

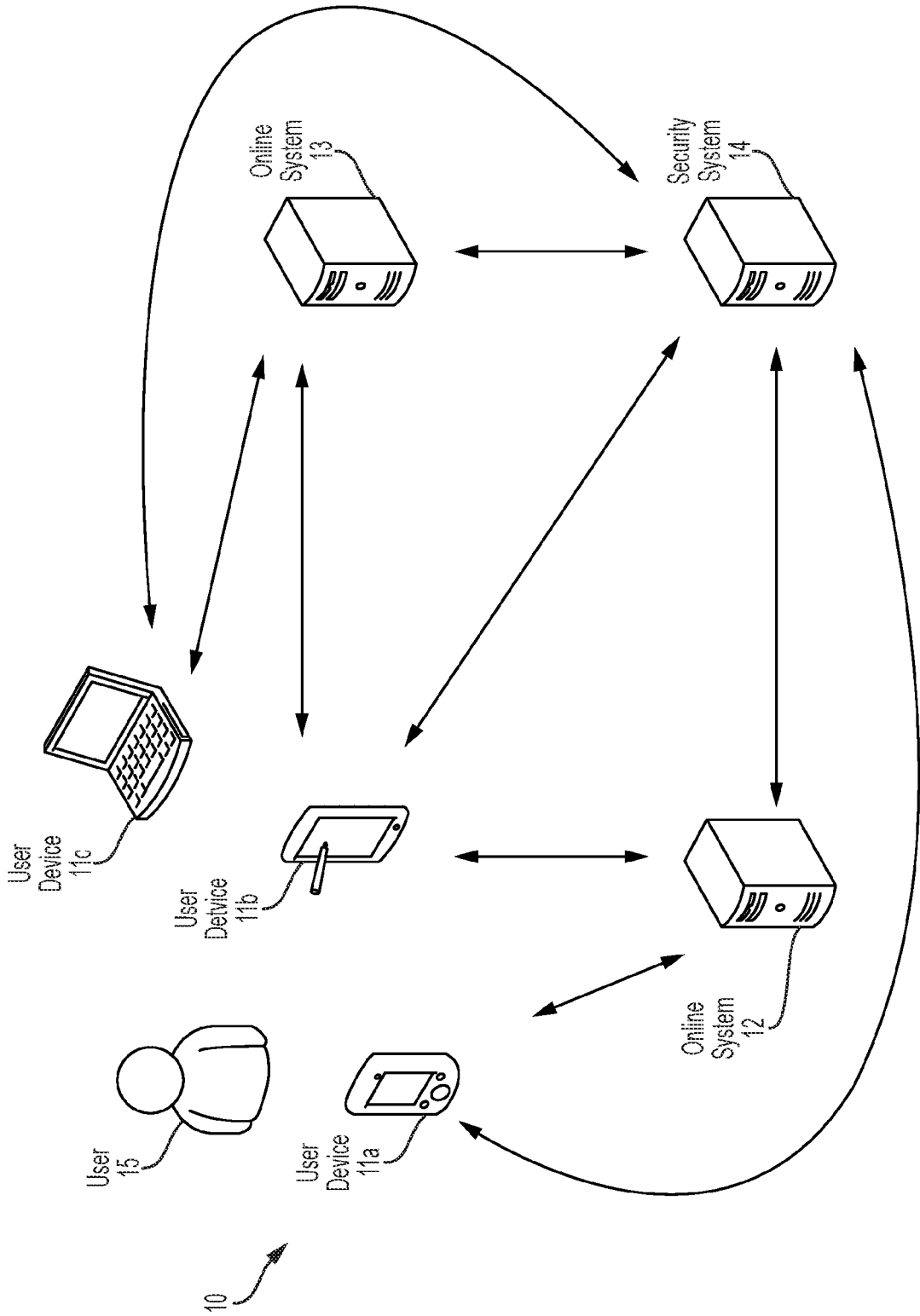


FIG. 1A

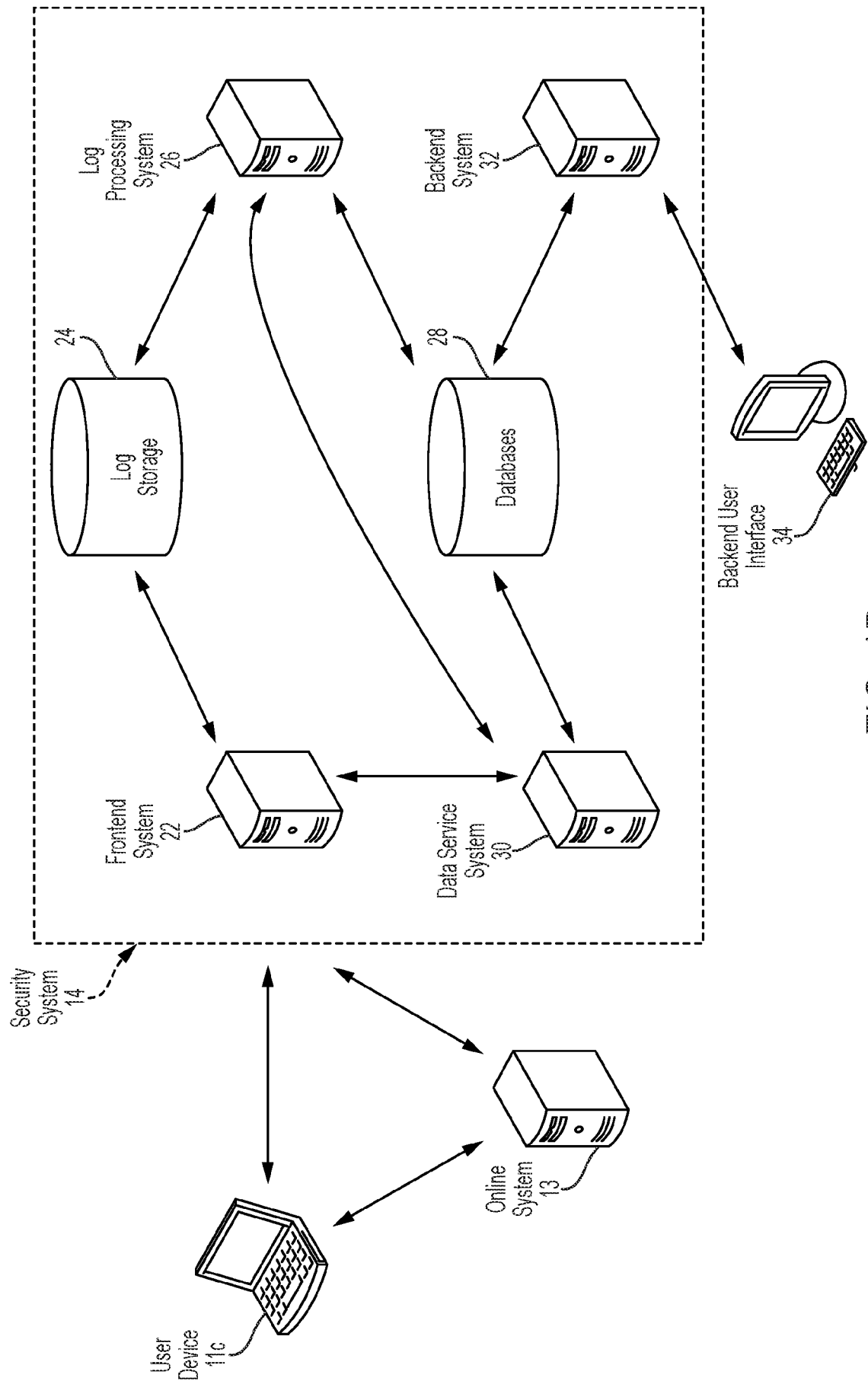


FIG. 1B

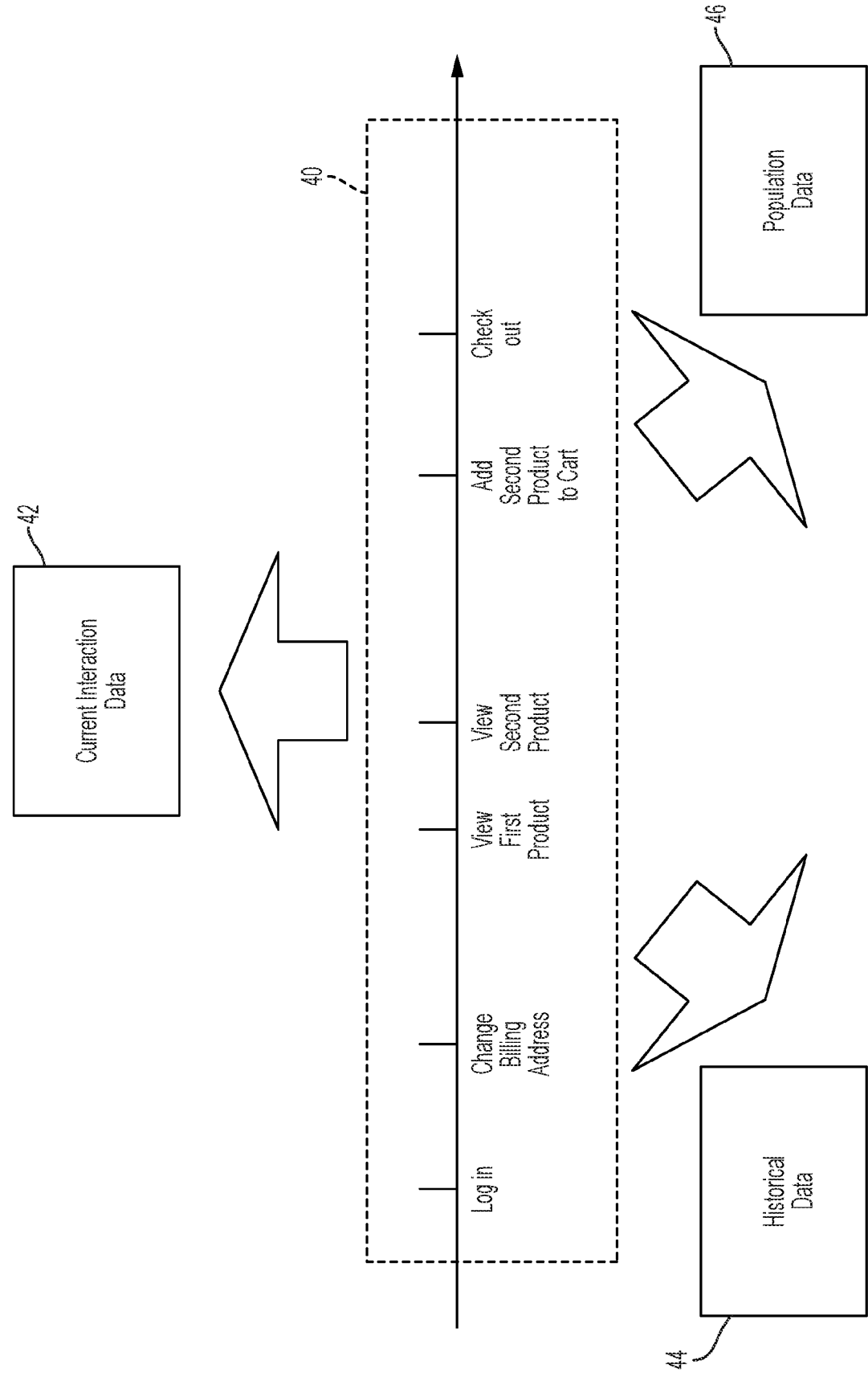


FIG. 1C

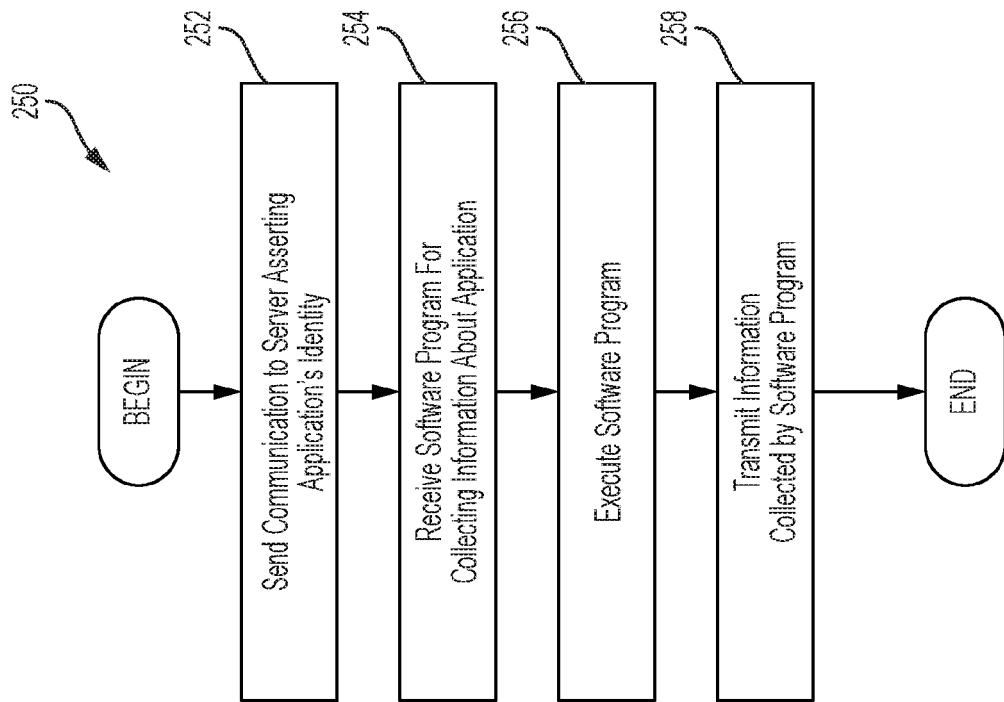


FIG. 2B

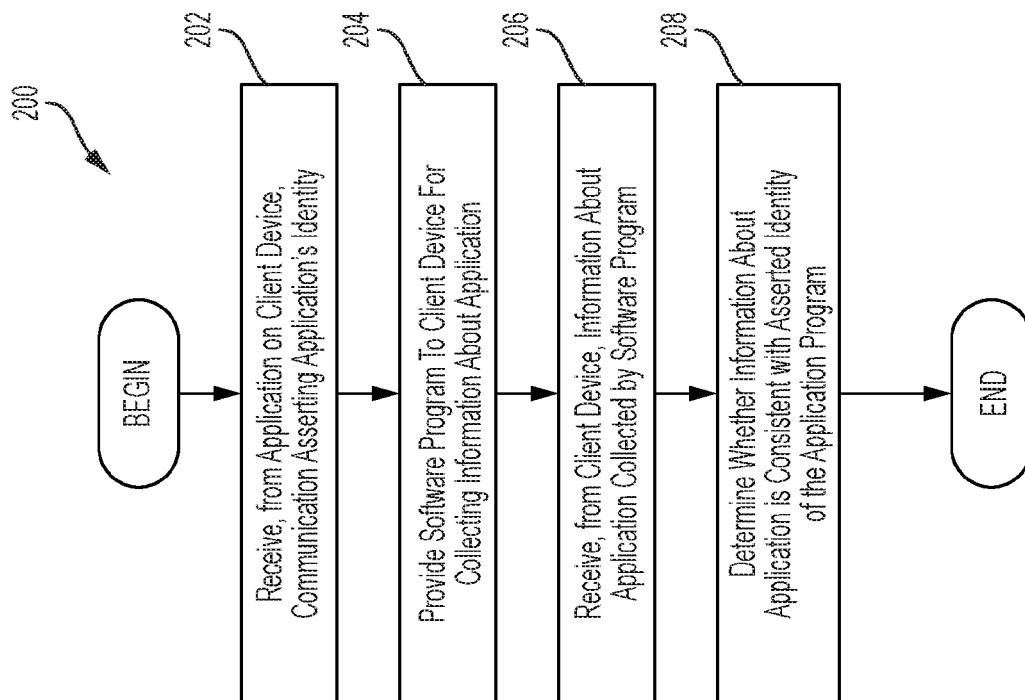


FIG. 2A

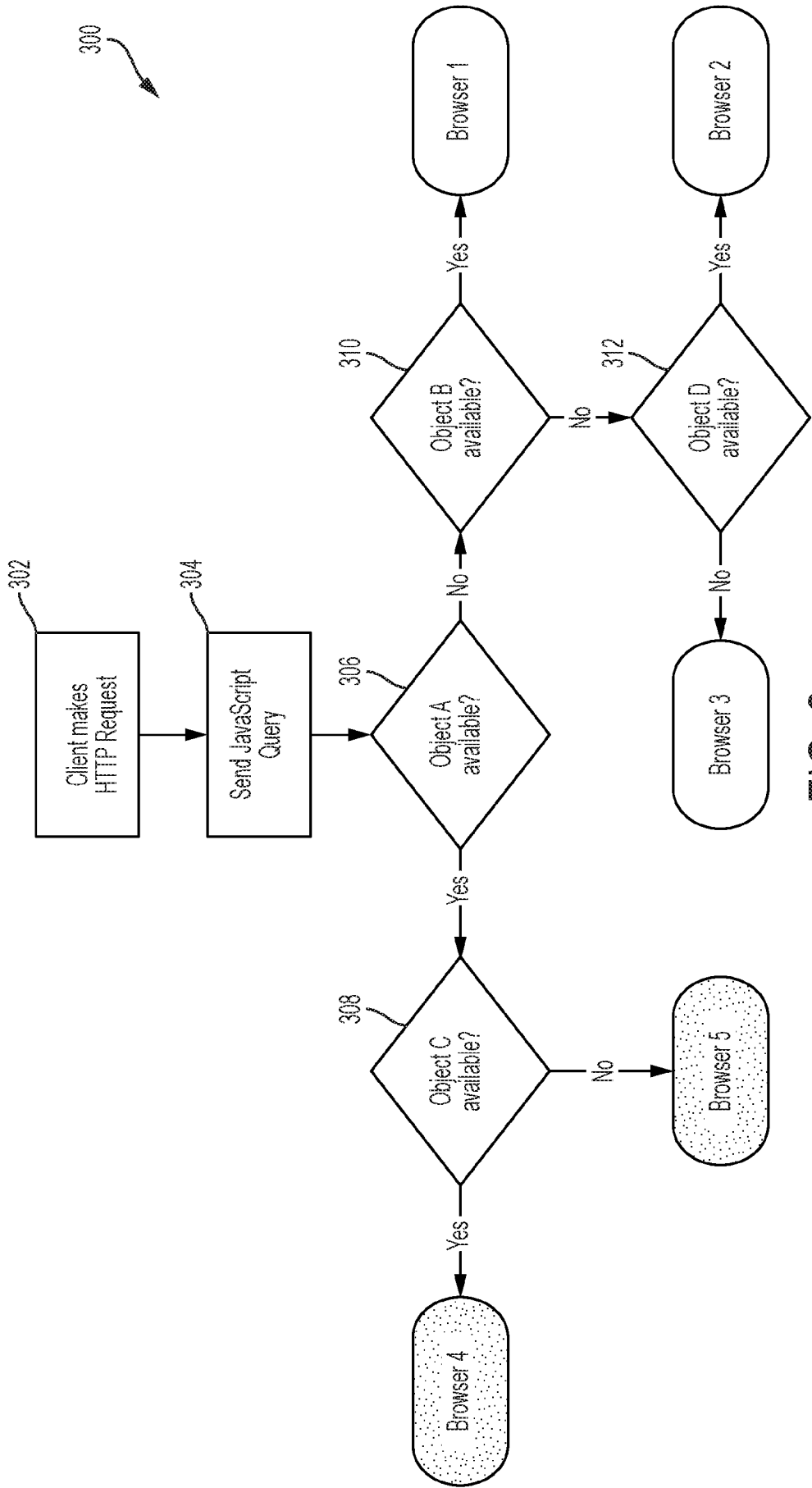
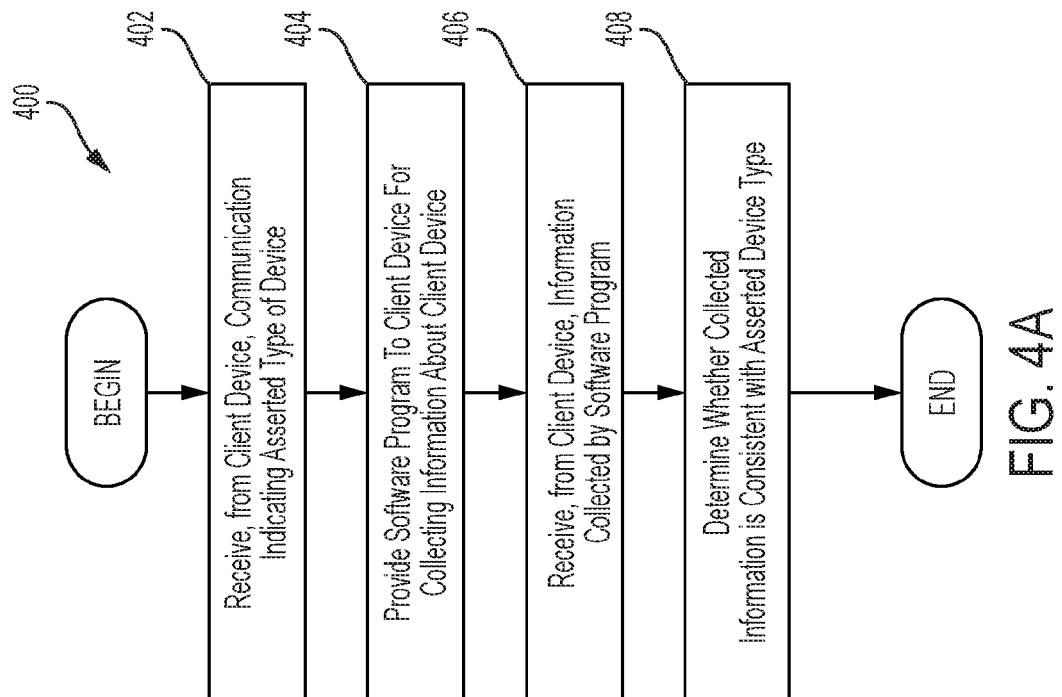
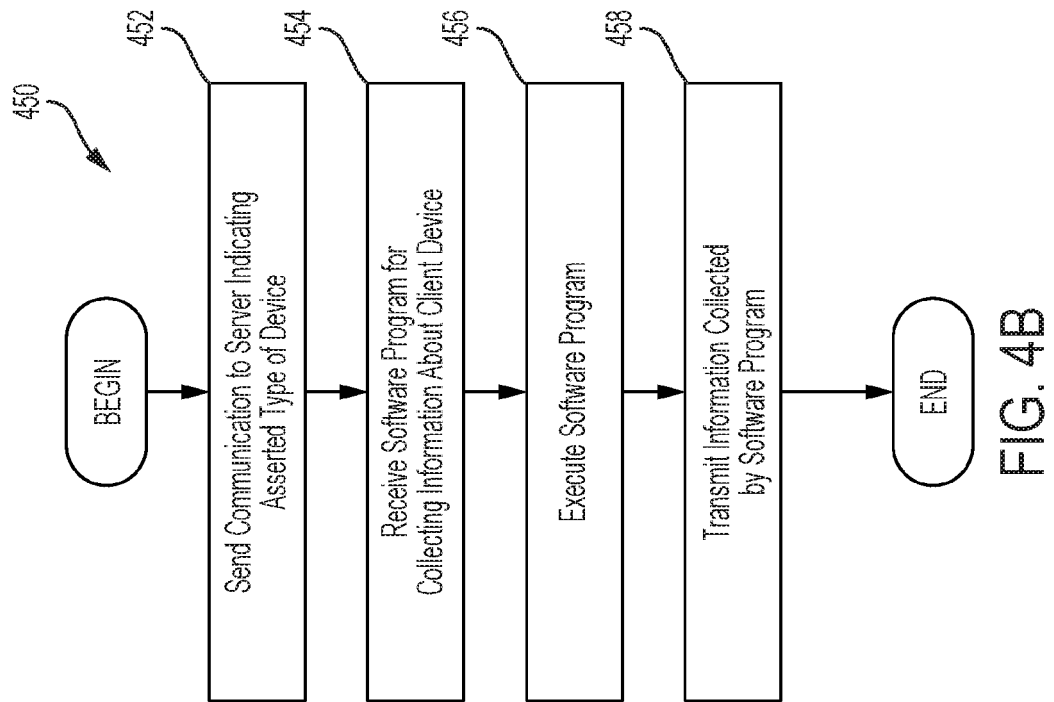


FIG. 3



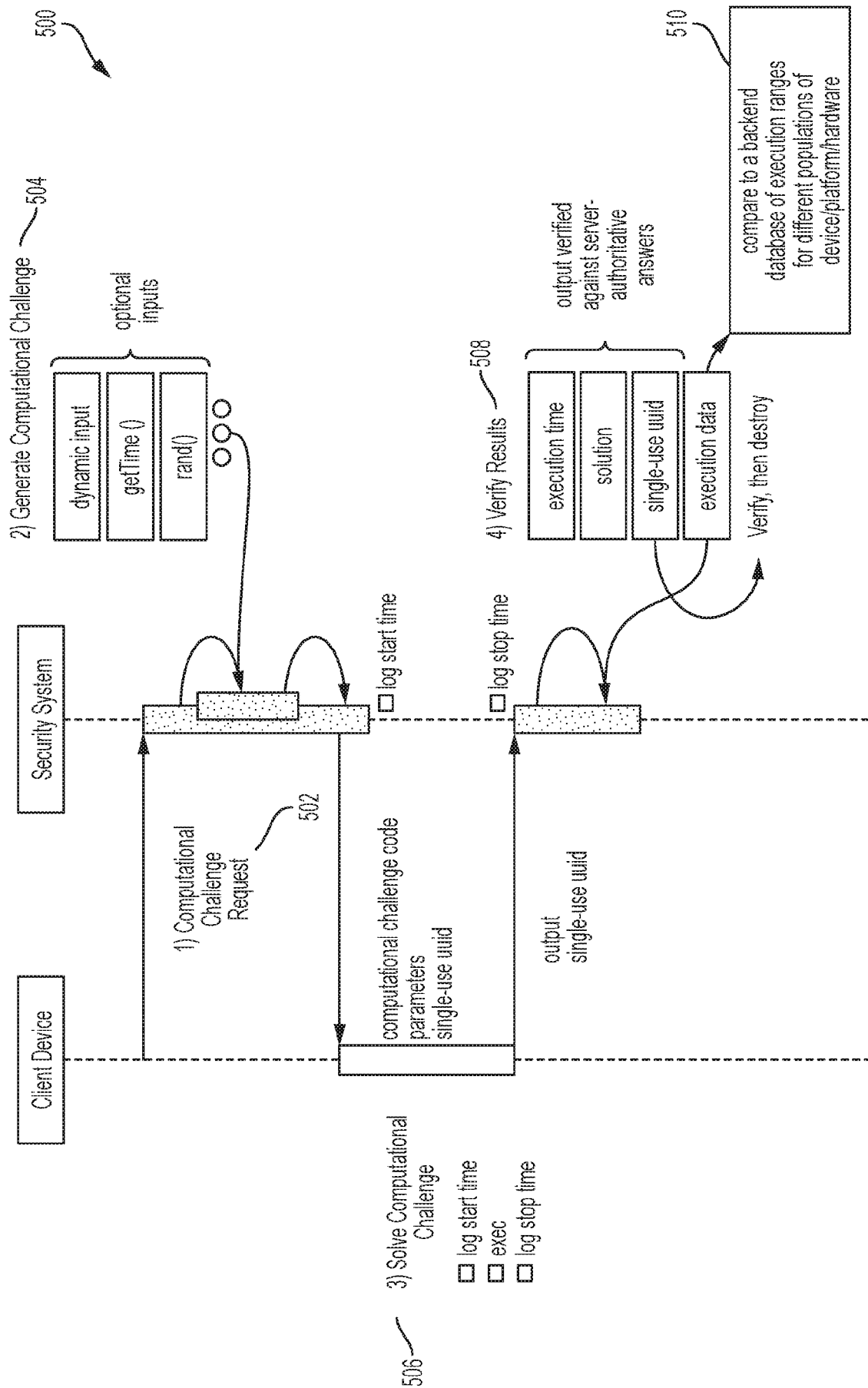


FIG. 5

Input Parameters	ID	Source Data Type	Description
Source Data	sd	Integer	The Initial value for the cumulative calculation.
Num Iterations	ni	Integer (1-32)	The number of iterations.
Function Name	fn	String	The name of function in the device execution context (JavaScript in the case of a web browser)

FIG. 6A

Output Results	ID	Source Data Type	Description
Start Time MS	st	Integer	A Unix style microtime captured from the device JavaScript immediately before the calculation started.
Result Data	sd	Integer	The result of the cumulative calculation.
End Time MS	et	Integer	A Unix style microtime captured from the device JavaScript immediately after the calculation has finished.

FIG. 6B

```

# Perform an N-squared calculation
SOURCEDATA = 27
NUMITERATIONS = 5
FUNCTIONNAME = F

BEGIN FUNCTION F(SOURCEDATA, ITERATIONS)
  I = 0
  FOREACH( I in ITERATIONS)
    FOREACH( J in ITERATIONS)
      FOREACH( K in 1000 )
        I = I + 1
        R = SQUAREROOT(INTMAX-I)
        IF( SOURCEDATA > R ) # prevent overflow
          SOURCEDATA = R
        SOURCEDATA *= SOURCEDATA
      RETURN SOURCEDATA
    END FUNCTION F

RESULT = NEW ARRAY[]
RESULT += MICROTIME() # Add start time
RESULT += FUNCTIONNAME(SOURCEDATA, NUMITERATIONS) # Add result
RESULT += ENDTIME = MICROTIME() # Add end time

```

FIG. 6C

Input Parameters	ID	Source Data Type	Description
Source Data	sd	Integer	The initial seed for the parallel calculation.
Num Iterations	ni	Integer (1-32)	The number of iterations.
Num Threads	nt	Integer (1-32)	The number of parallel executions.

FIG. 7A

Output Results	ID	Source Data Type	Description
Start Time MS	st	Integer Array	A Unix style microtime captured from the device JavaScript immediately before the calculation started for each of the parallel executions.
Result Data	sd	Integer Array	The results for each of the calculations.
End Time MS	et	Integer Array	A Unix style microtime captured from the device JavaScript immediately, after the calculation has finished, for each of the parallel executions.

FIG. 7B

```
# Perform an N-squared calculation
SOURCEDATA = 27
NUMITERATIONS = 5
FUNCTIONNAME = F

BEGIN FUNCTION F(SOURCEDATA, ITERATIONS)
  STARTTIME = MICROTIME()
  I = 0
  FOREACH( I in ITERATIONS)
    FOREACH( J in ITERATIONS)
      FOREACH( K in 1000 )
        I = I + 1
        R = SQUAREROOT(INTMAX-I)
        IF( SOURCEDATA > R ) # prevent overflow
          SOURCEDATA = R
        SOURCEDATA *= SOURCEDATA
      ENDTIME = MICROTIME()
      RETURN NEW ARRAY[] (STARTTIME, SOURCEDATA, ENDTIME)
    END FUNCTION F
  NUMTHREADS = 8
  WORKERS = NEW ARRAY[]
  FOREACH( T in NUMTHREADS )
    W = NEW WORKER(F)
    W.STARTWORK()
    WORKERS[] = W

  RESULTDATA = NEW ARRAY[]
  FOREACH( W in WORKERS )
    RESULTDATA += W.GETWORKRESULT()

  RESULT += MICROTIME() # Add start time
  RESULT += FUNCTIONNAME(SOURCEDATA, NUMITERATIONS) # Add result
  RESULT += ENDTIME = MICROTIME() # Add end time
```

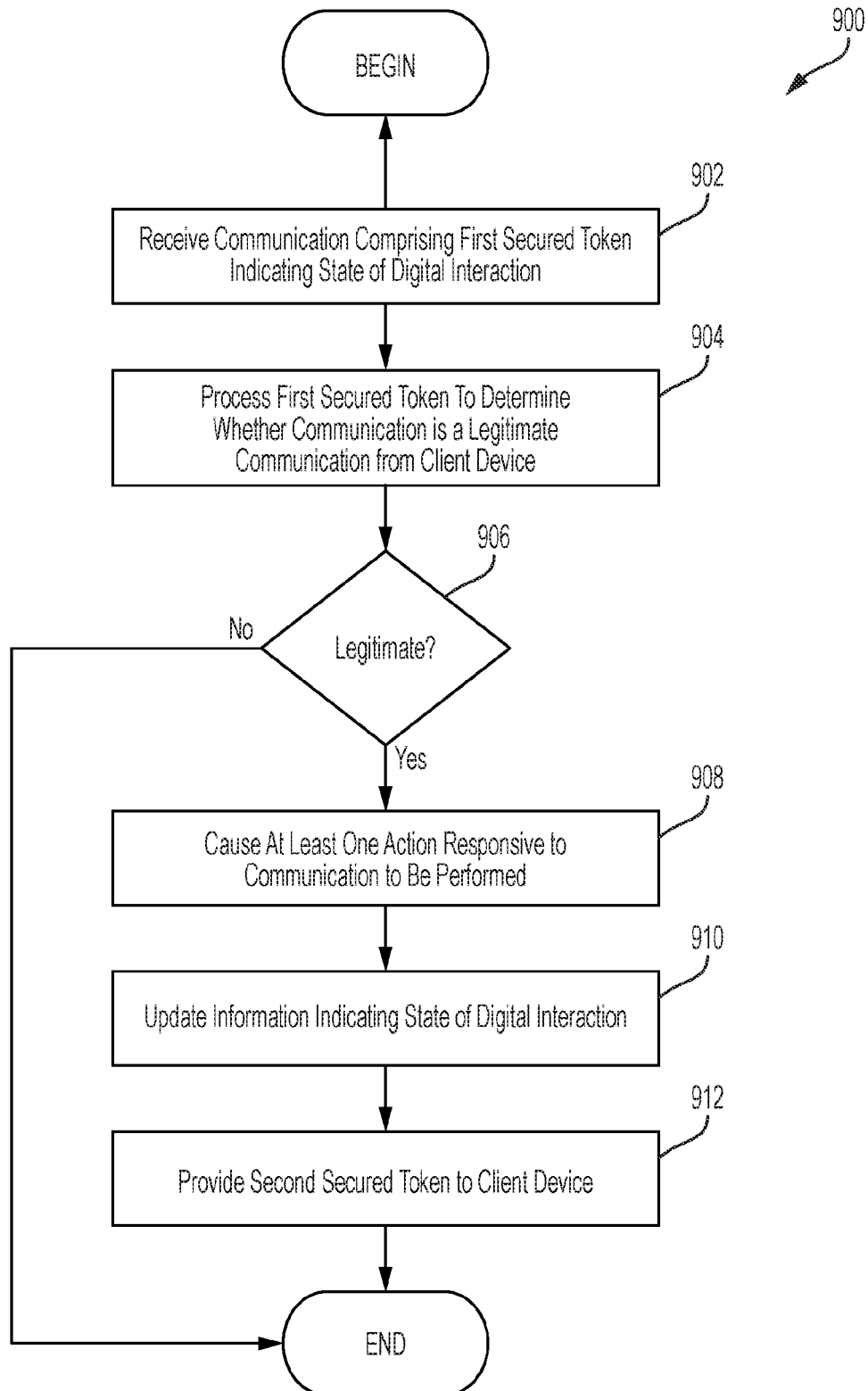
FIG. 7C

Input Parameters	ID	Source Data Type	Description
Source Data	sd	Image Data	MLP input data. Custom encoded in the pixels of a PNG image. Including embedded timestamp
Initial Value	iv	Integer	32-bit initial value for MLP

FIG. 8A

Output Results	ID	Source Data Type	Description
Start Time Ms	st	Integer	A Unix style microtime captured from the device JavaScript immediately, before the calculation started, for each of the parallel executions.
Result Data	sd	Integer	The MLP initial value XOR'd with the MLP result (hidden value) and the initial, embedded timestamp.
End Time Ms	et	Integer	A Unix style microtime captured from the device JavaScript immediately, after the calculation has finished, for each of the parallel executions

FIG. 8B



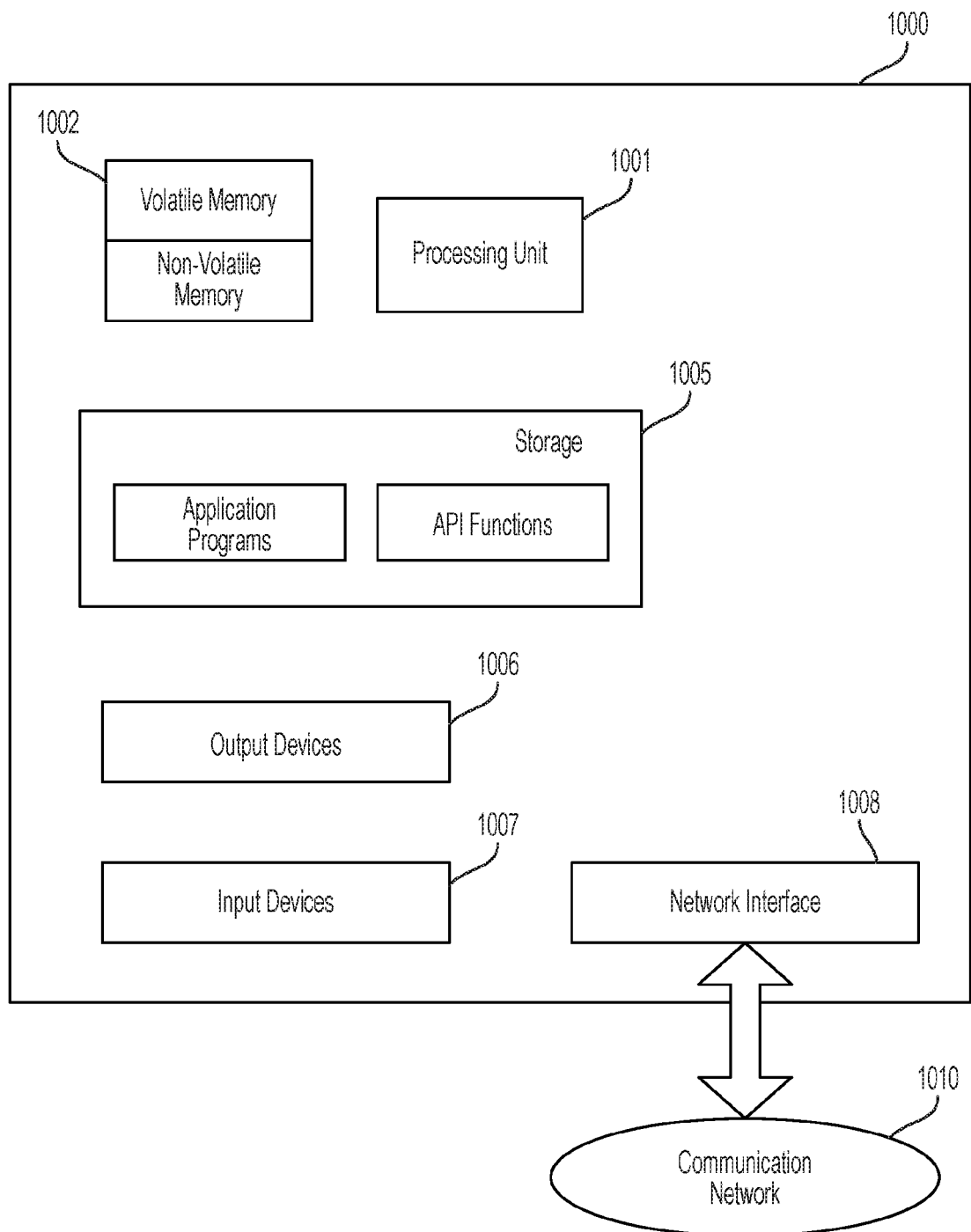


FIG. 10