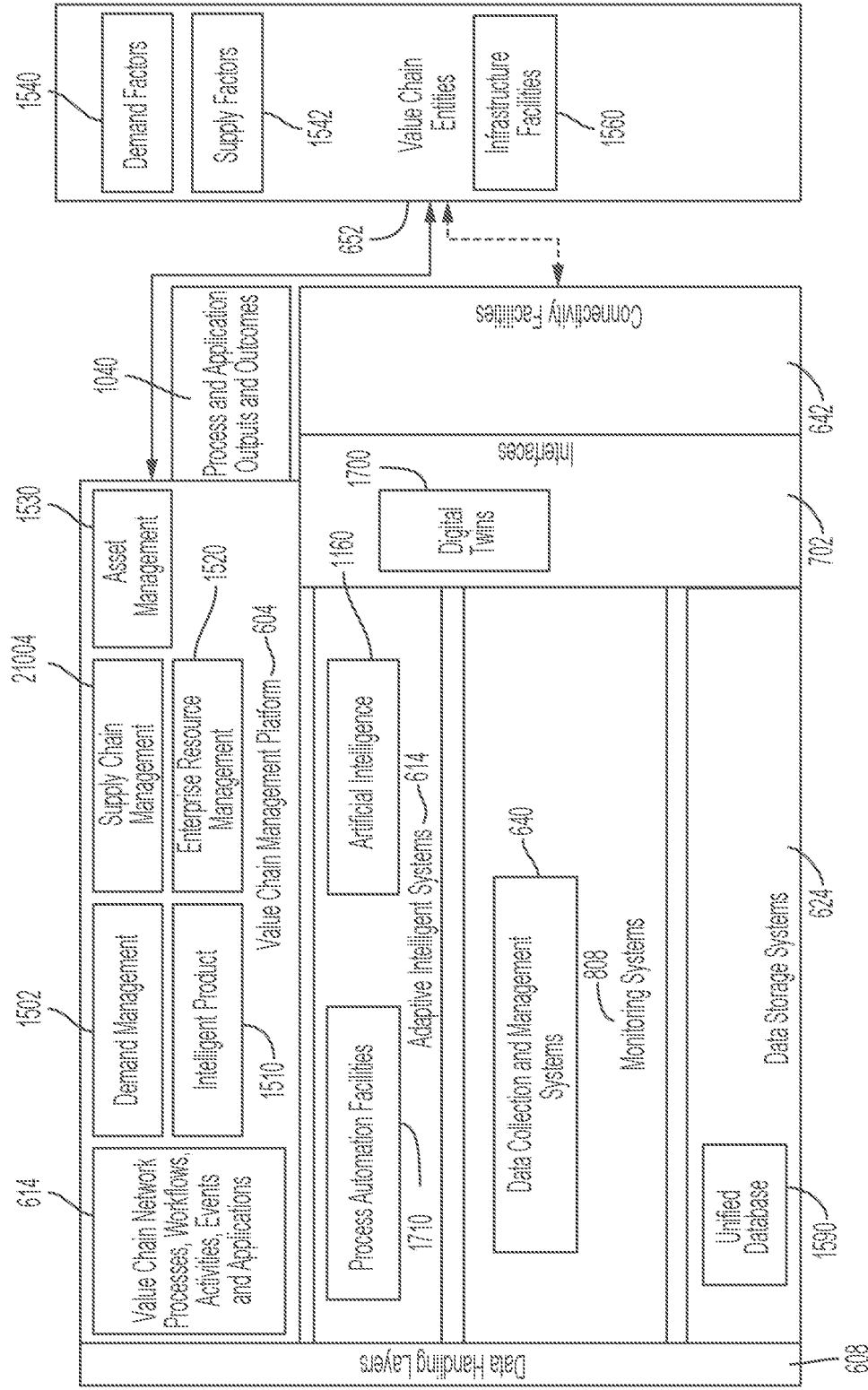


FIG. 45

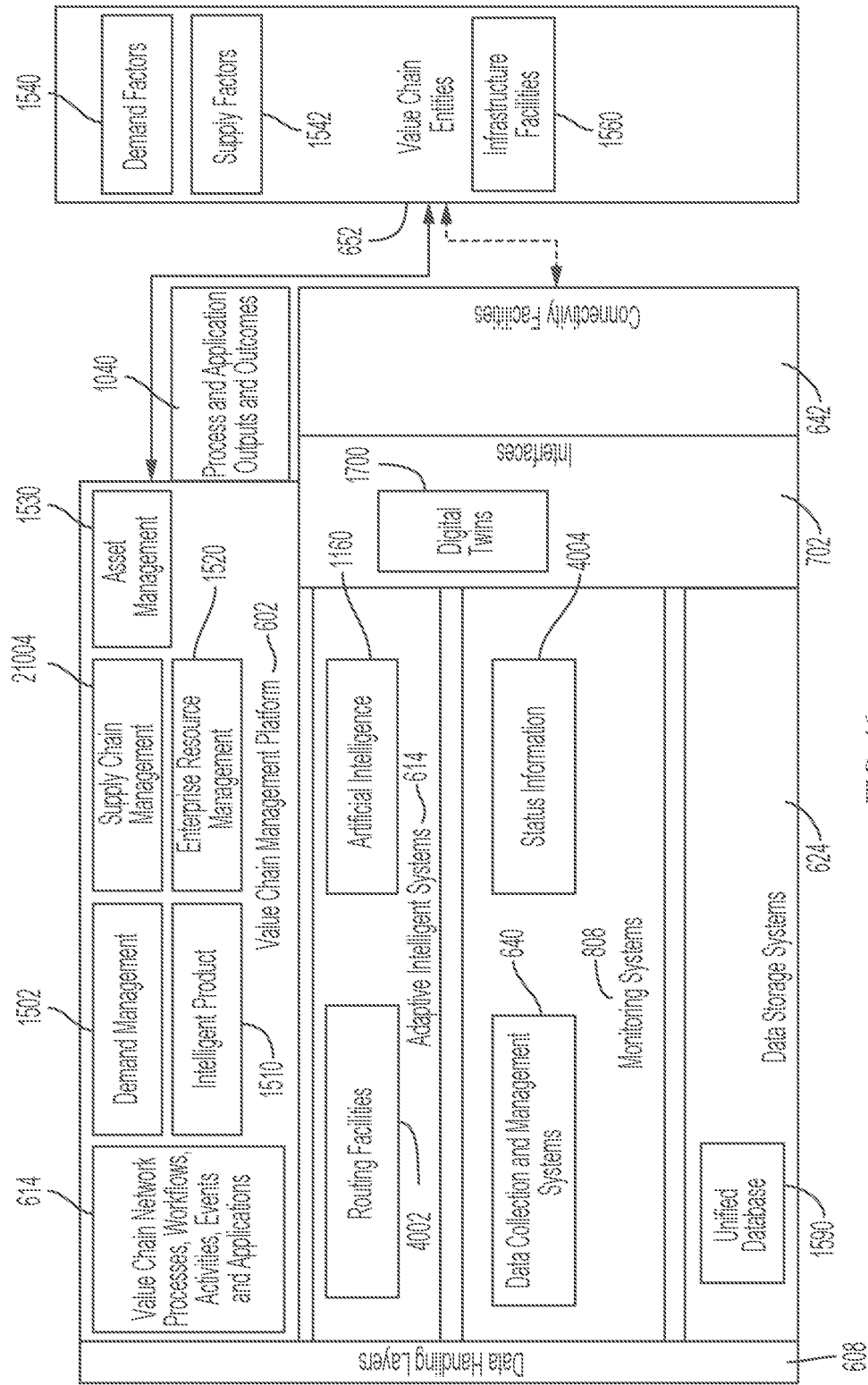


FIG. 46

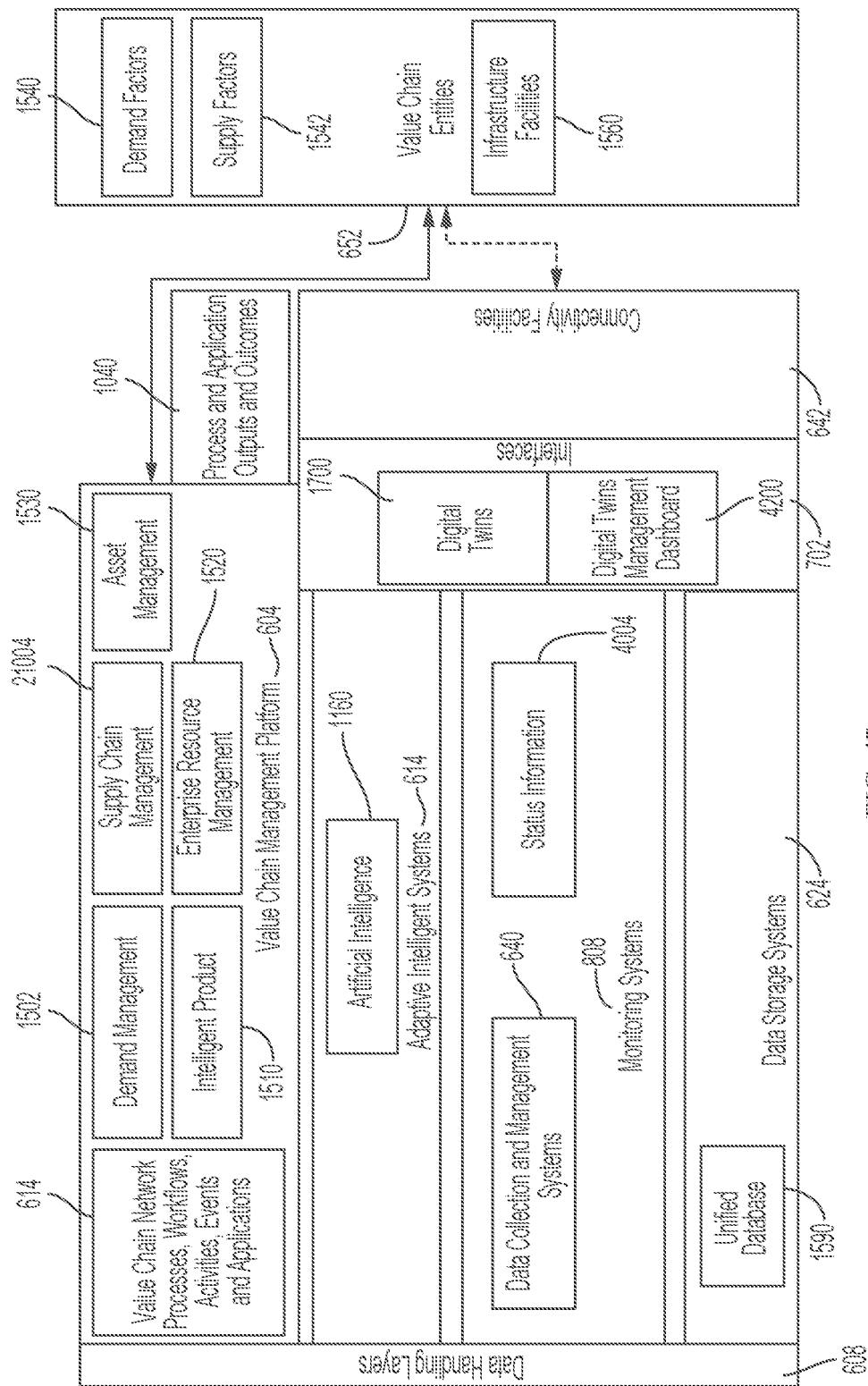


FIG. 47

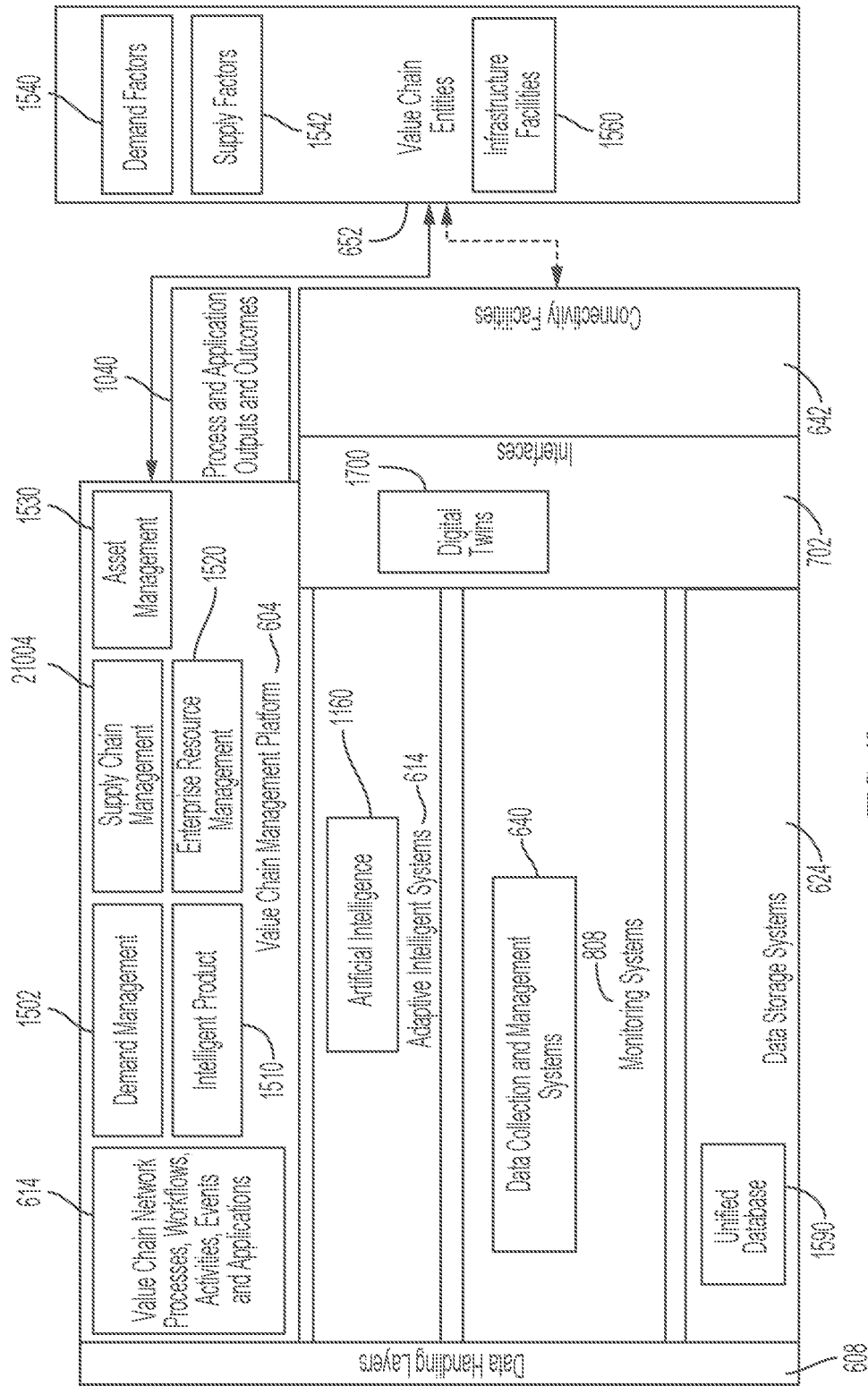
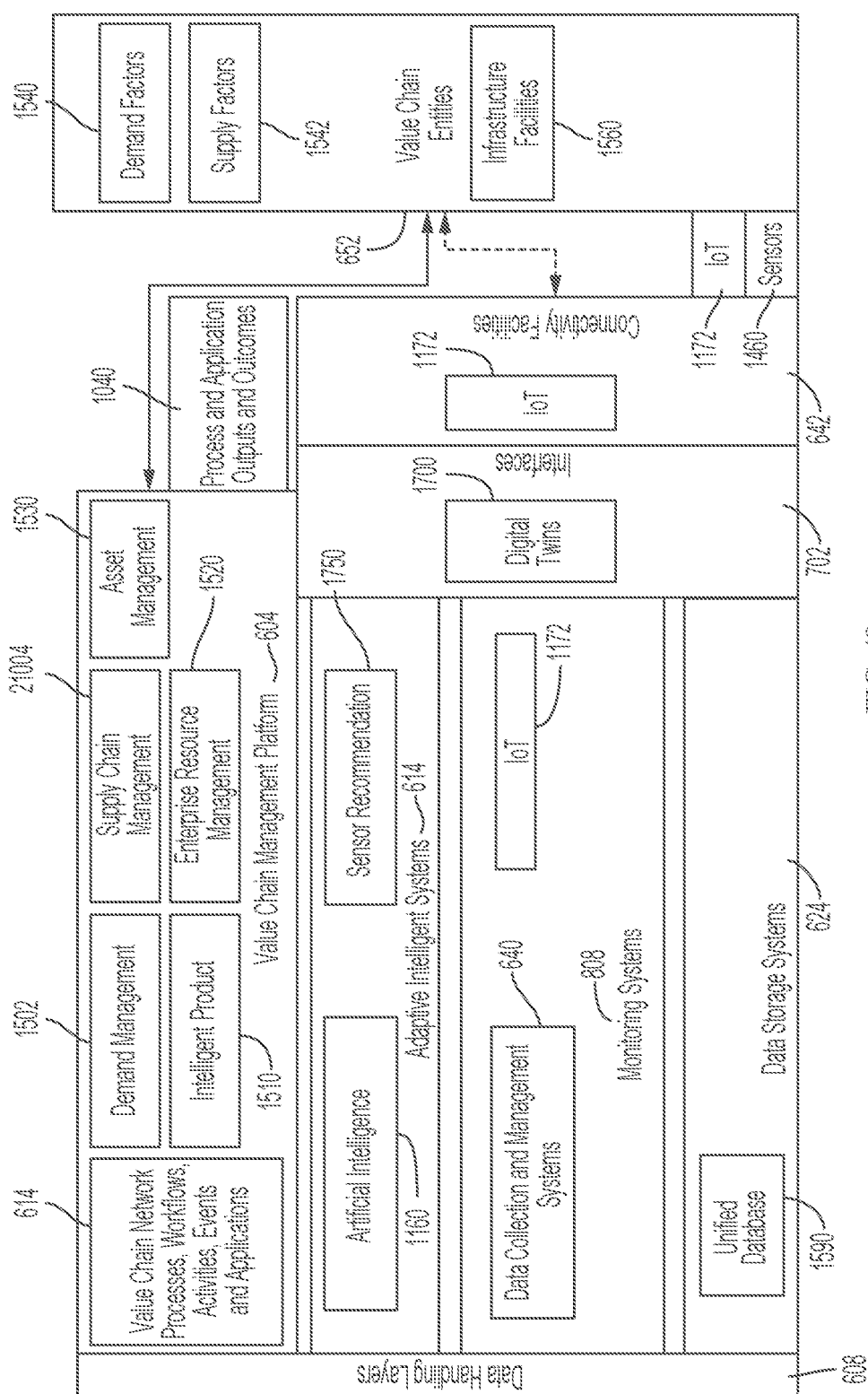


FIG. 48



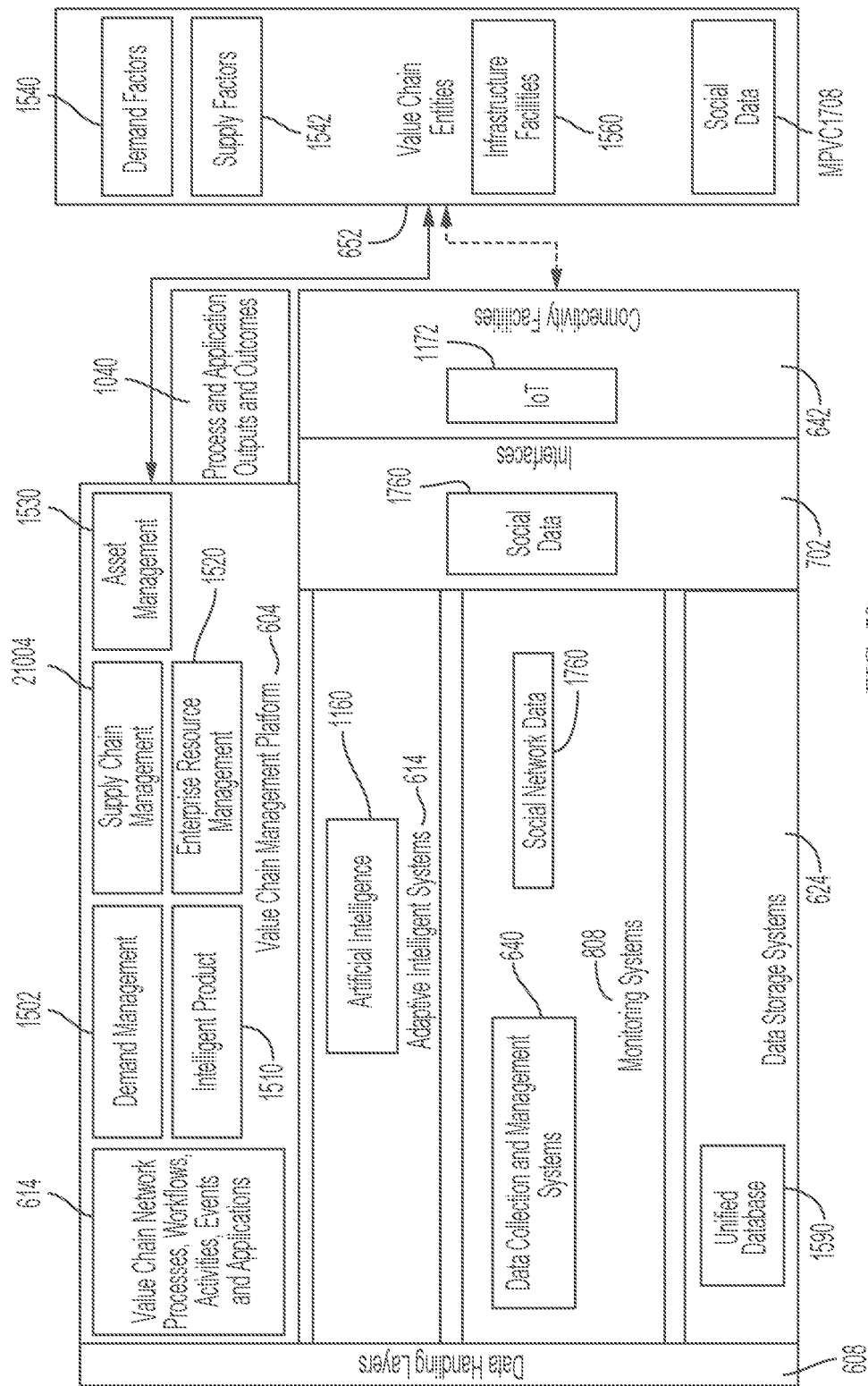


FIG. 50

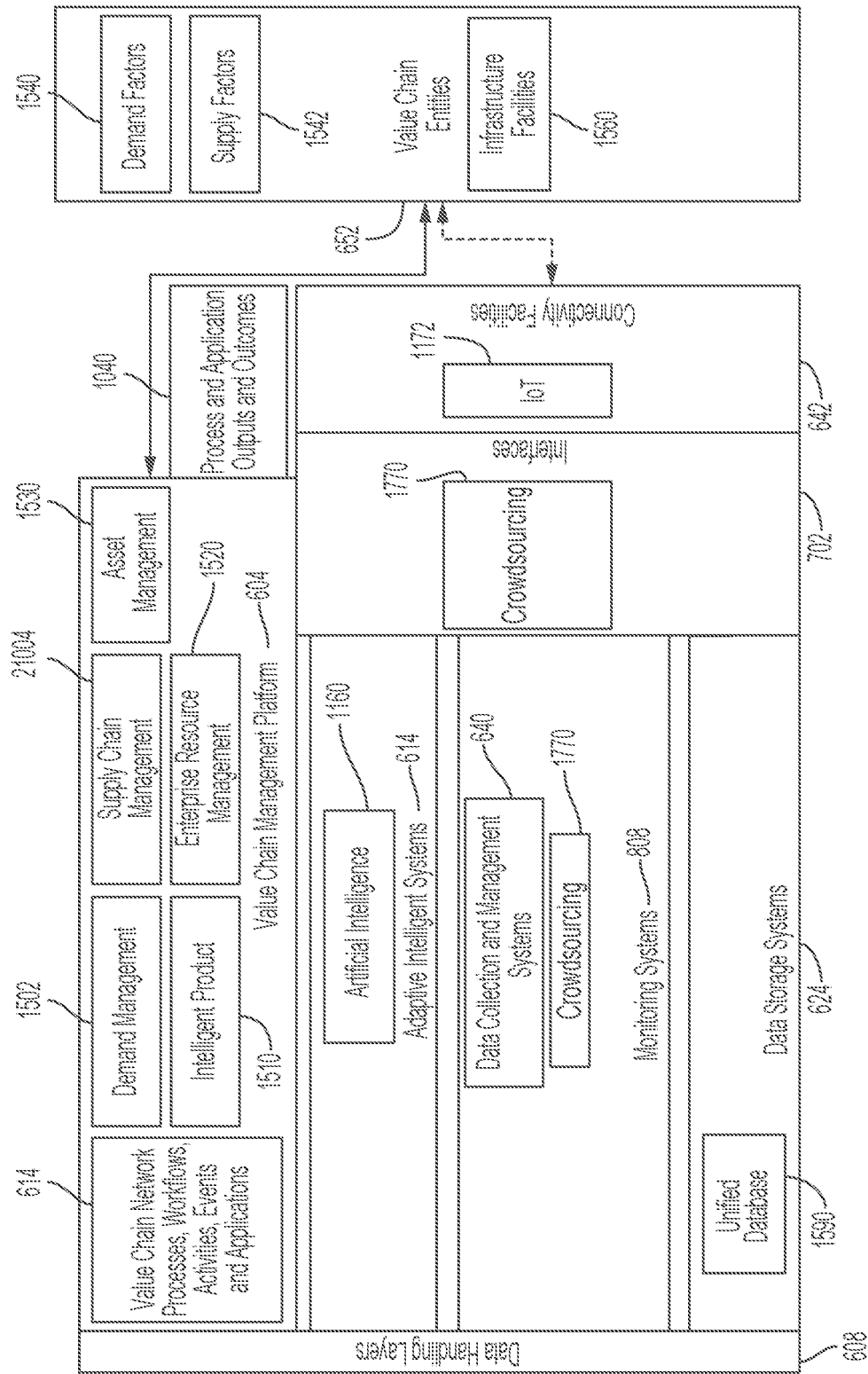


FIG 51

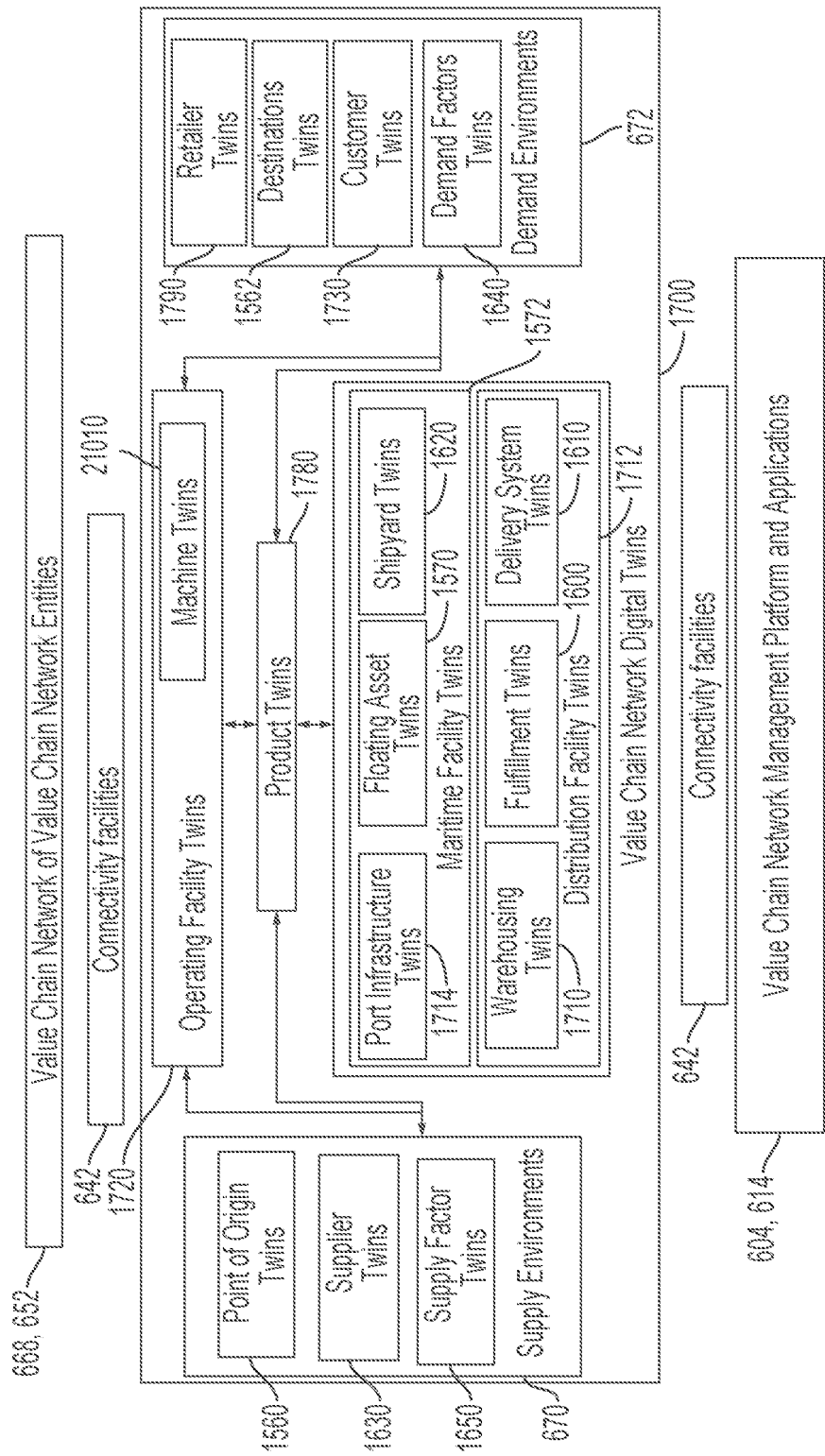


FIG 52

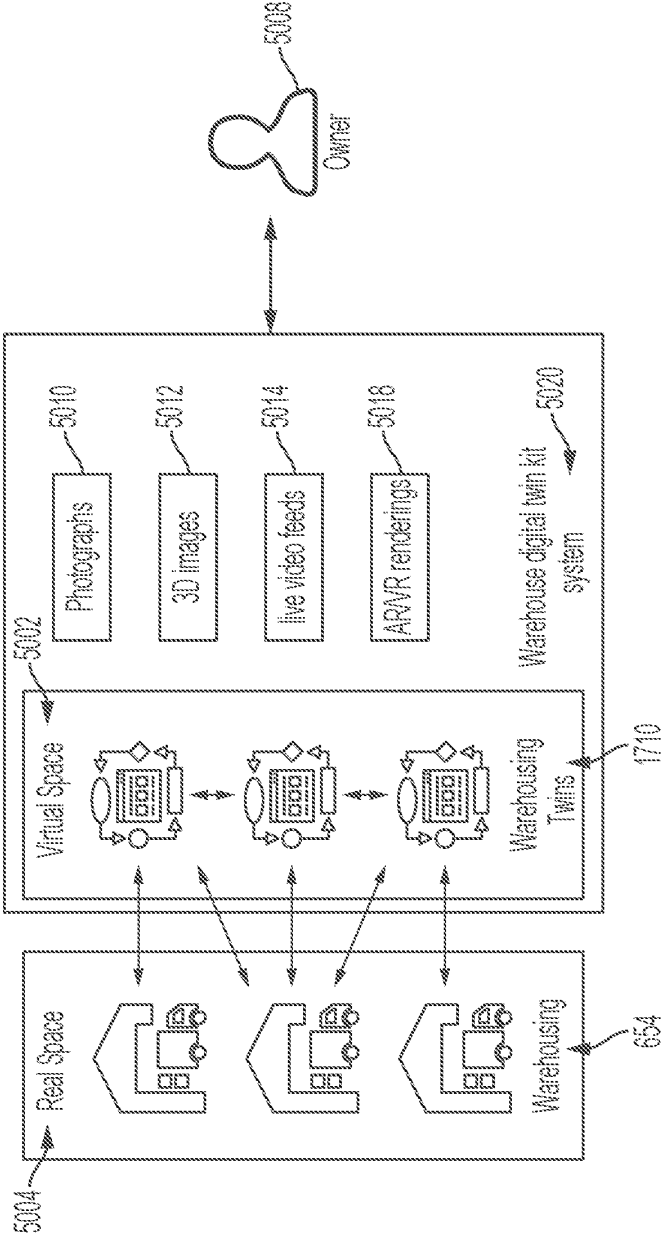


FIG. 53

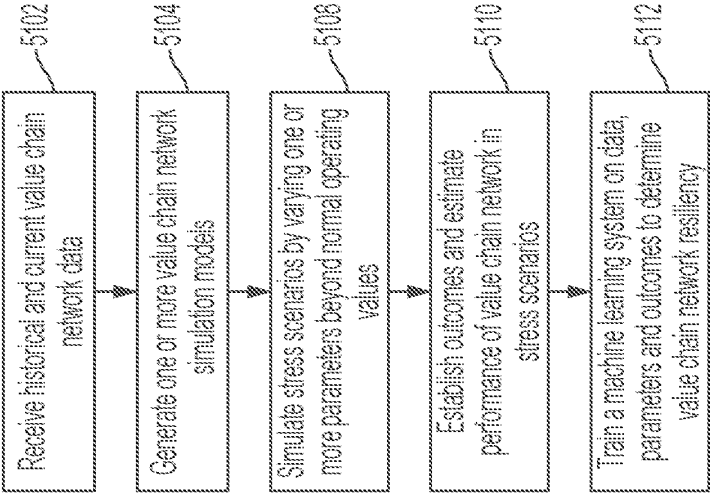


FIG. 54

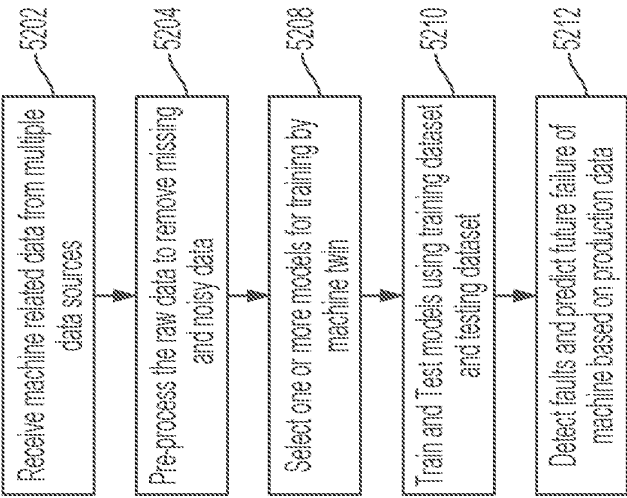


FIG 55

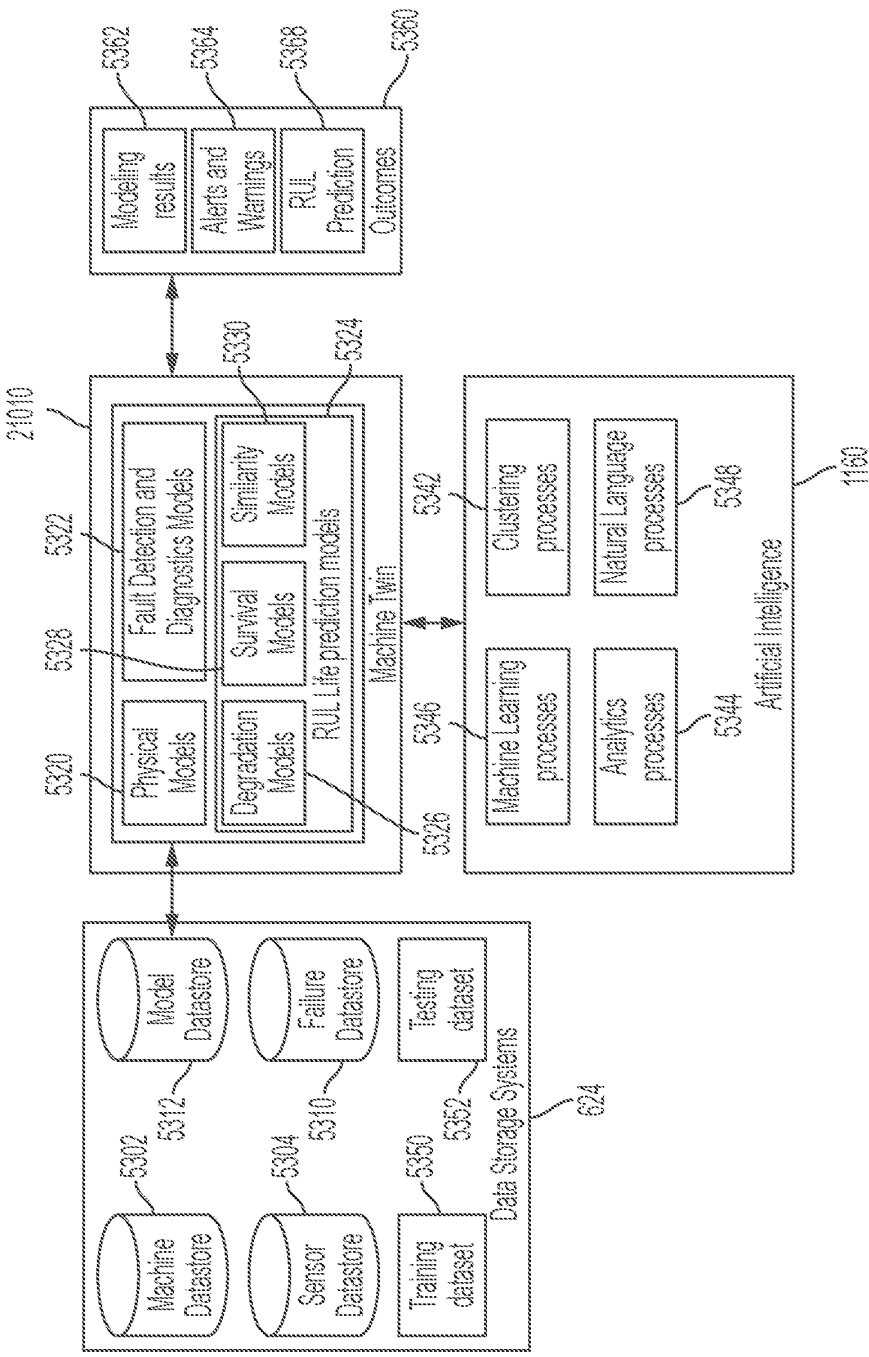
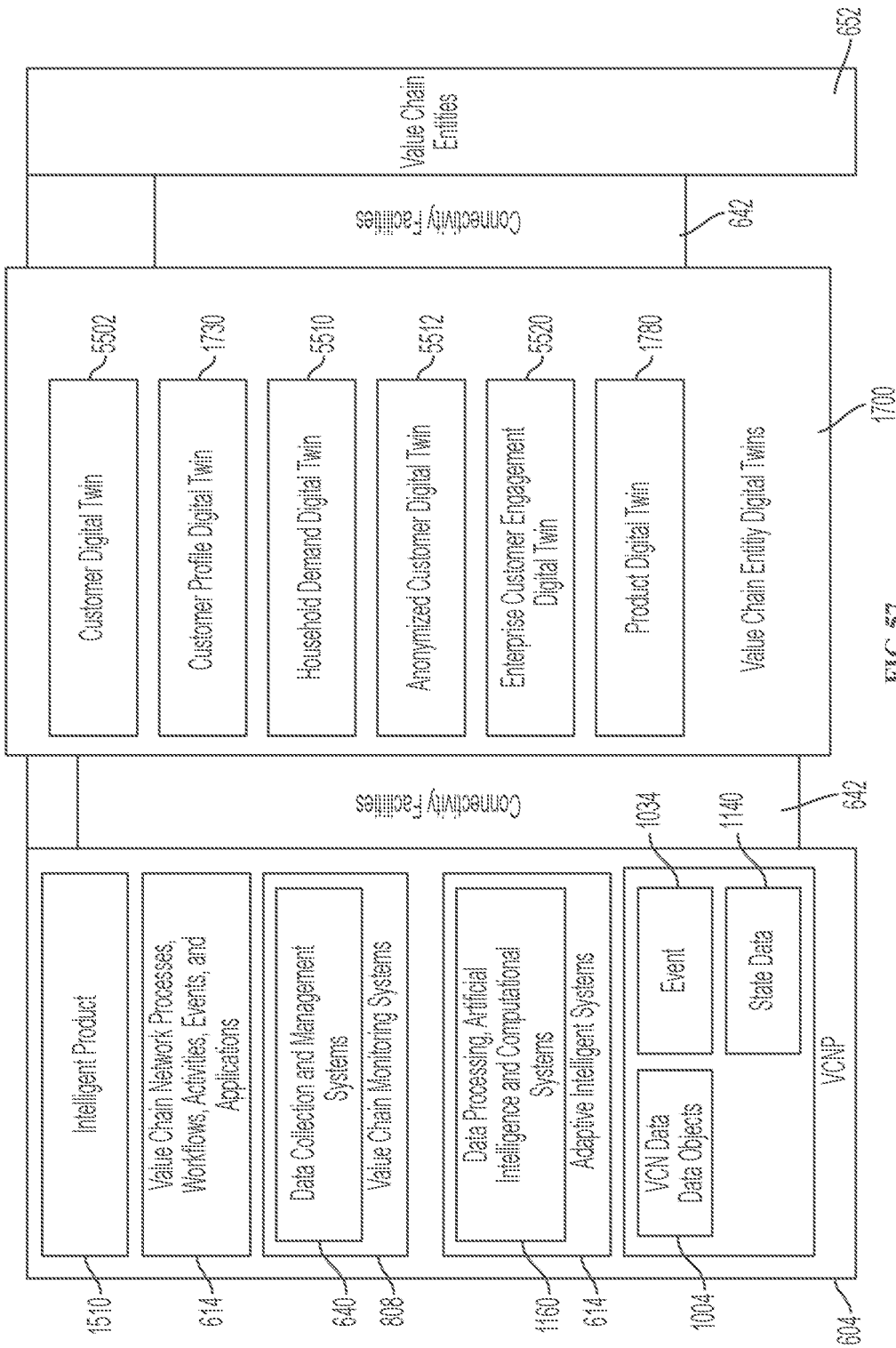


FIG. 56



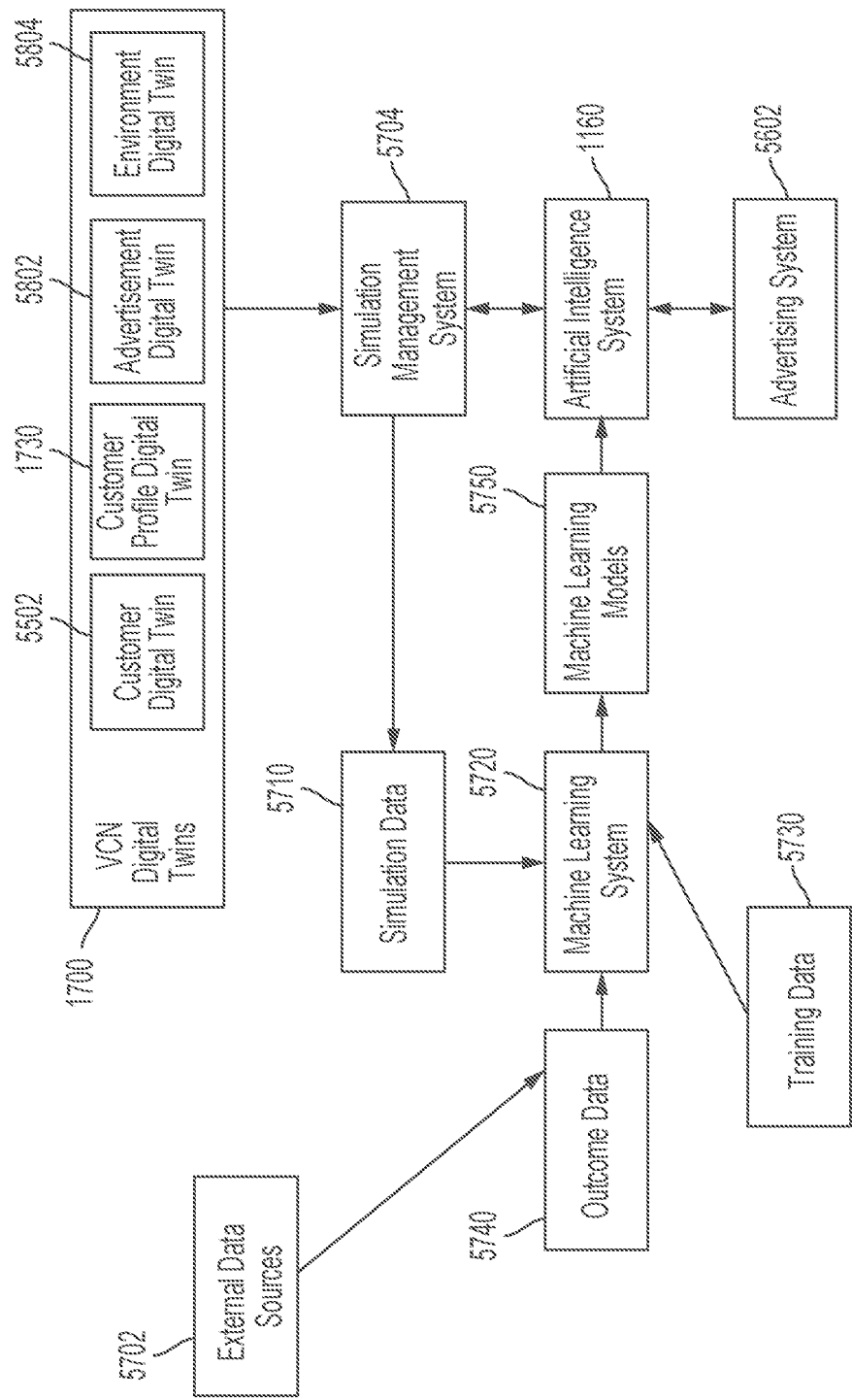


FIG 58

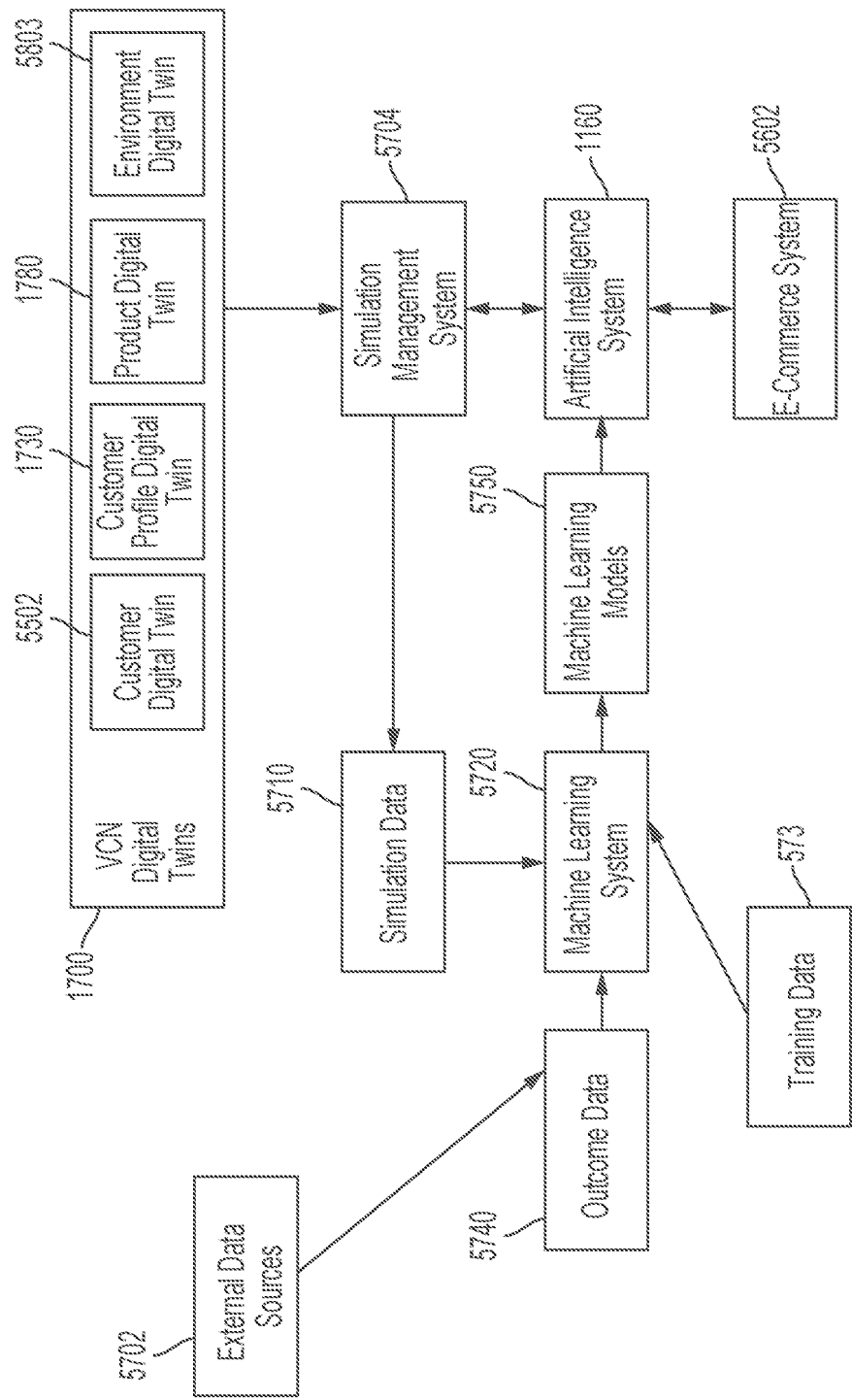


FIG 59

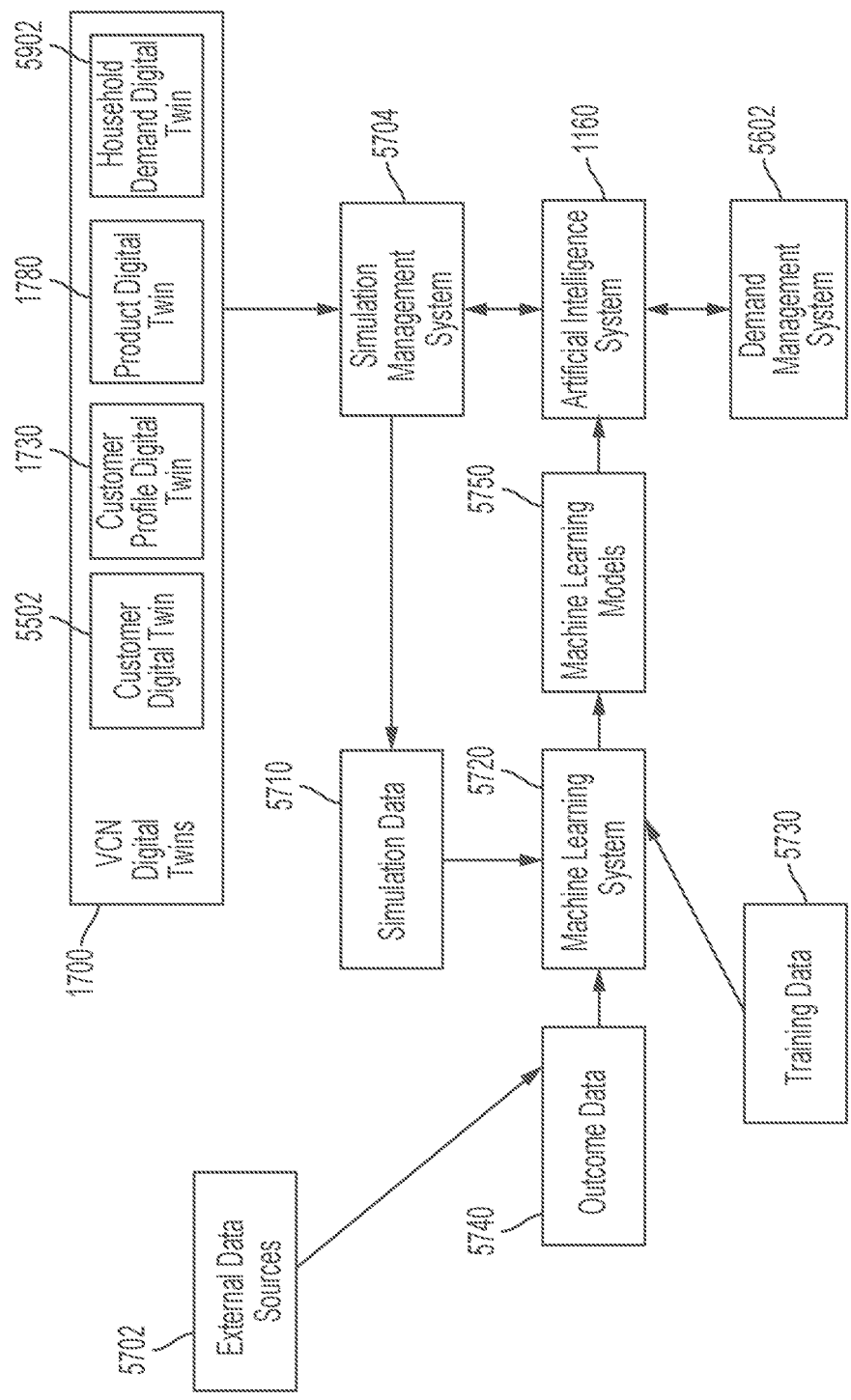


FIG. 60

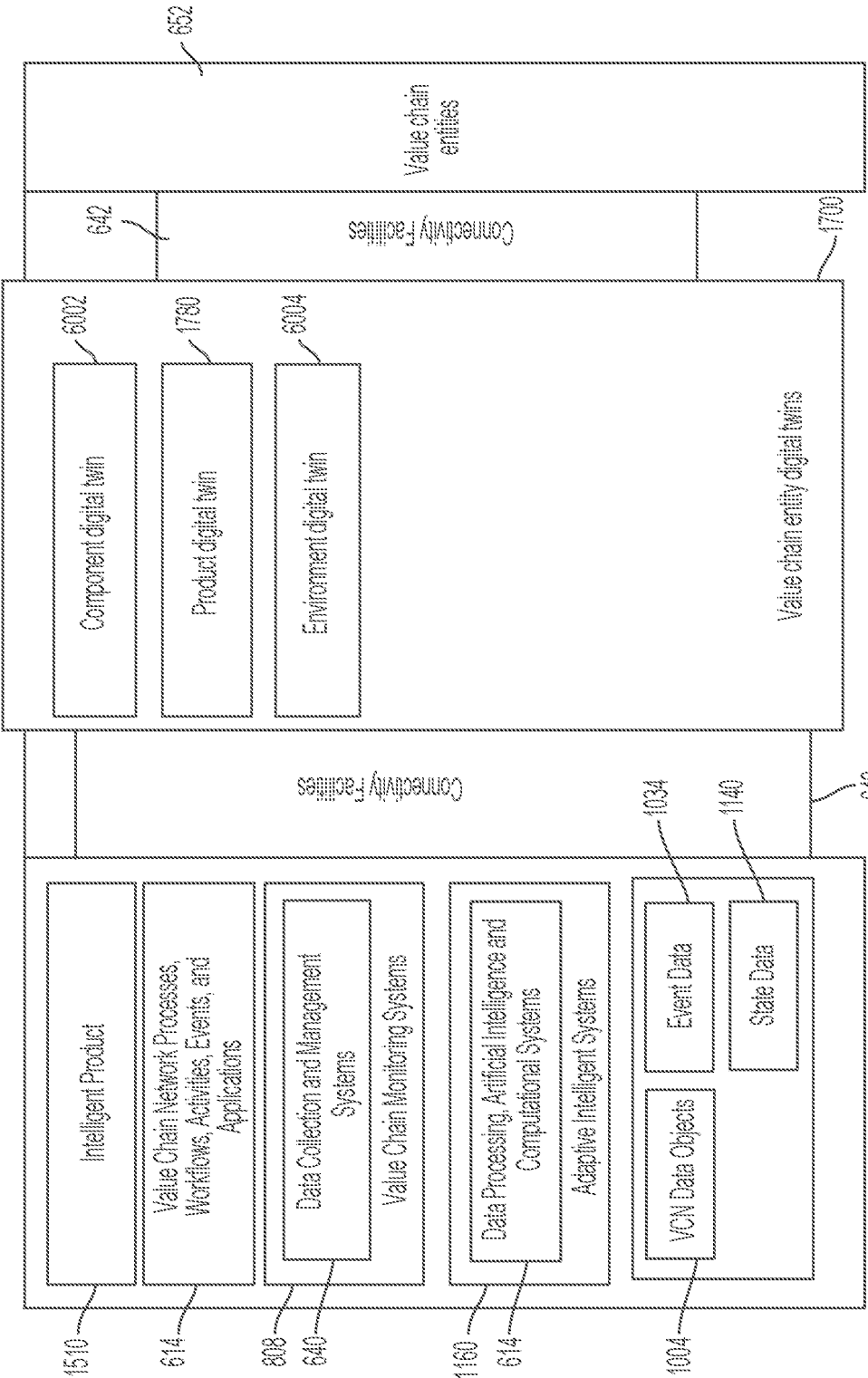


FIG. 61

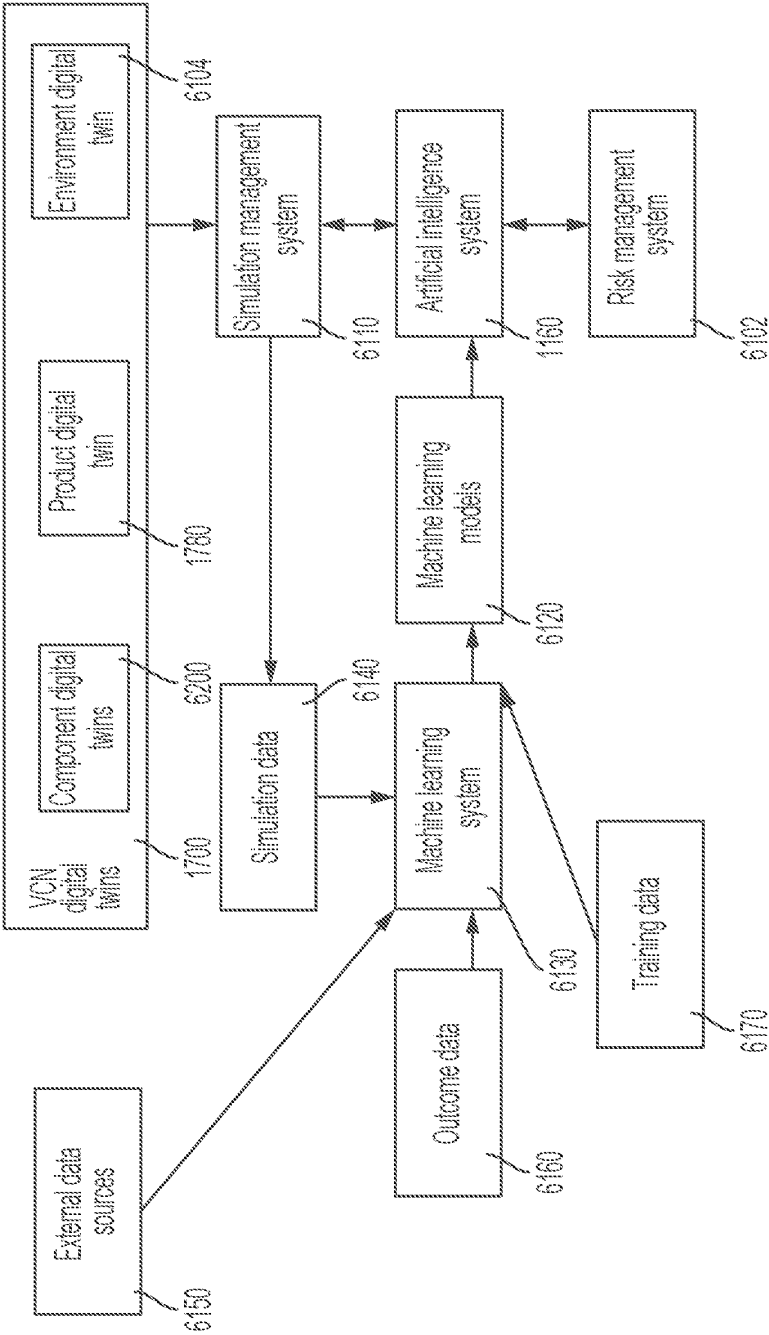


FIG. 62

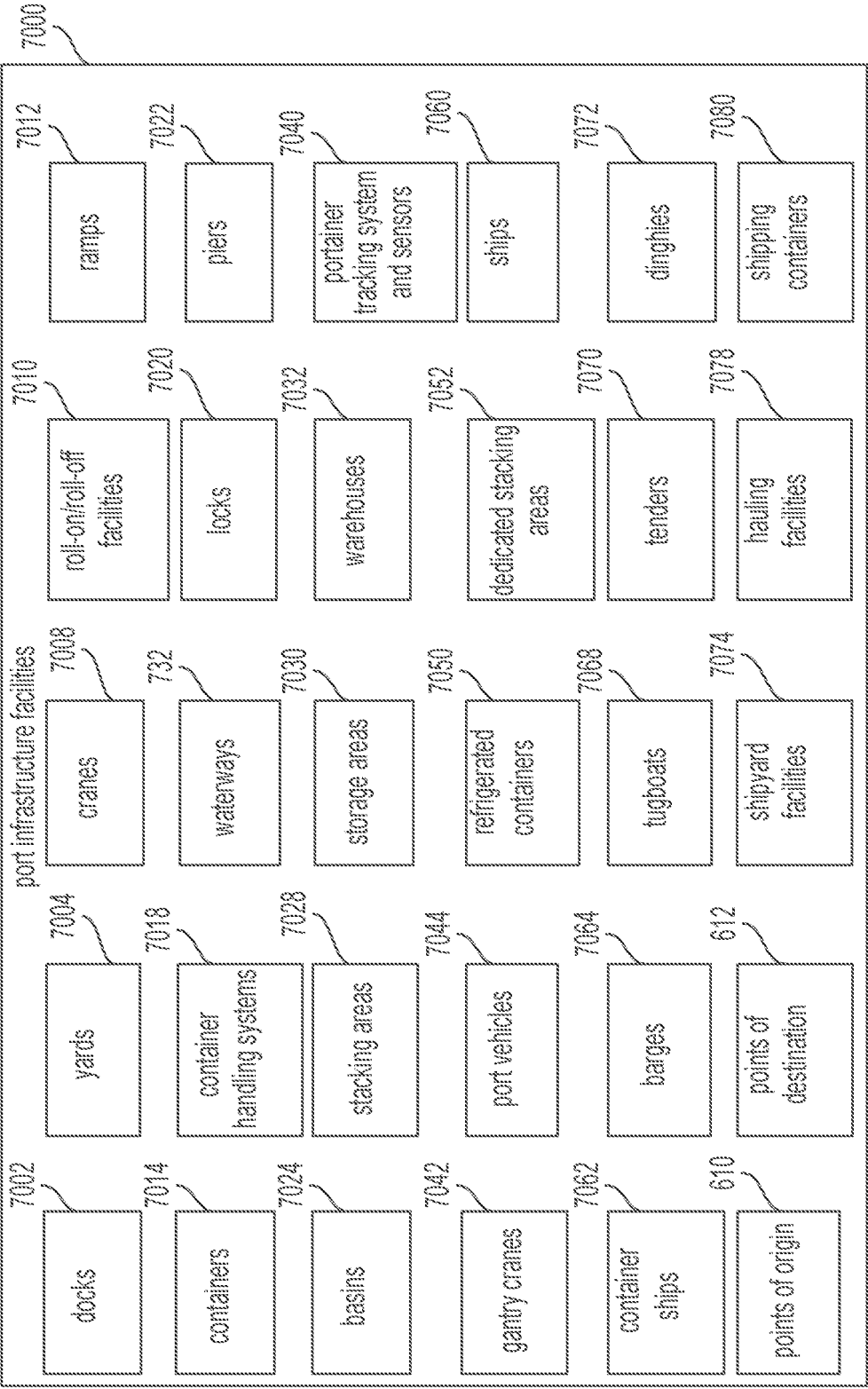


FIG. 63

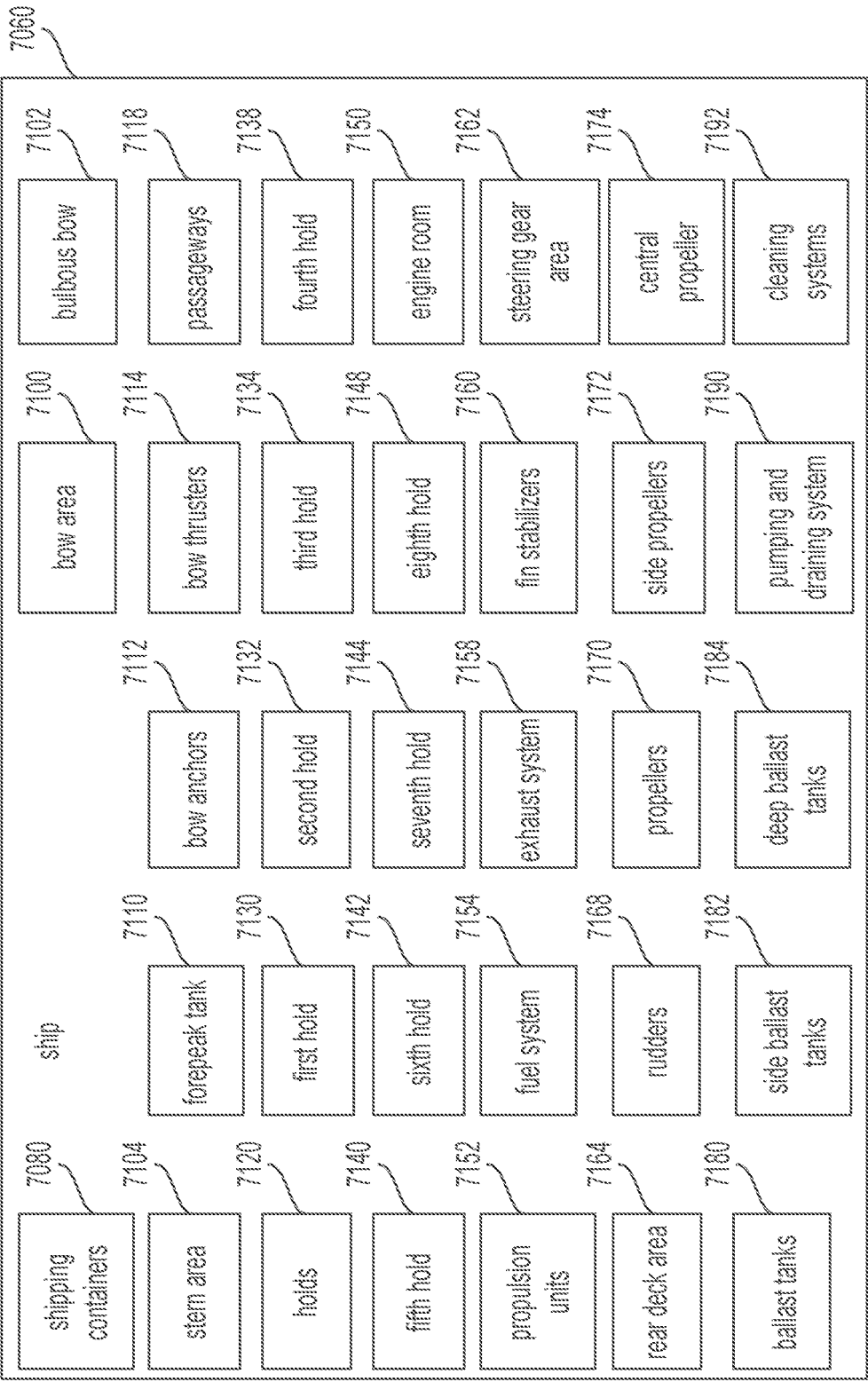


FIG. 64

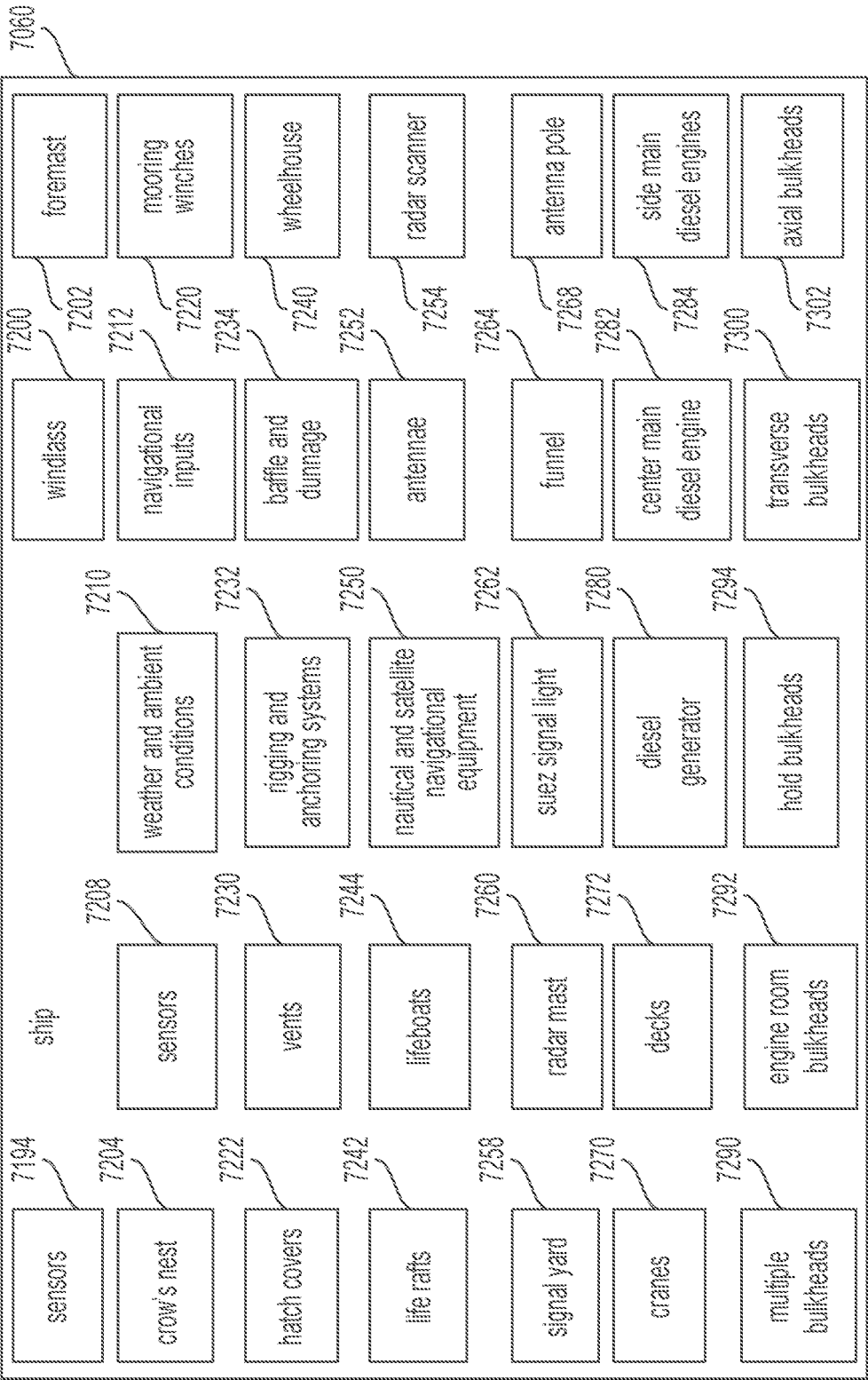


FIG. 65

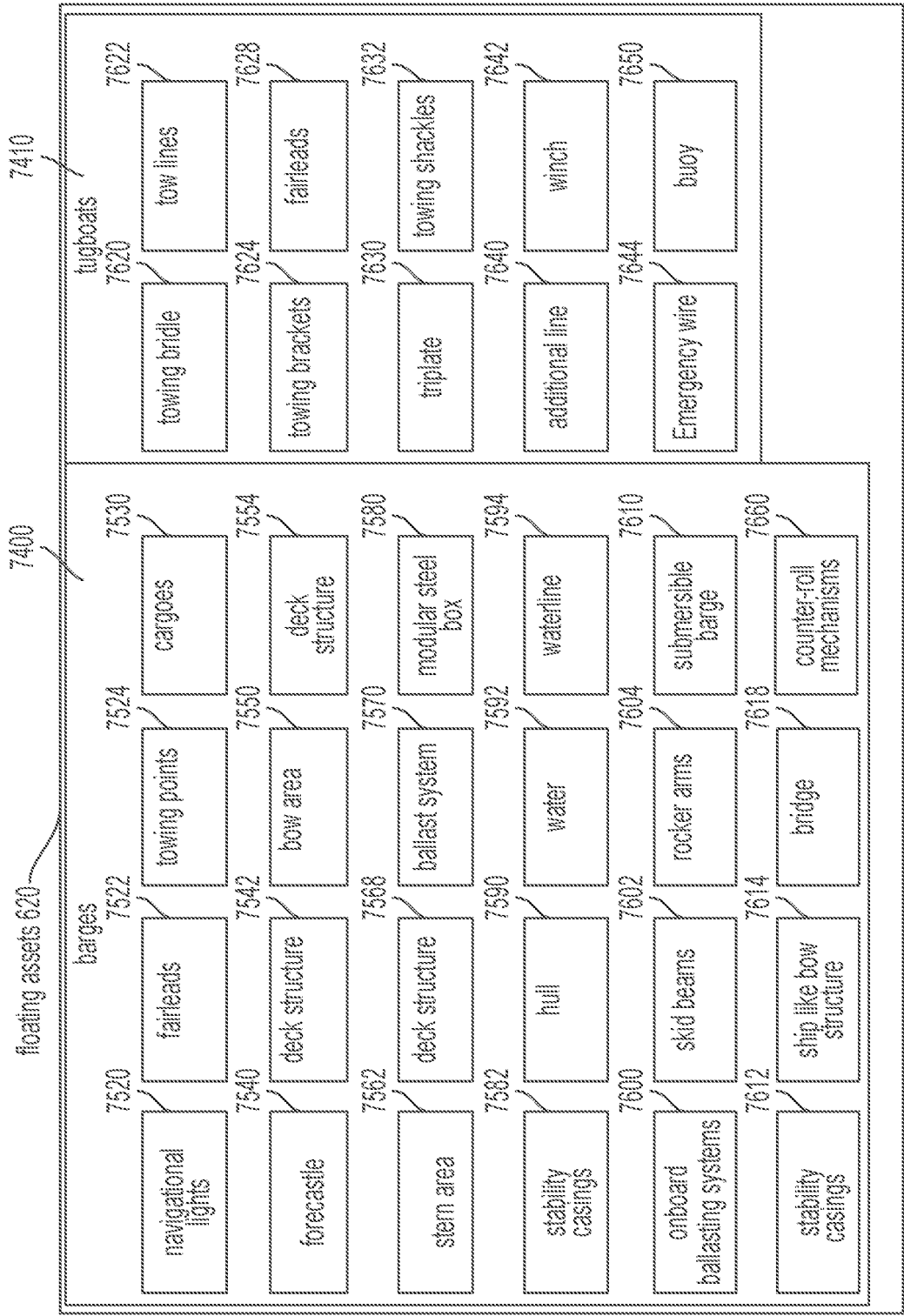


FIG. 66

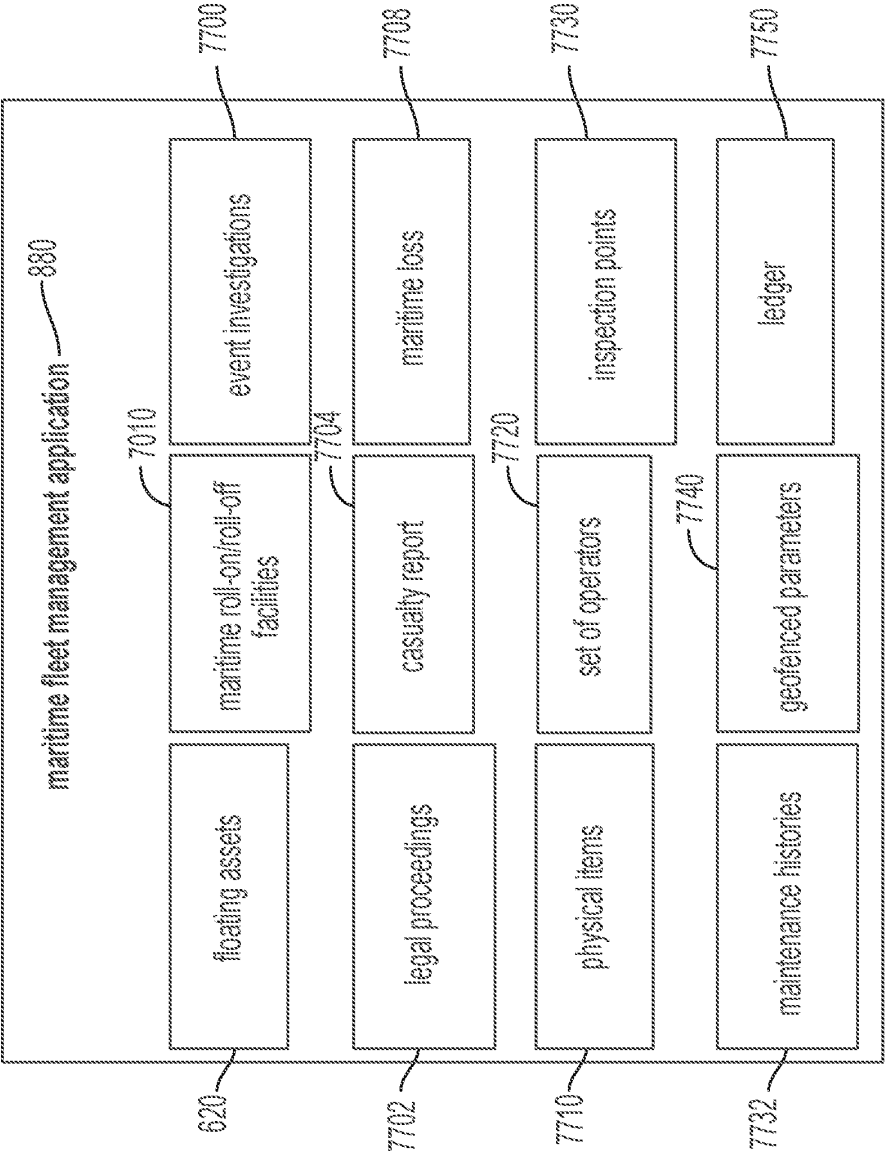


FIG. 67

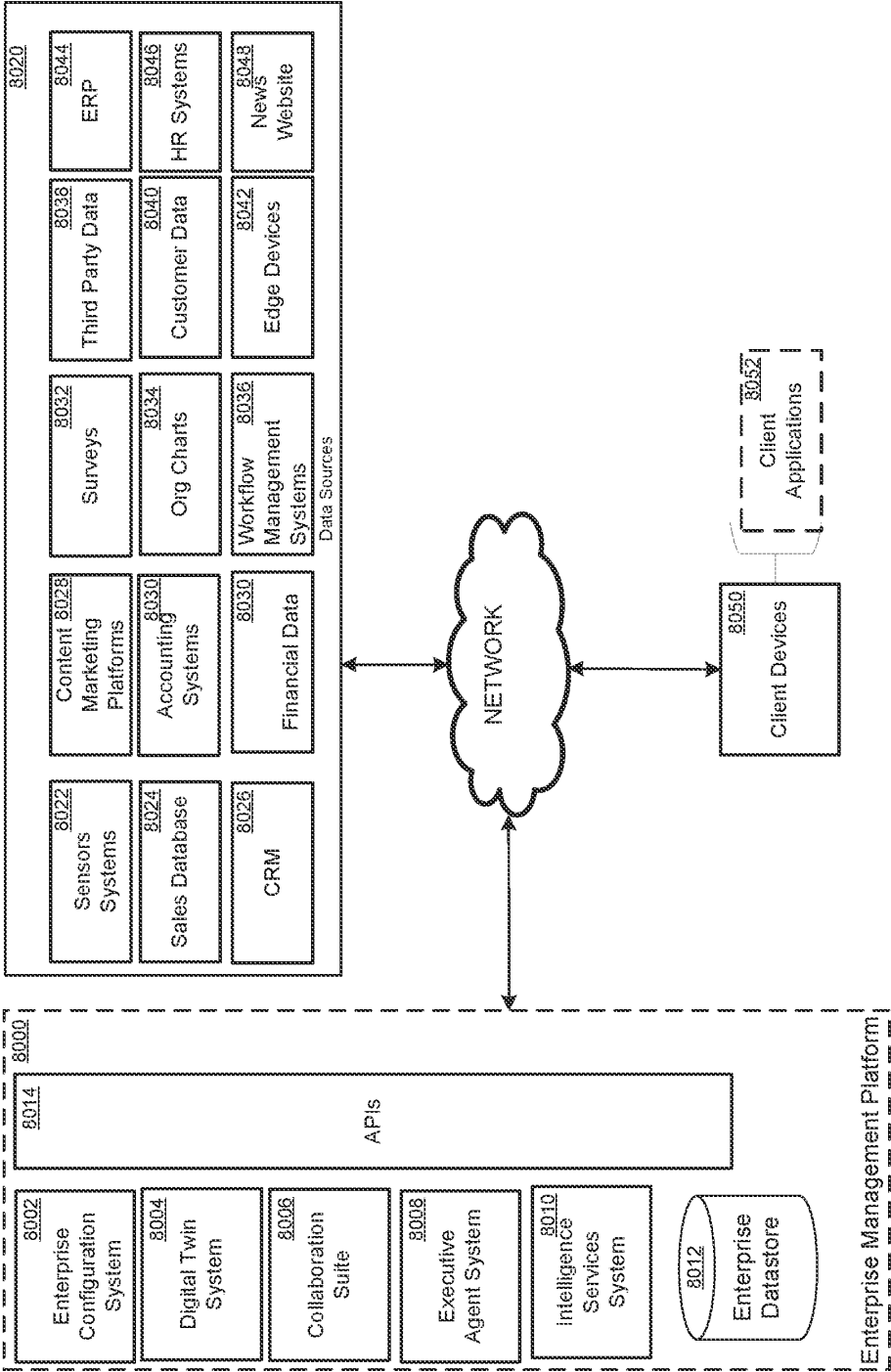


FIG. 68

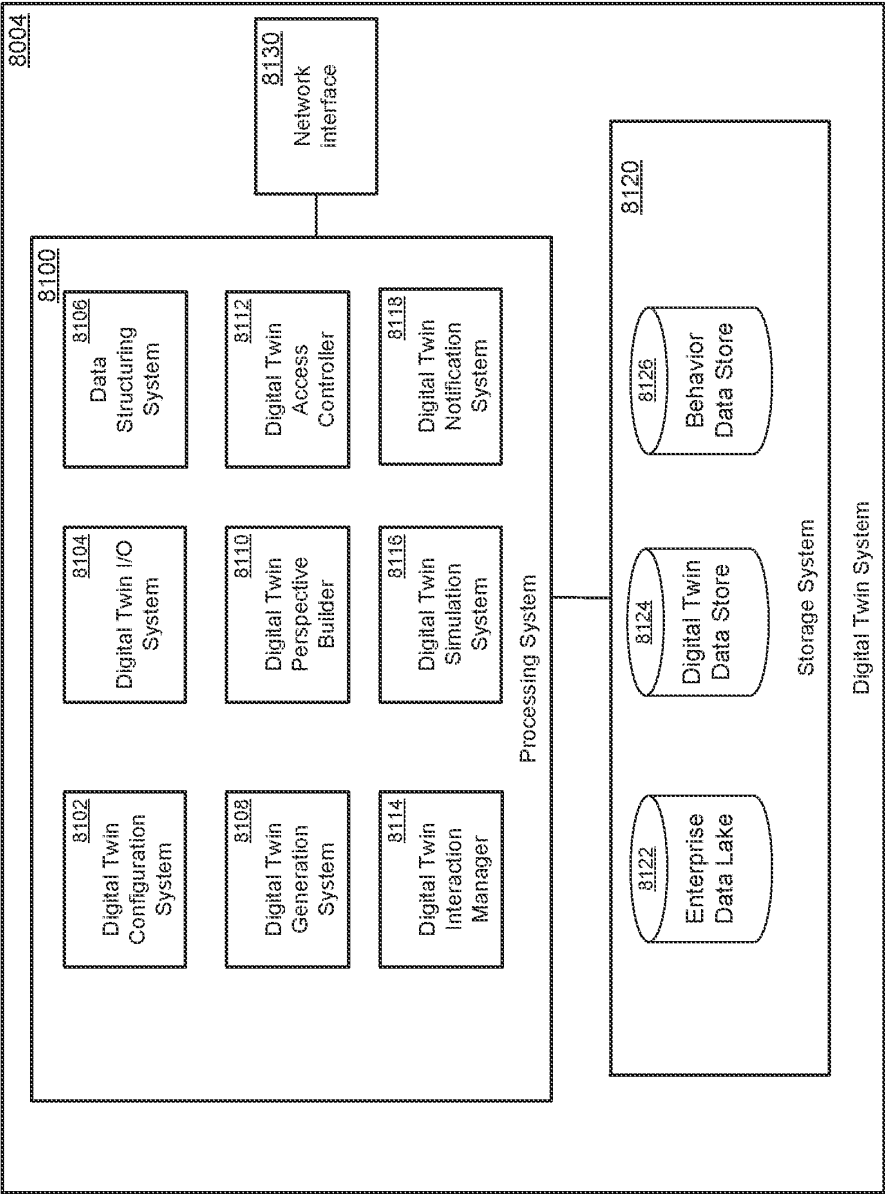


FIG. 69

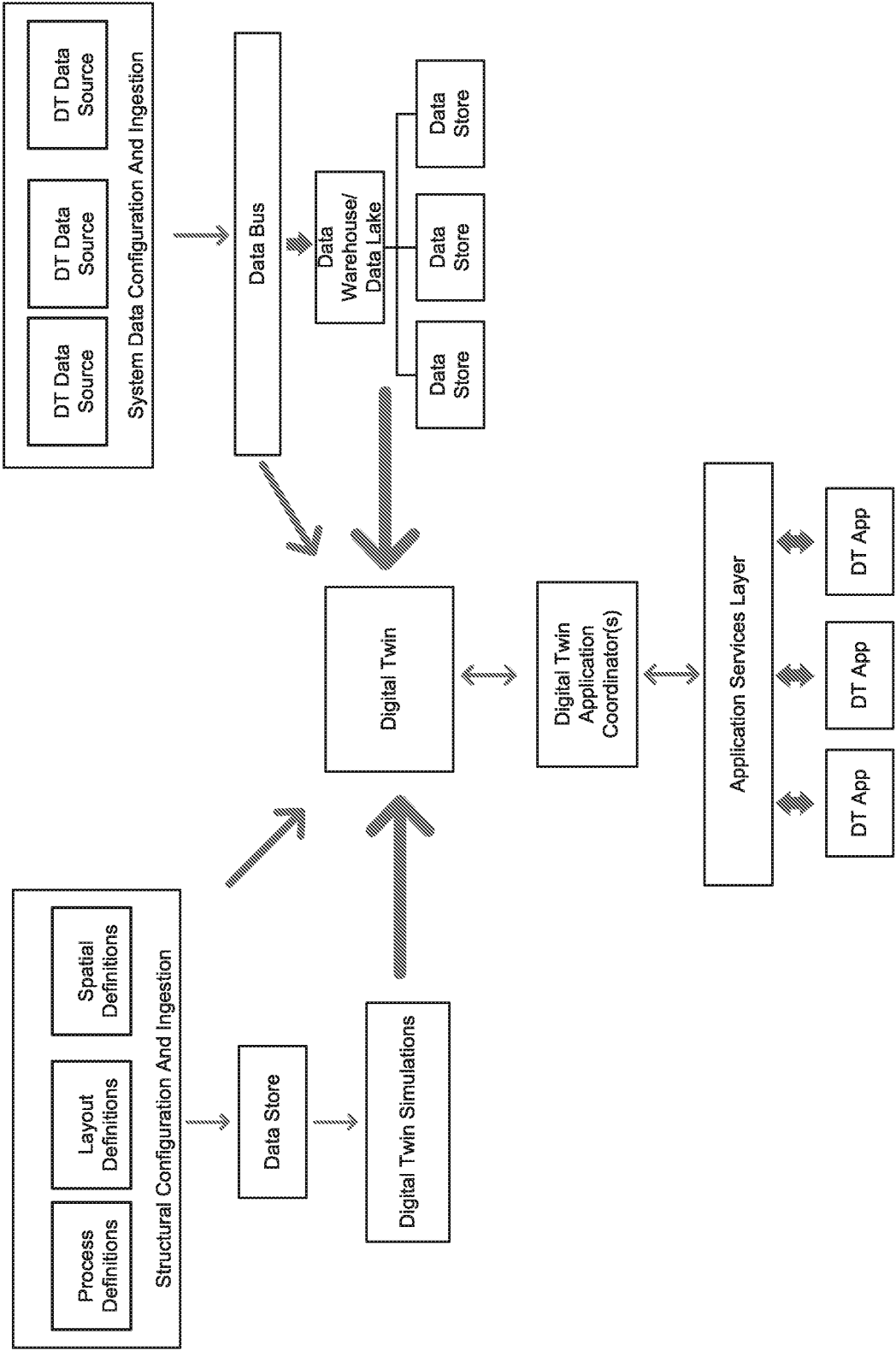


FIG. 70

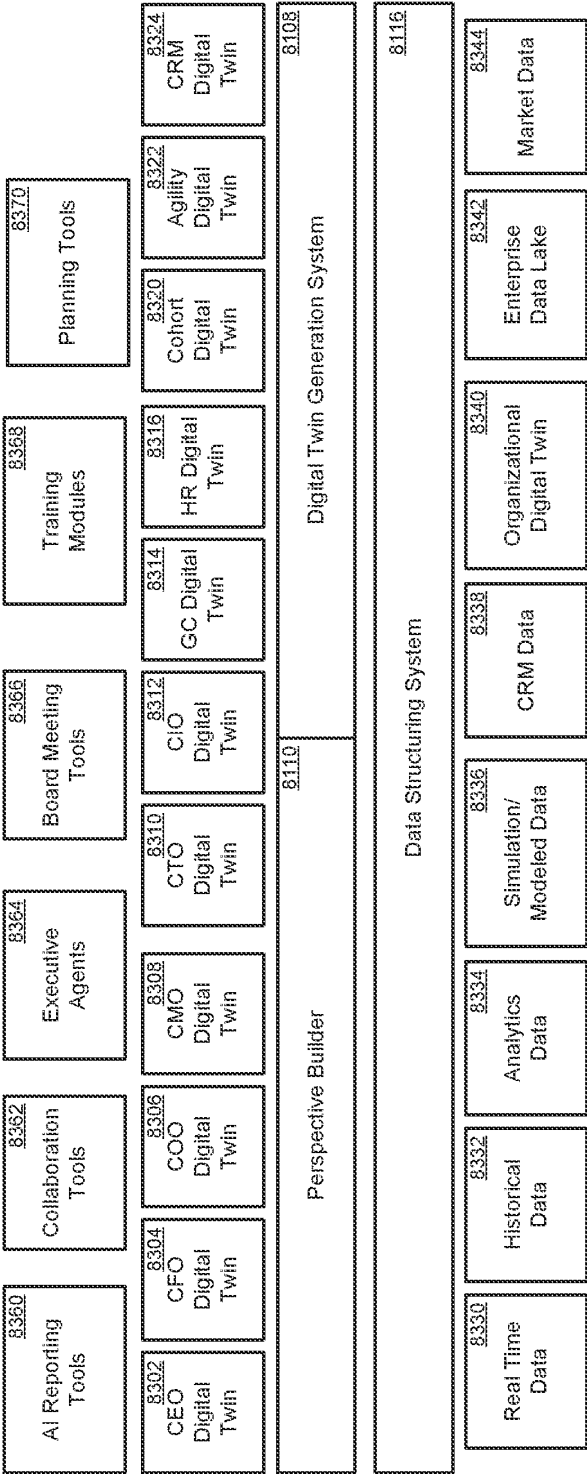


FIG. 71

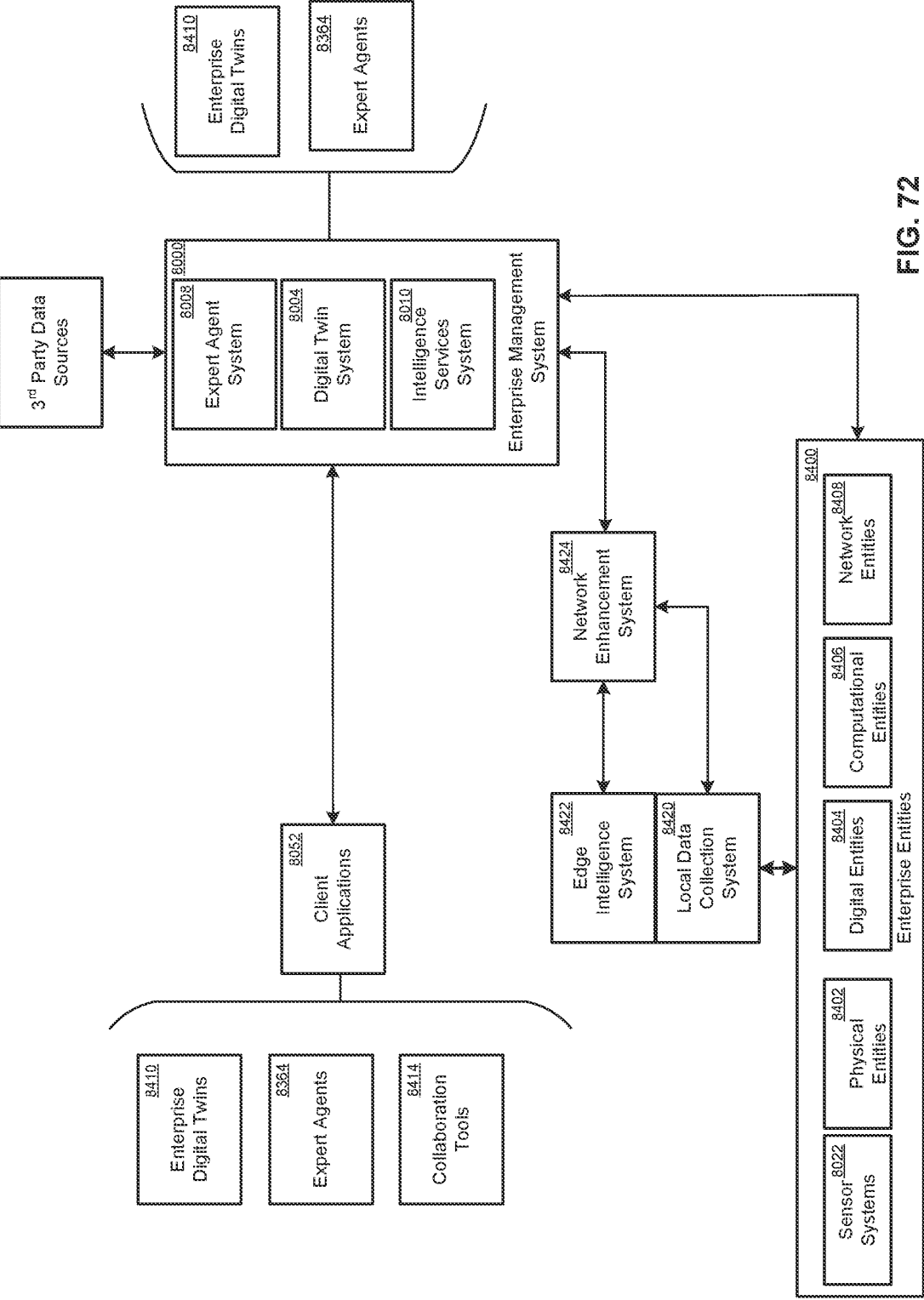
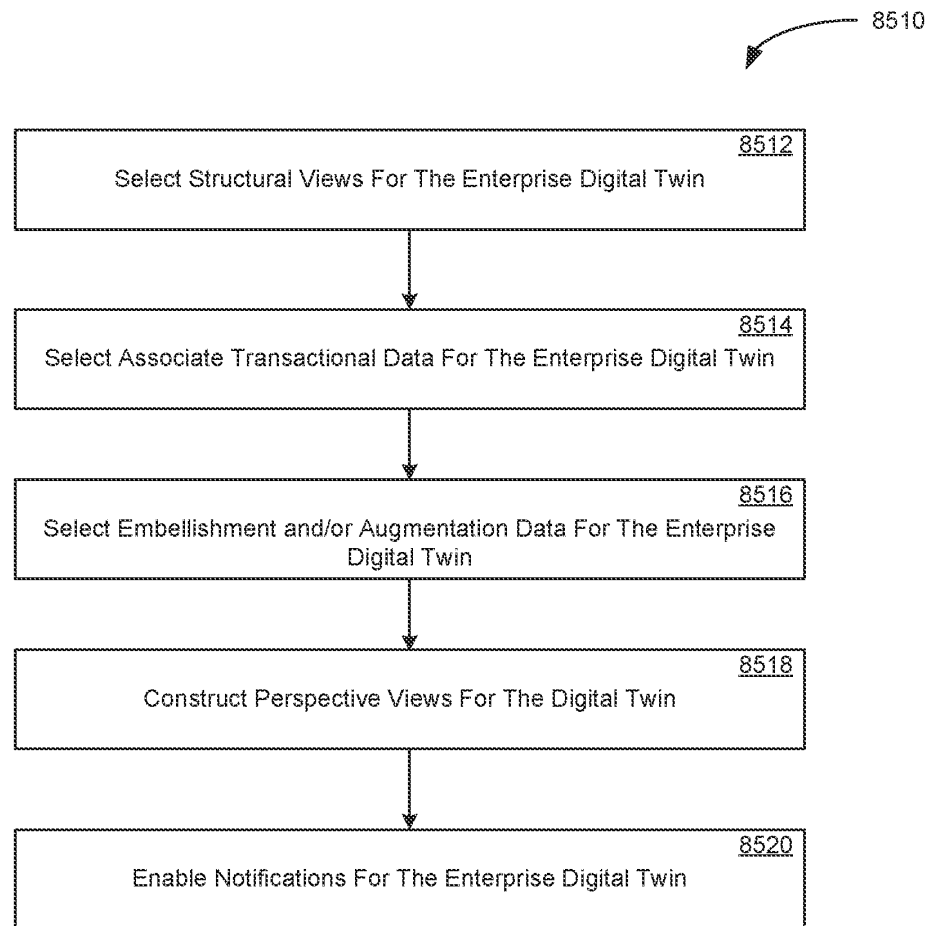
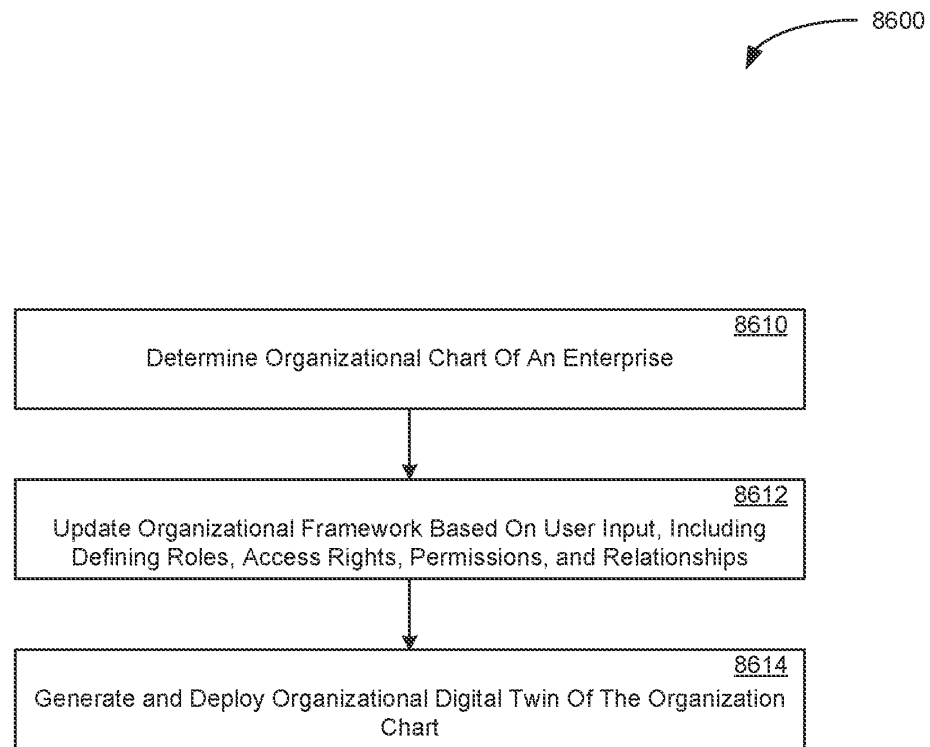
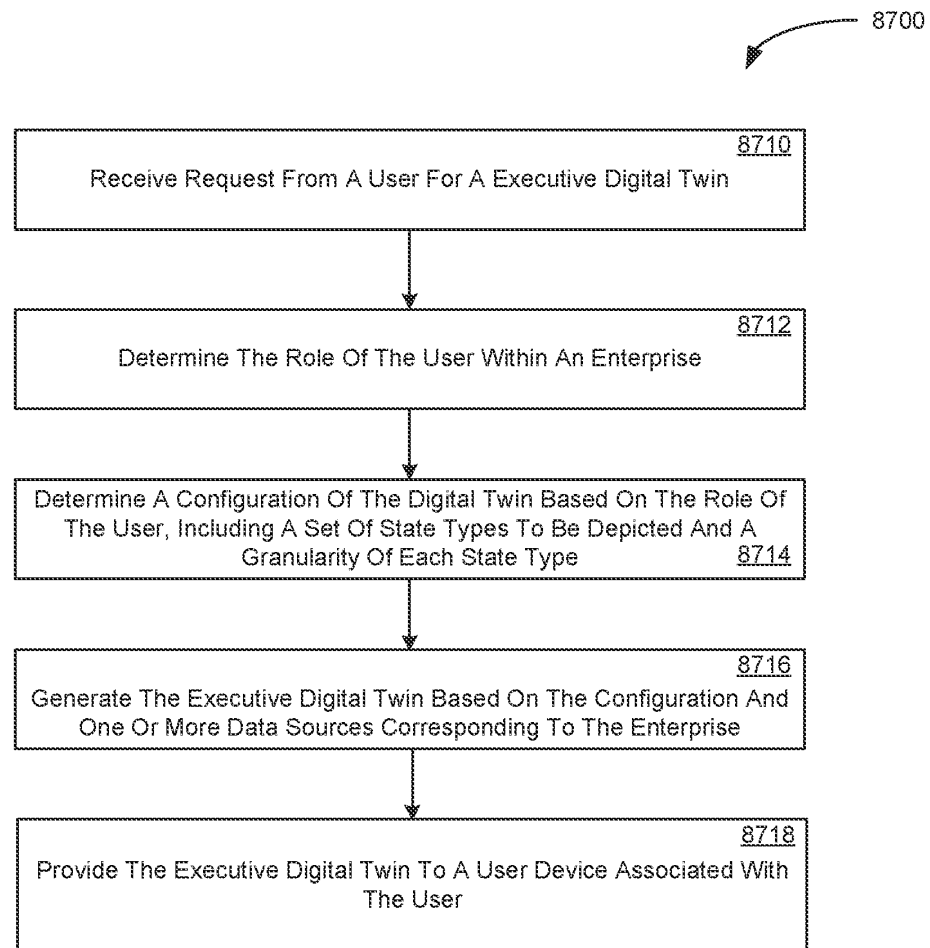


FIG. 72

**FIG. 73**

**FIG. 74**

**FIG. 75**

- BACKFED DATA/SENSOR INPUT CELL
- DATA/SENSOR INPUT CELL
- NOISY INPUT CELL
- HIDDEN CELL
- PROBABILISTIC HIDDEN CELL
- SPIKING HIDDEN CELL
- OUTPUT CELL
- MATCH INPUT/OUTPUT CELL
- RECURRENT CELL
- MEMORY CELL
- DIFFERENT MEMORY CELL
- KERNEL
- CONVOLUTION OR POOL

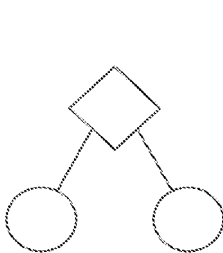


FIG. 77

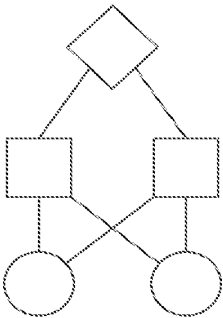


FIG. 78

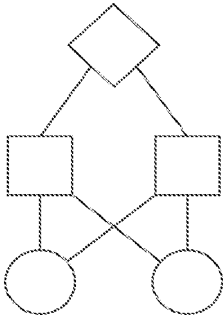


FIG. 79

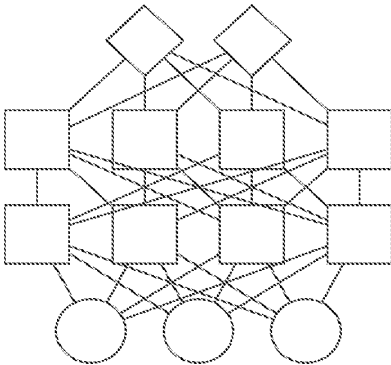


FIG. 80

FIG. 76

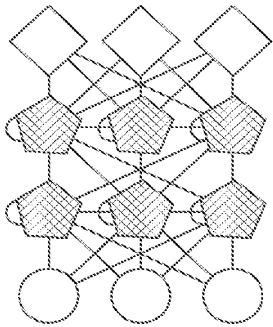


FIG. 81

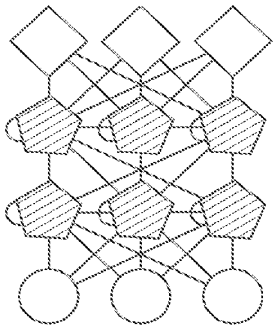


FIG. 82

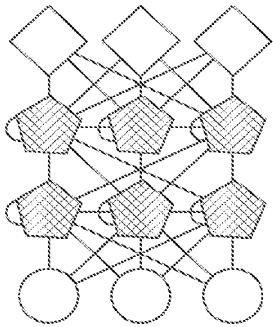


FIG. 83

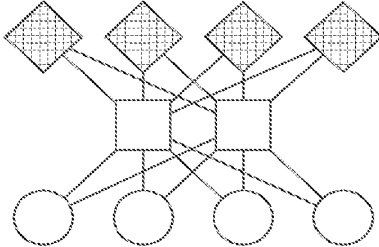


FIG. 84

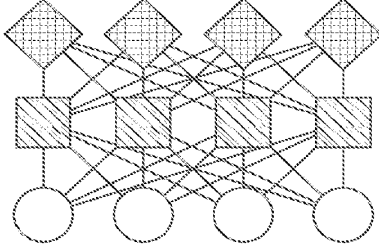


FIG. 85

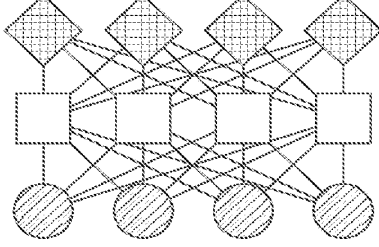


FIG. 86

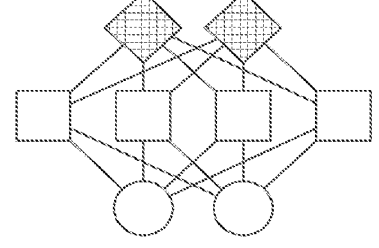


FIG. 87

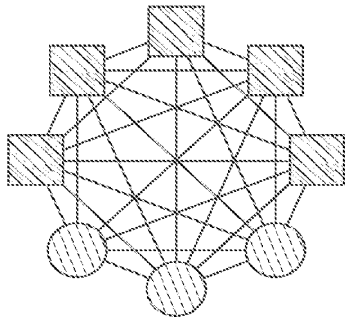


FIG. 88

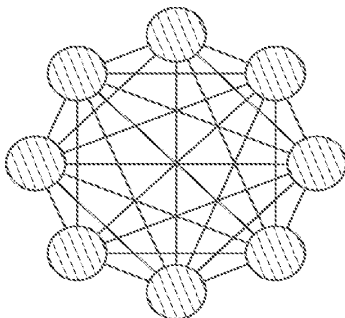


FIG. 89

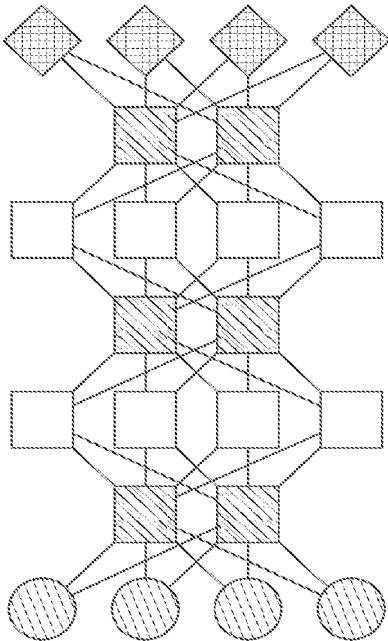


FIG. 90

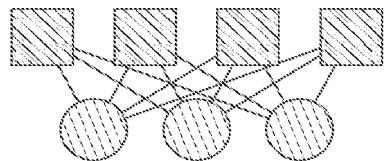


FIG. 91

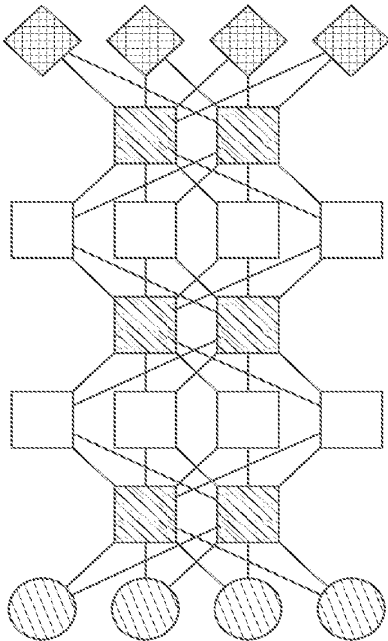


FIG. 92

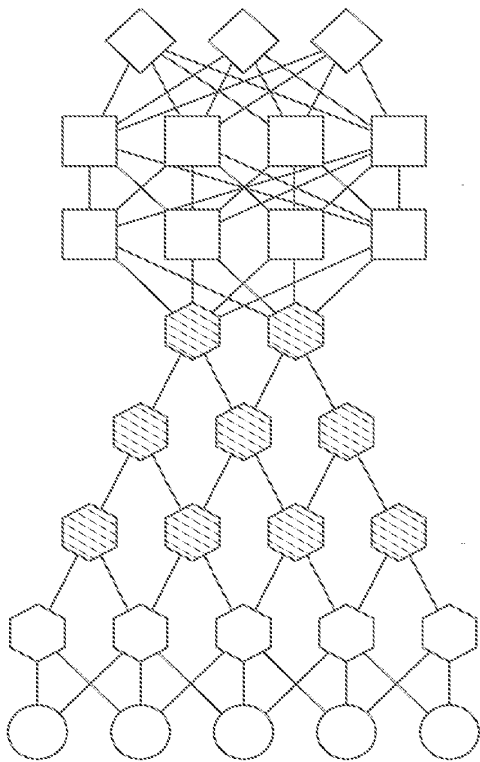


FIG. 93

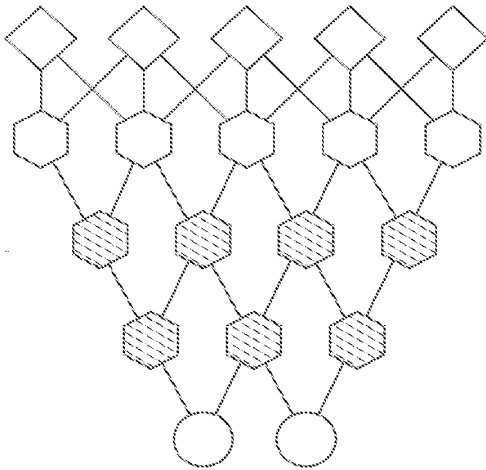


FIG. 94

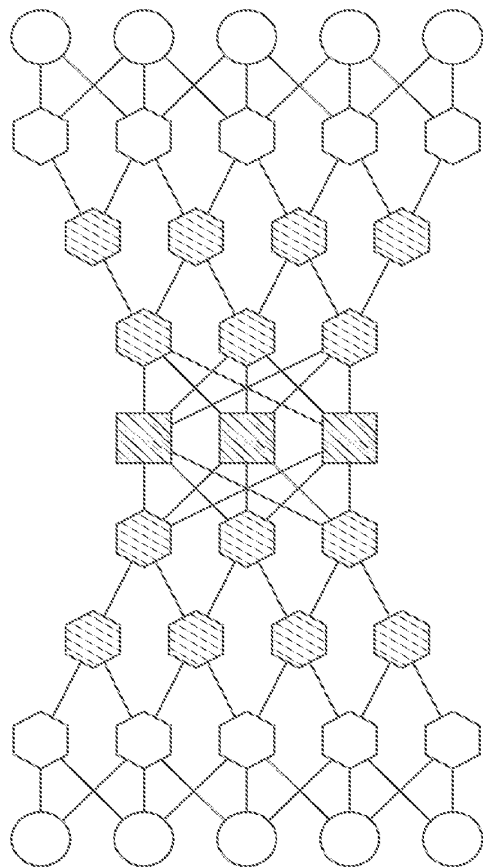


FIG. 95

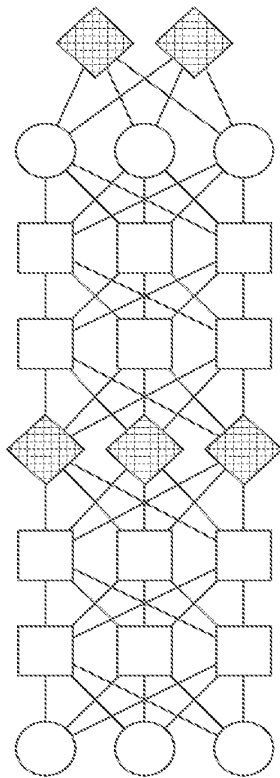


FIG. 96

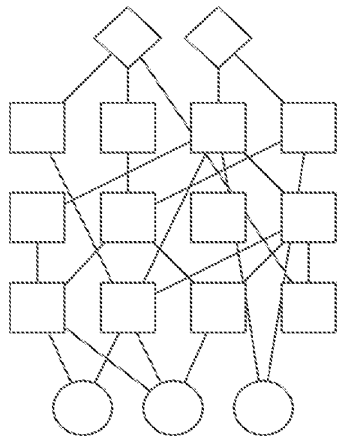


FIG. 97

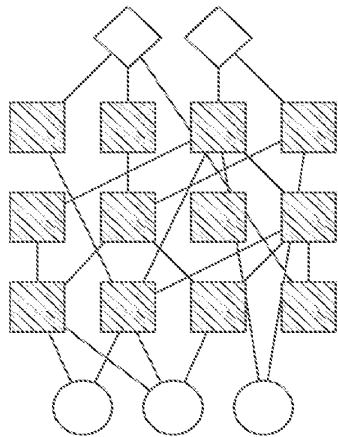


FIG. 98

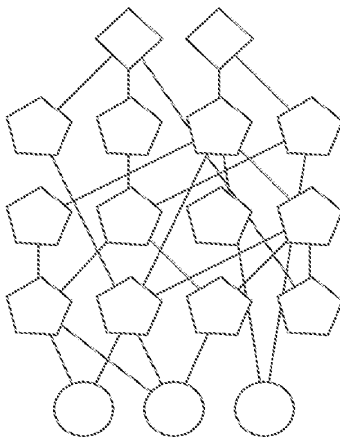


FIG. 99

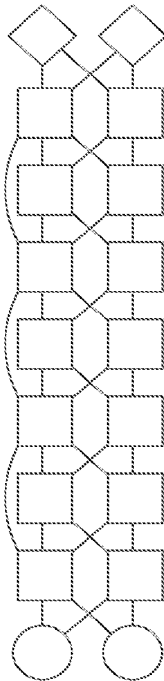


FIG. 100

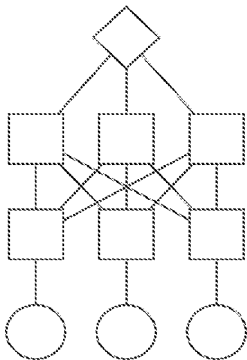


FIG. 101

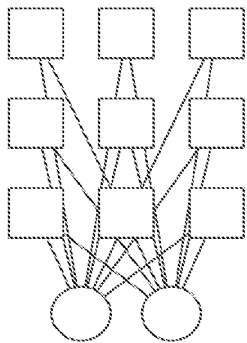


FIG. 102

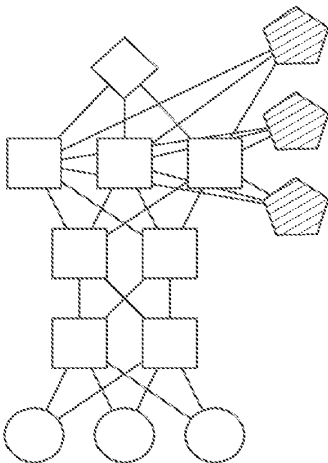


FIG. 103

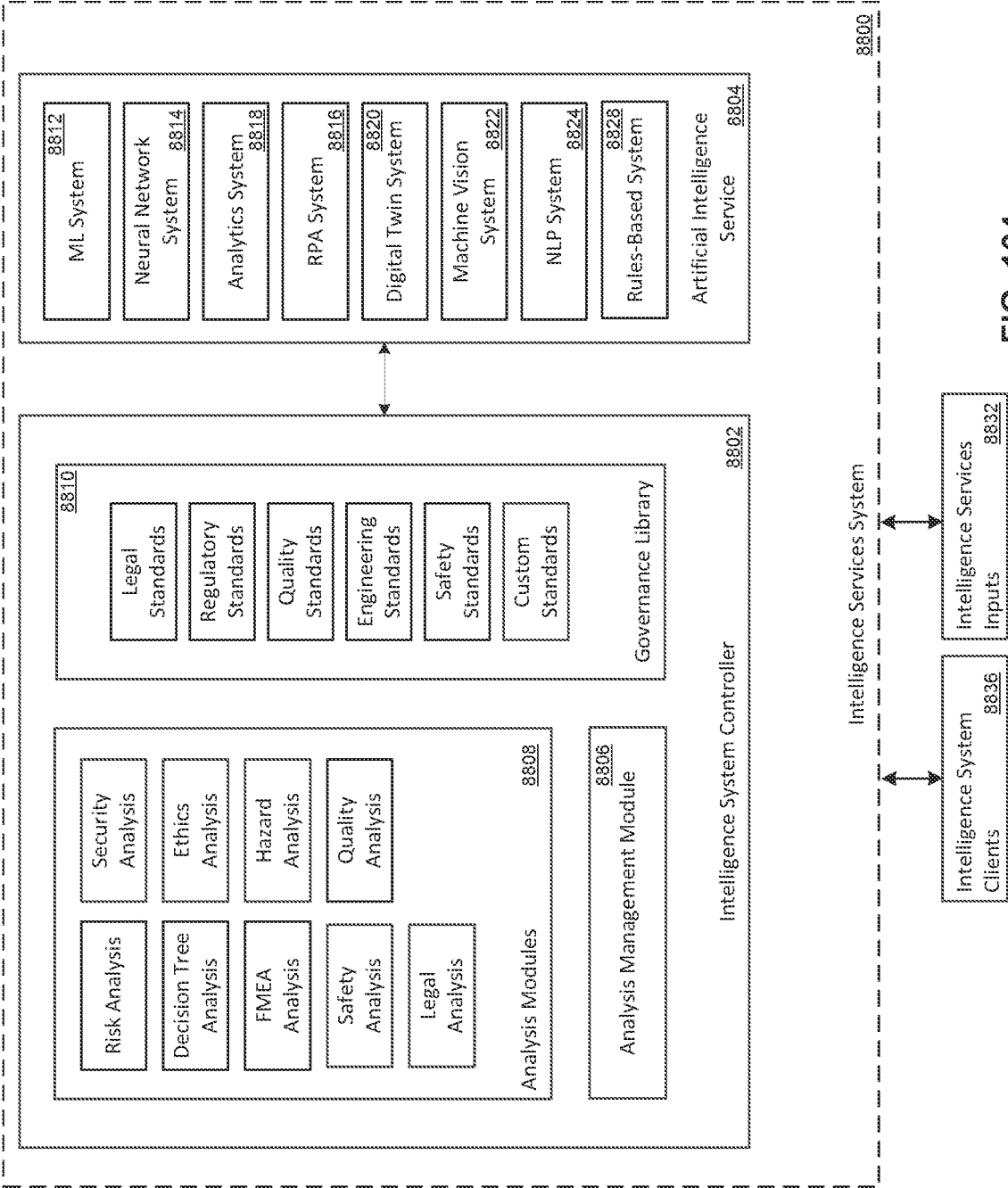


FIG. 104

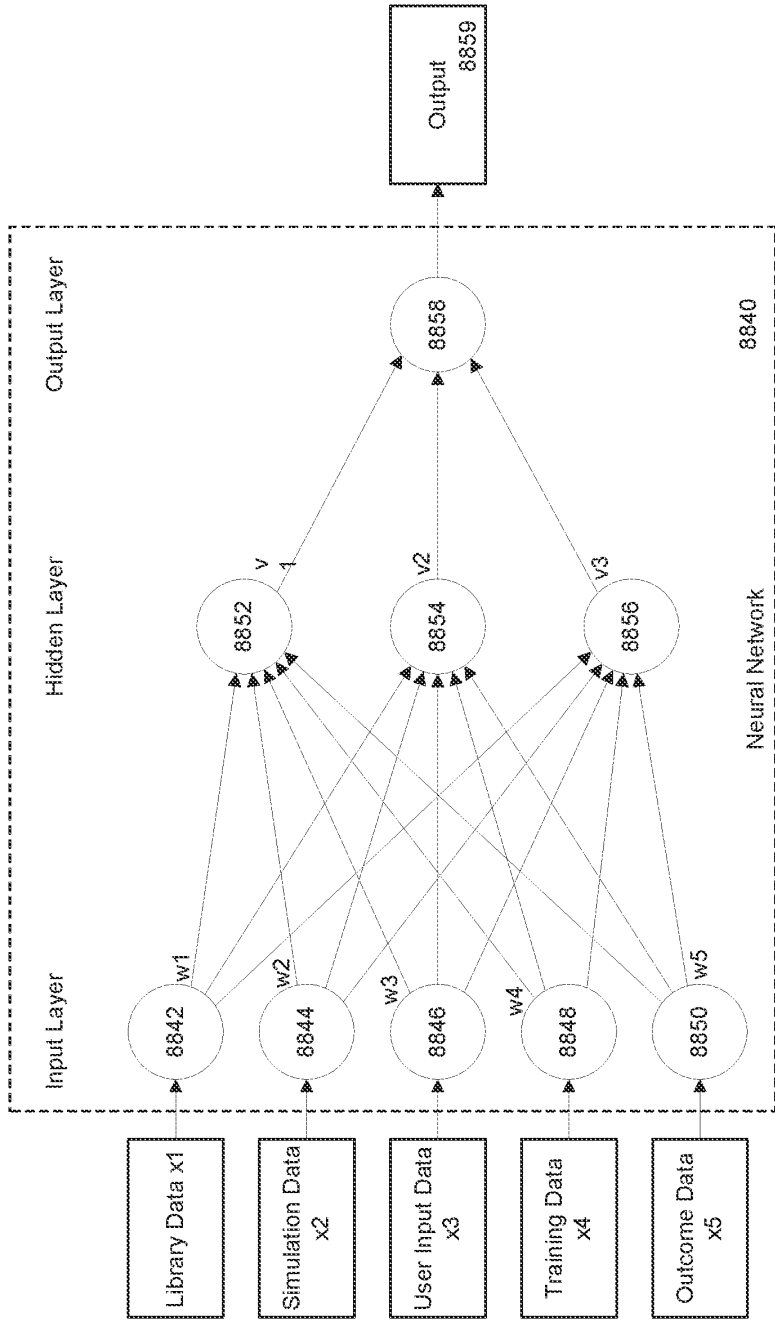


FIG. 105

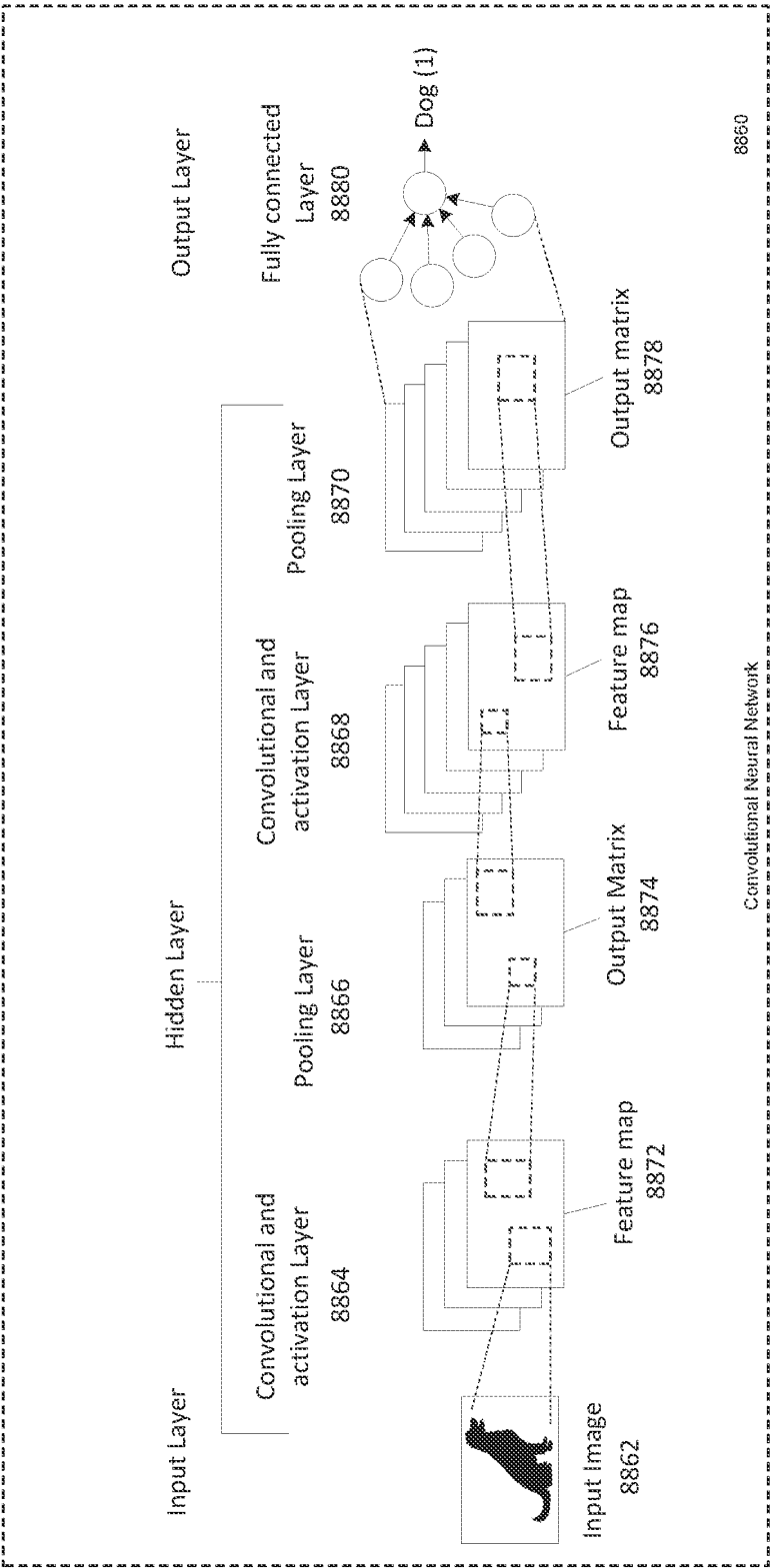


FIG. 106

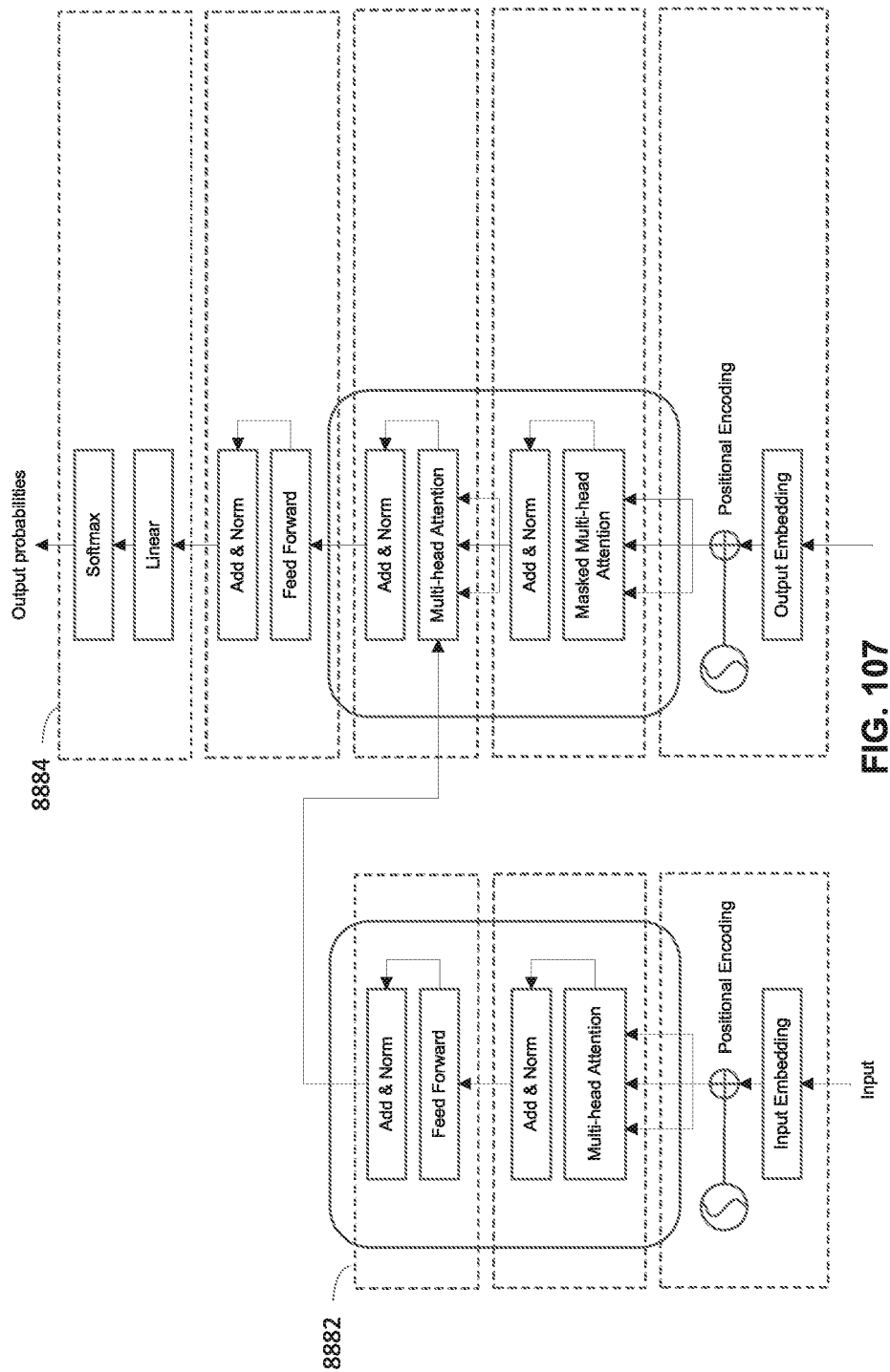


FIG. 107

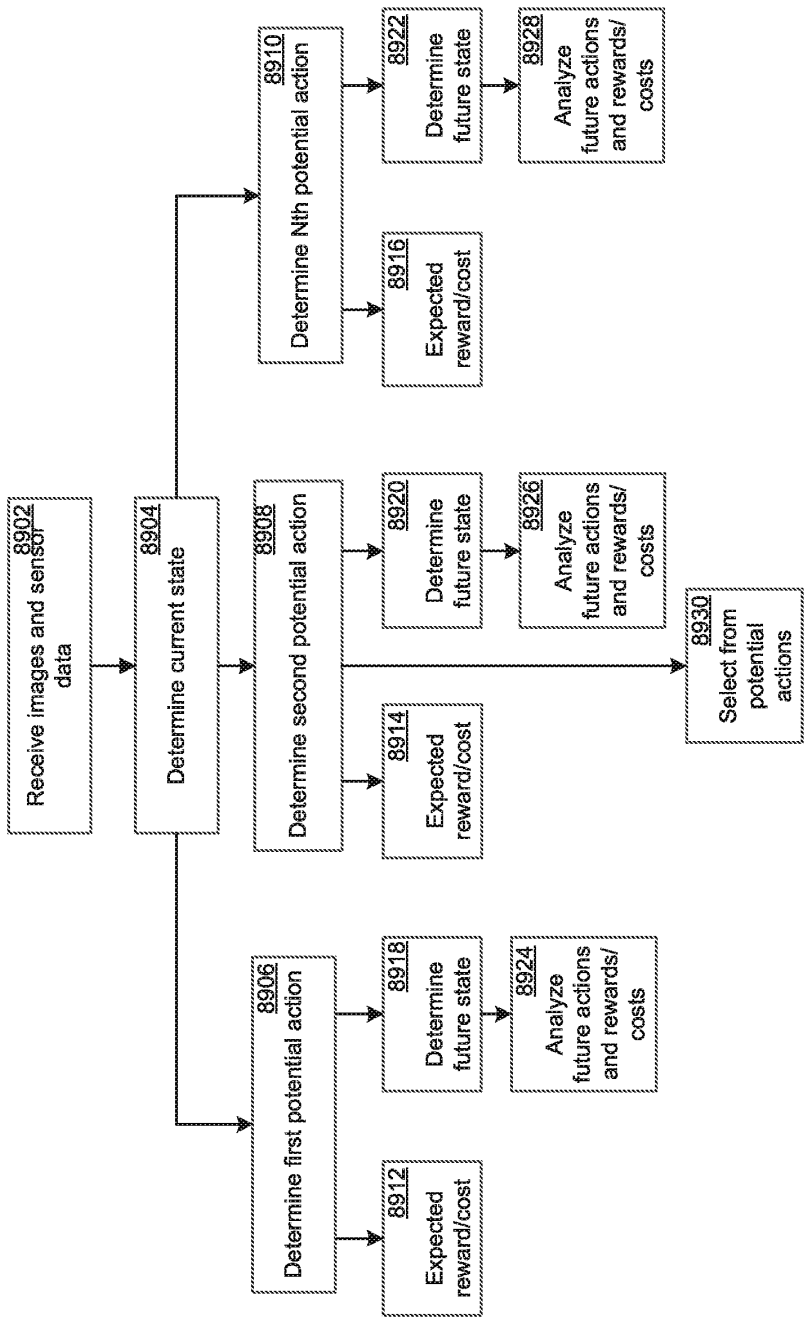


FIG. 108

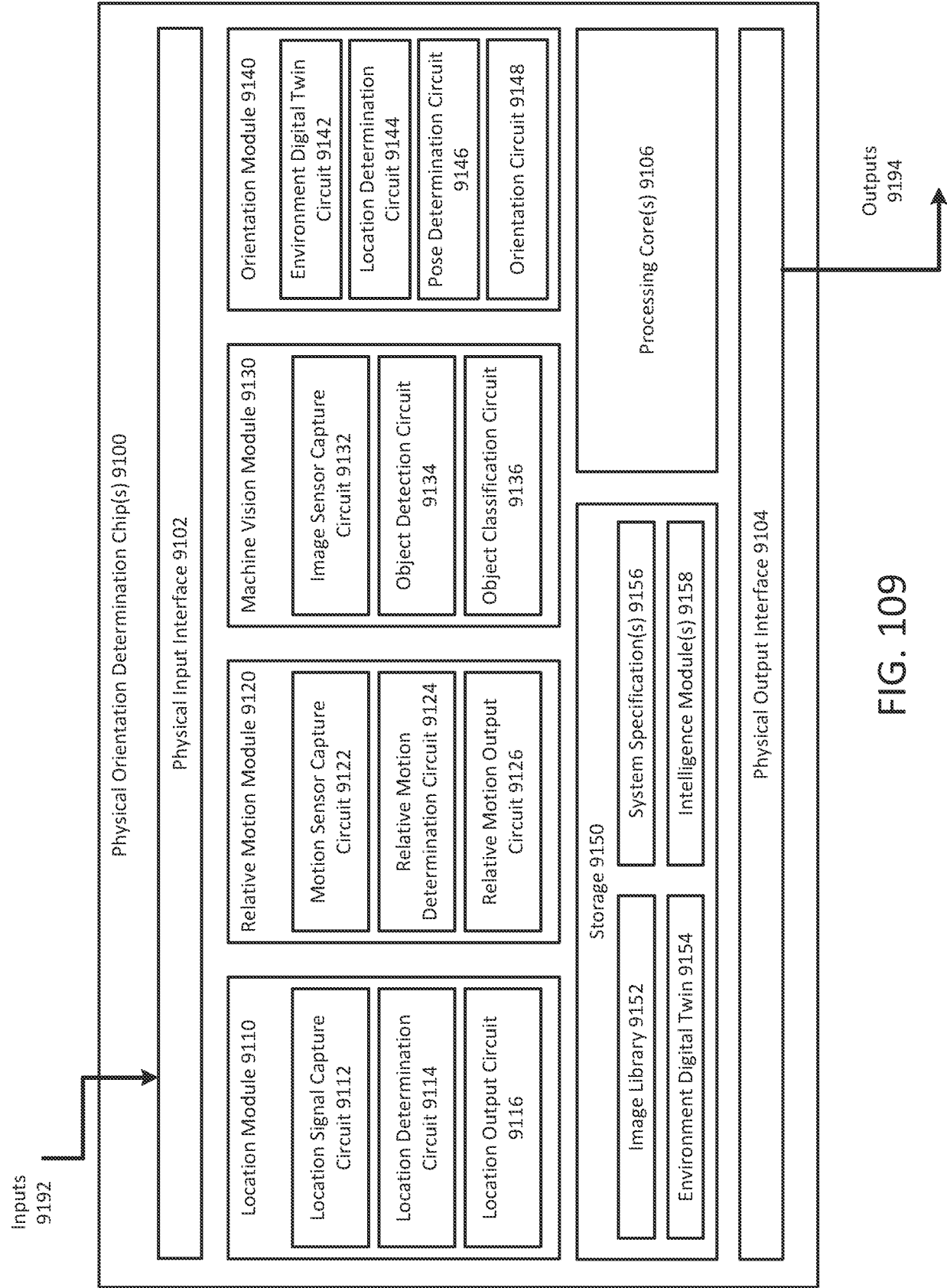


FIG. 109

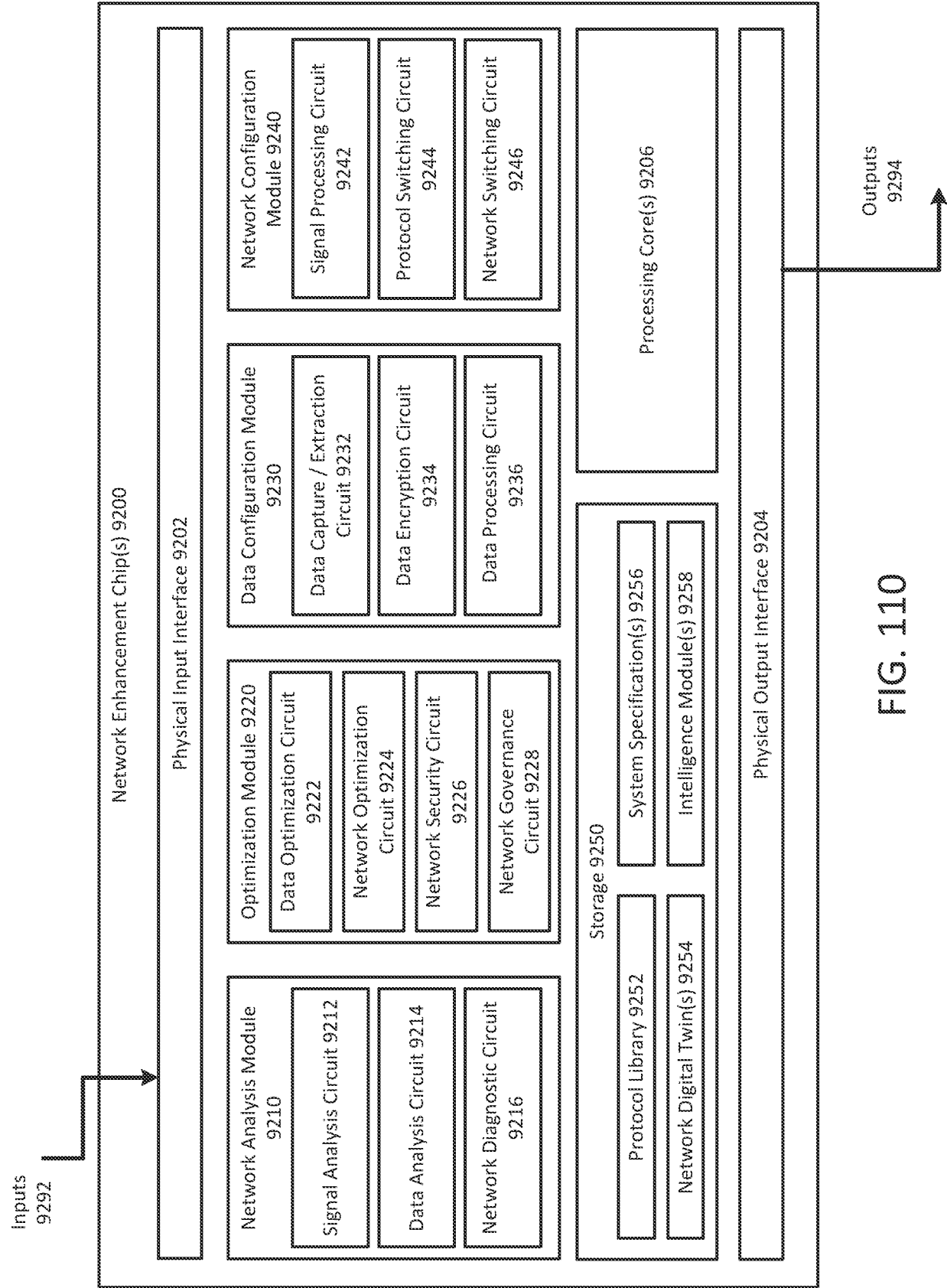


FIG. 110

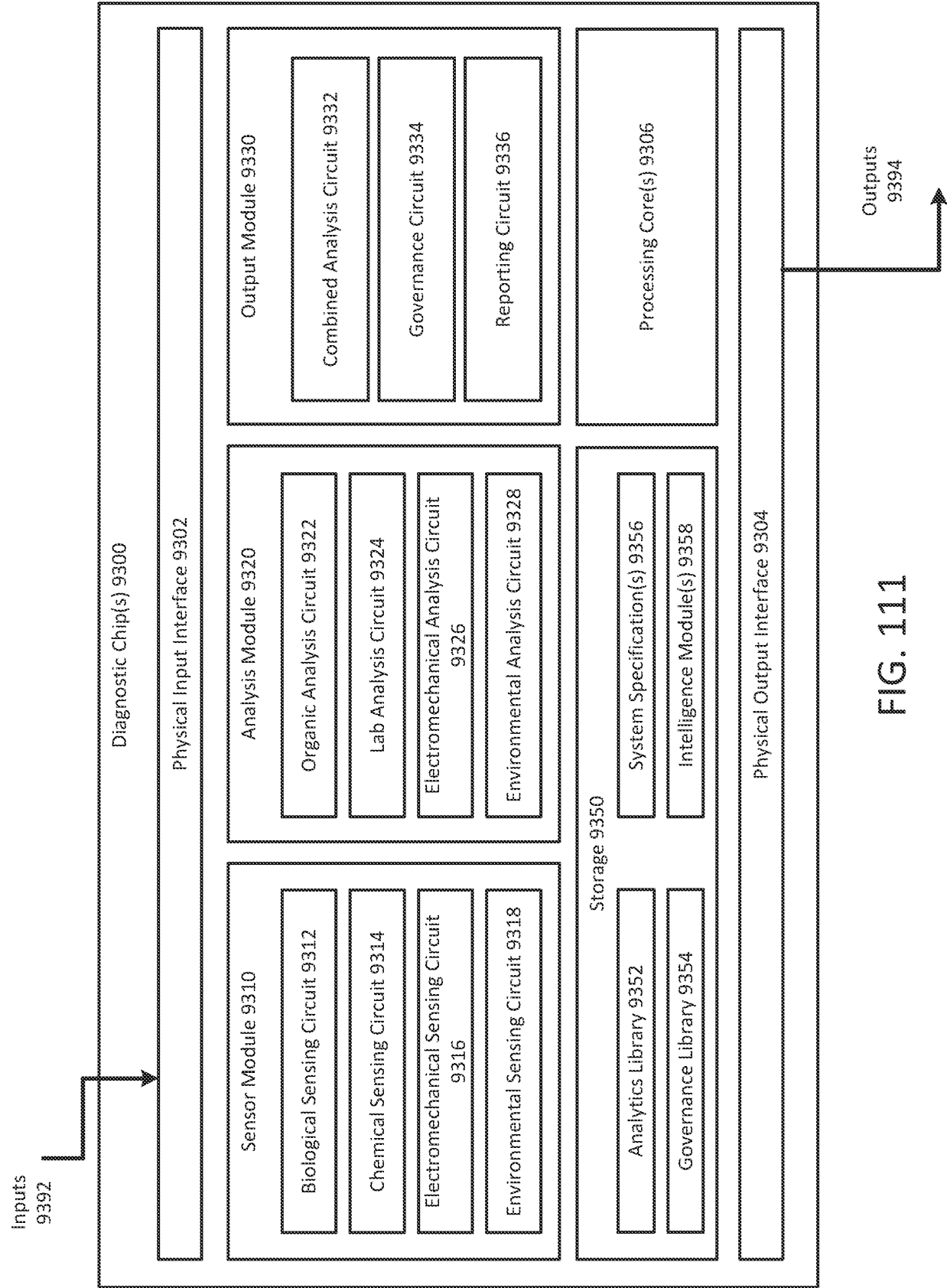


FIG. 111

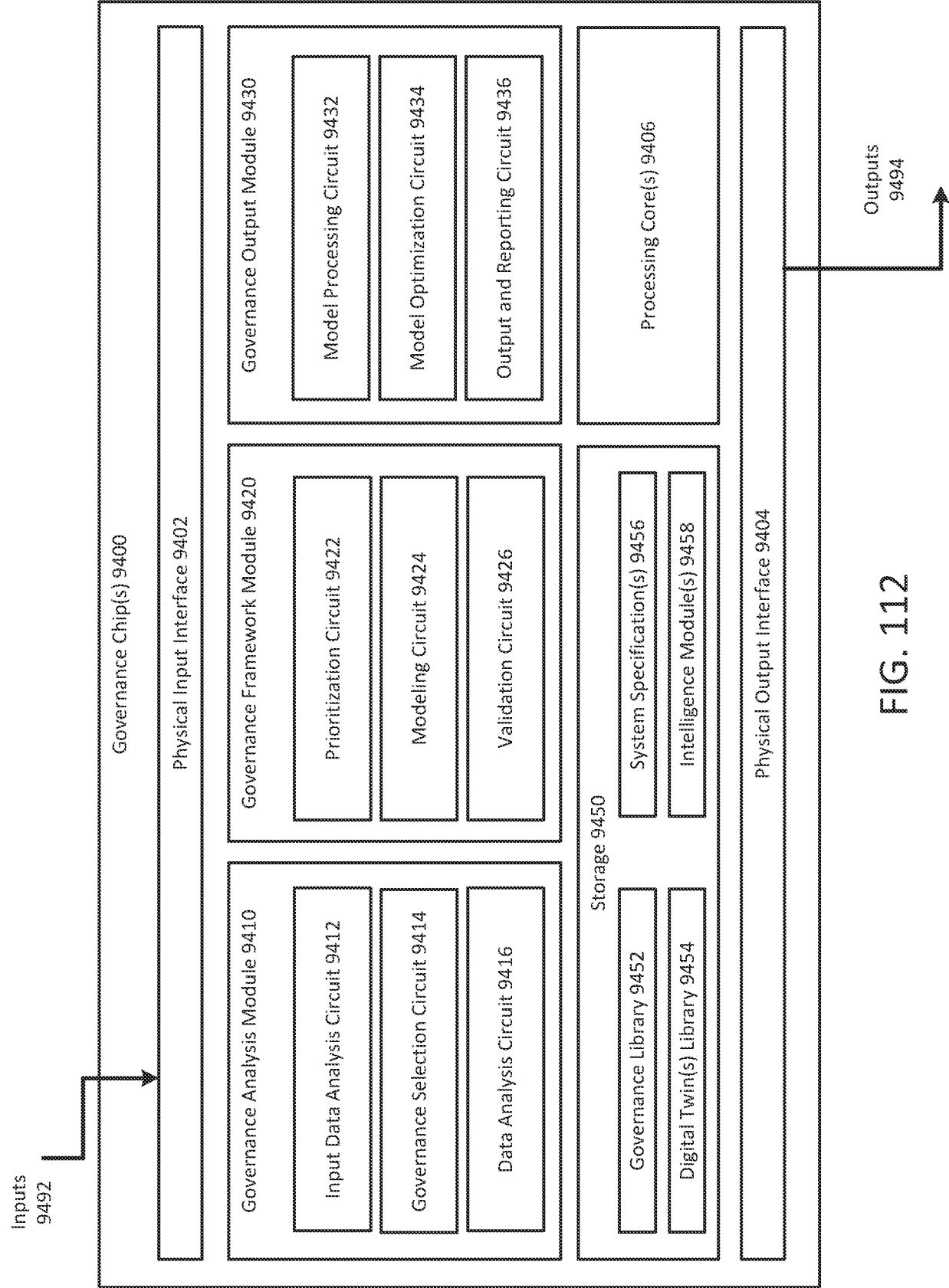


FIG. 112

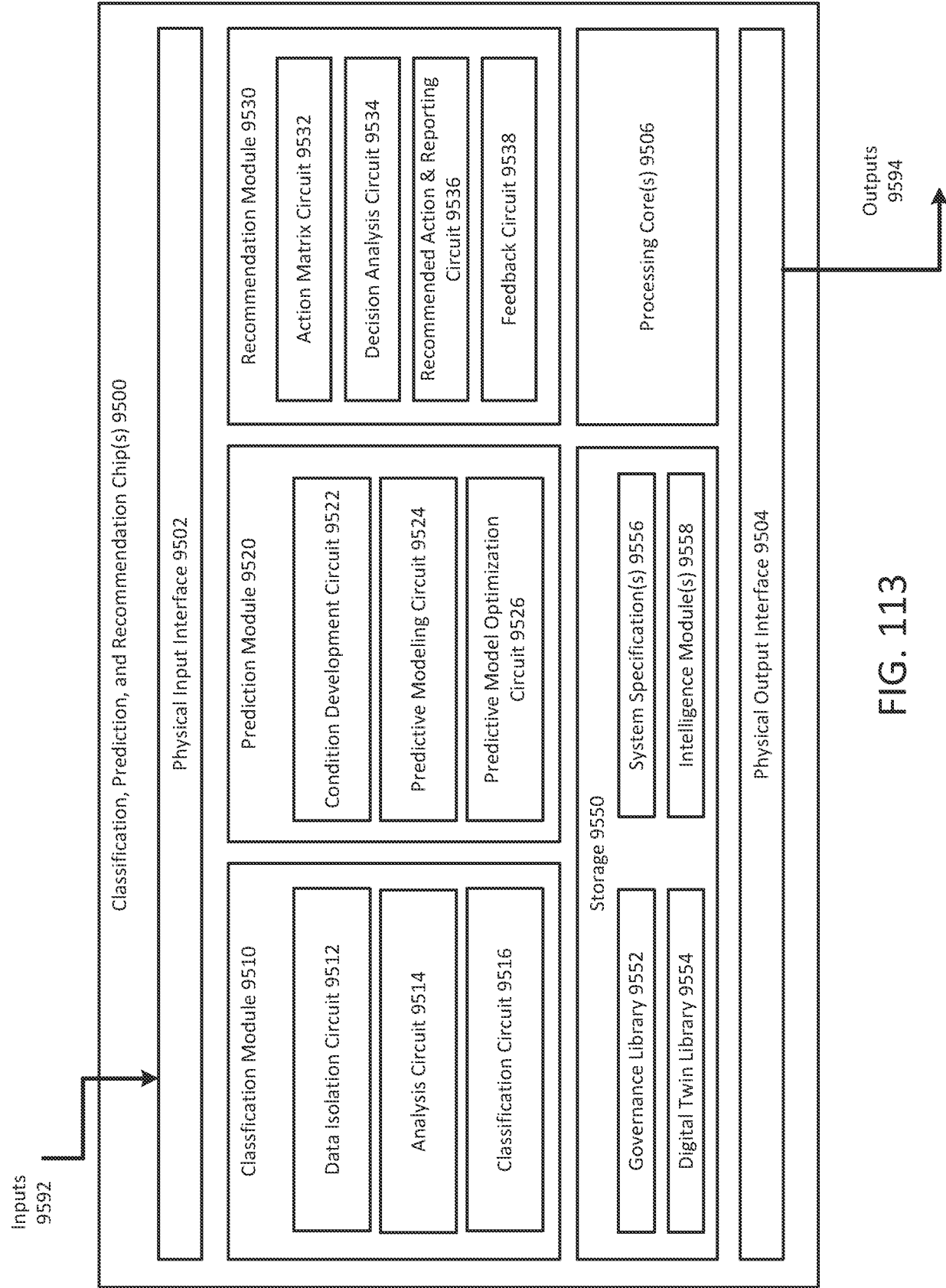


FIG. 113

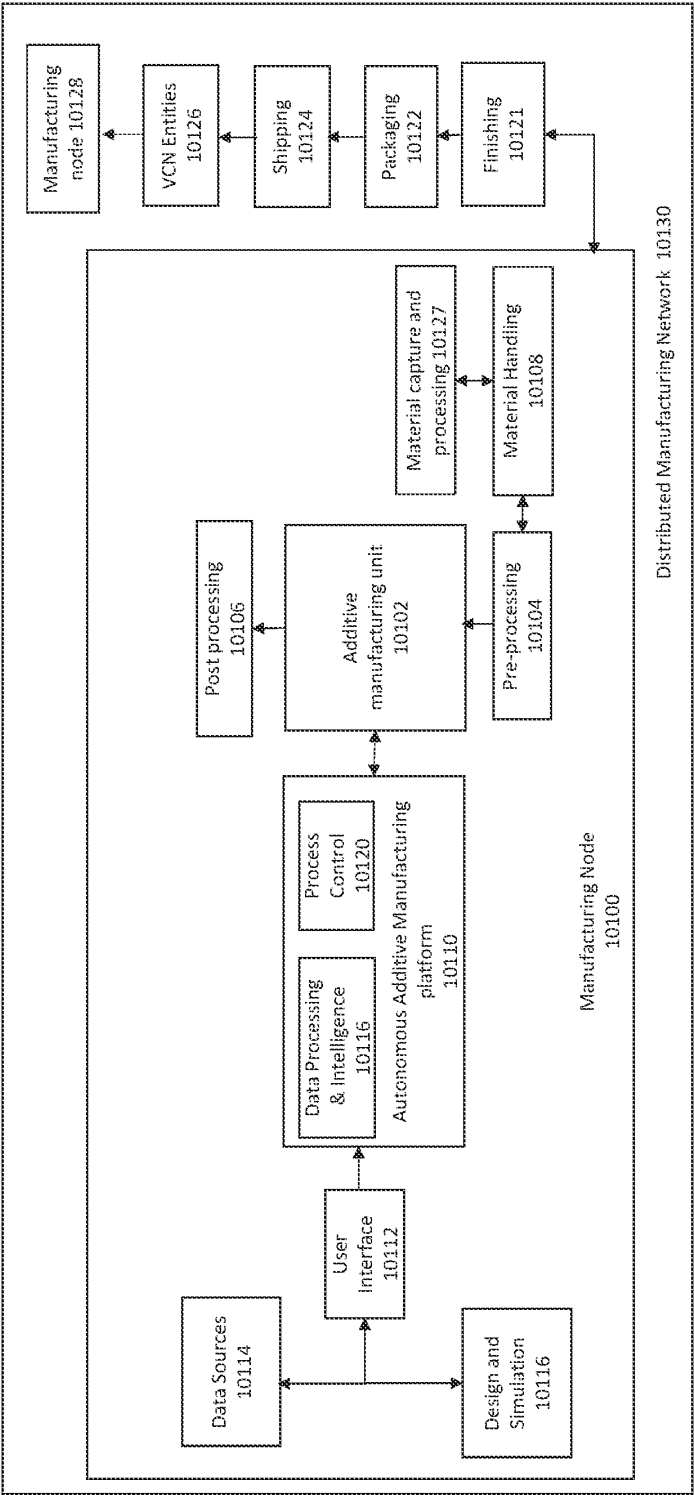


Fig. 114

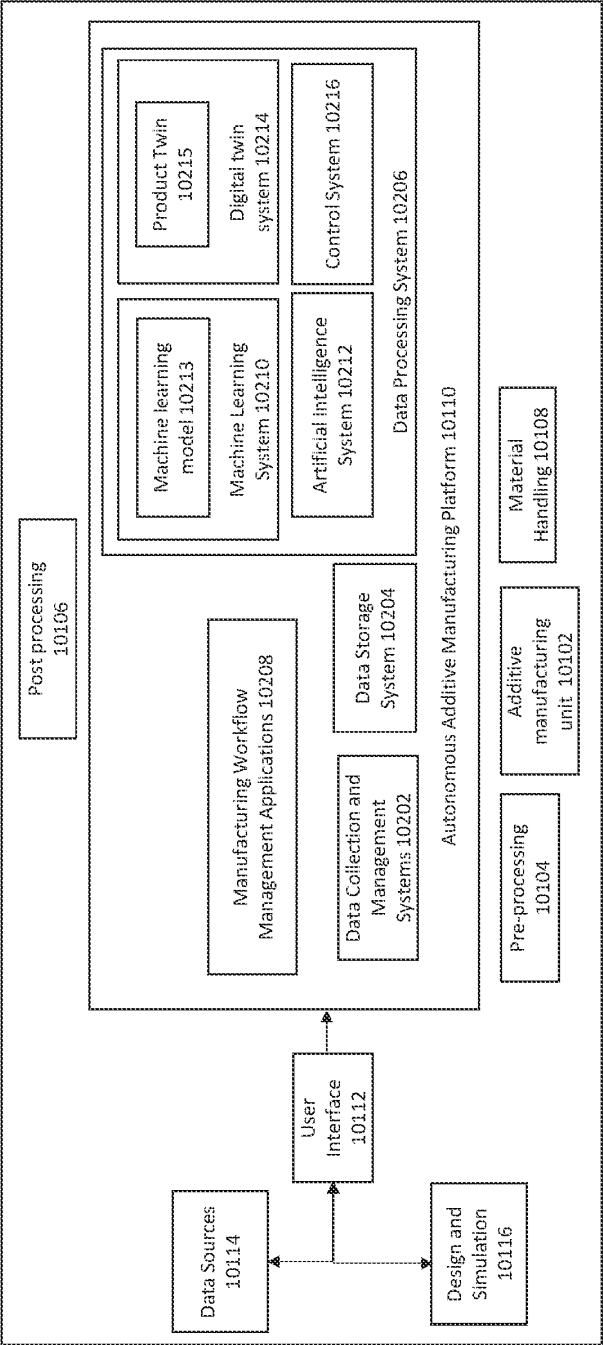


Fig. 115

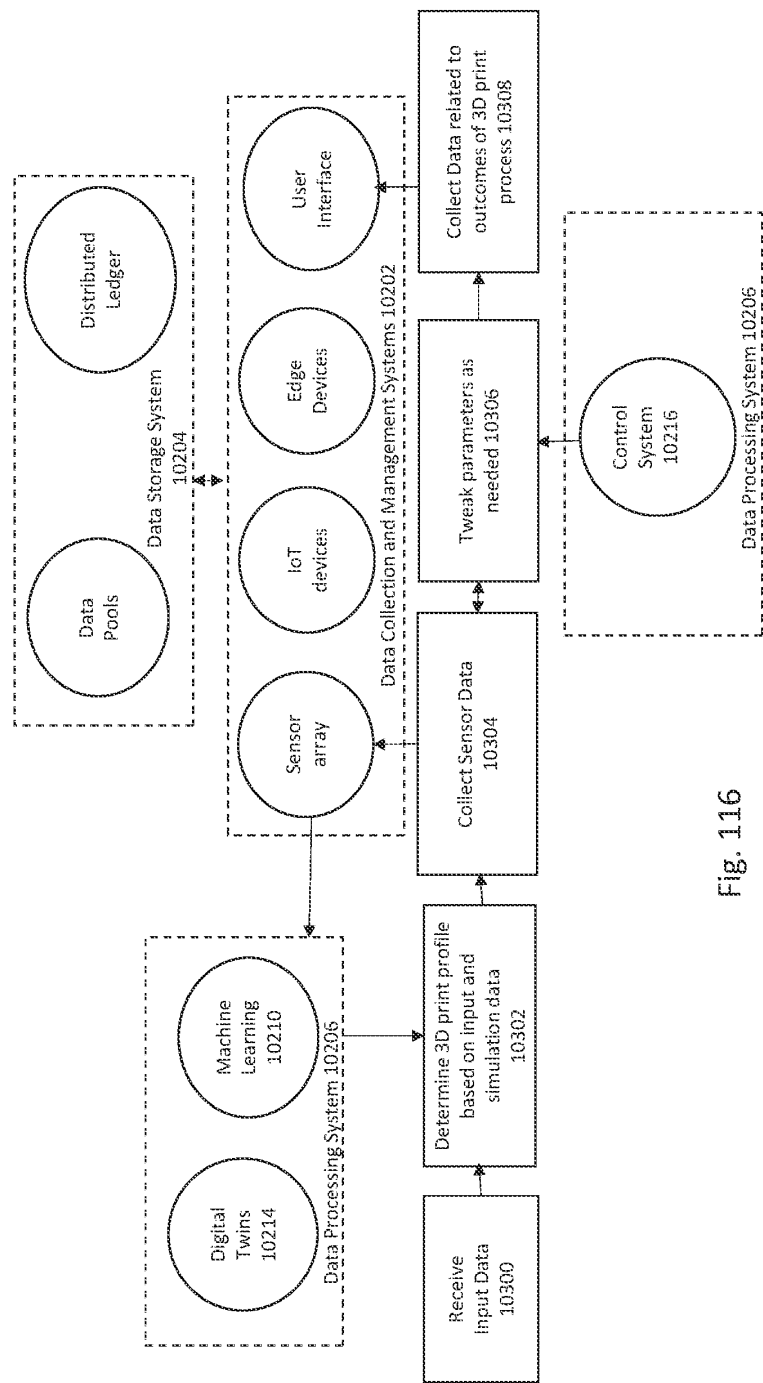


Fig. 116

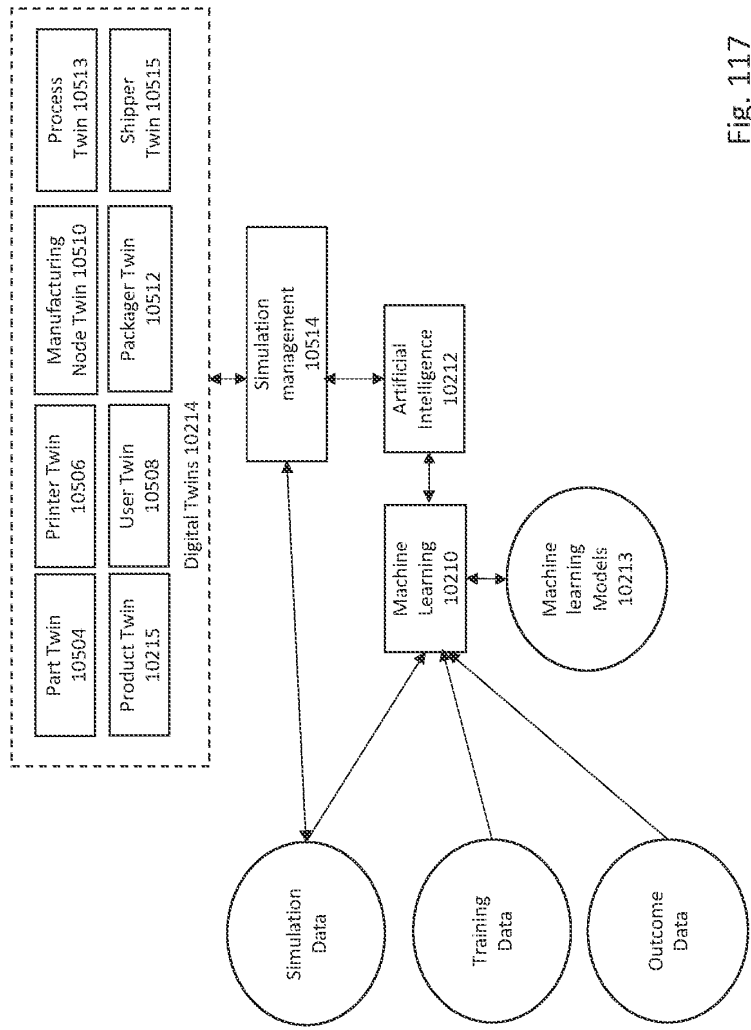
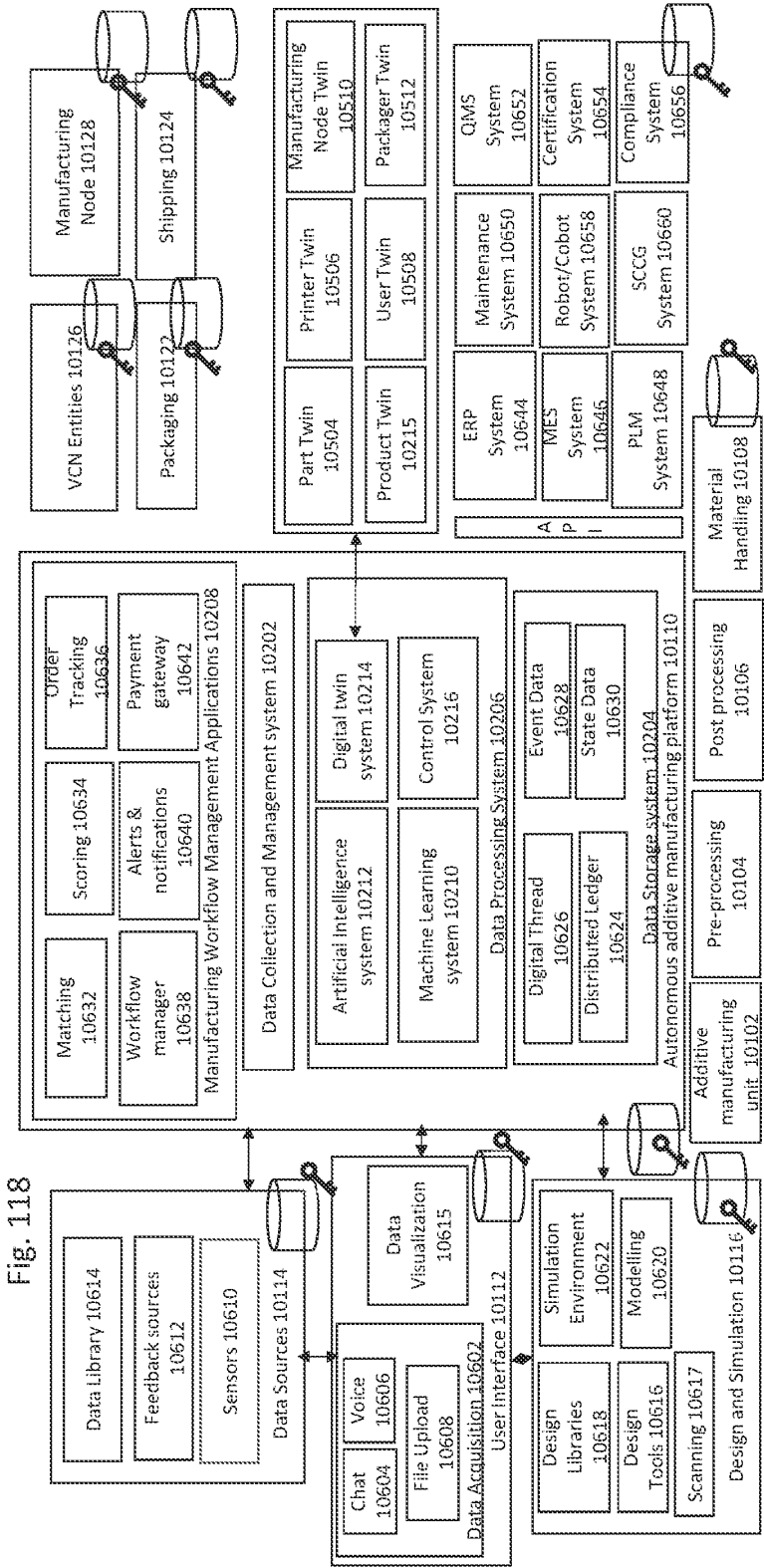


Fig. 117



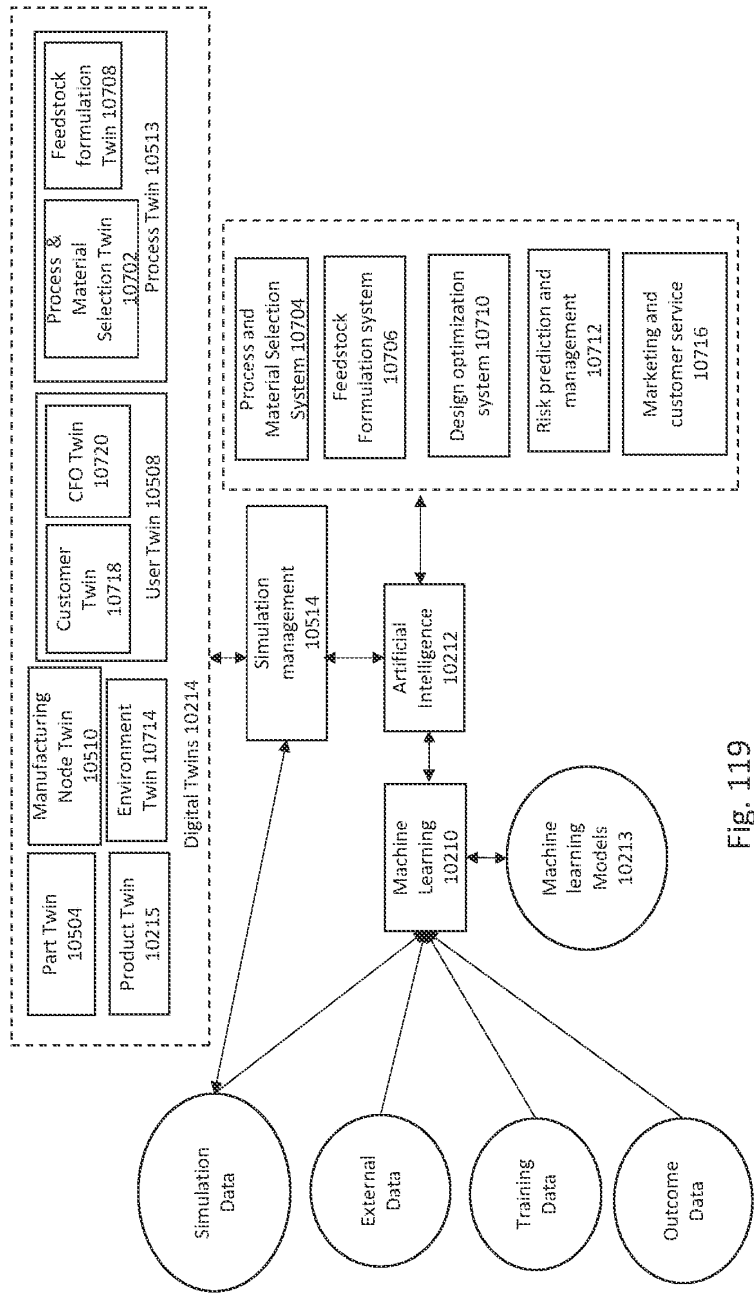


Fig. 119

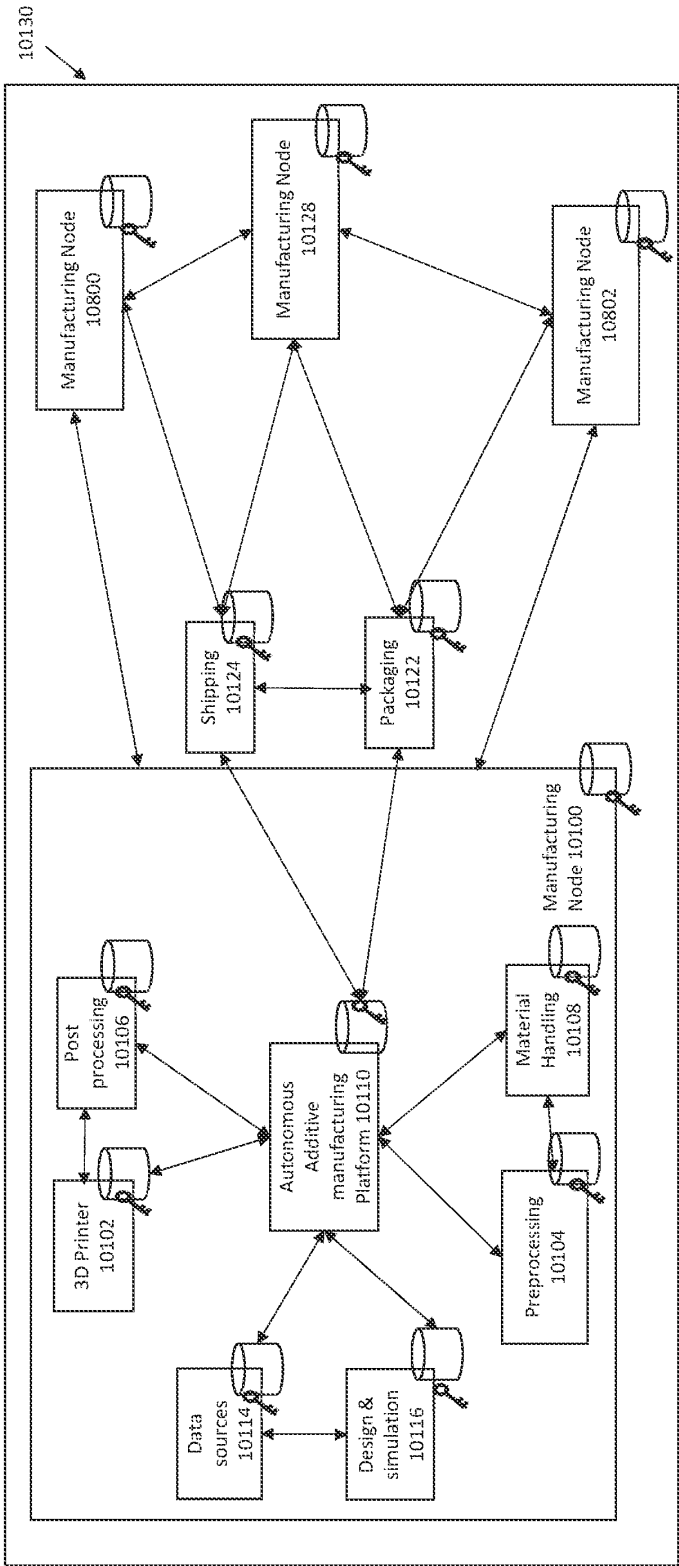


Fig. 120

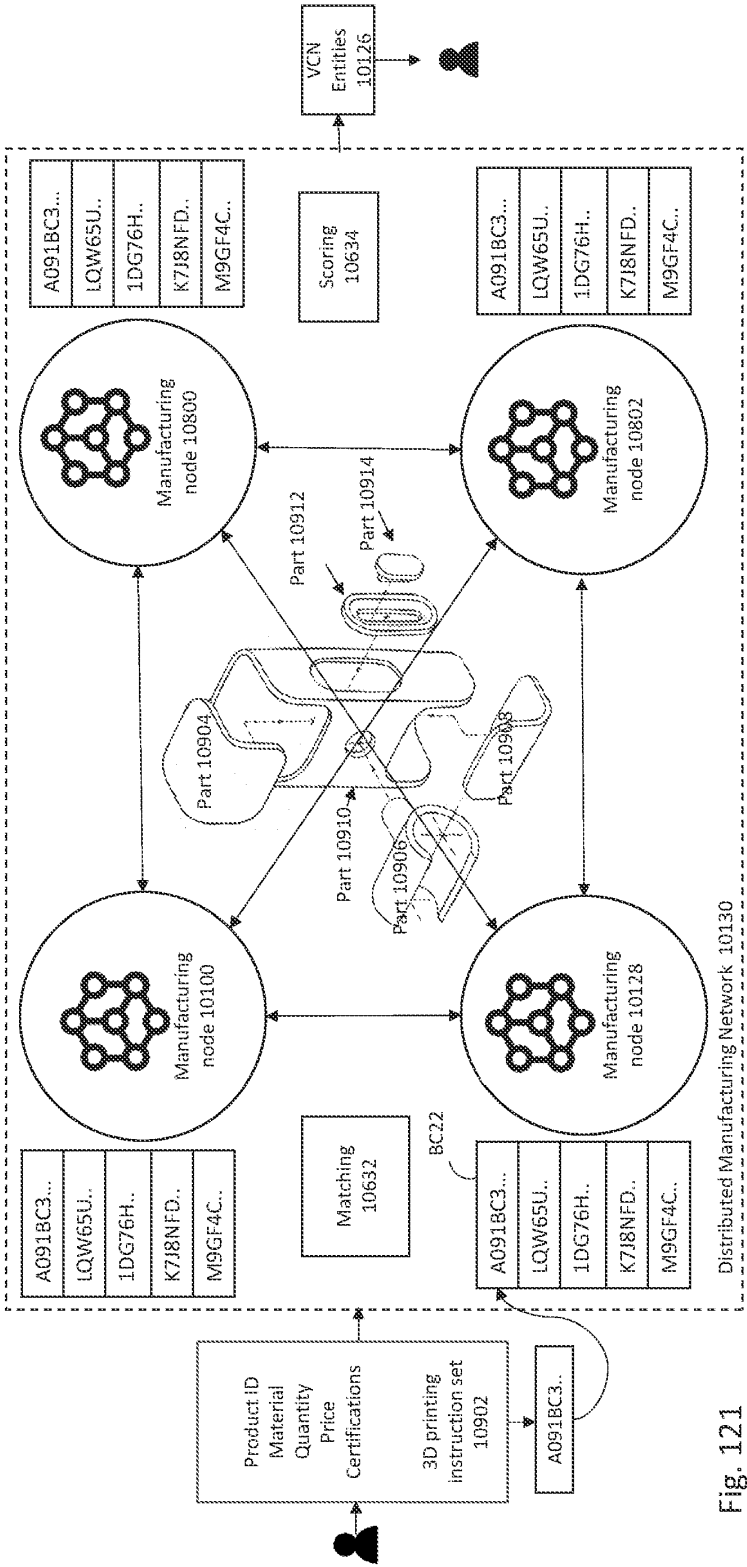


Fig. 121

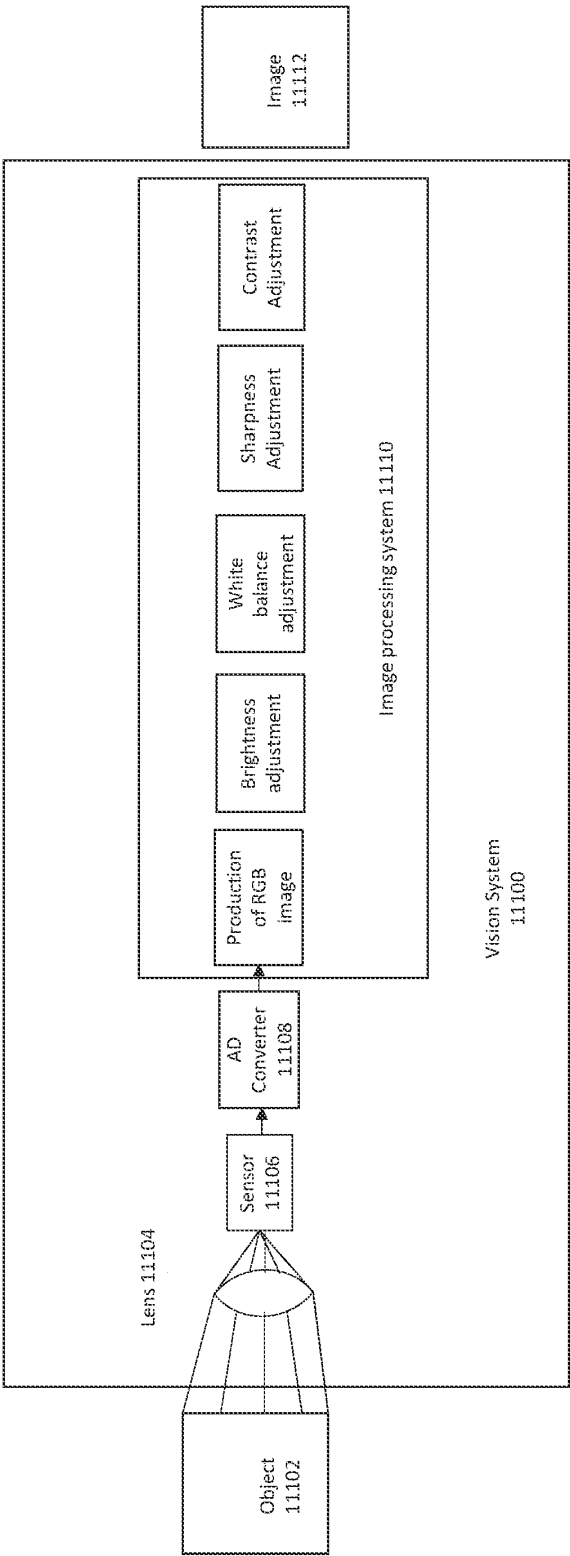


Fig. 122 (Prior Art)

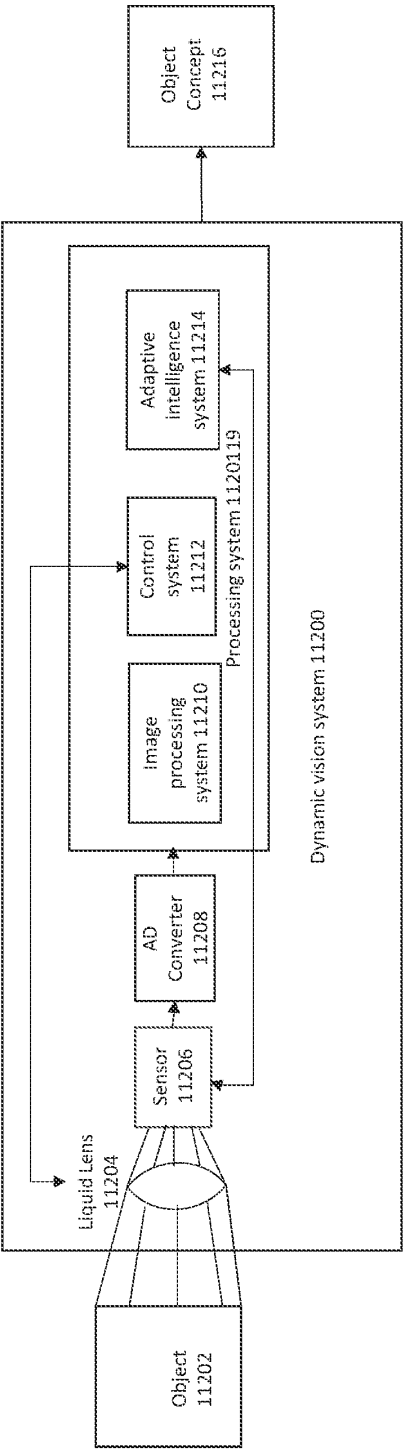


Fig. 123

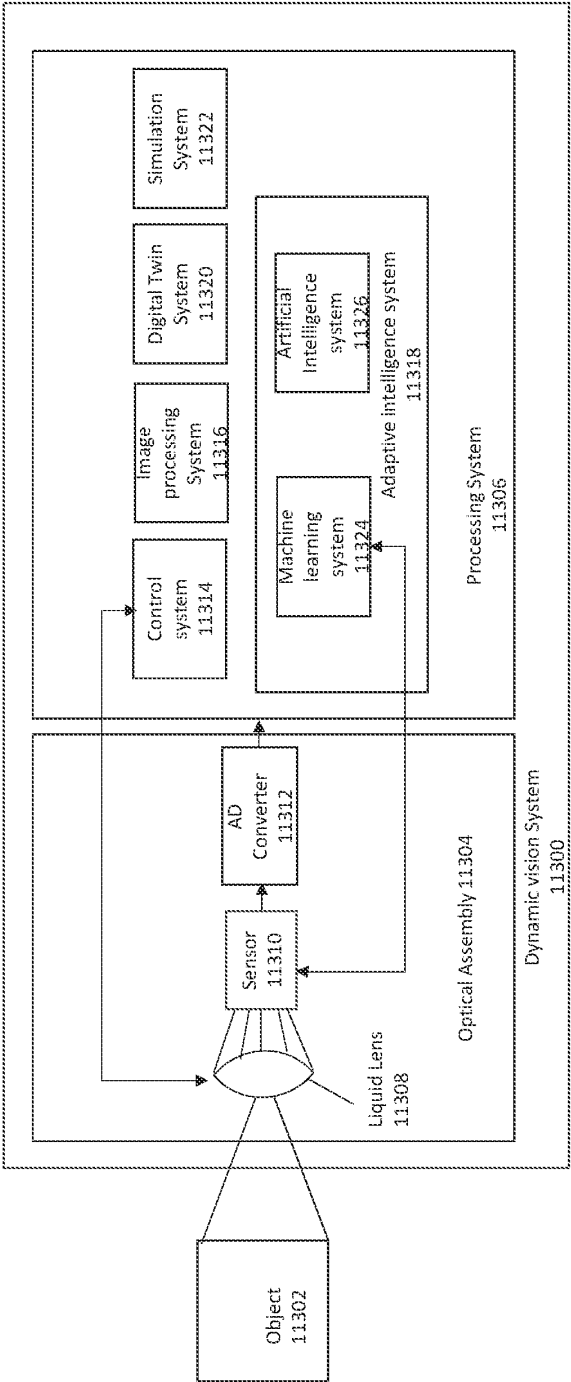


Fig. 124

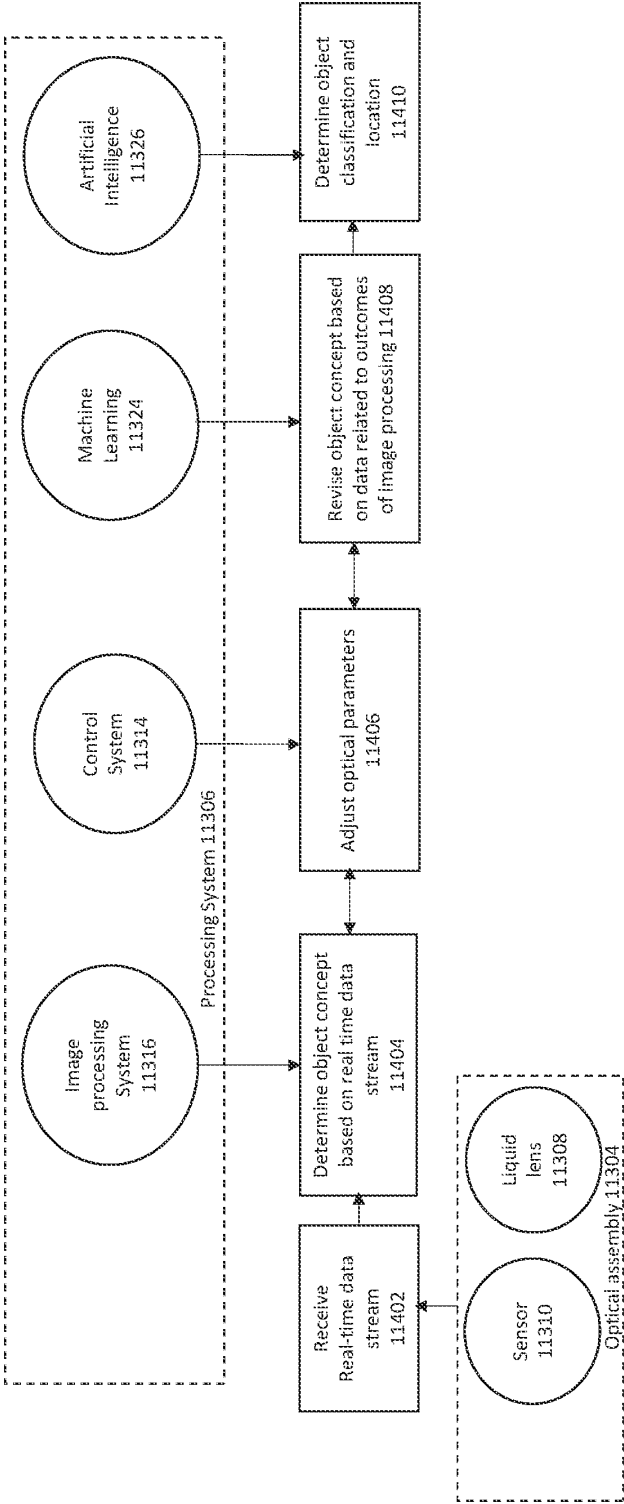


Fig. 125

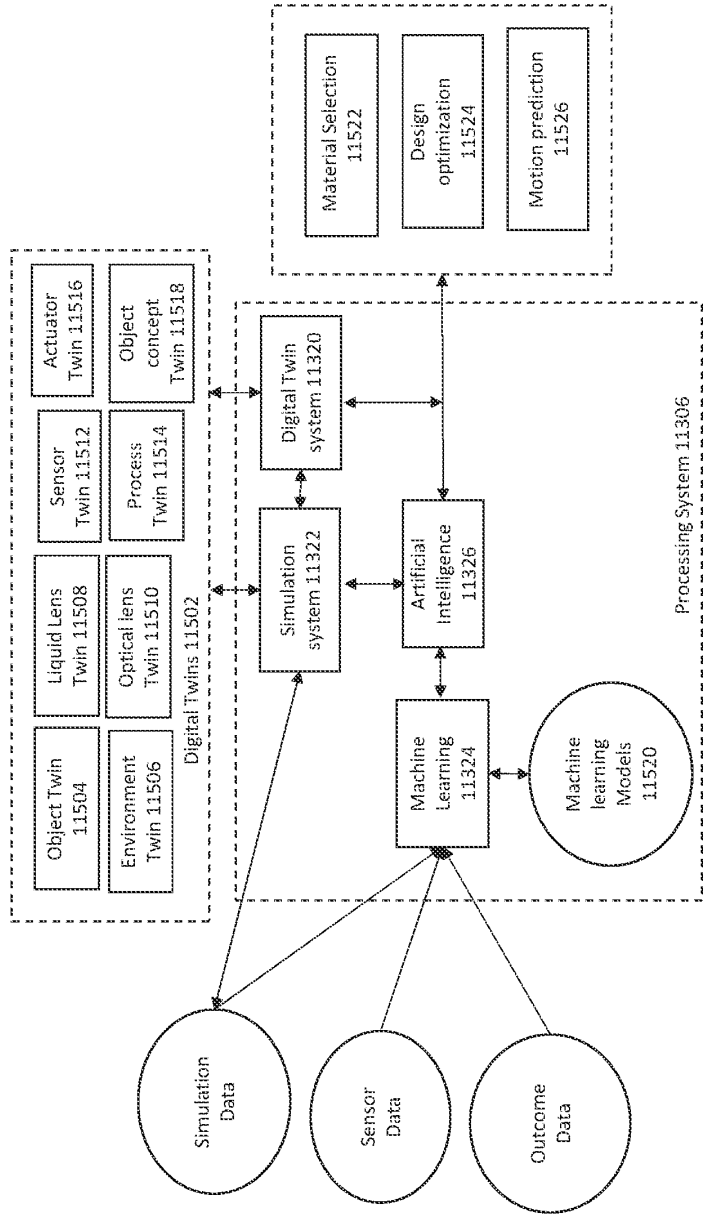


Fig. 126

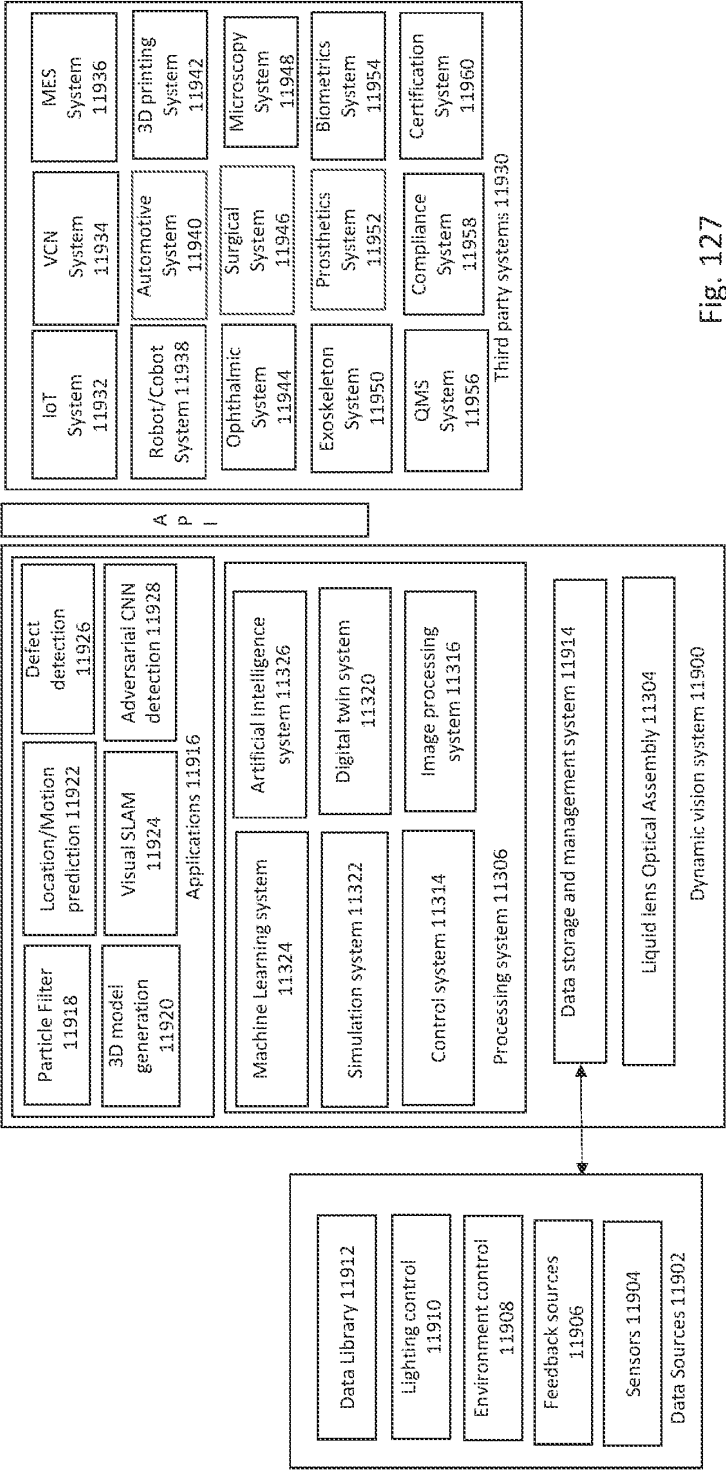


Fig. 127

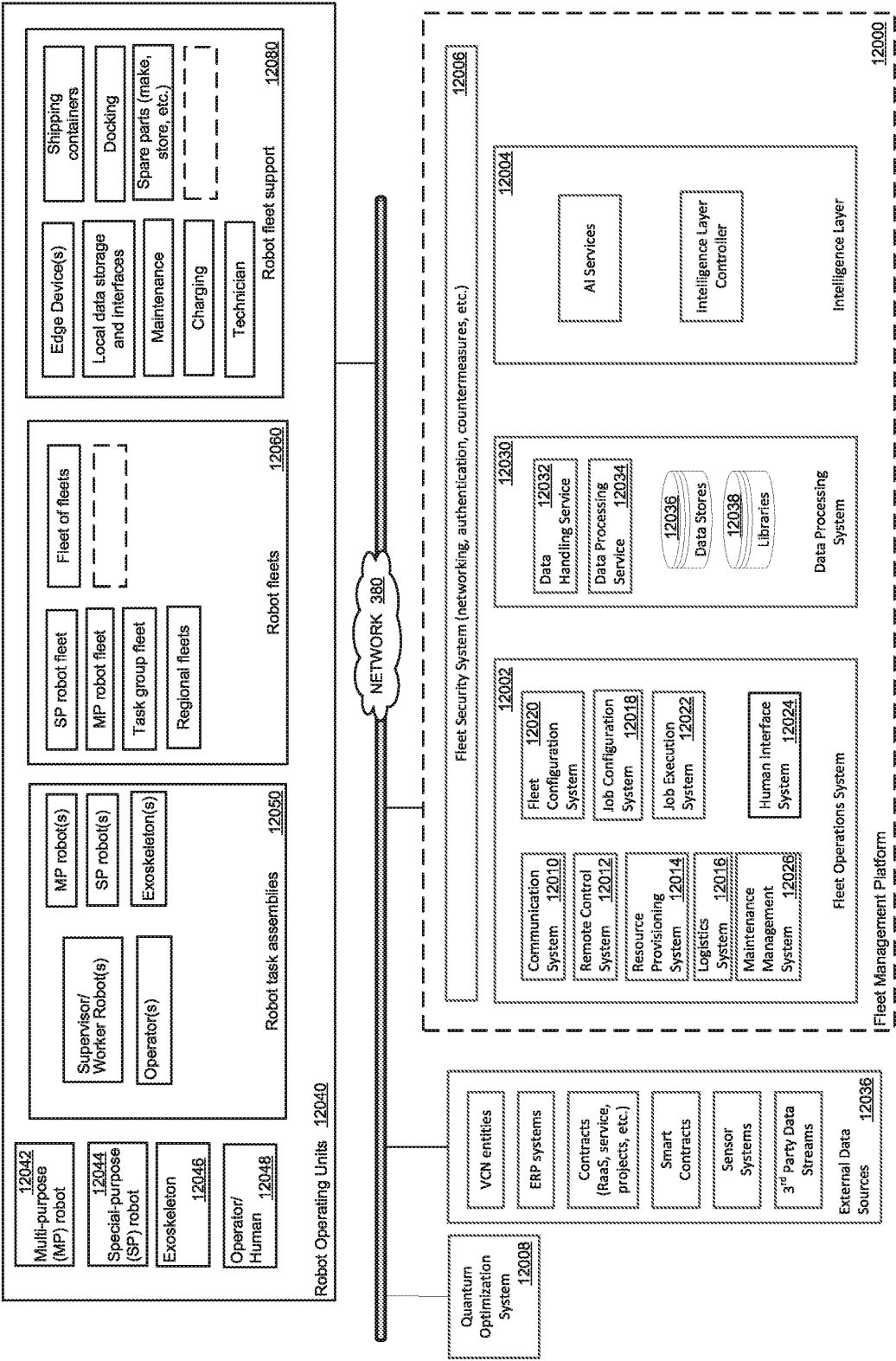


FIG. 128

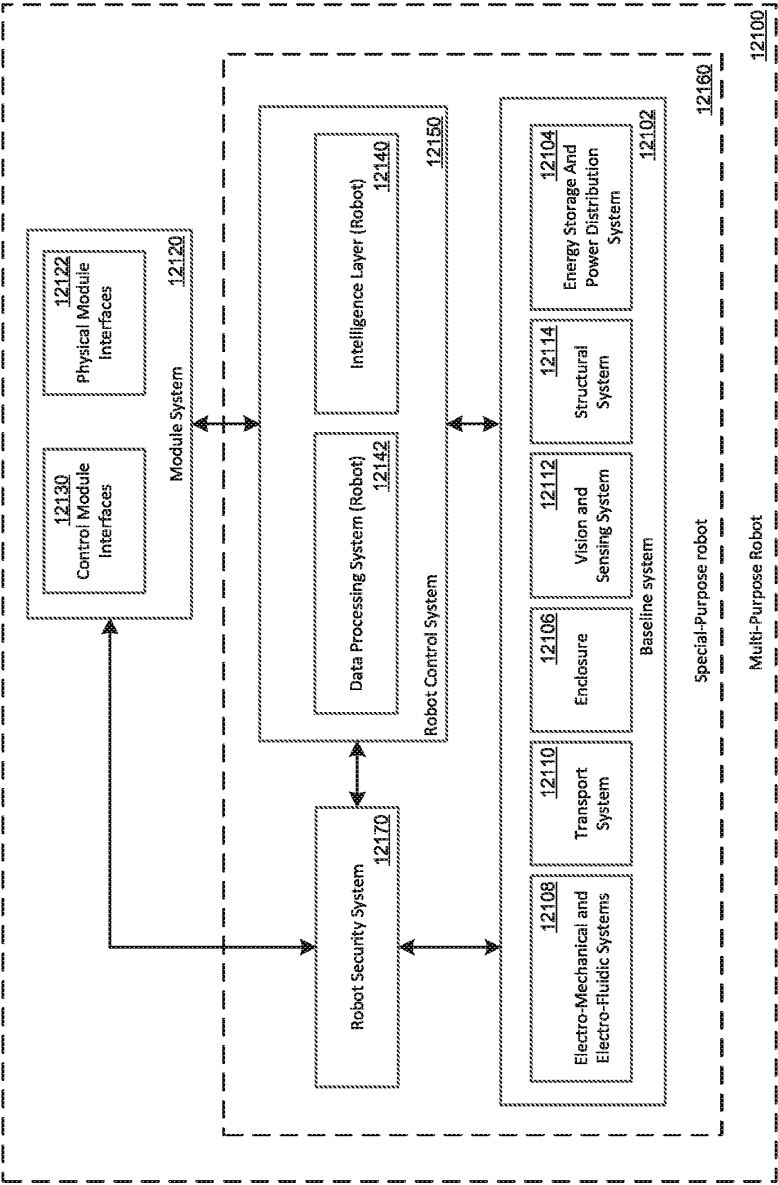


FIG. 129

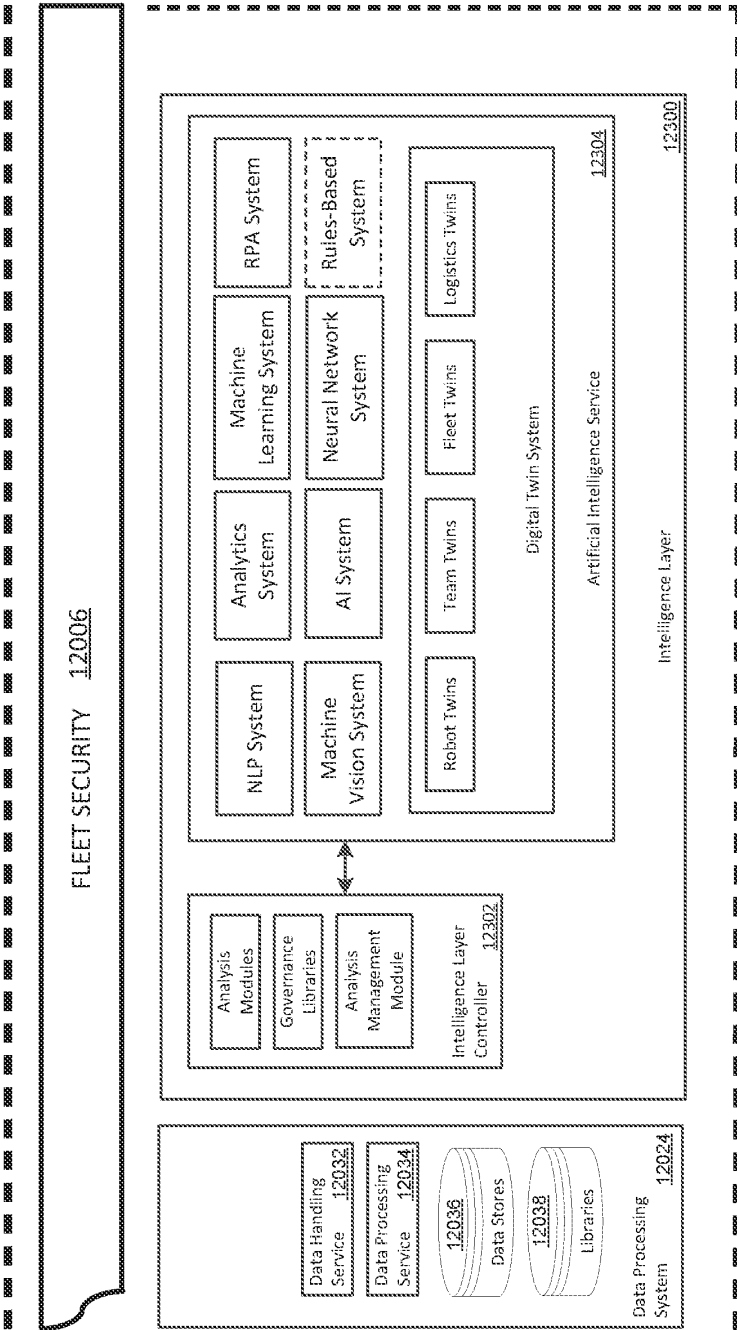


FIG. 130

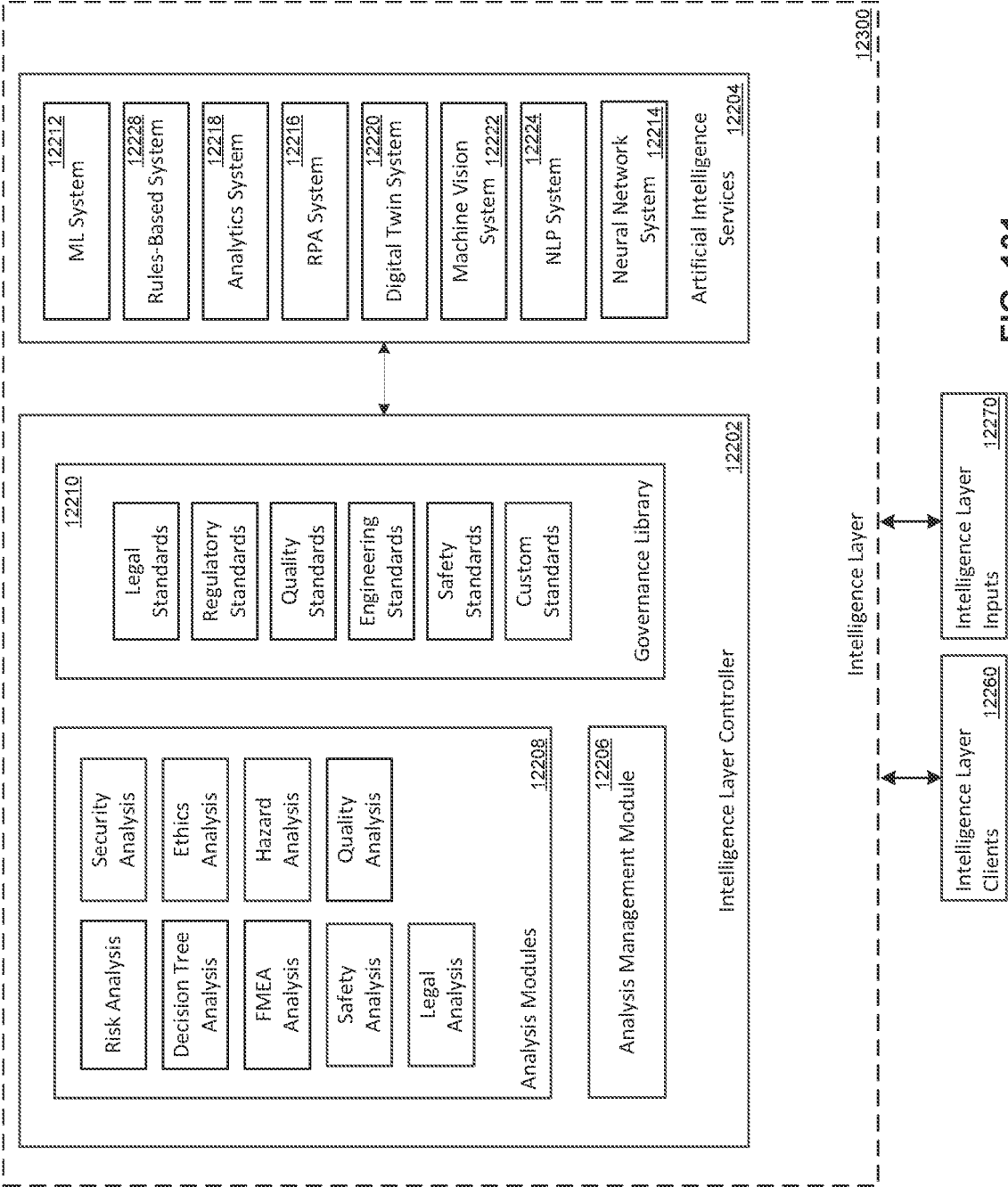


FIG. 131

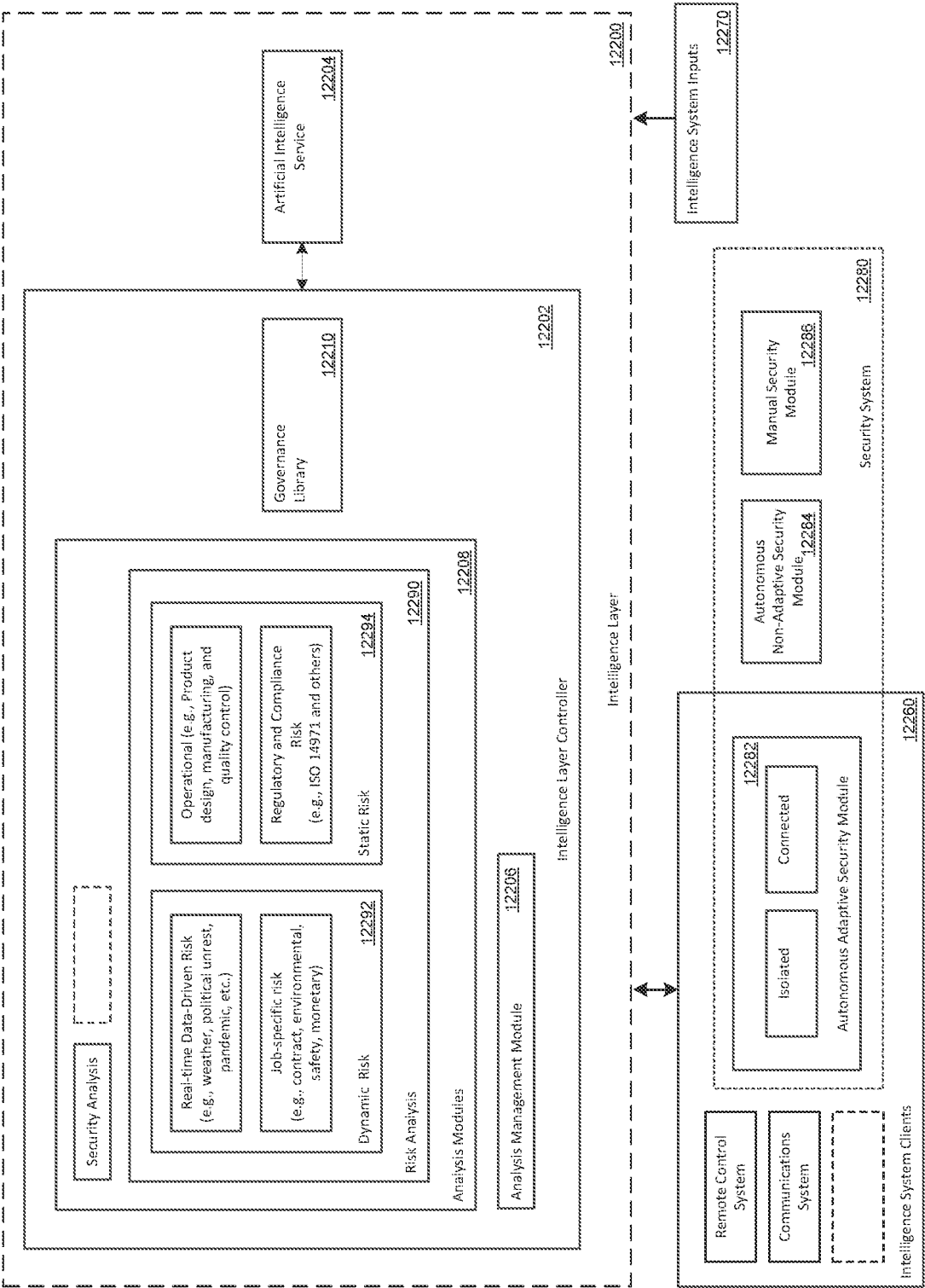


FIG. 132

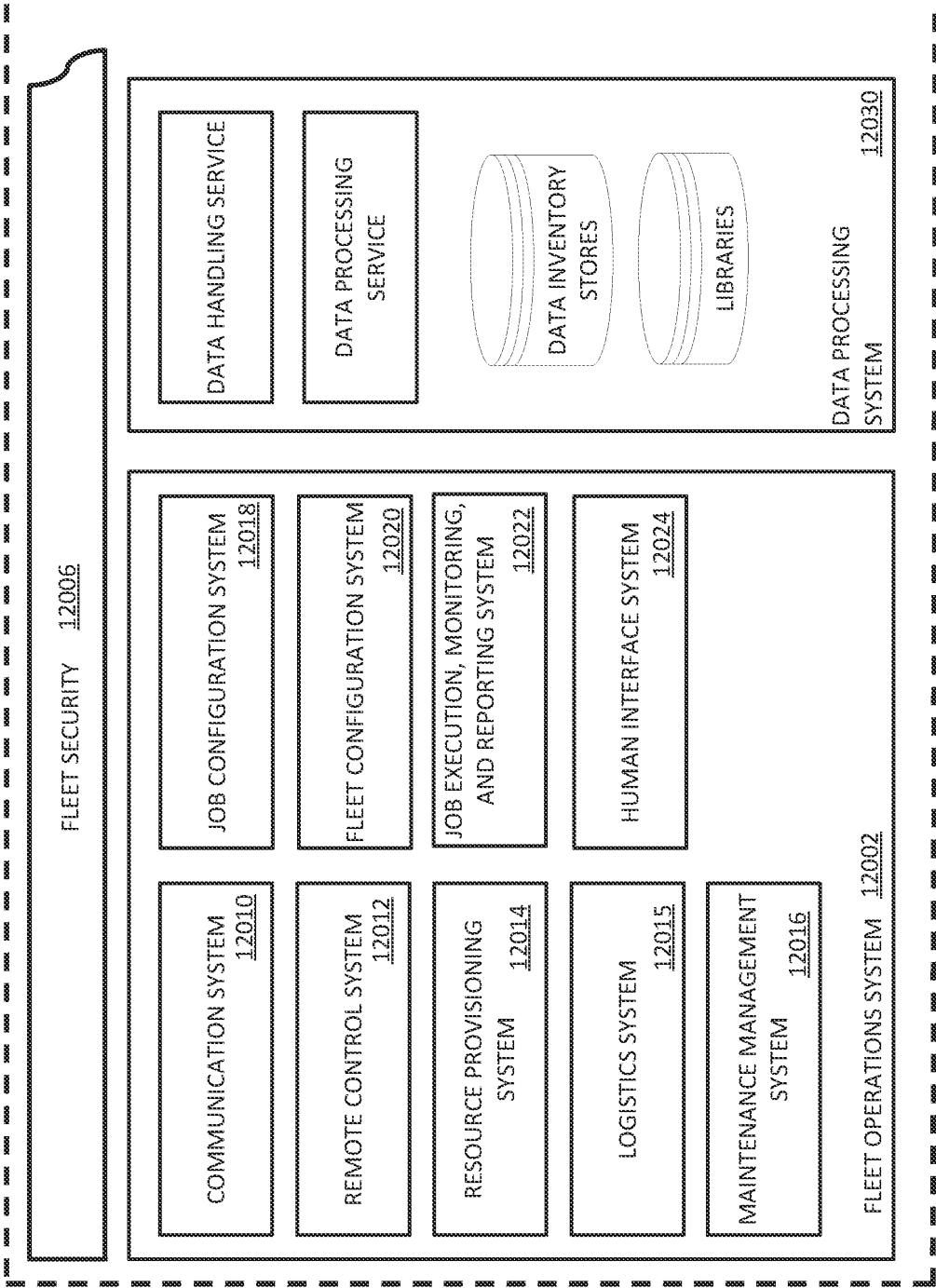


FIG. 133

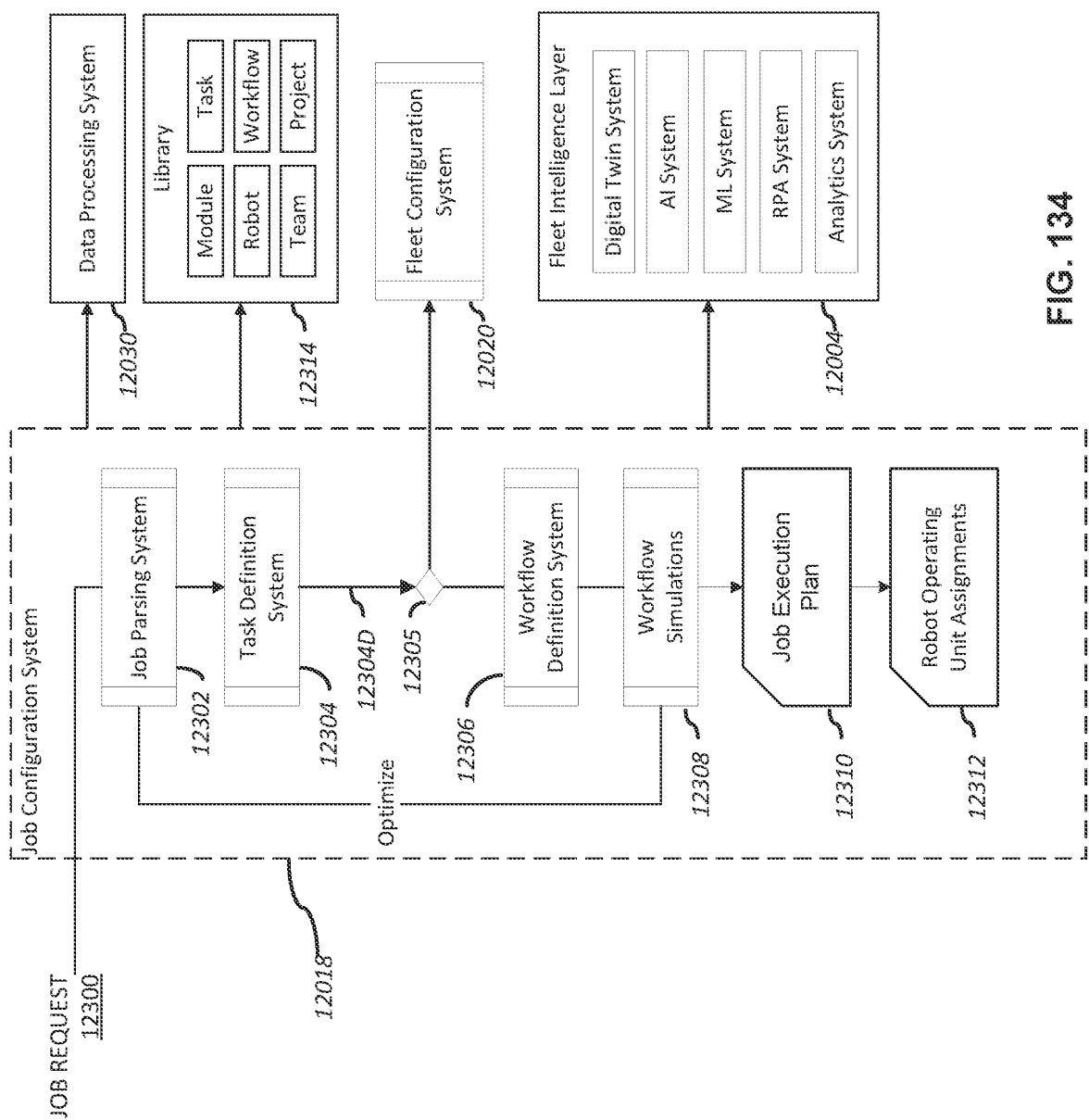


FIG. 134

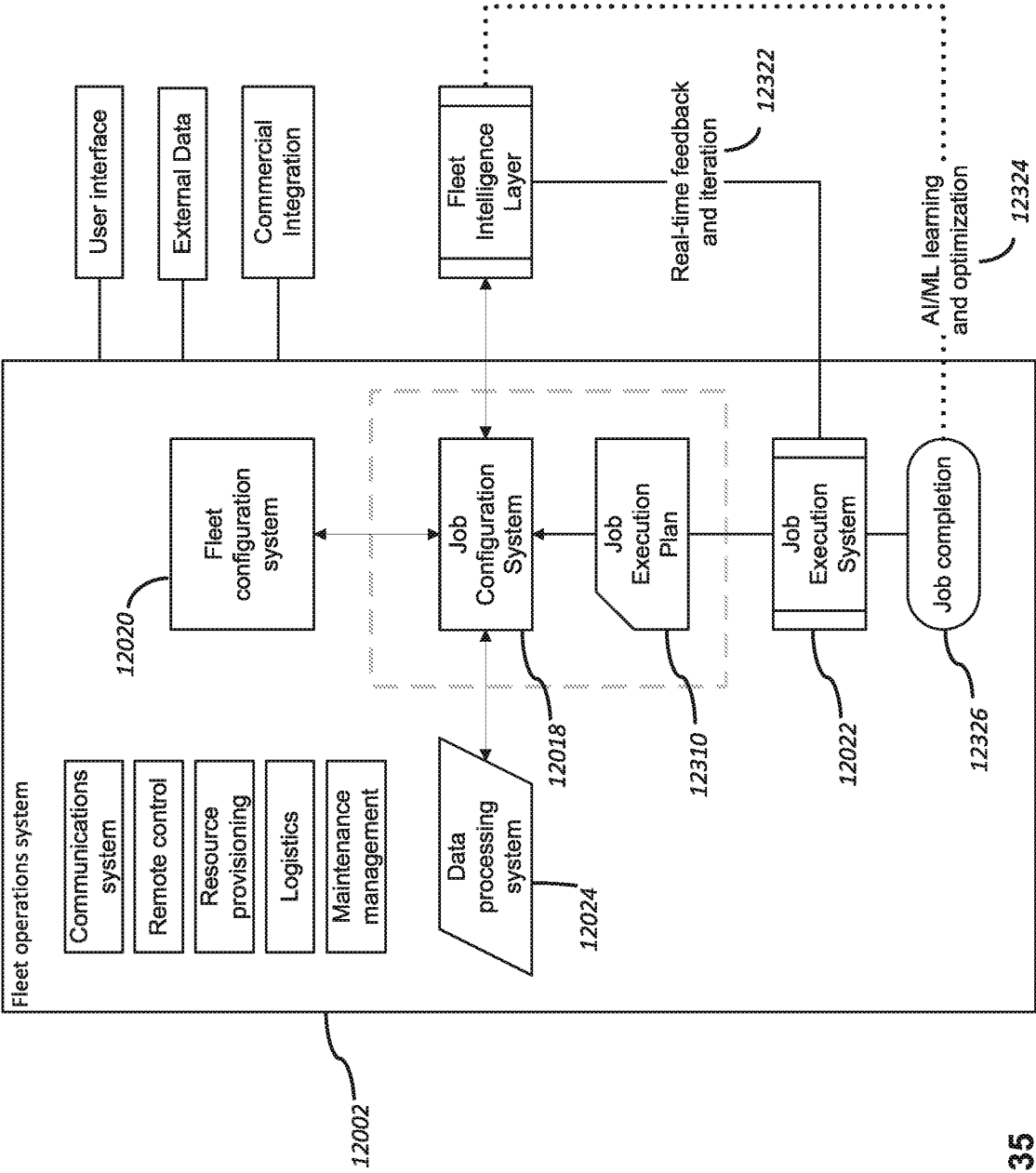


FIG. 135

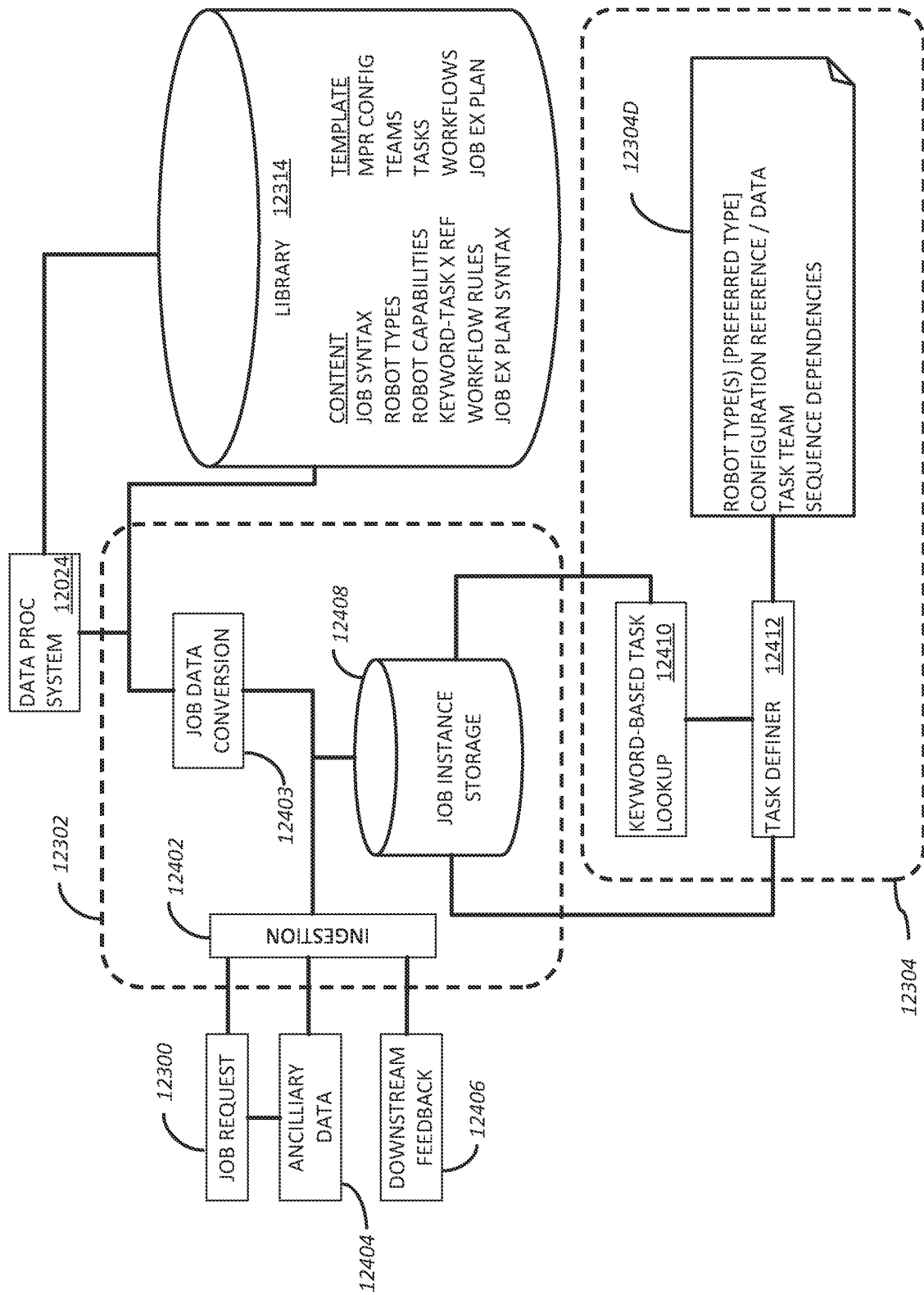
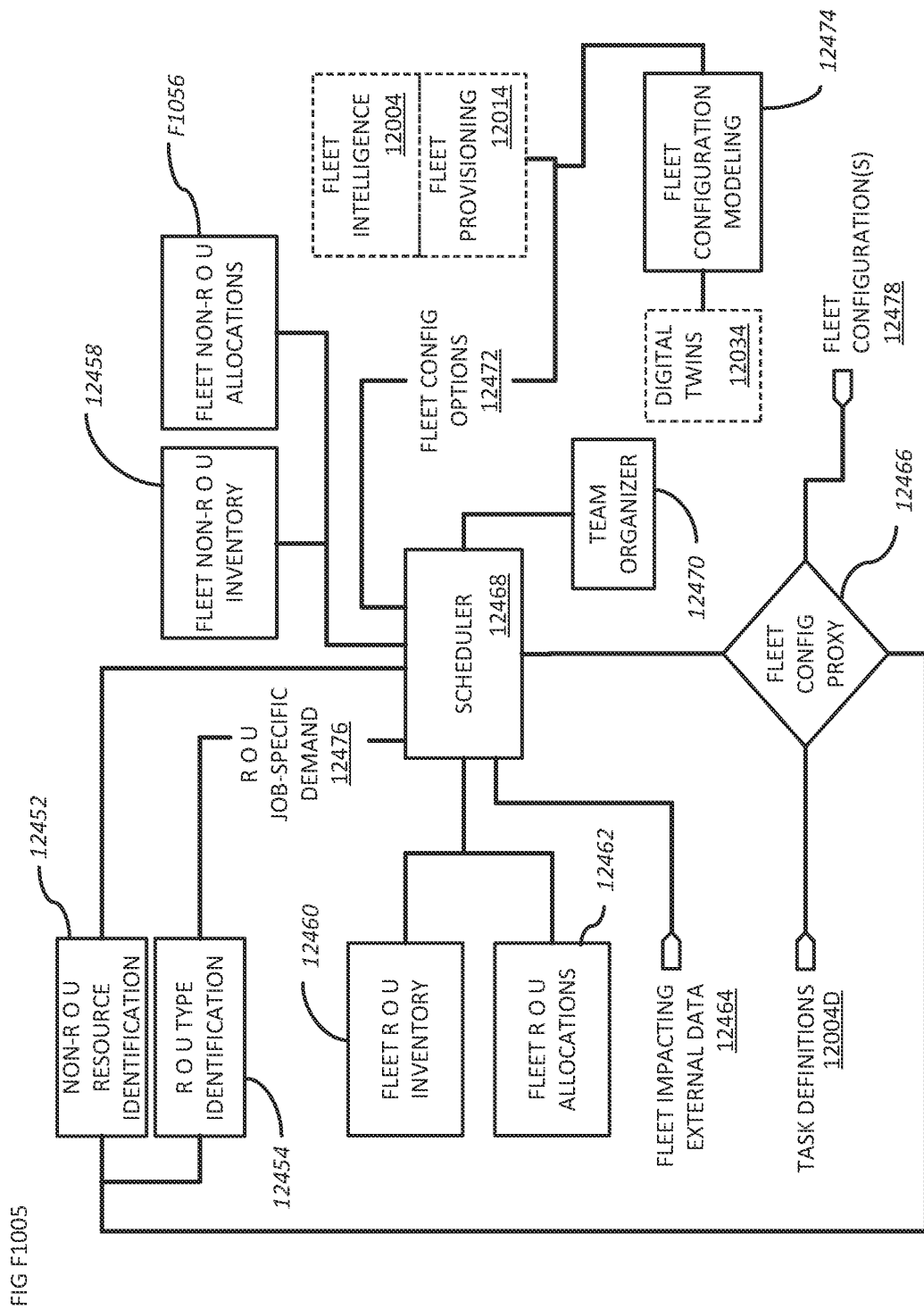


FIG. 136



* R O U = ROBOT OPERATING UNIT(S)

FIG. 137

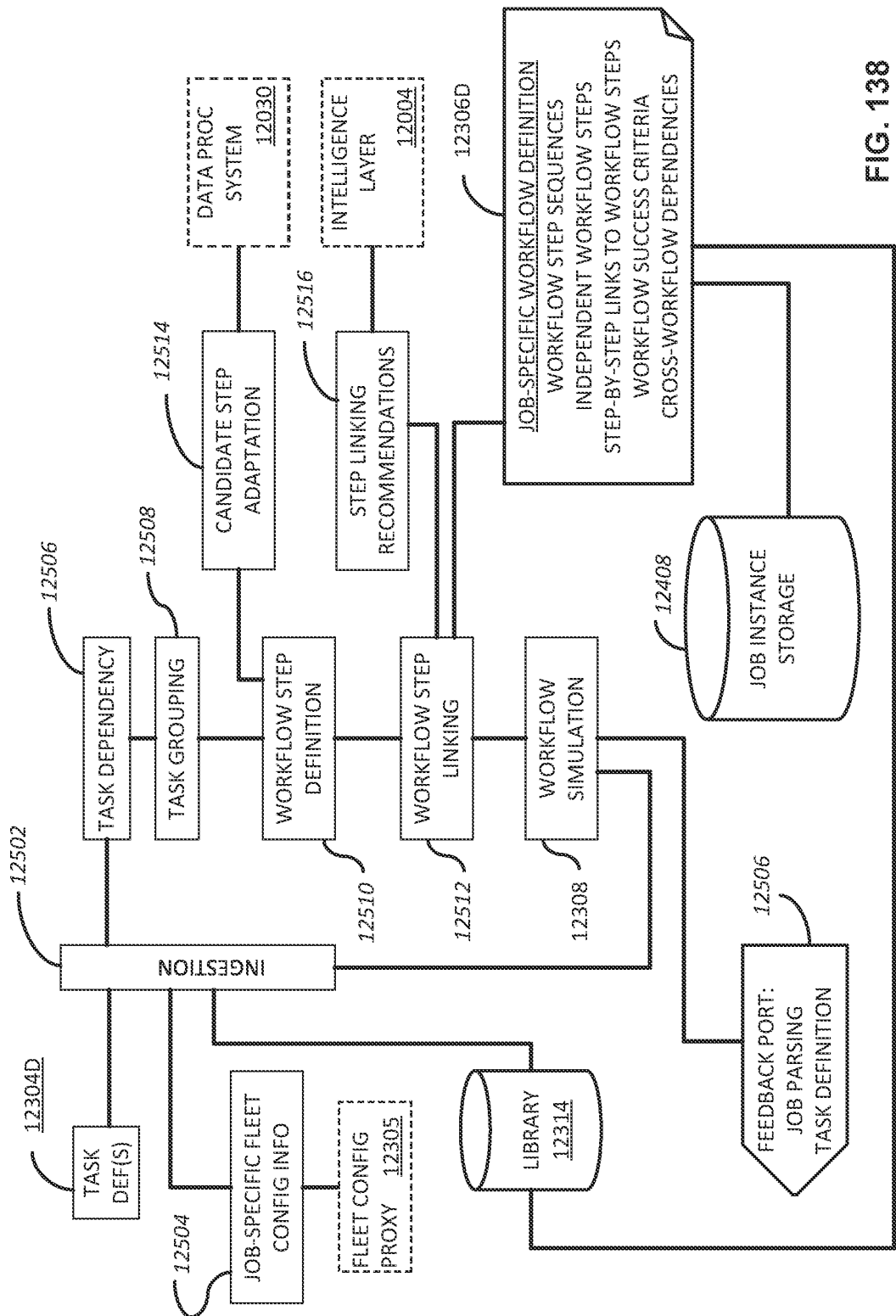


FIG. 138

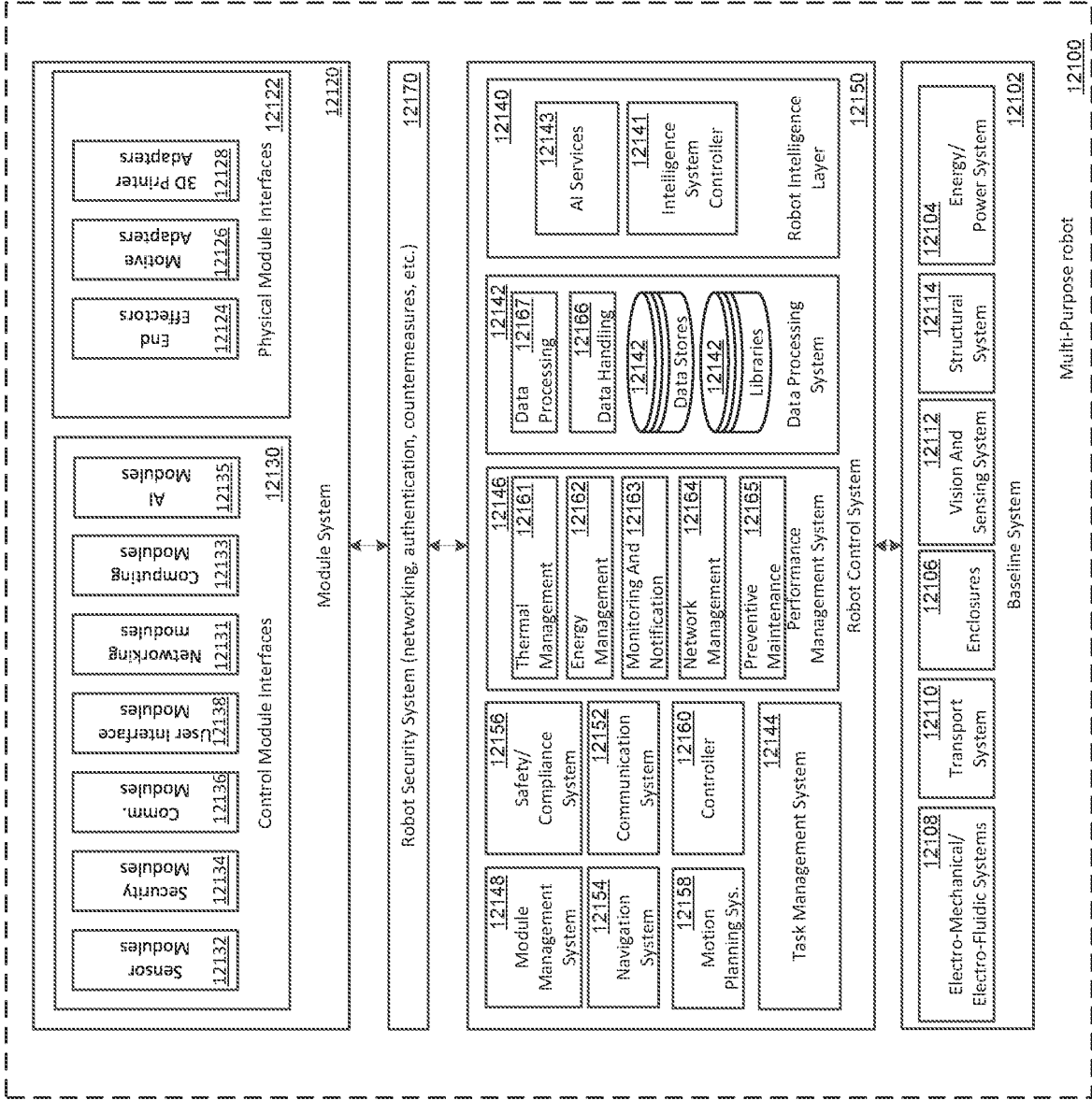


FIG. 139

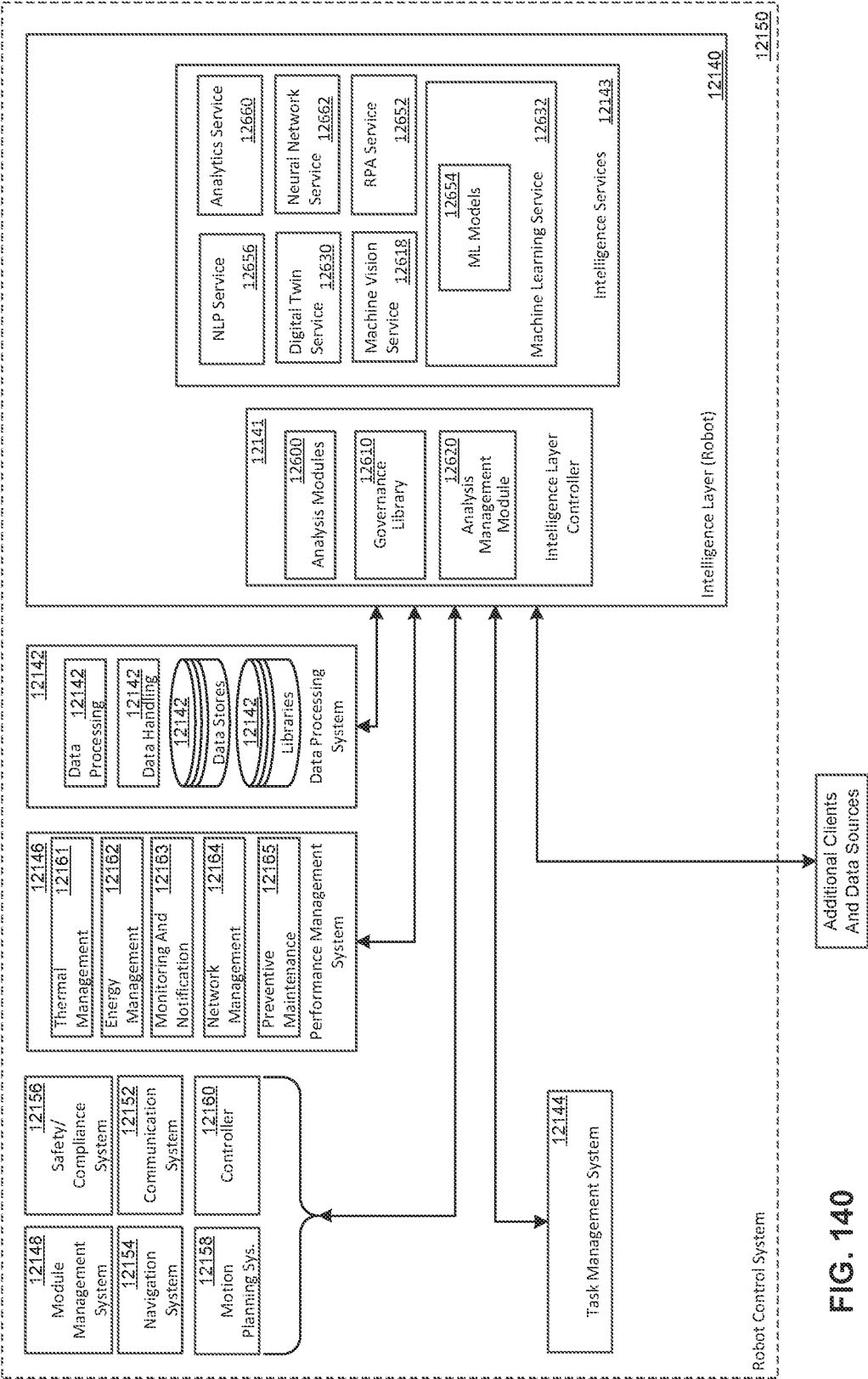


FIG. 140

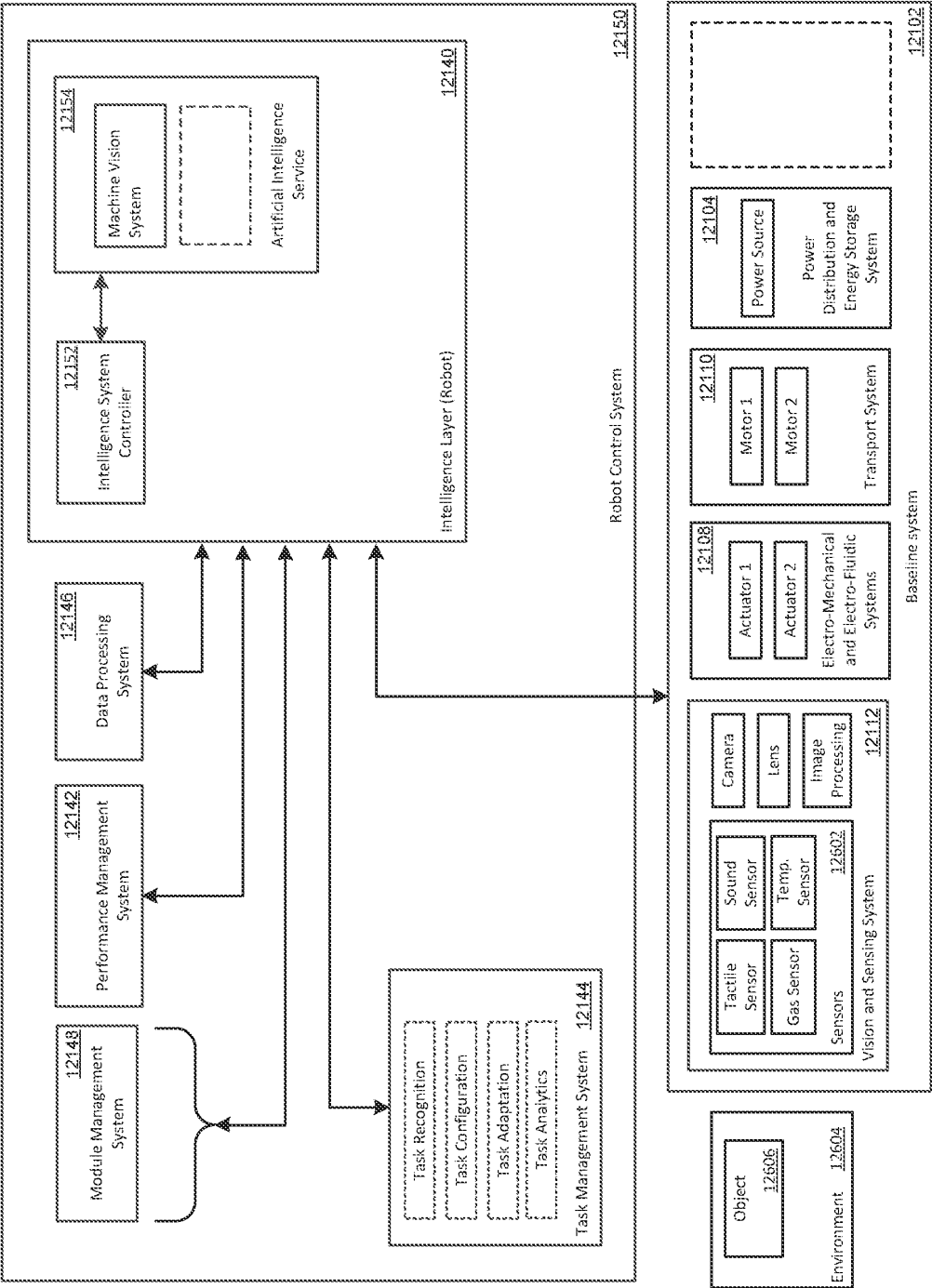


FIG. 141

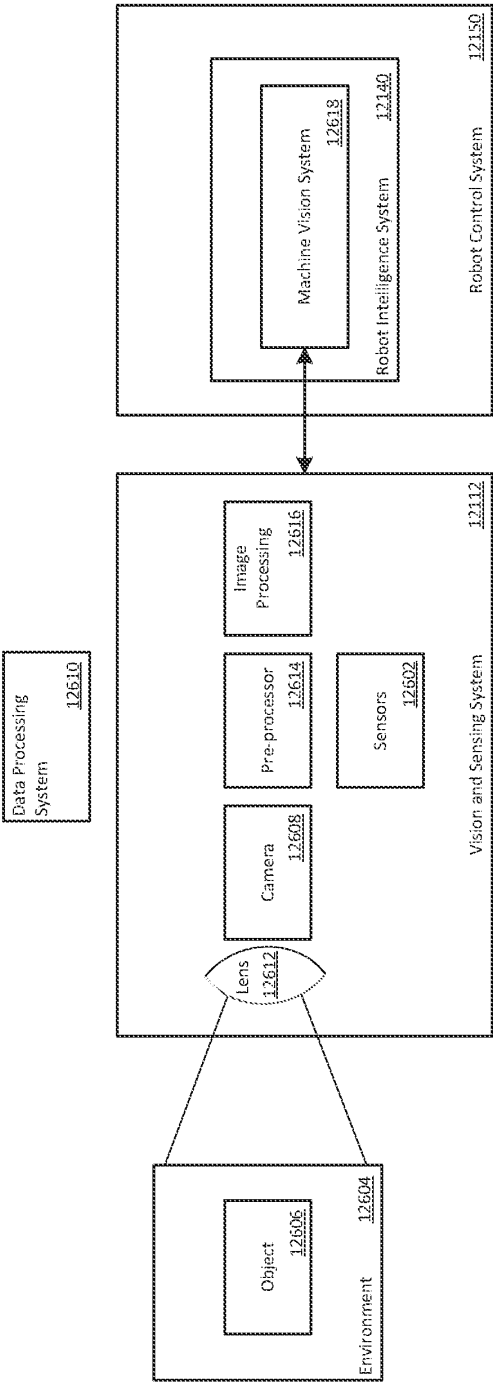


FIG. 142

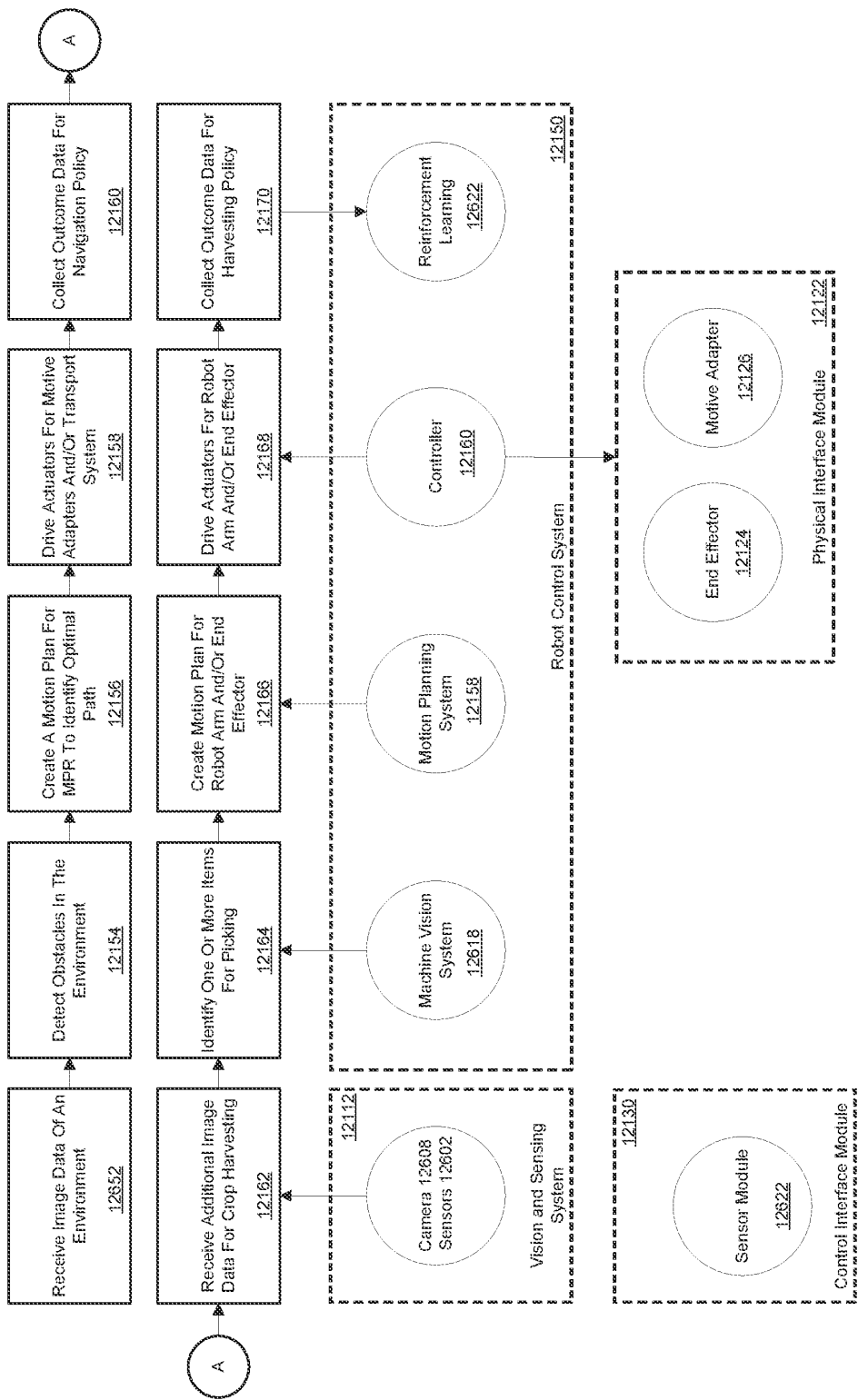


FIG. 143

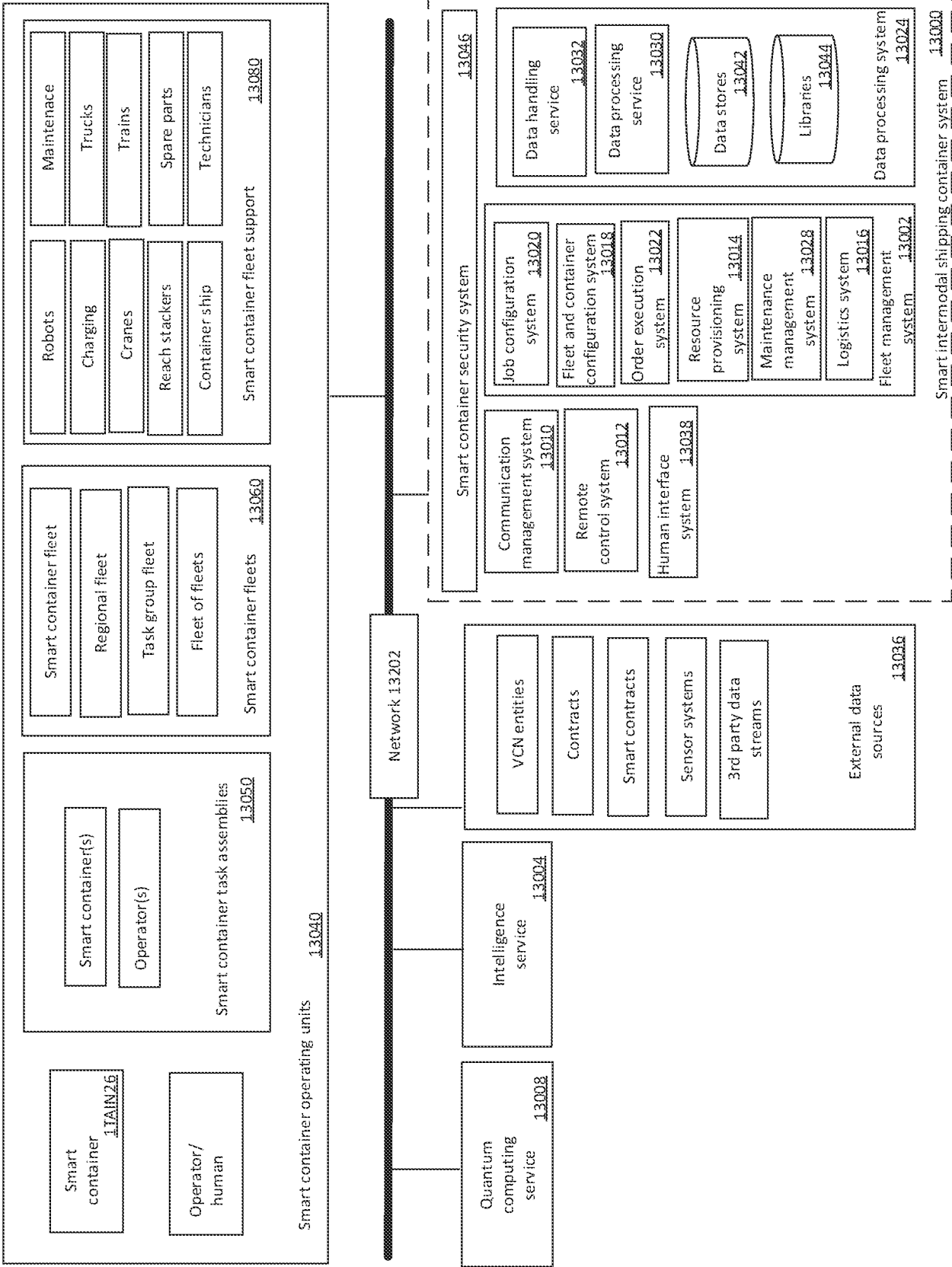


FIG. 144

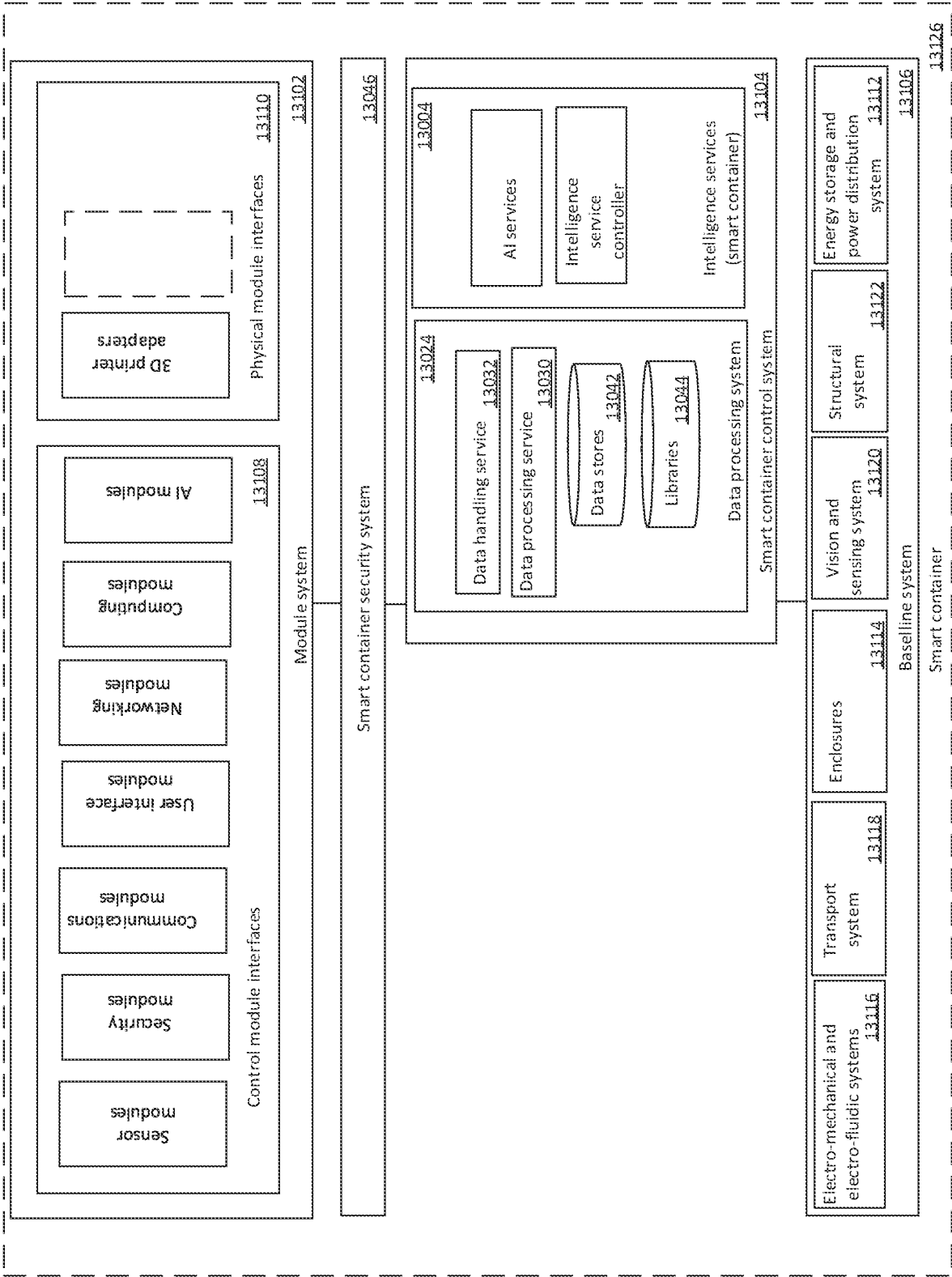


FIG. 145

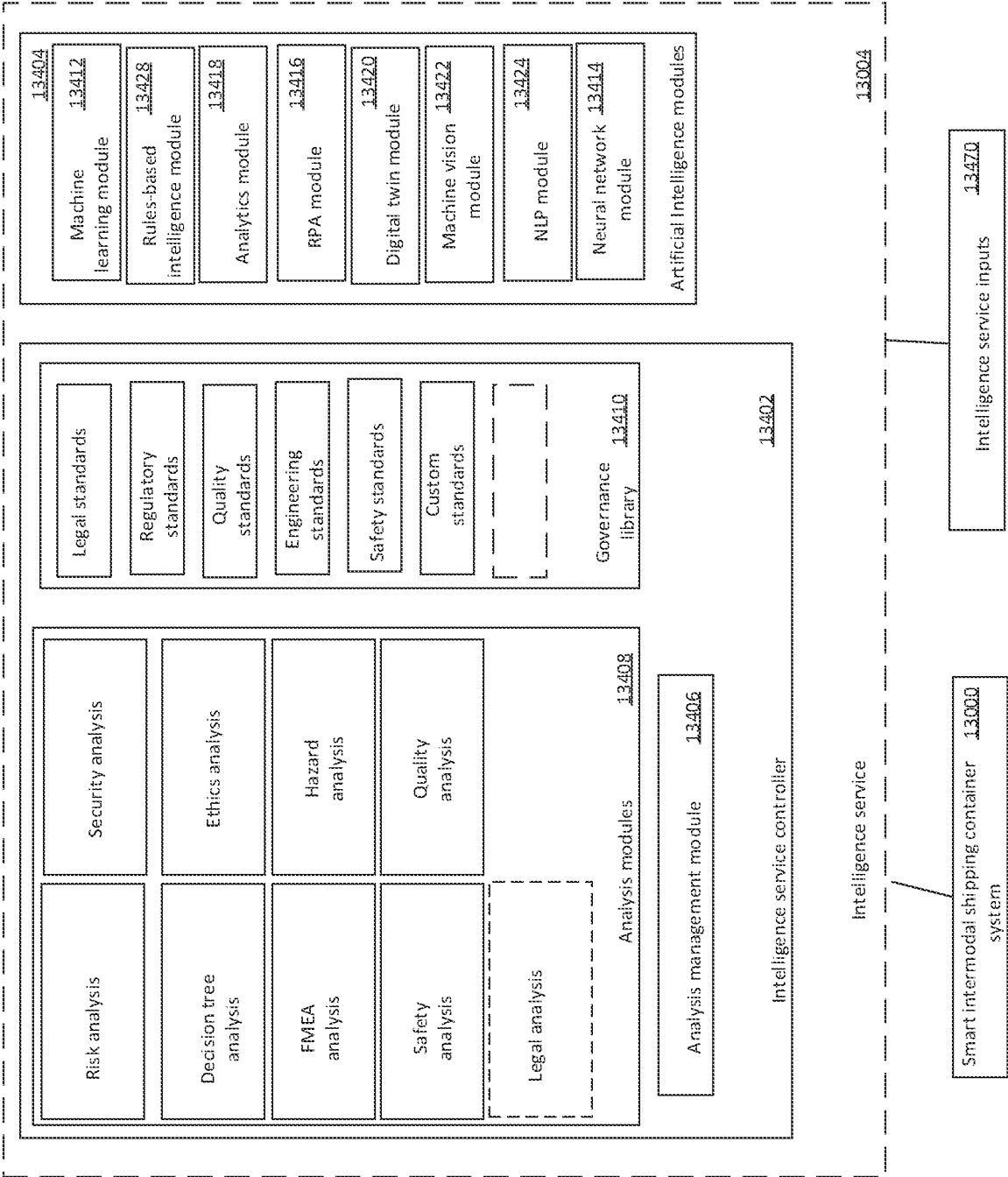


FIG. 146

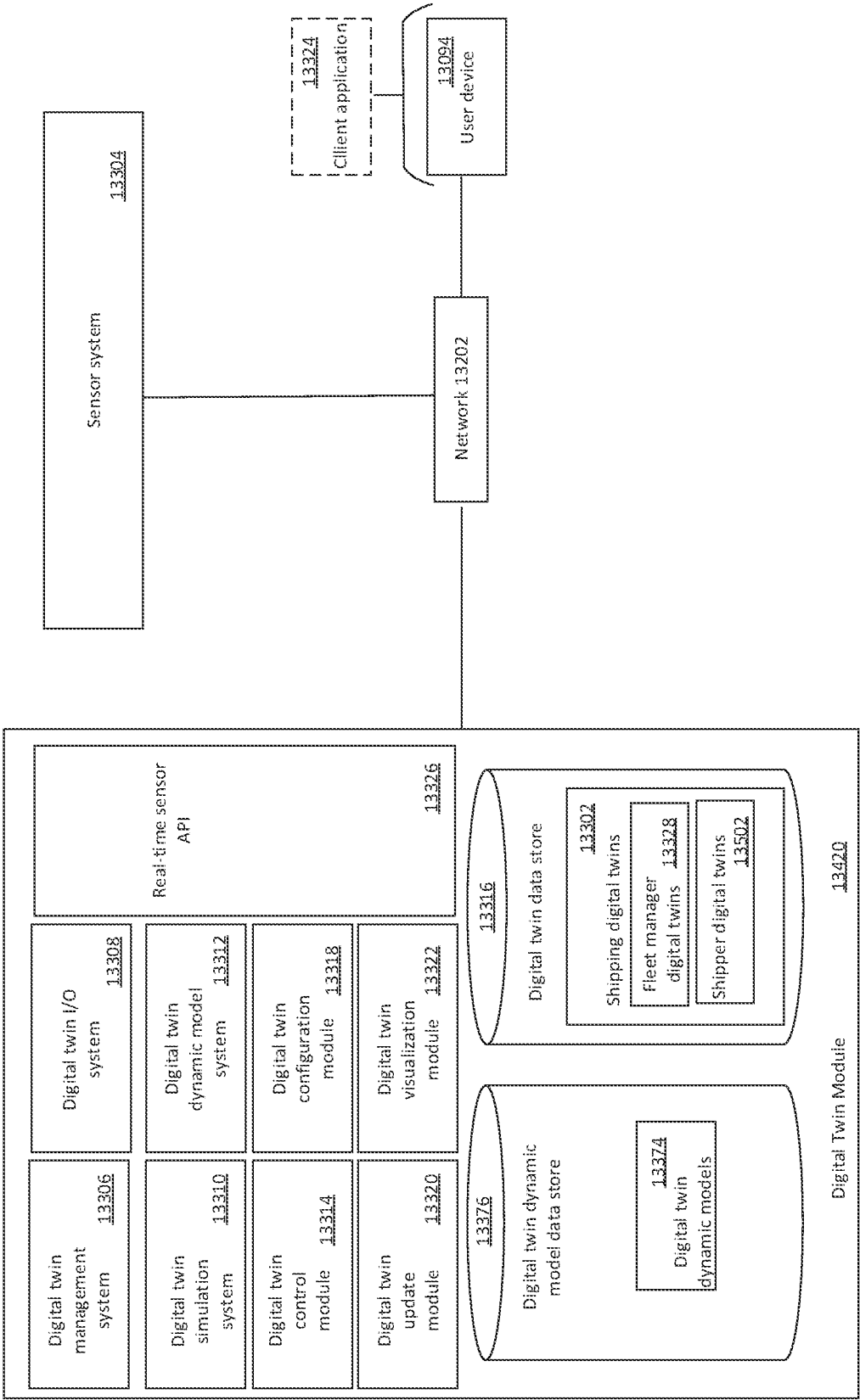


FIG. 147

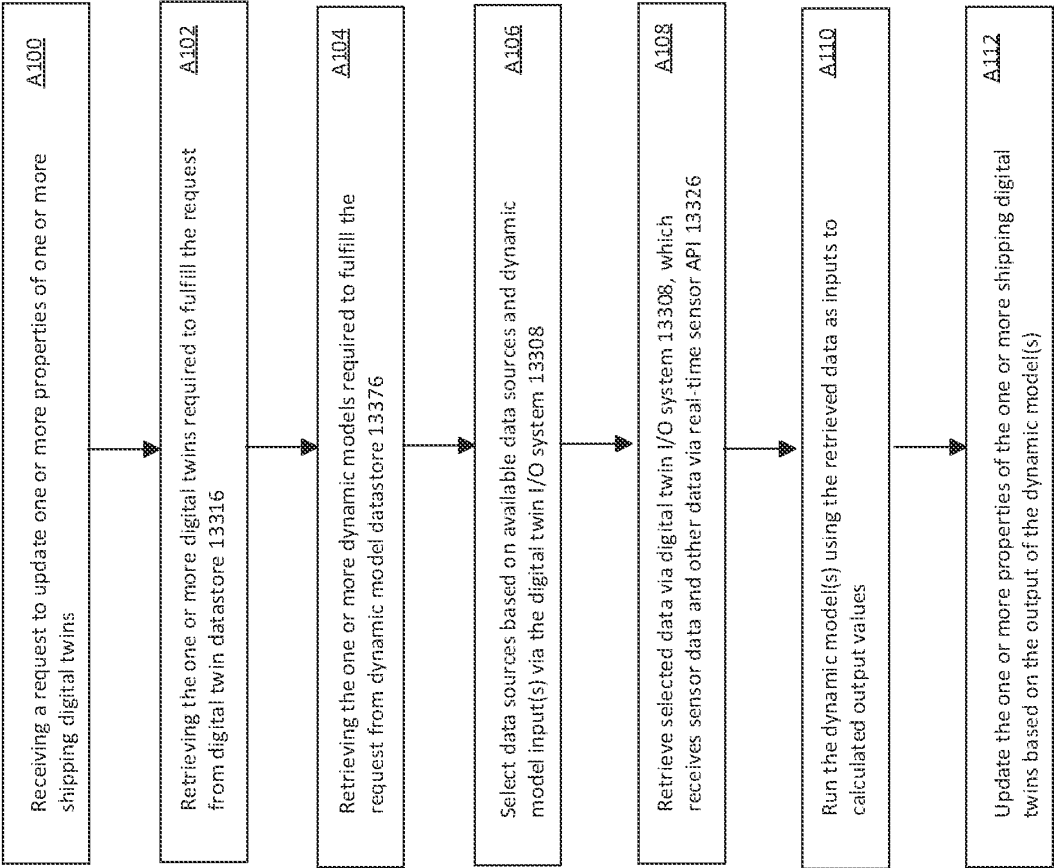


FIG. 148

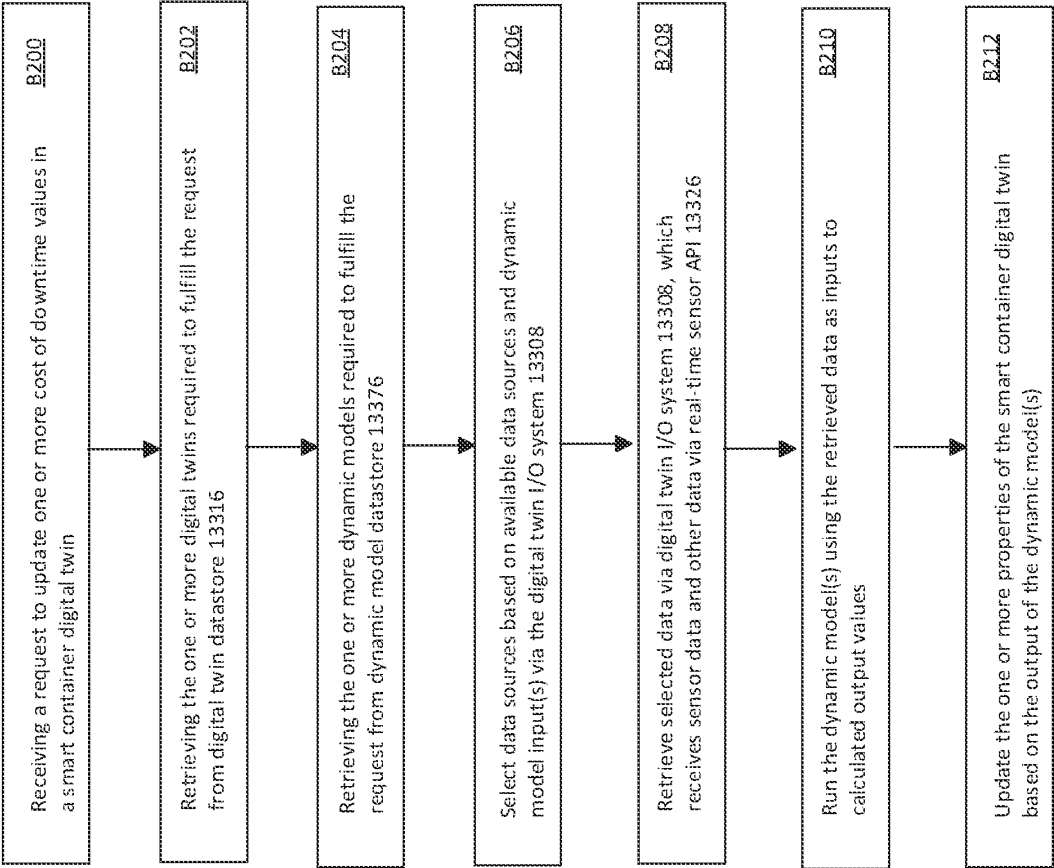


FIG. 149

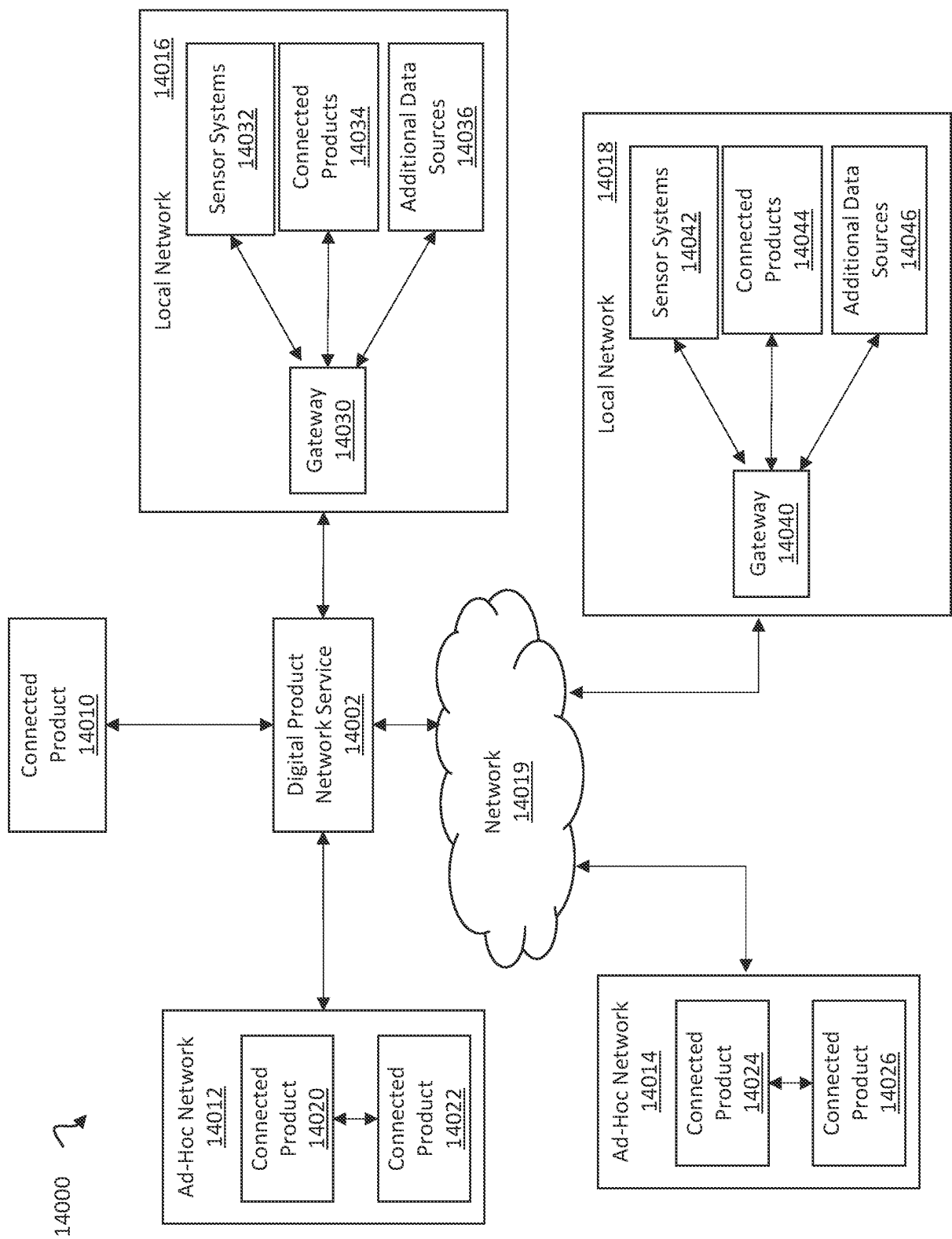


FIG. 150

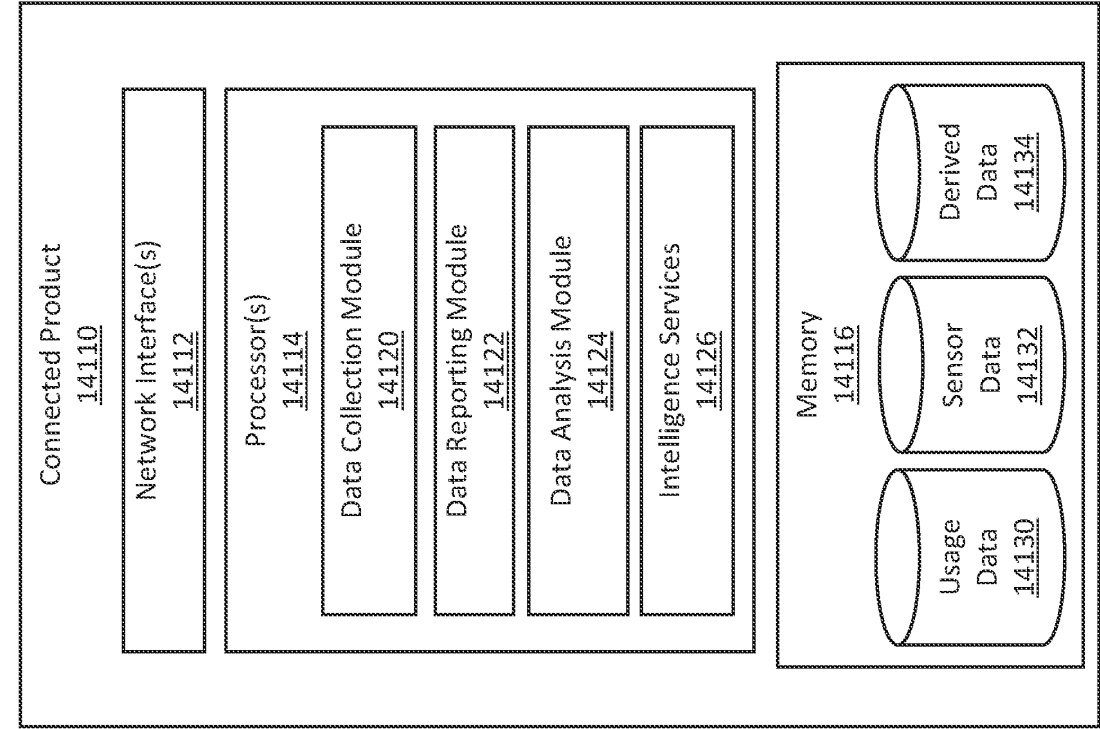


FIG. 151

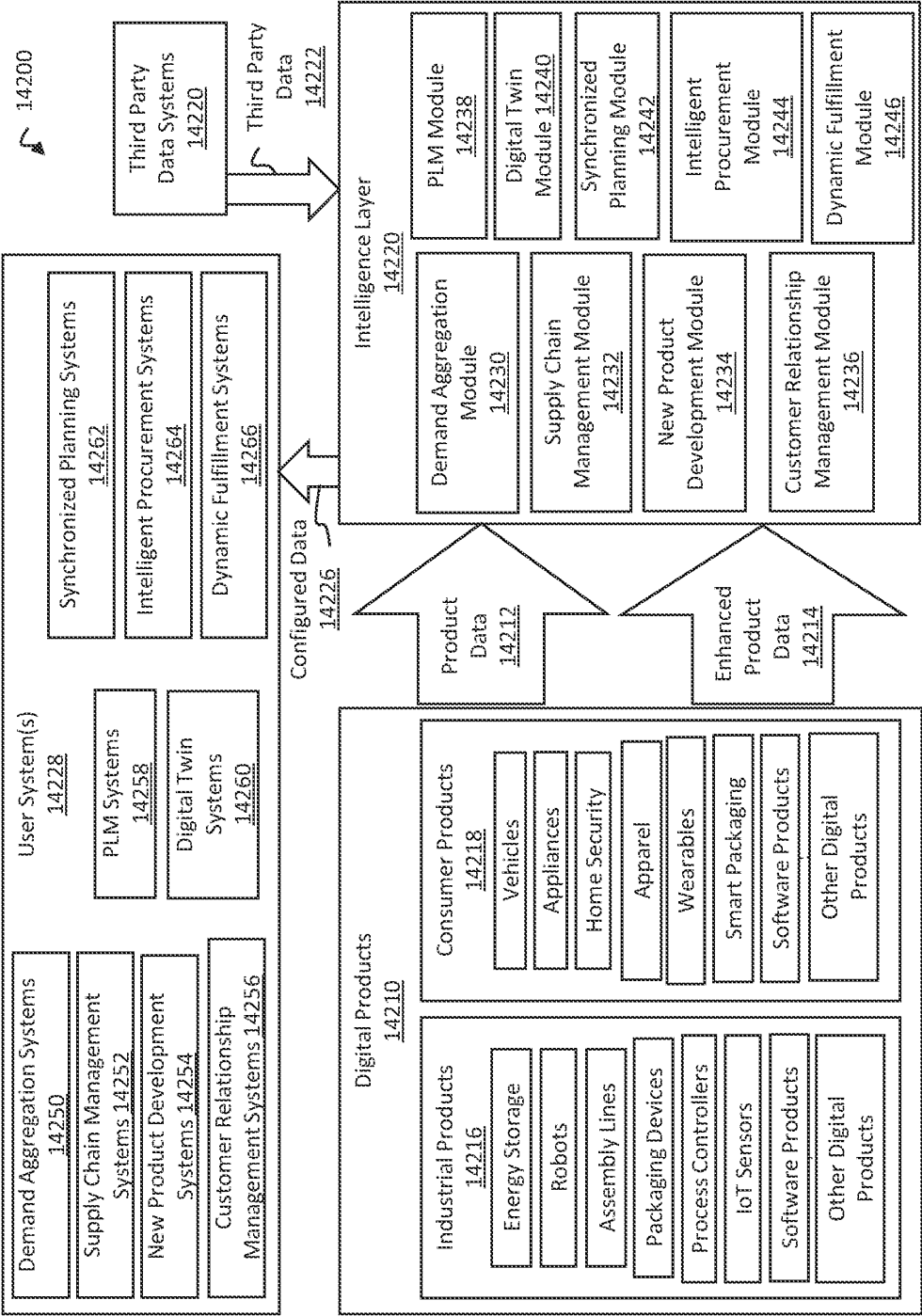


FIG. 152

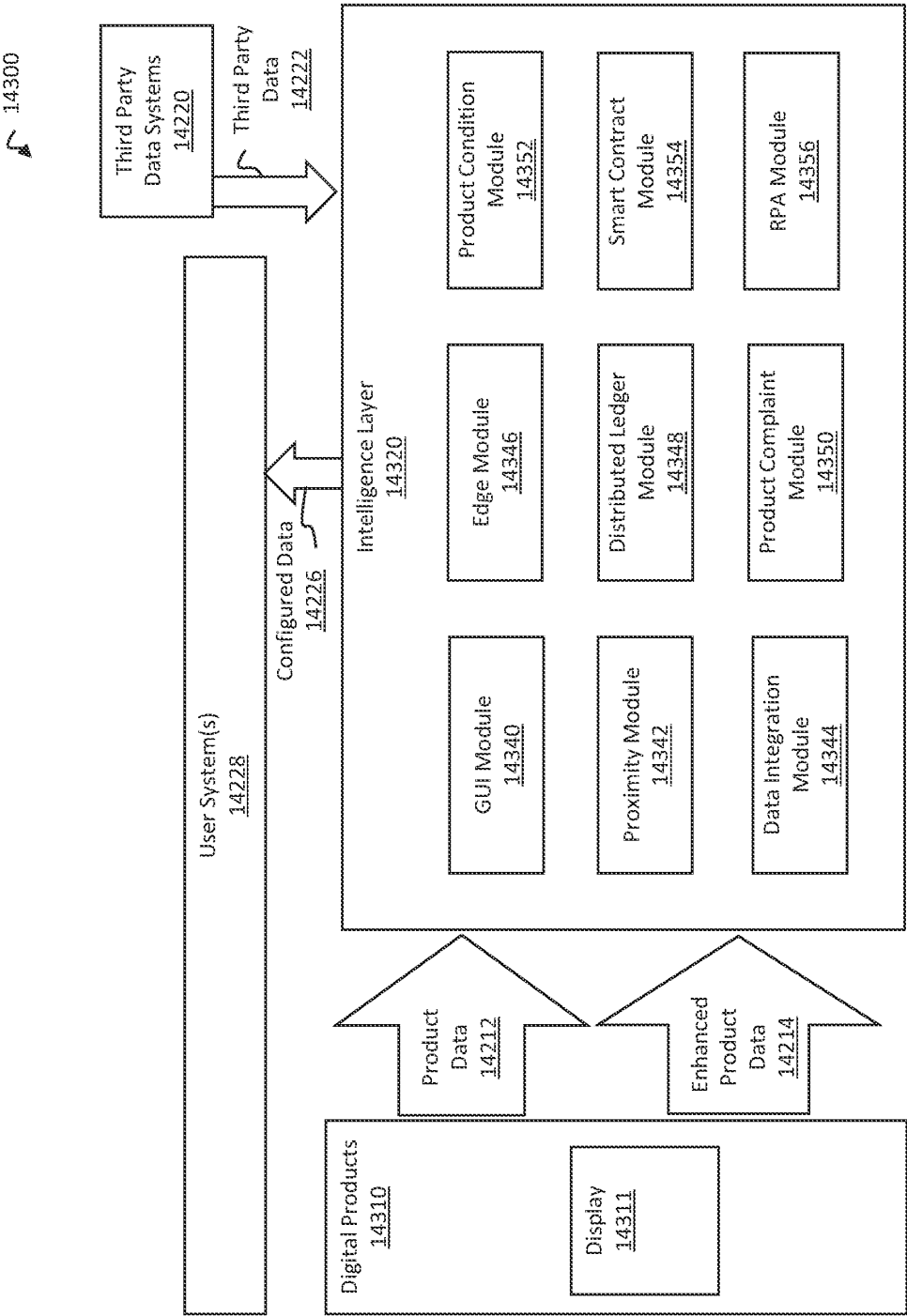


FIG. 153

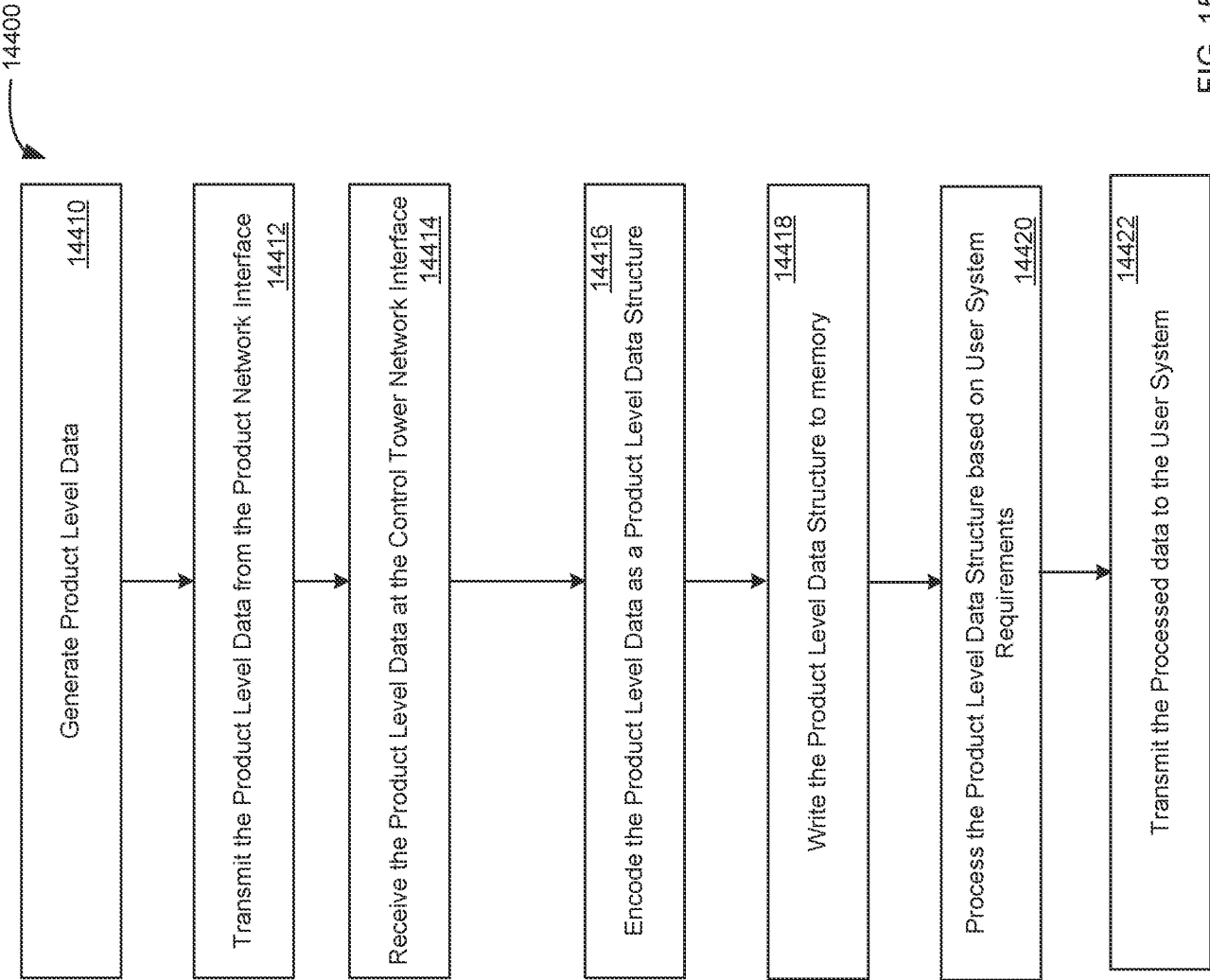


FIG. 154

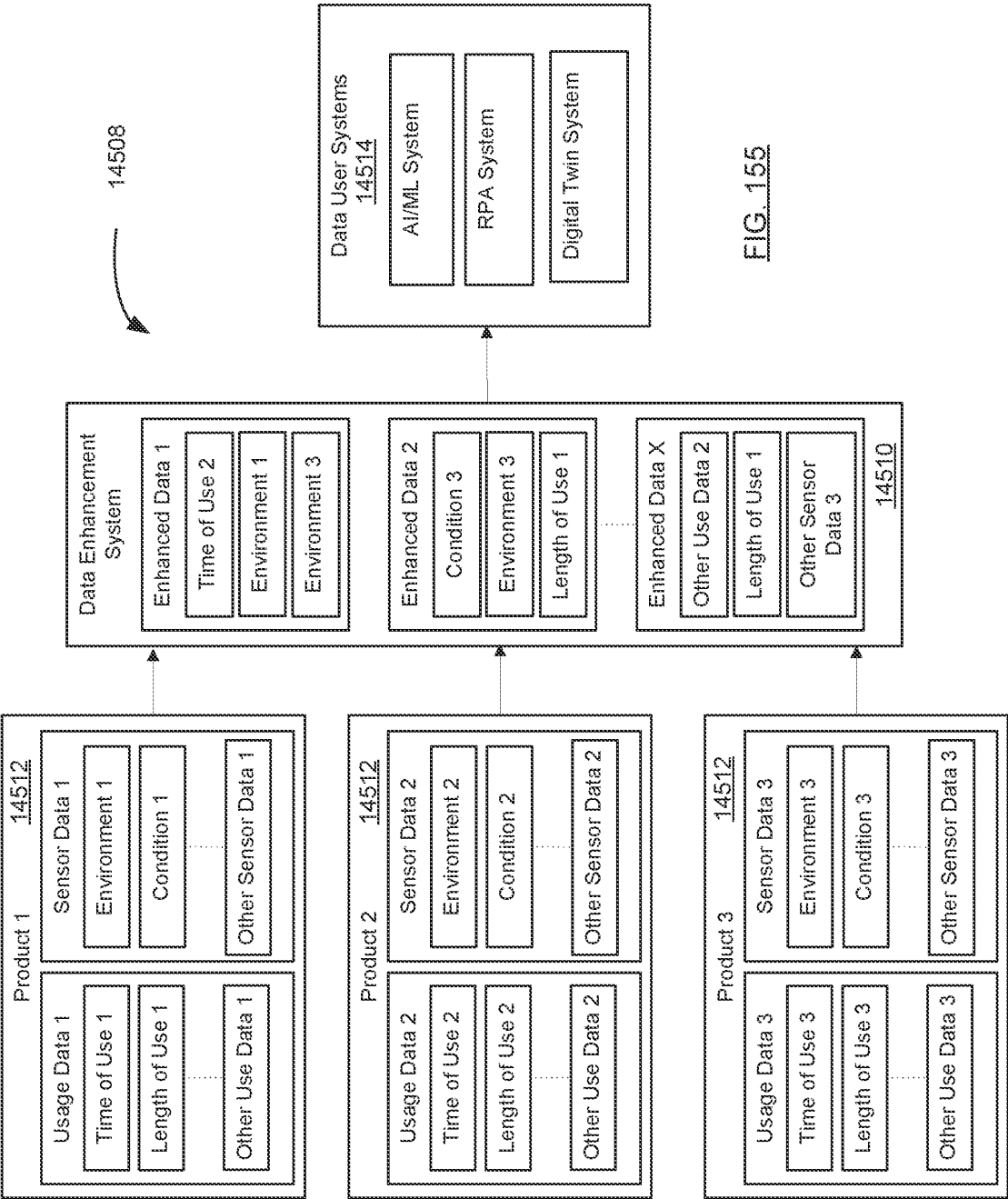


FIG. 155

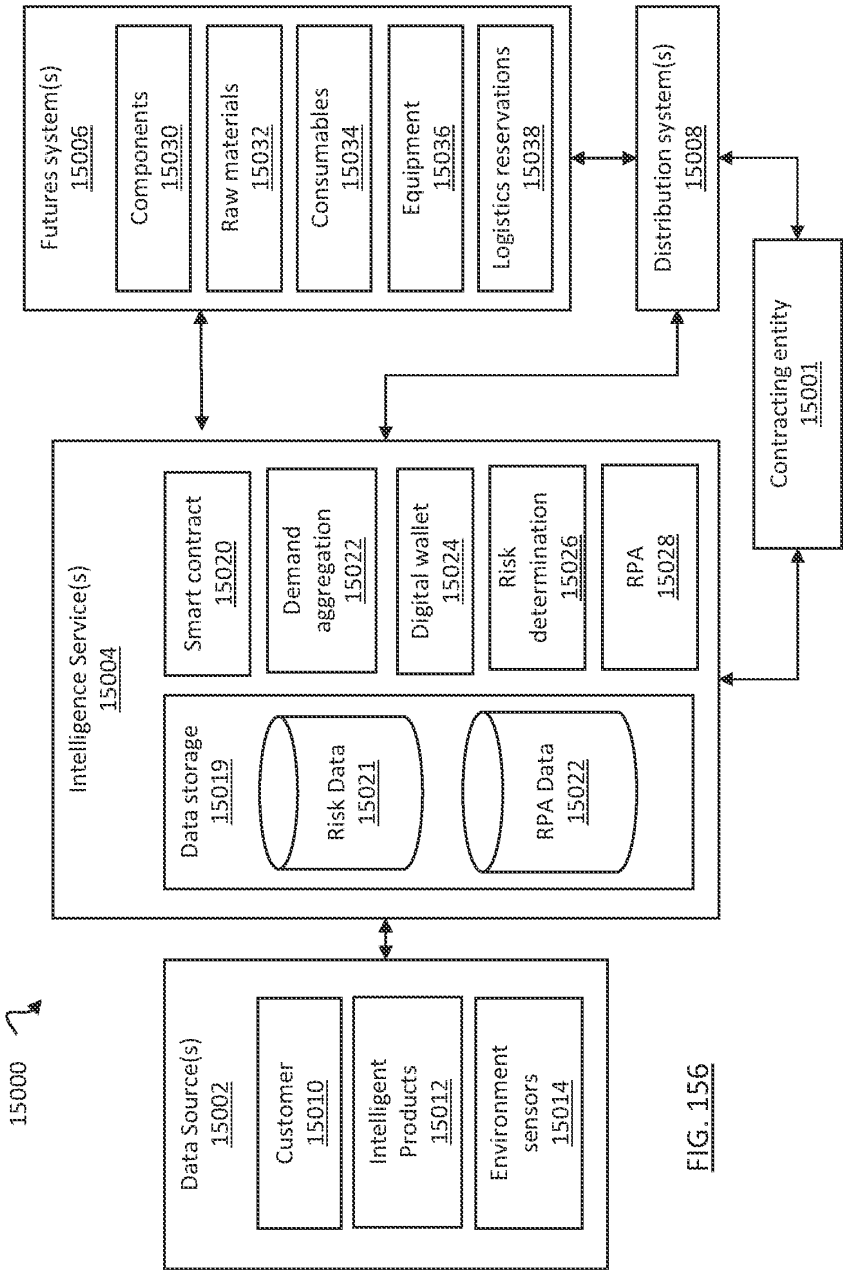


FIG. 156

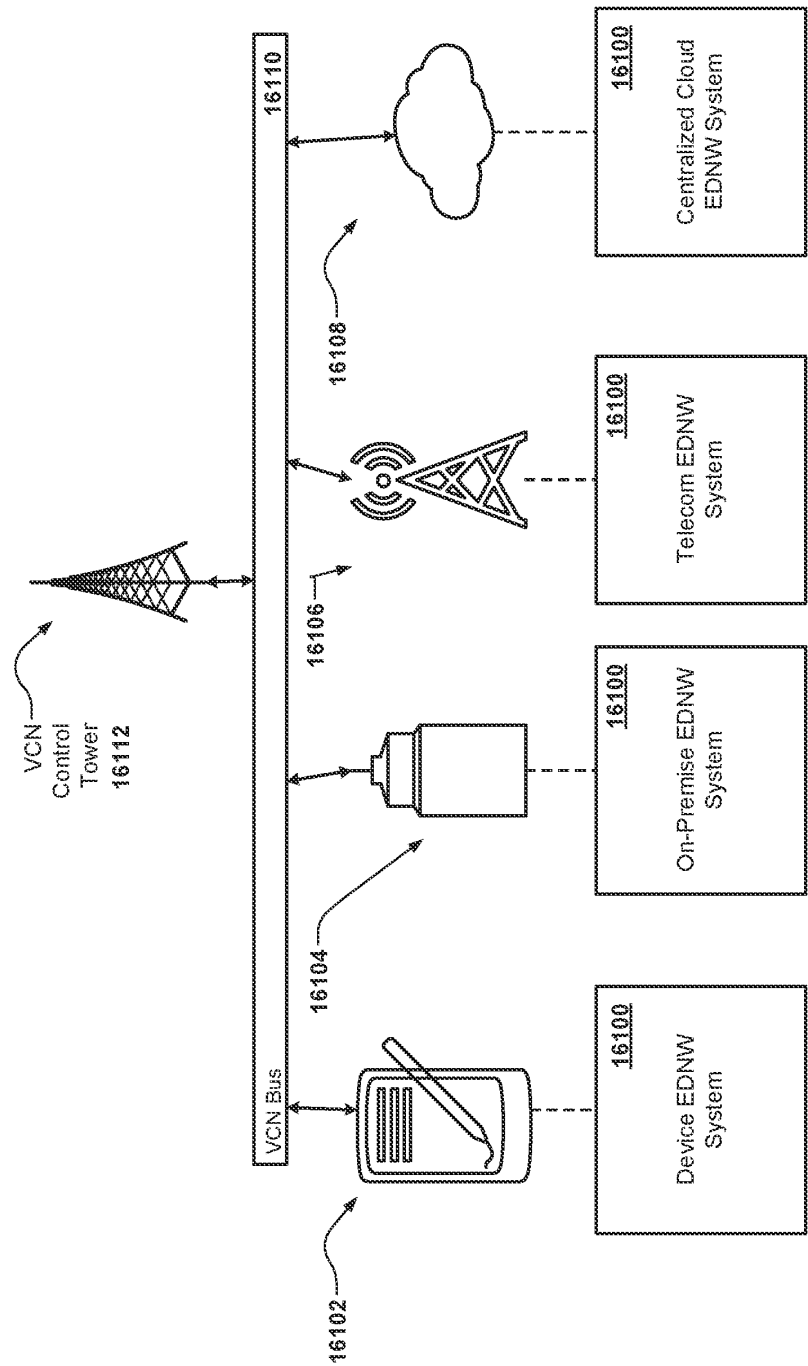


FIG. 157

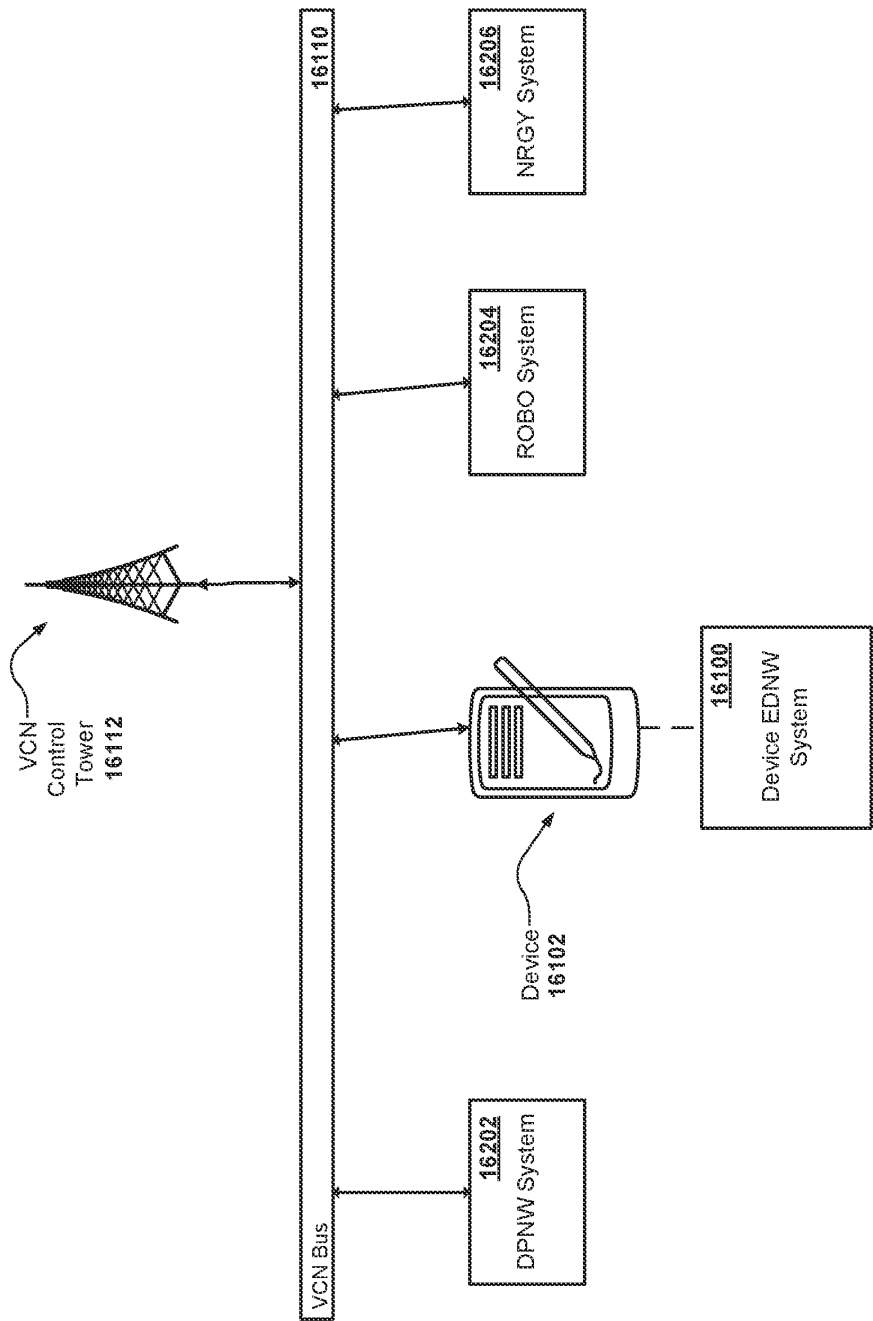


FIG. 158

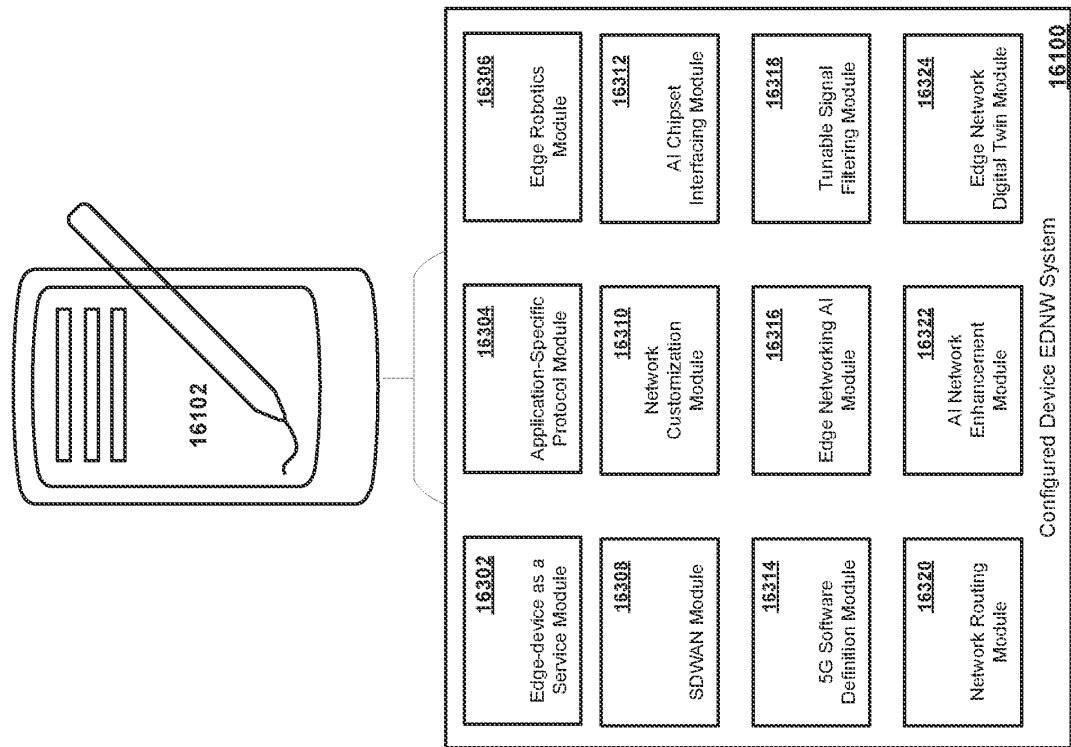


FIG. 159

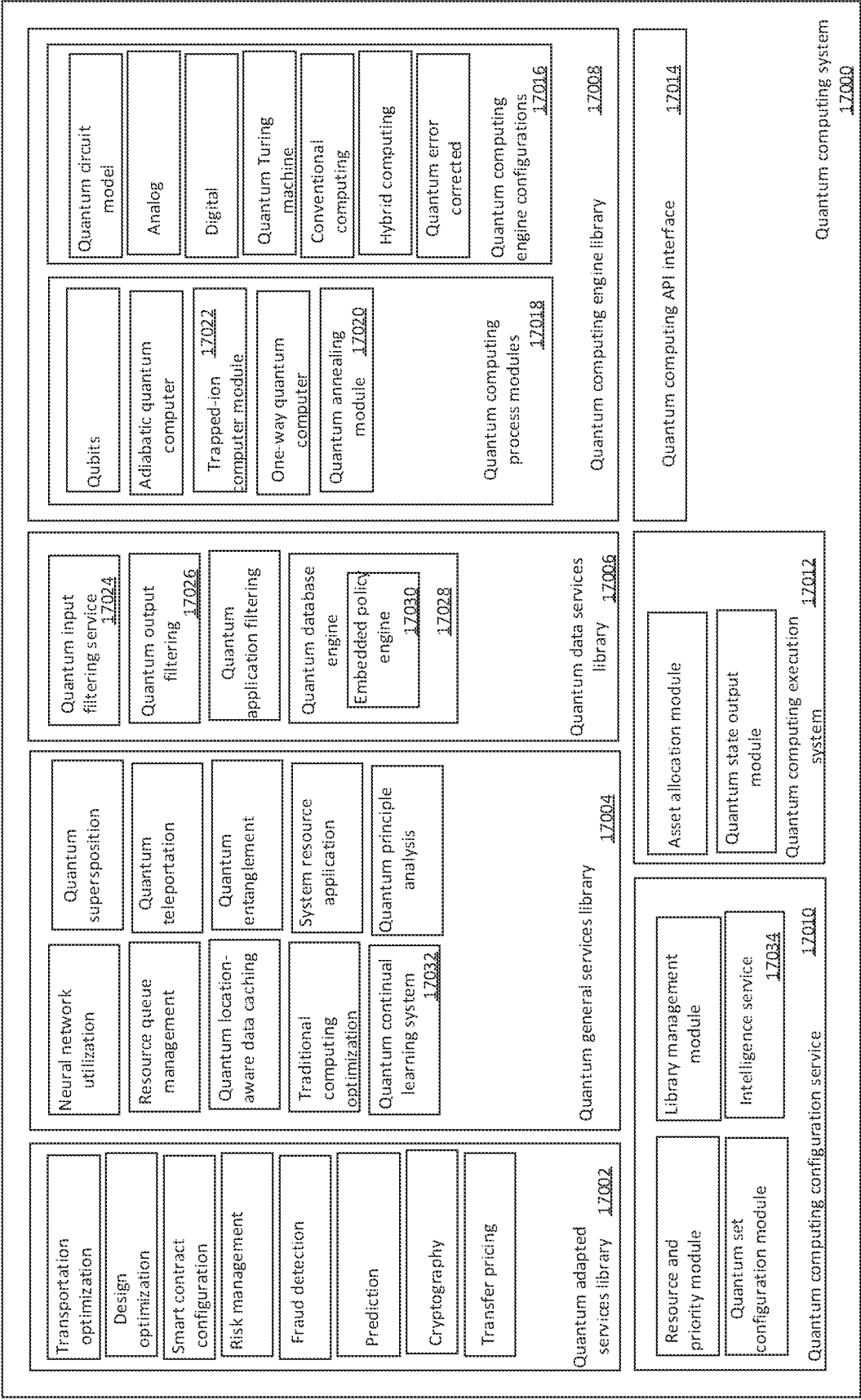
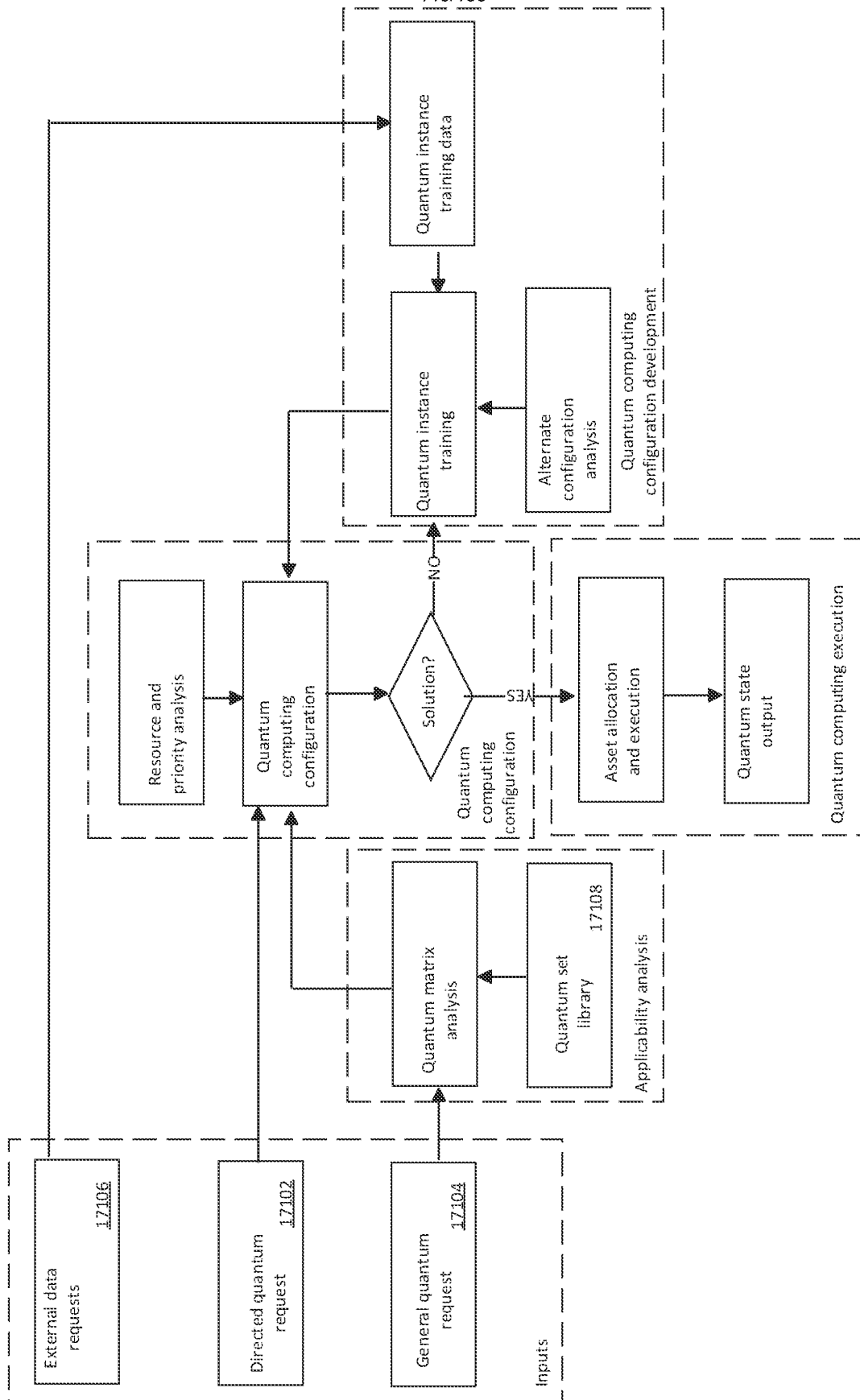


FIG. 160



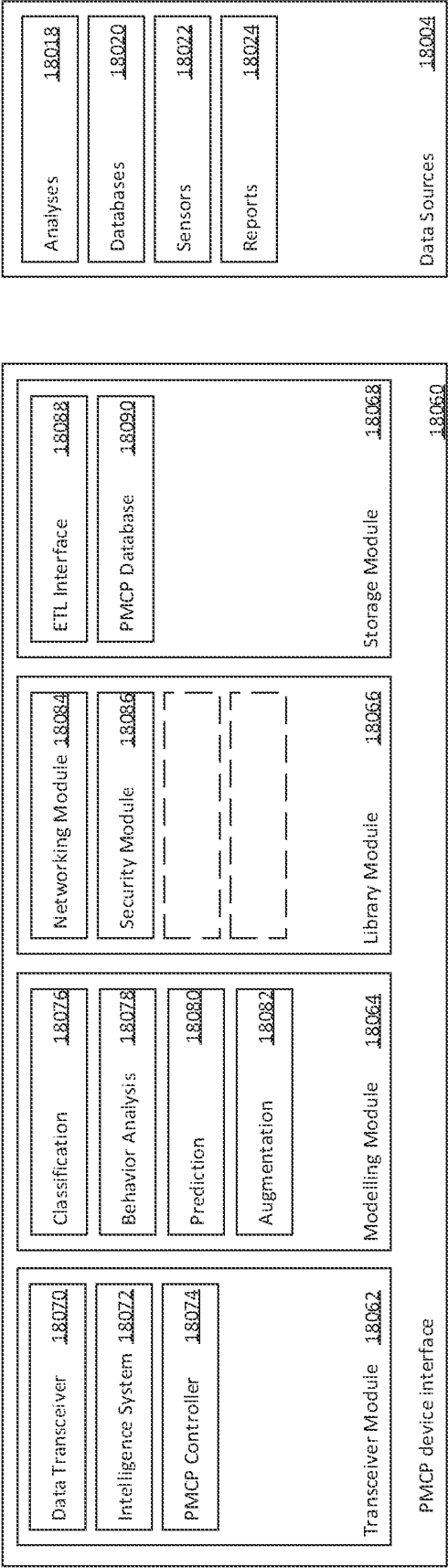
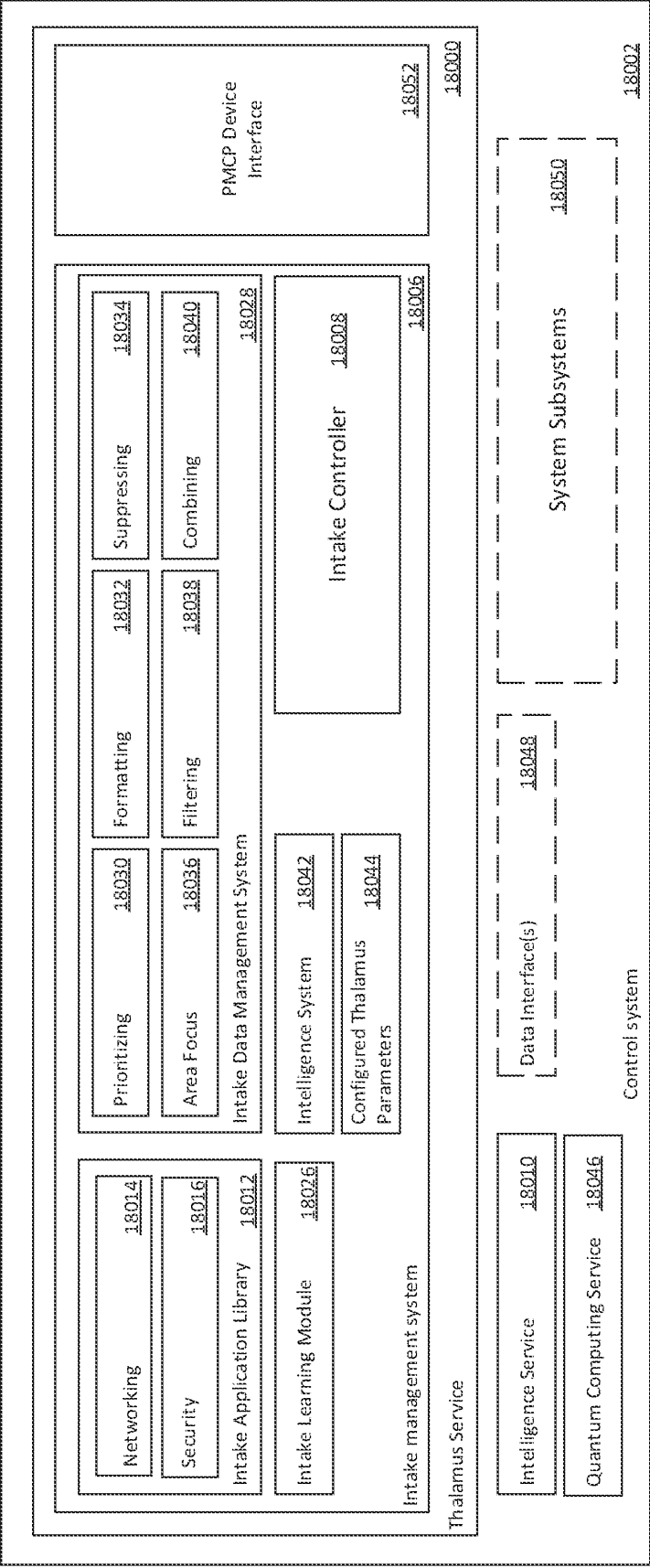


FIG. 162

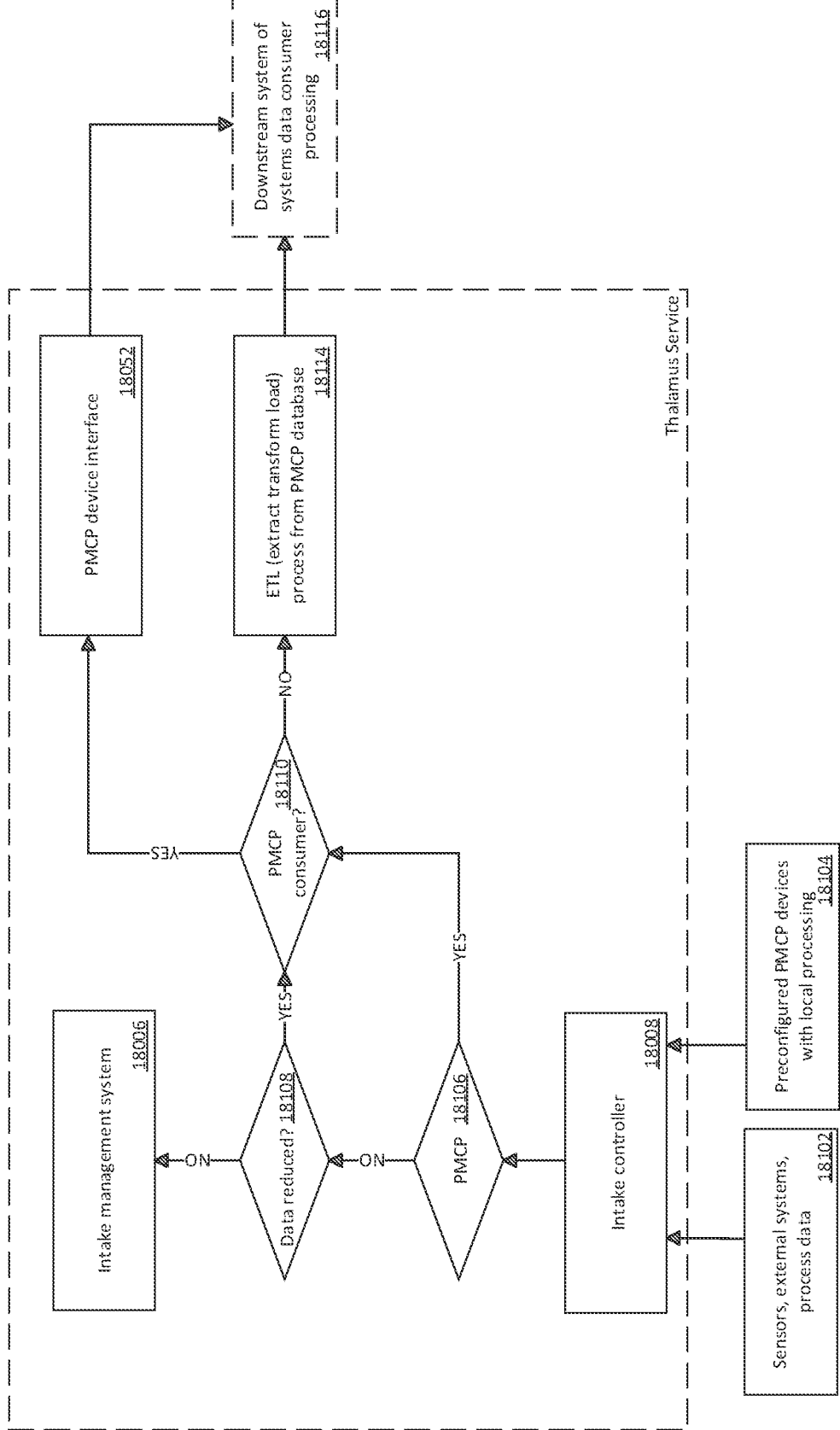


FIG. 163

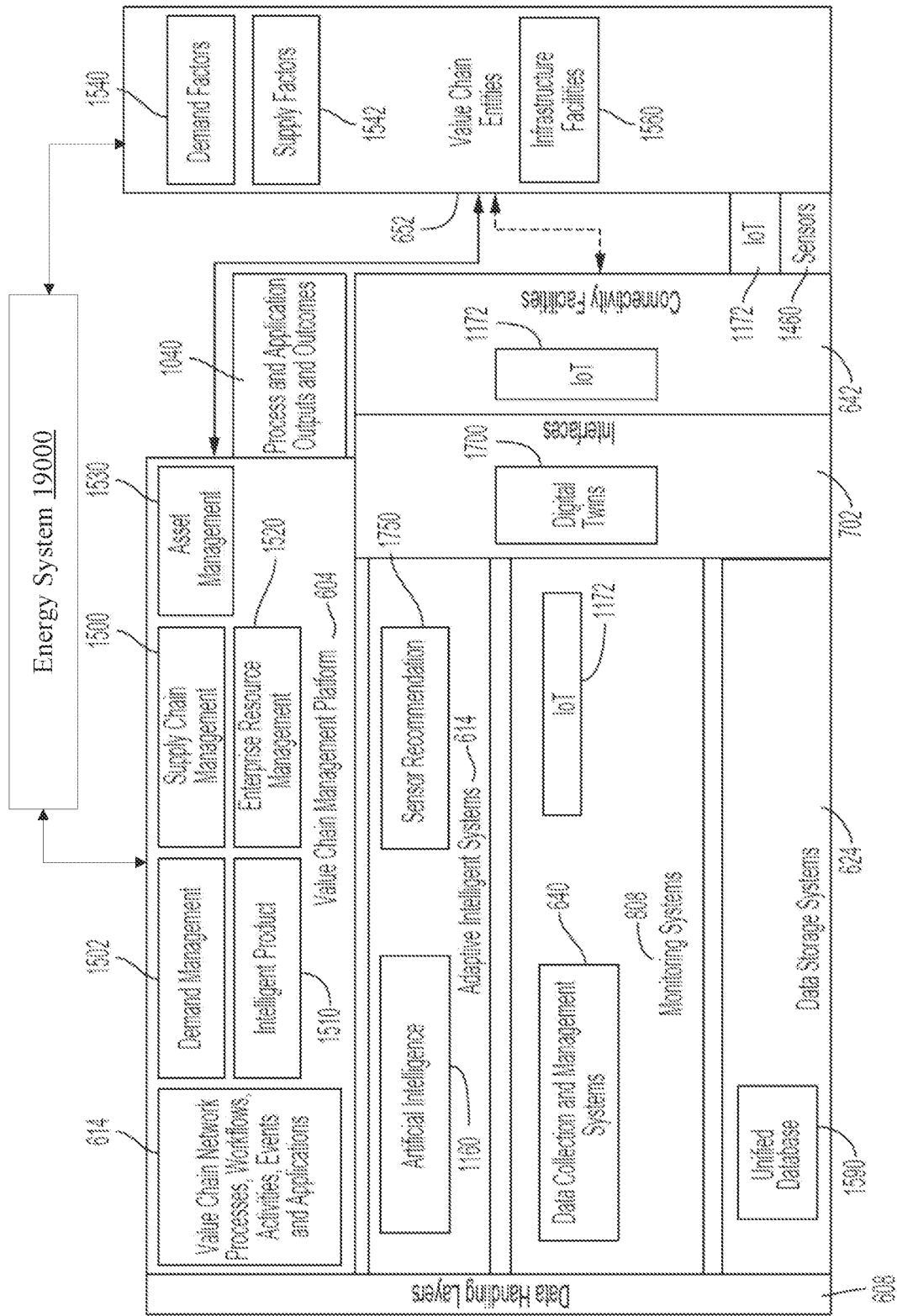


FIG. 164

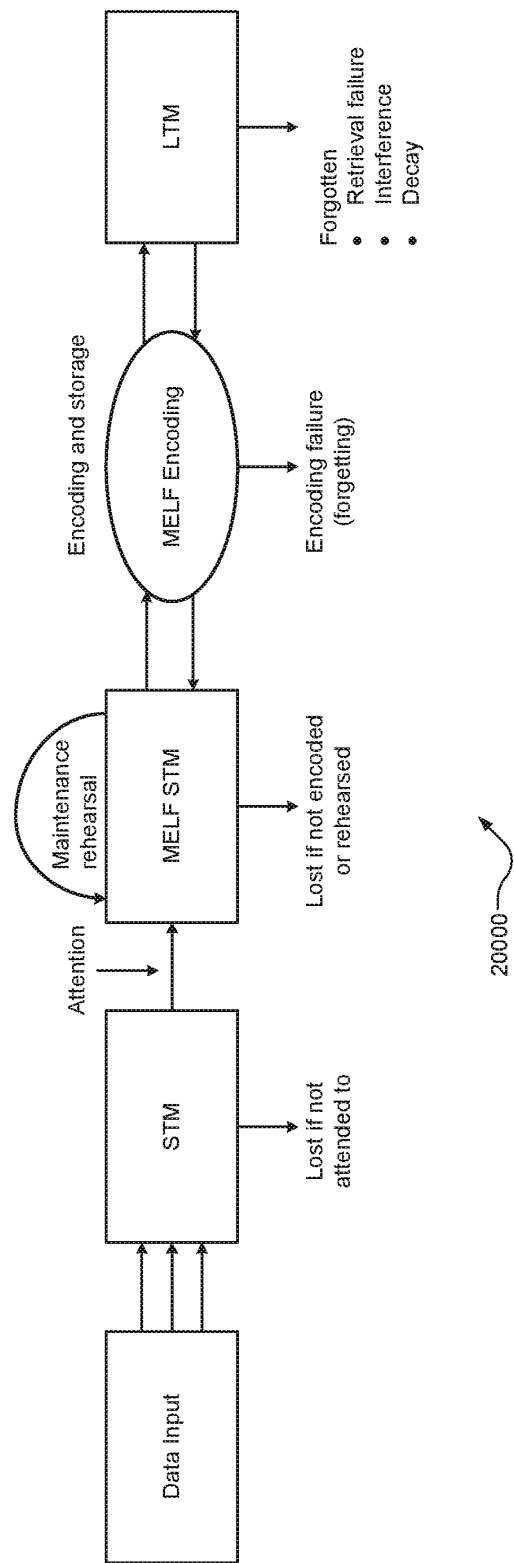


FIG. 165

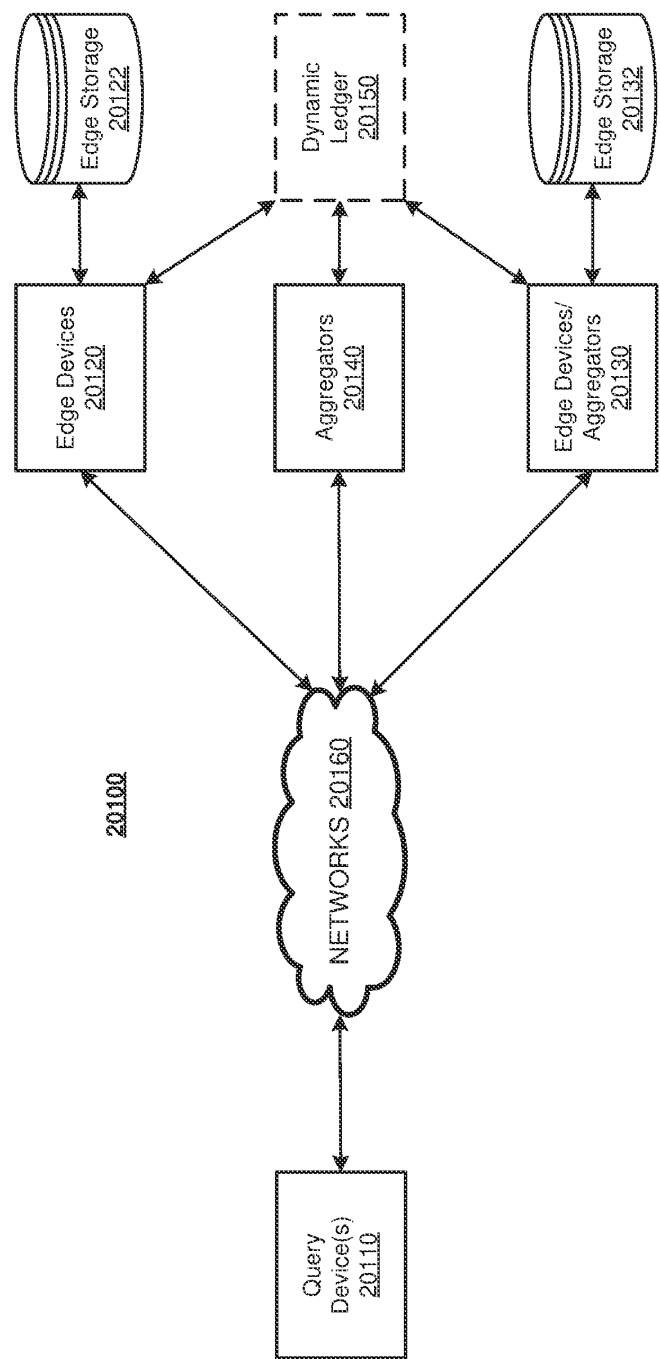


FIG. 166A

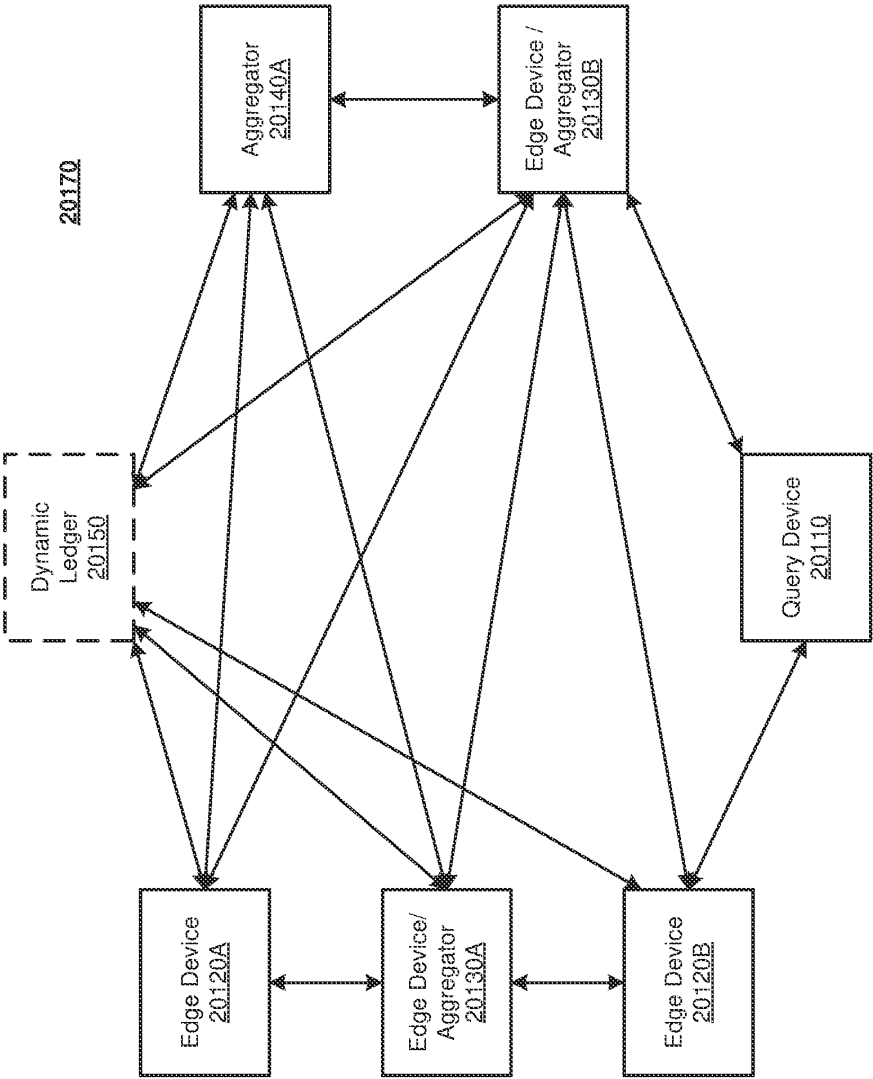


FIG. 166B

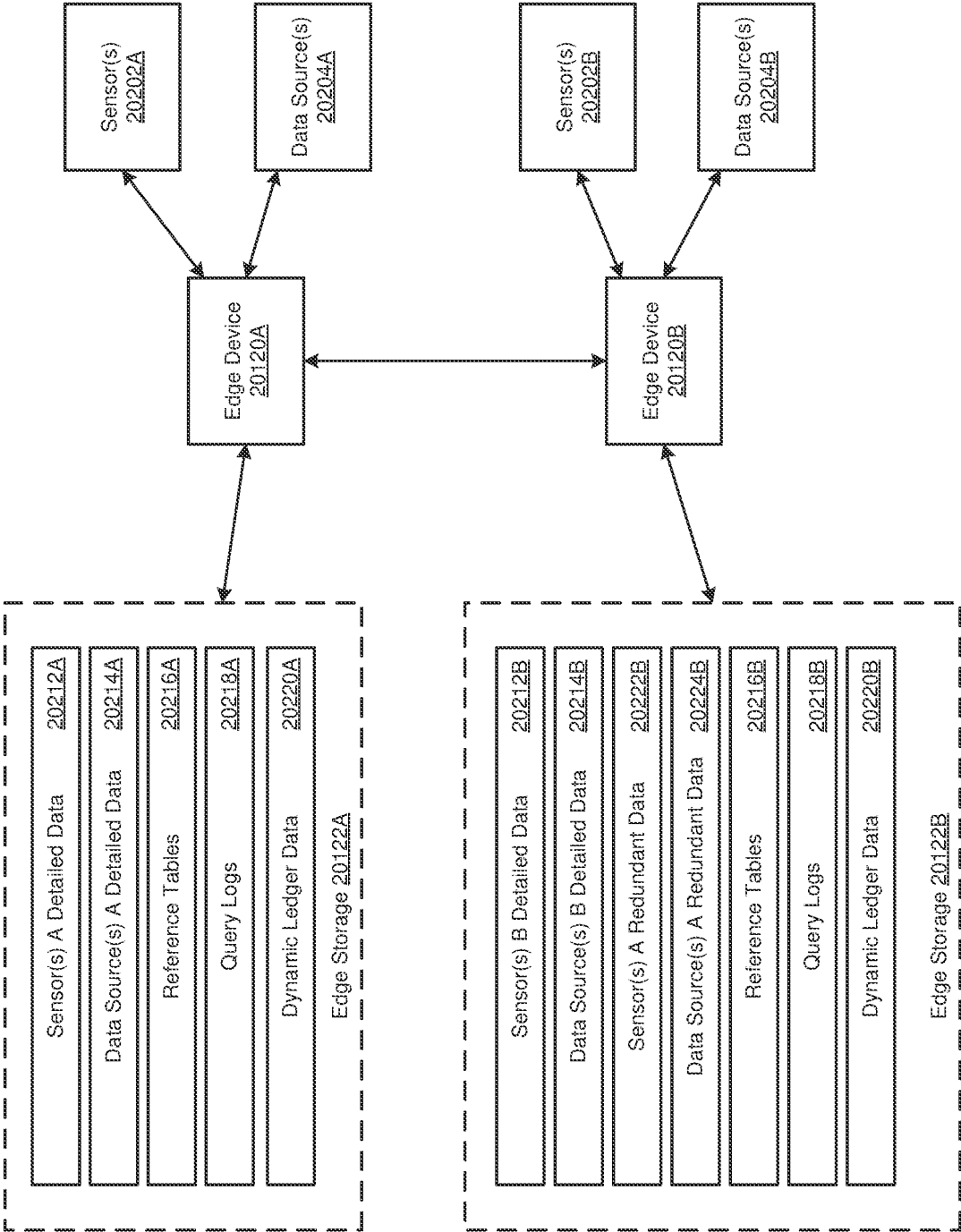


FIG. 167A

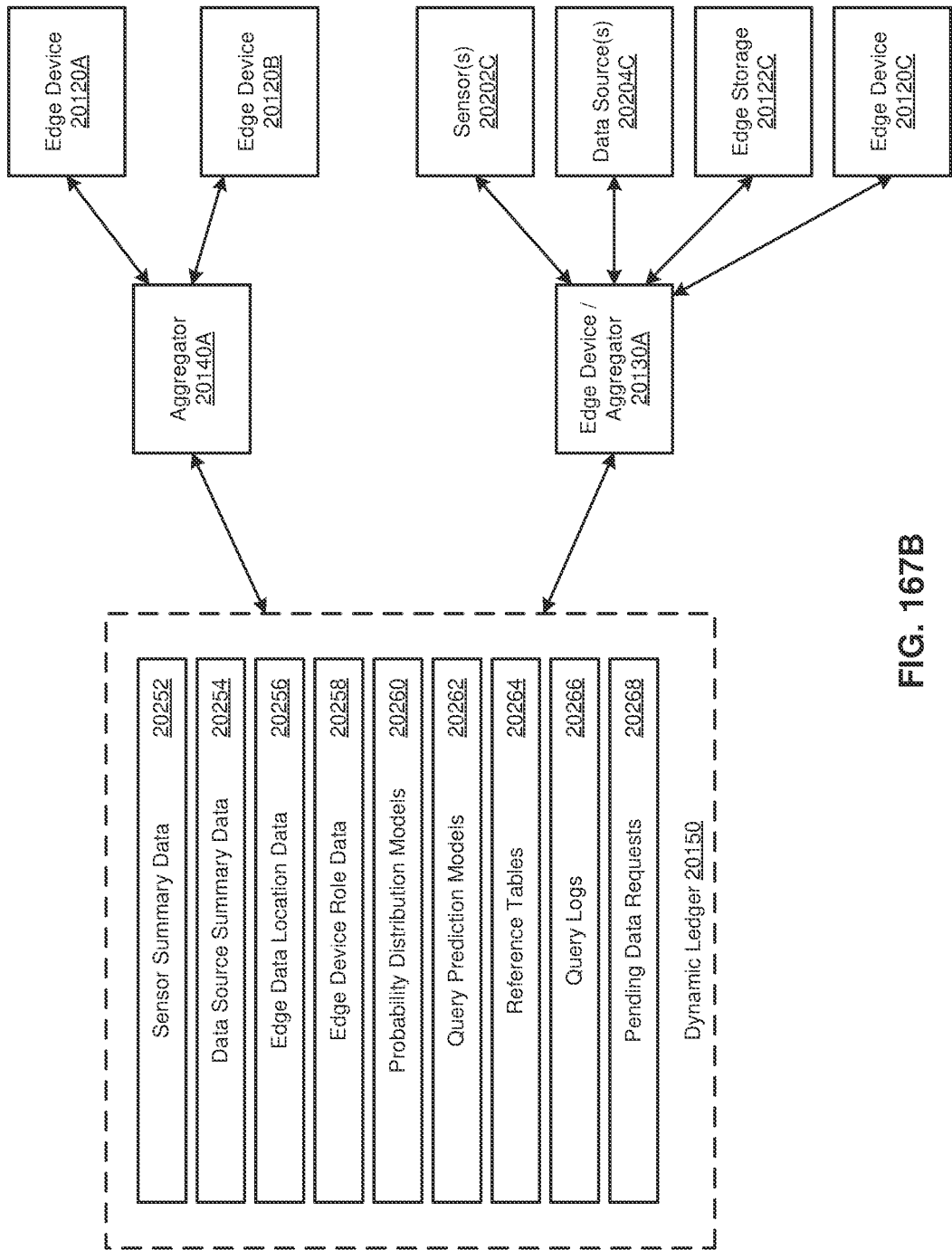


FIG. 167B

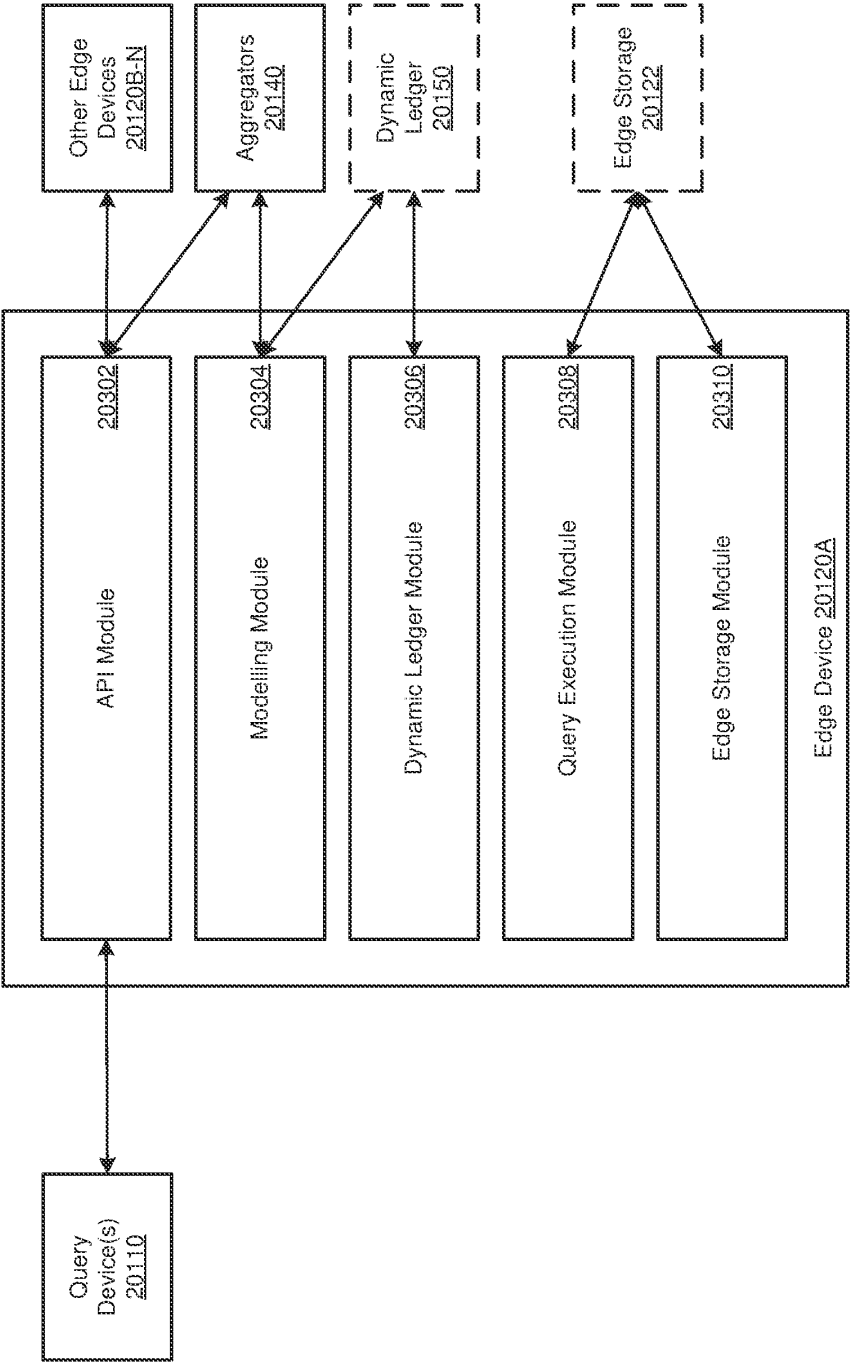


FIG. 168A

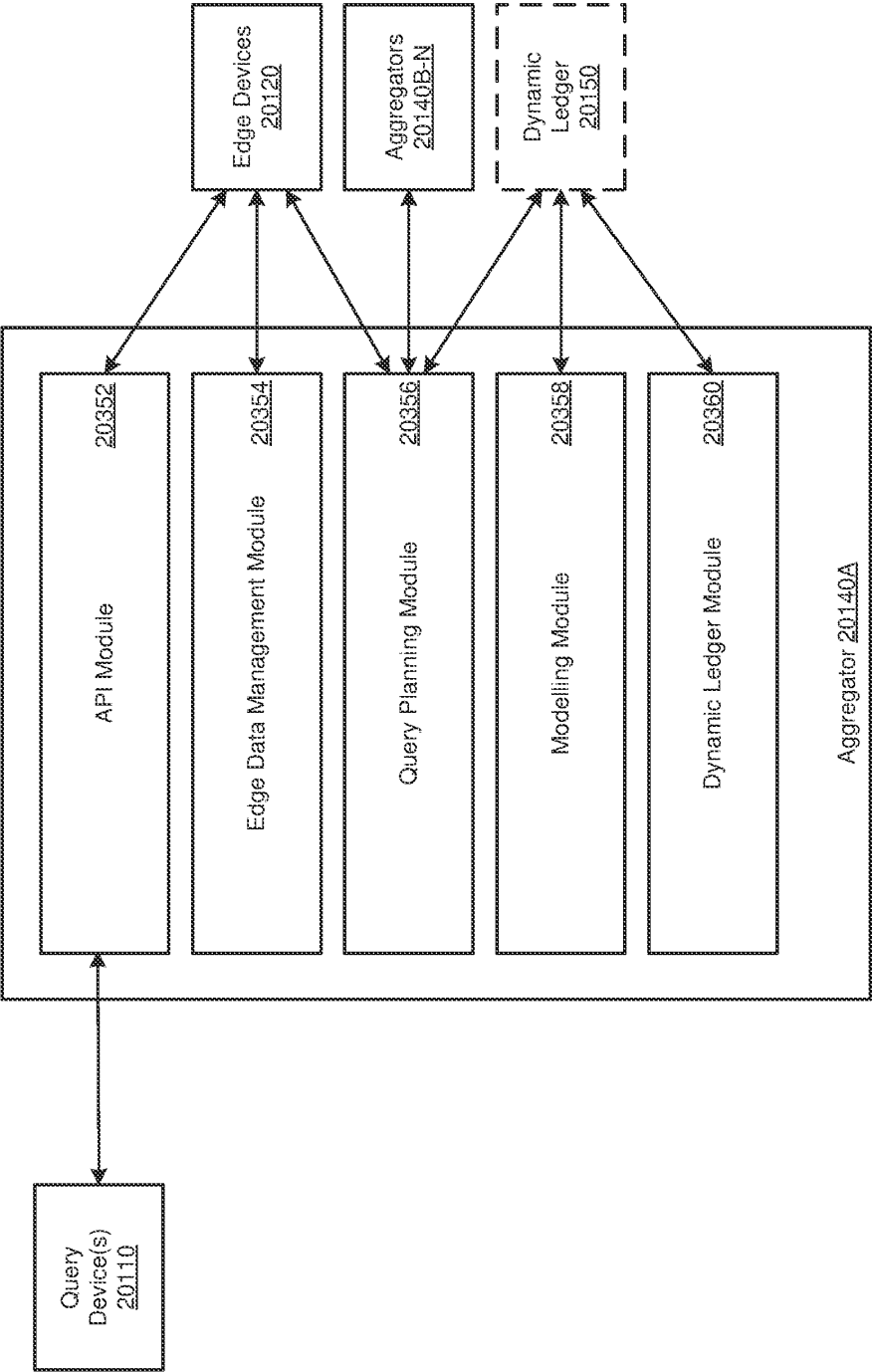


FIG. 168B

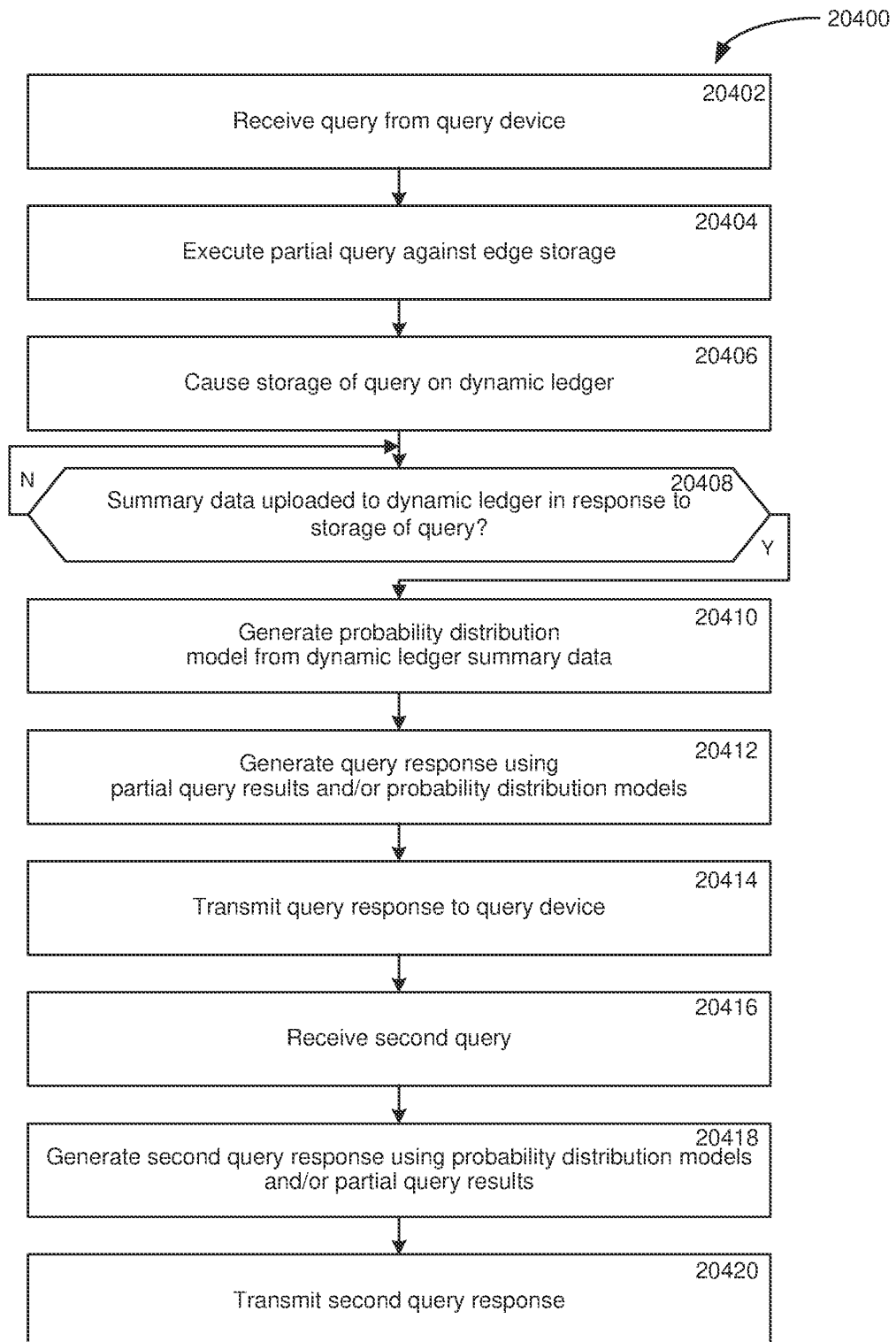


FIG. 169A

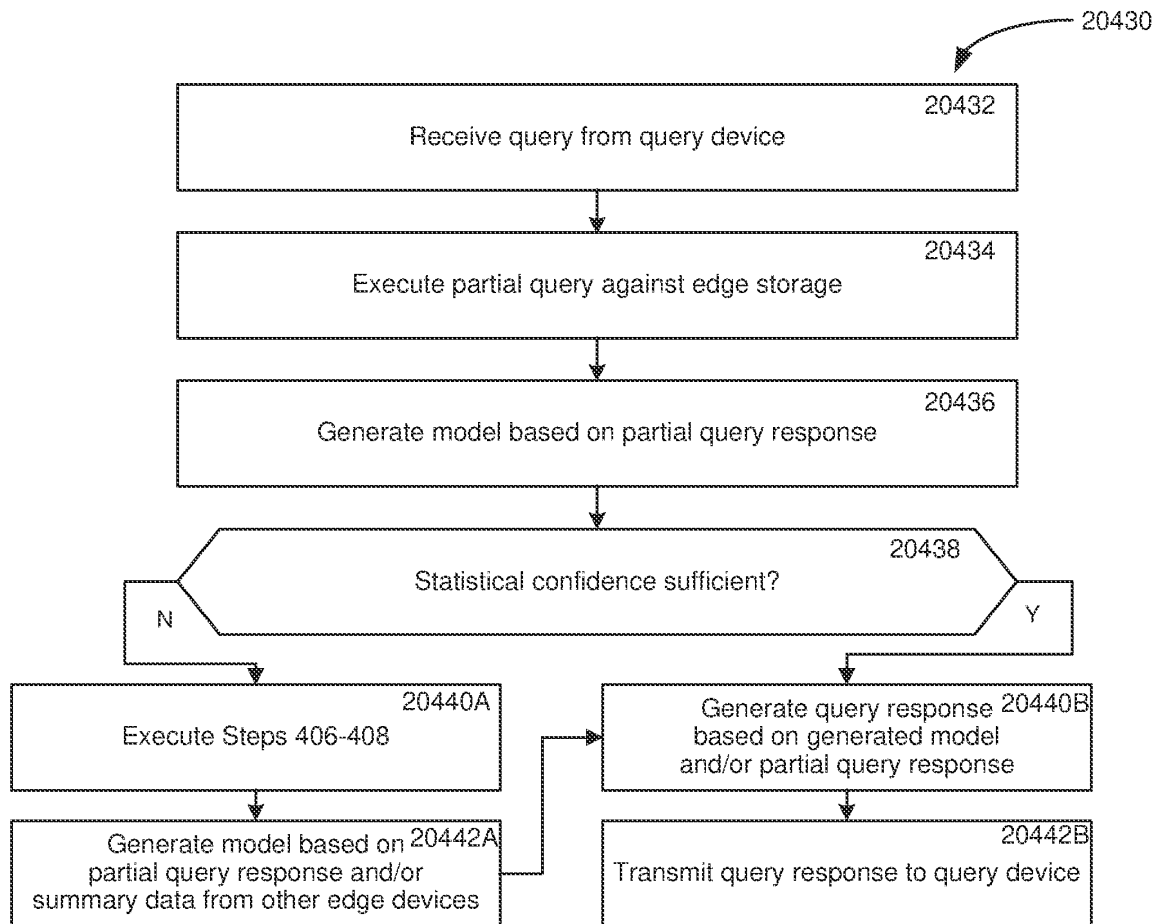


FIG. 169B

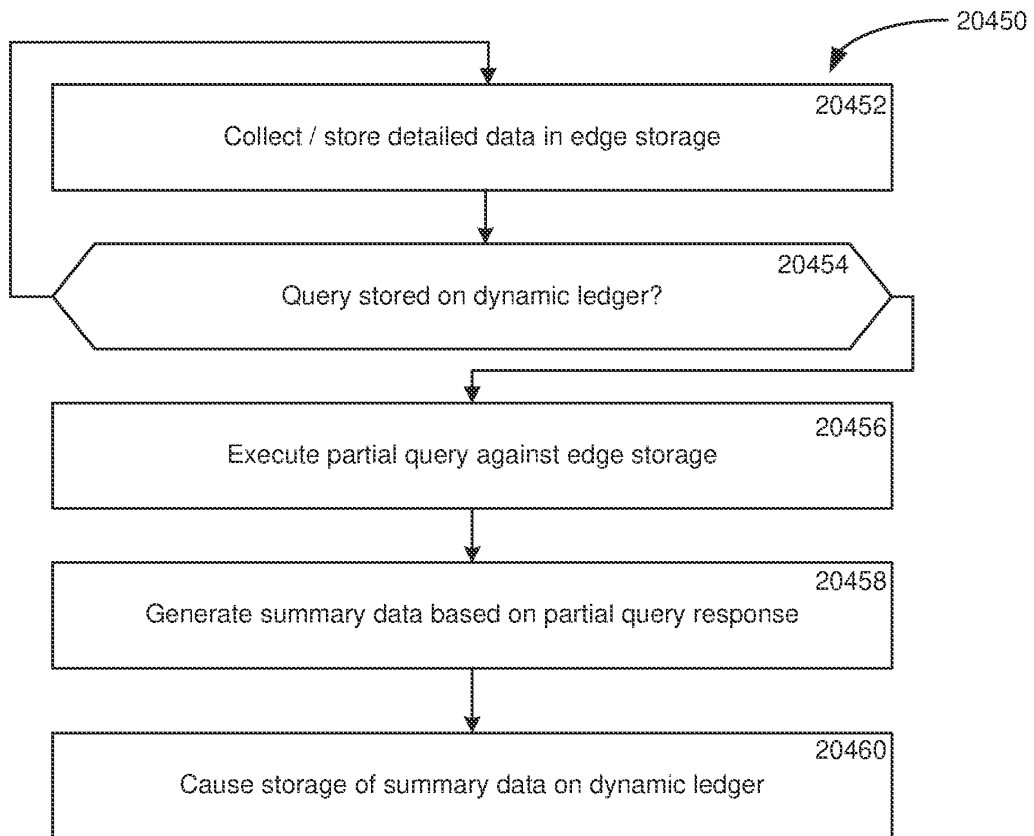


FIG. 169C

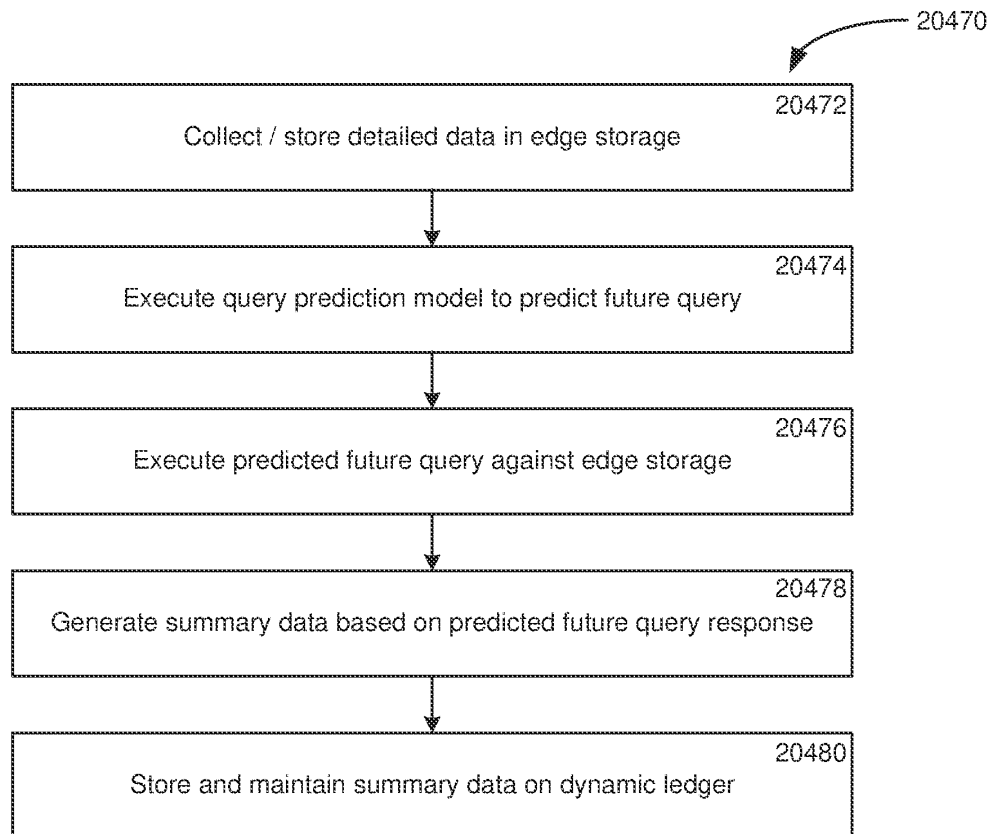
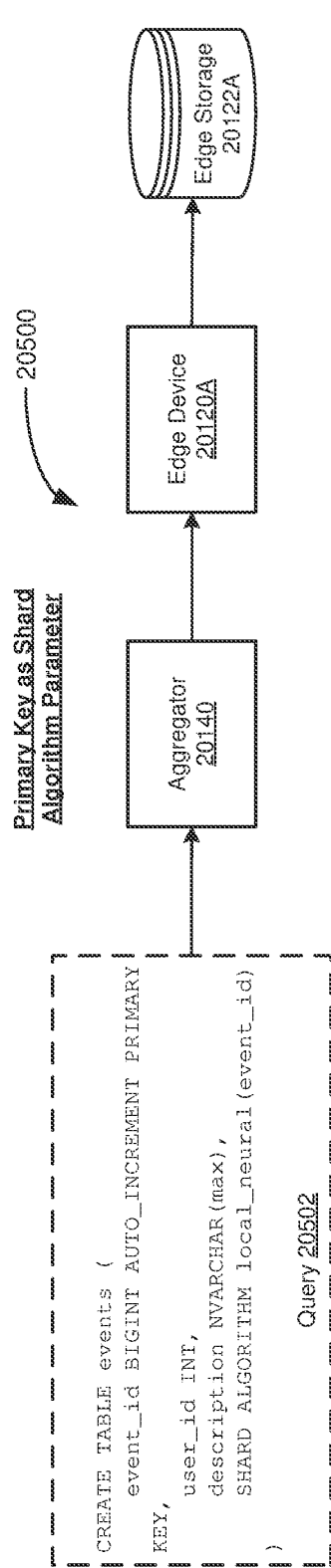


FIG. 169D



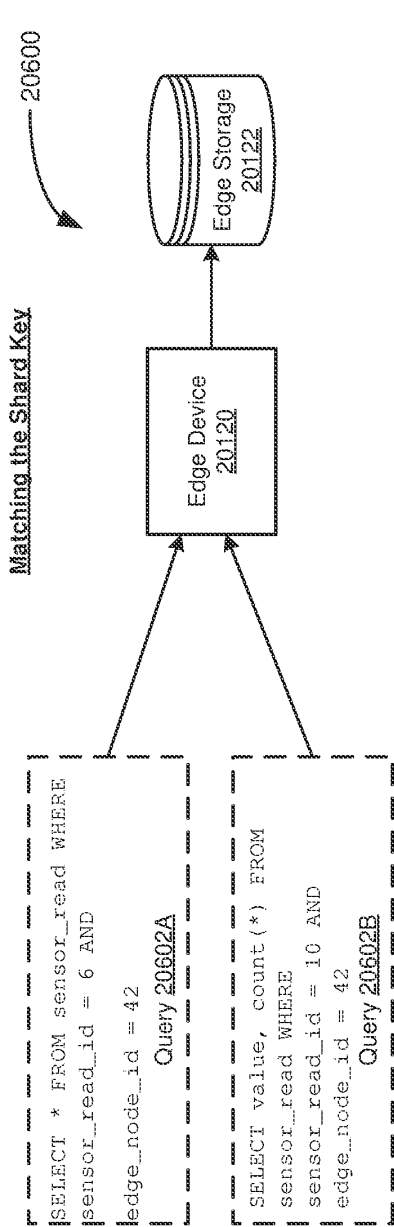


FIG. 171A

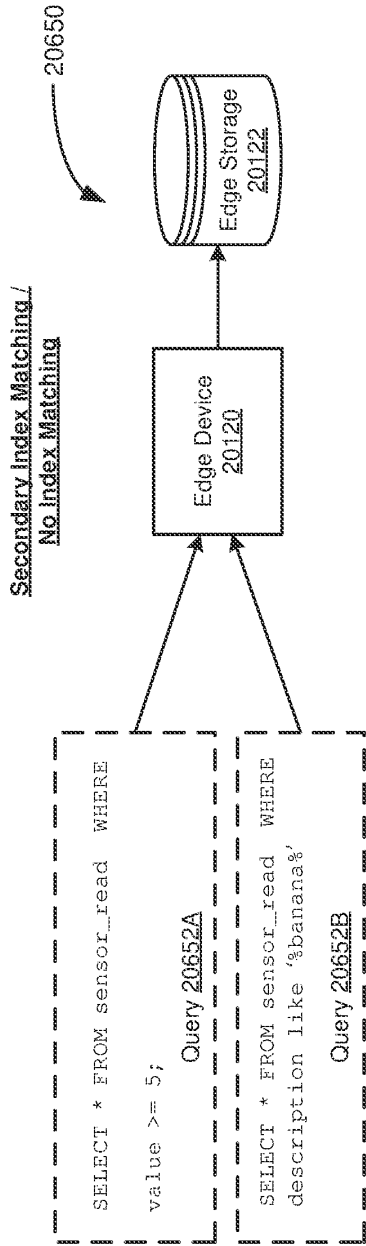


FIG. 171B

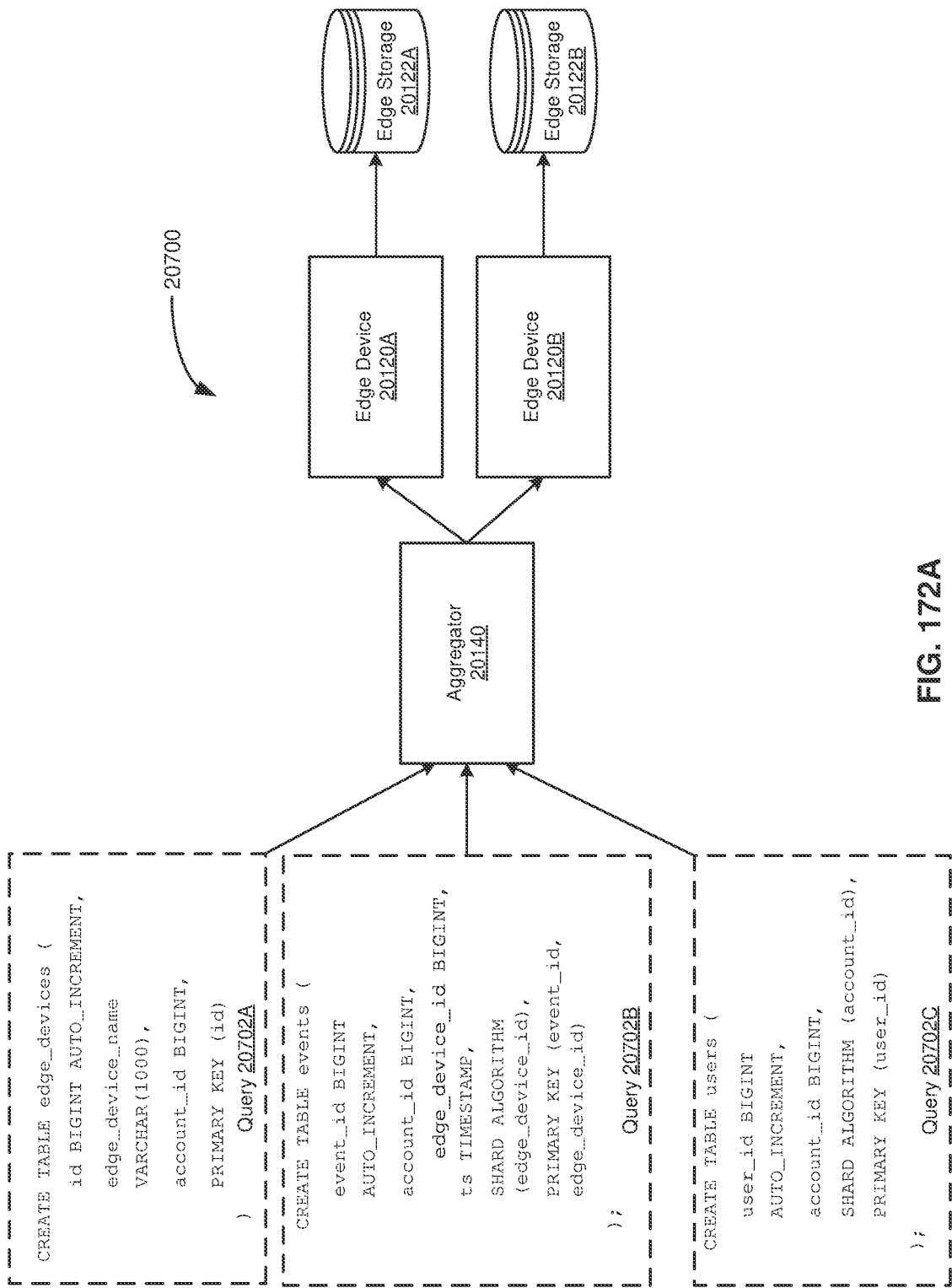


FIG. 172A

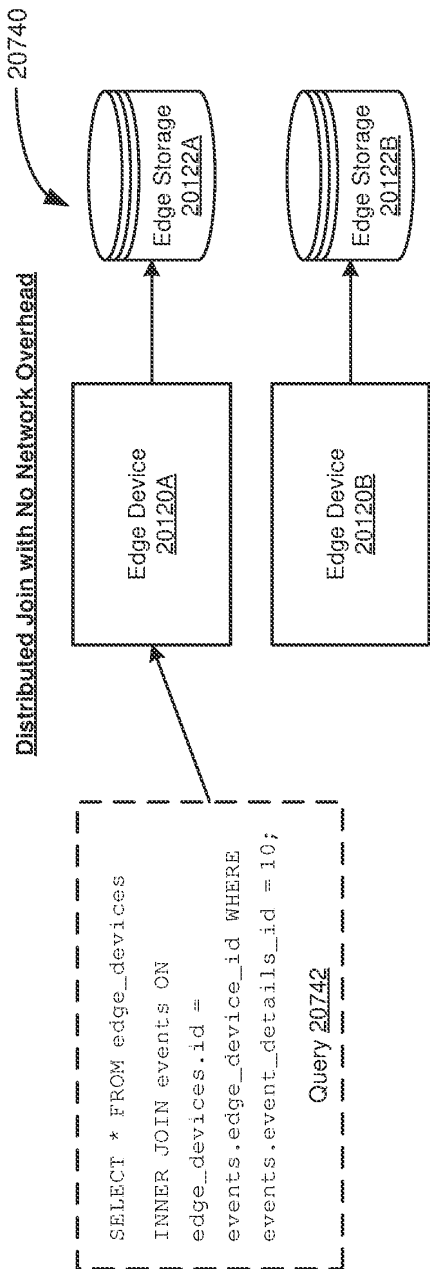


FIG. 172B

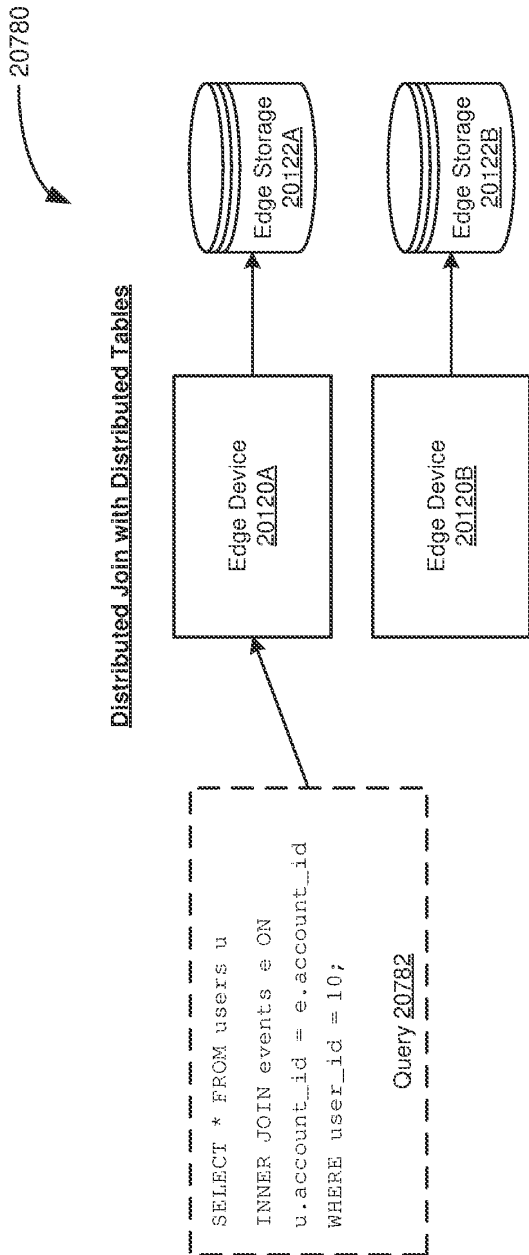


FIG. 172C