**100**

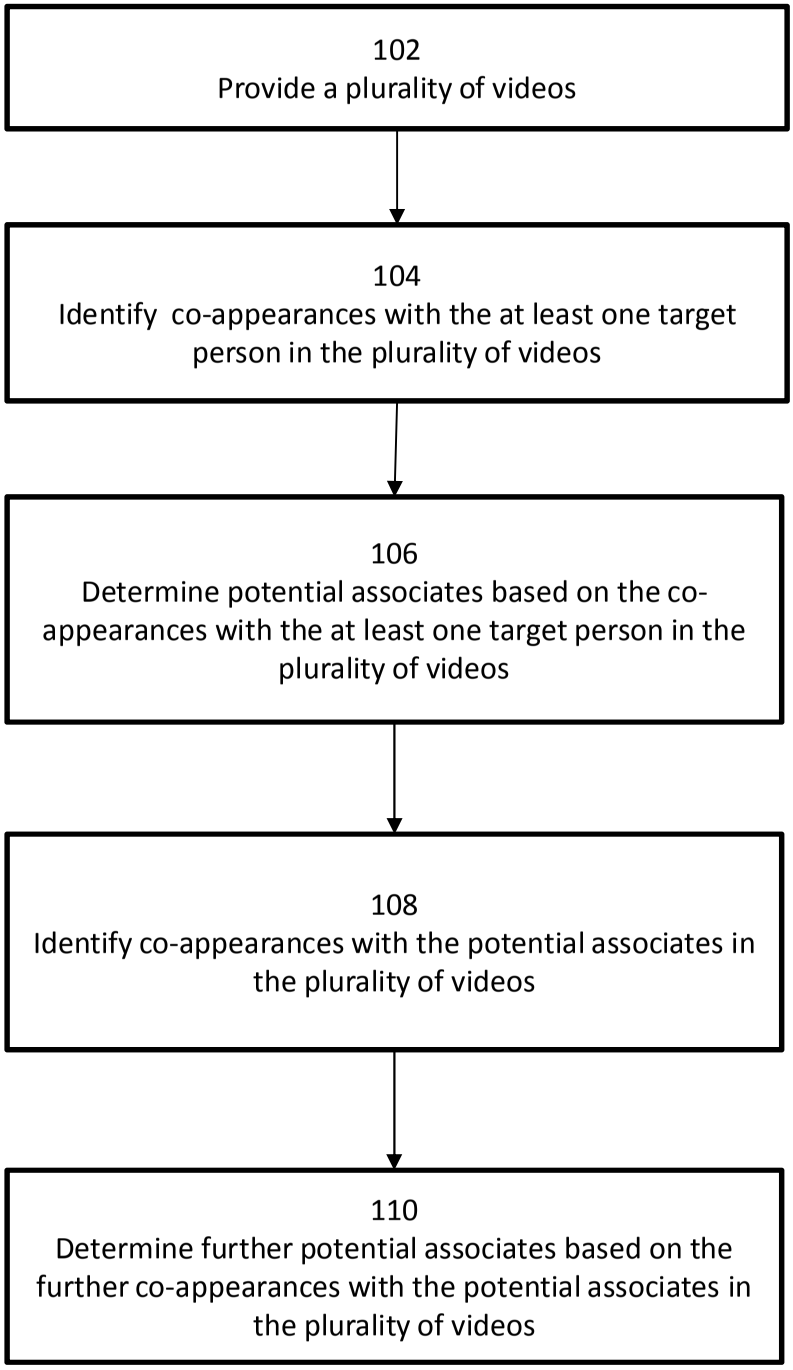
102
Provide a plurality of videos
104
Identify co-appearances with the at least one target person in the plurality of videos
106
Determine potential associates based on the co-appearances with the at least one target person in the plurality of videos
108
Identify co-appearances with the potential associates in the plurality of videos
110
Determine further potential associates based on the further co-appearances with the potential associates in the plurality of videos

**Figure 1**

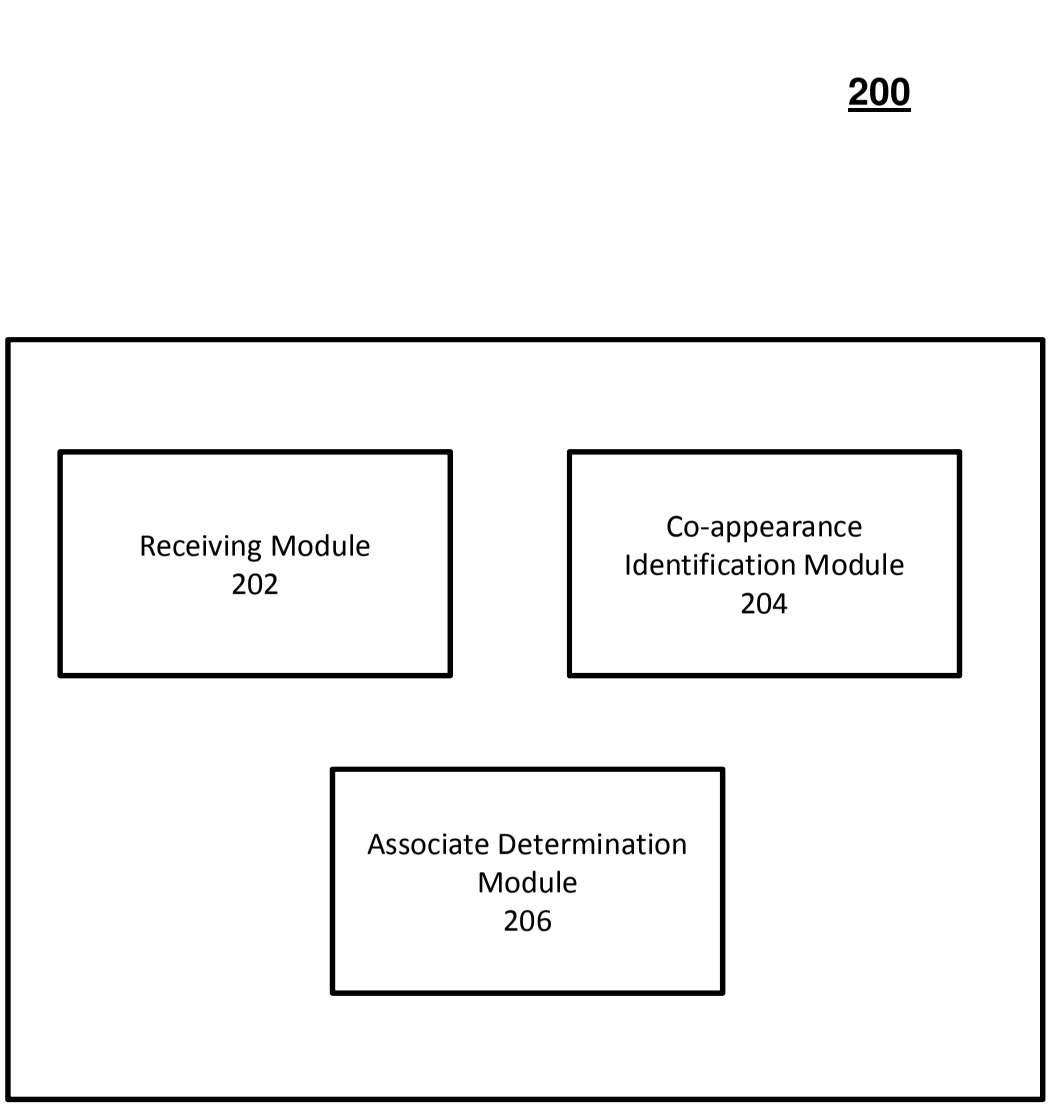
200
Receiving Module
202
Co-appearance
Identification Module
204
Associate Determination
Module
206

**Figure 2**

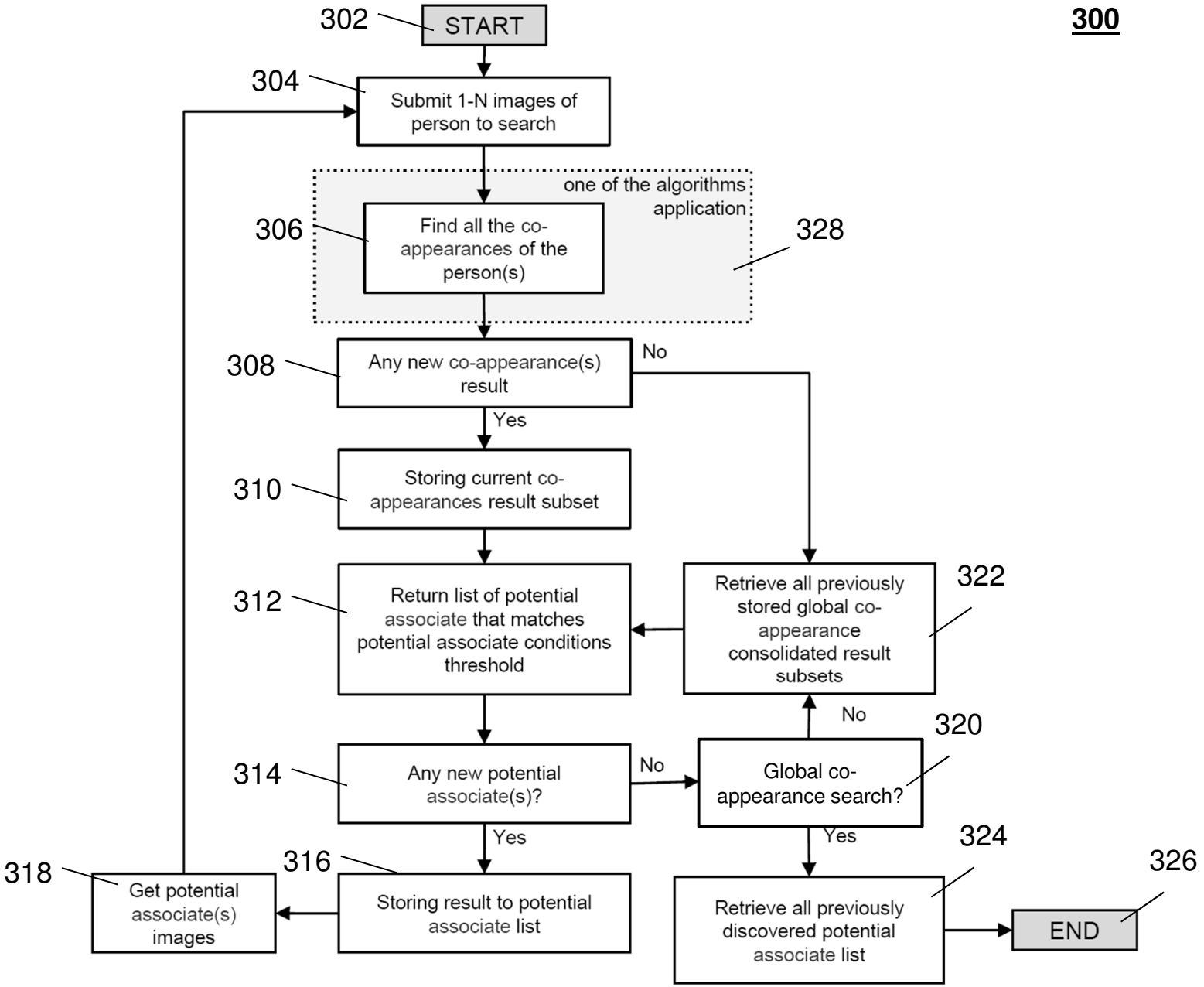
300
302
START
304
Submit 1-N images of person to search
one of the algorithms application
306
Find all the co-appearances of the person(s)
328
308
Any new co-appearance(s) result
No
Yes
310
Storing current co-appearances result subset
312
Return list of potential associate that matches potential associate conditions threshold
322
Retrieve all previously stored global co-appearance consolidated result subsets
No
320
314
Any new potential associate(s)?
No
Global co-appearance search?
Yes
Yes
324
316
318
Get potential associate(s) images
Storing result to potential associate list
Retrieve all previously discovered potential associate list
326
END

**Figure 3**

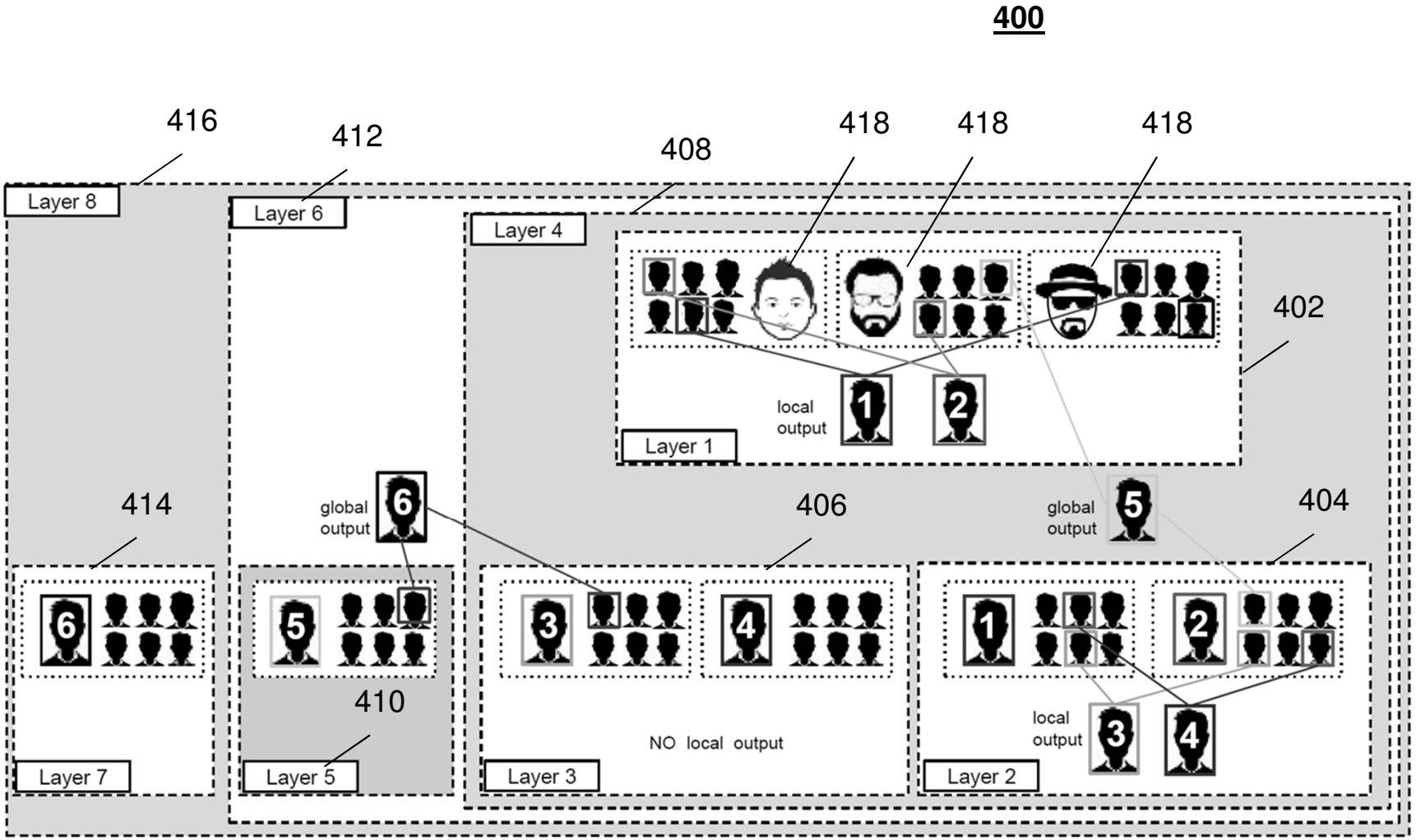
400
416
412
408
418
418
418
Layer 8
Layer 6
Layer 4
402
local output
Layer 1
414
global output
406
global output
404
410
NO local output
local output
Layer 7
Layer 5
Layer 3
Layer 2

**Figure 4**

**500**

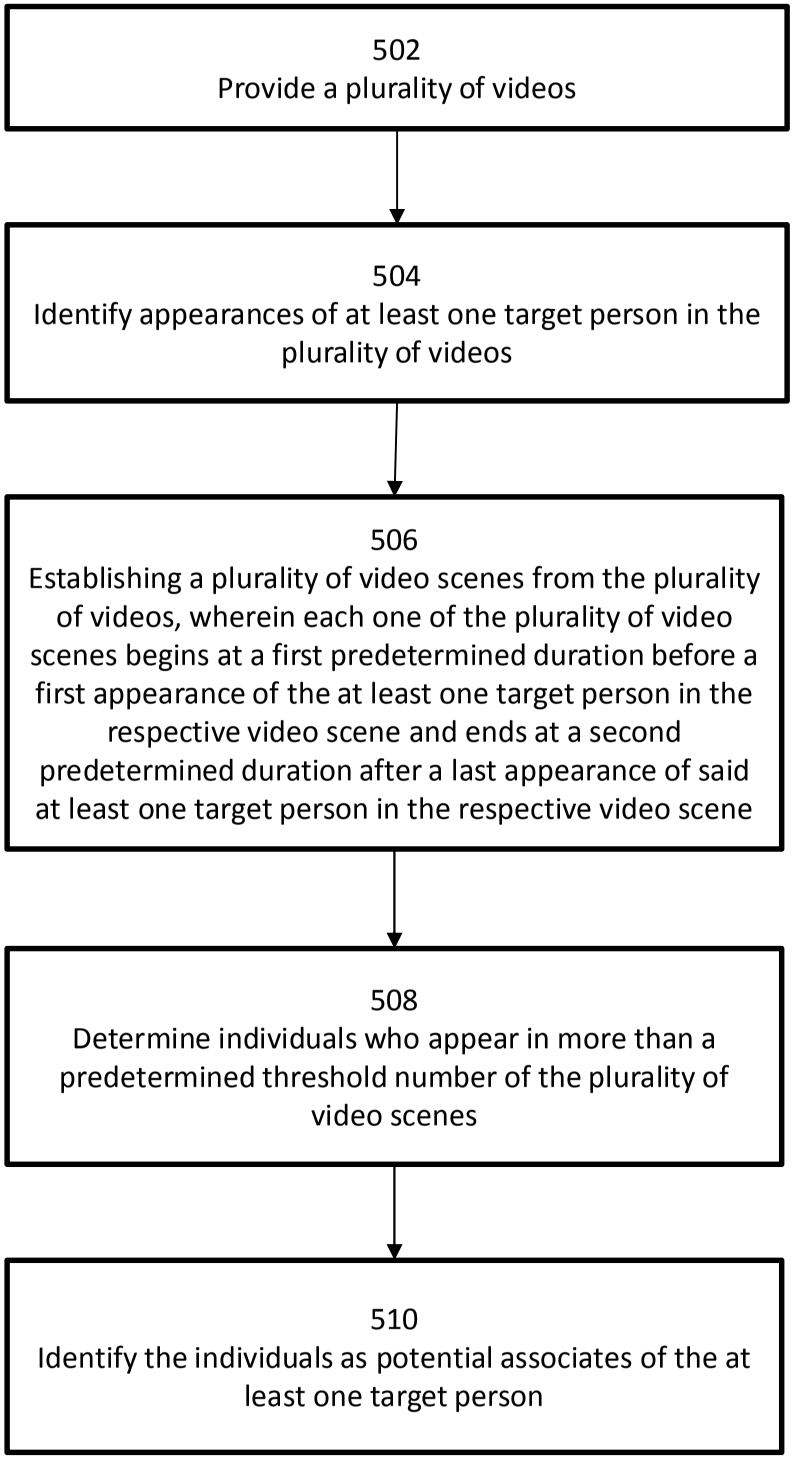
502
Provide a plurality of videos
504
Identify appearances of at least one target person in the plurality of videos
506
Establishing a plurality of video scenes from the plurality of videos, wherein each one of the plurality of video scenes begins at a first predetermined duration before a first appearance of the at least one target person in the respective video scene and ends at a second predetermined duration after a last appearance of said at least one target person in the respective video scene
508
Determine individuals who appear in more than a predetermined threshold number of the plurality of video scenes
510
Identify the individuals as potential associates of the at least one target person

**Figure 5**

**600**

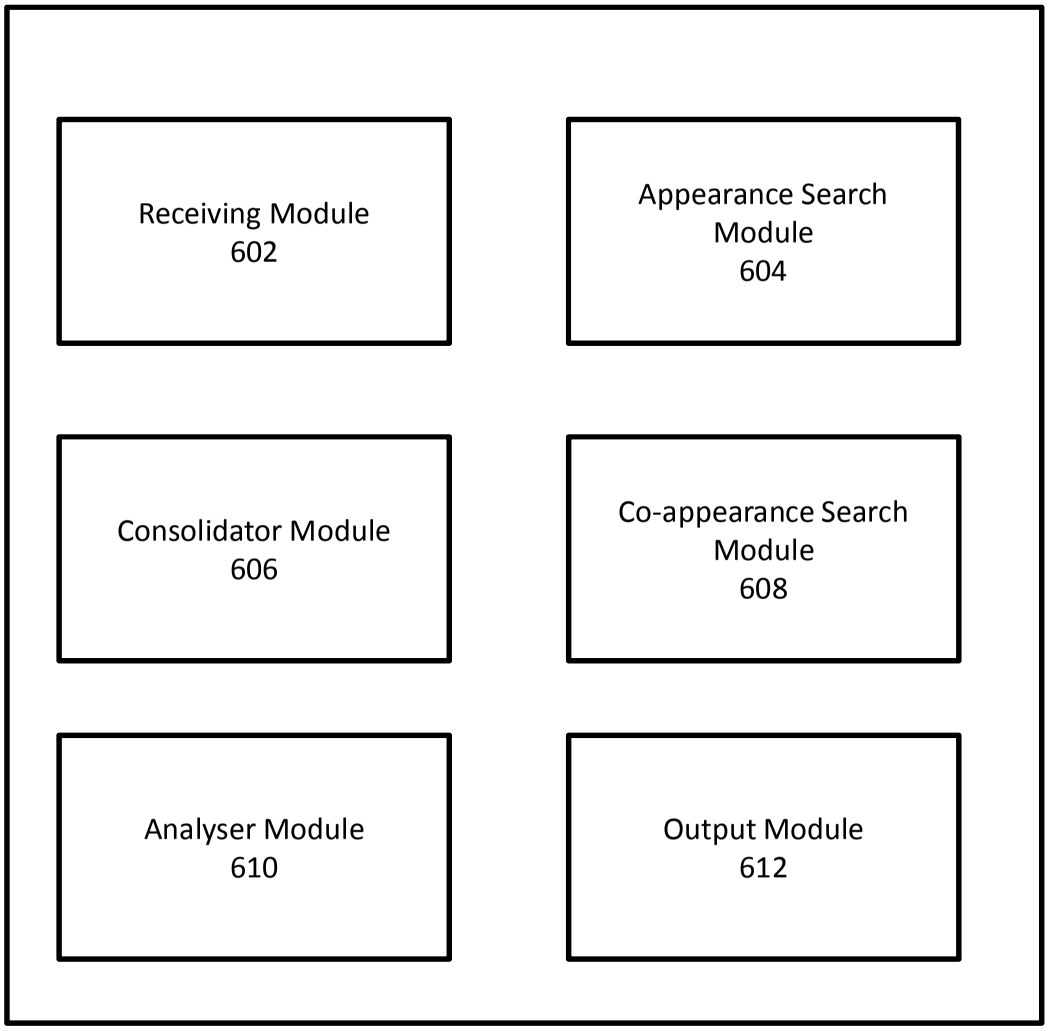
Receiving Module
602
Appearance Search Module
604
Consolidator Module
606
Co-appearance Search Module
608
Analyser Module
610
Output Module
612

**Figure 6**

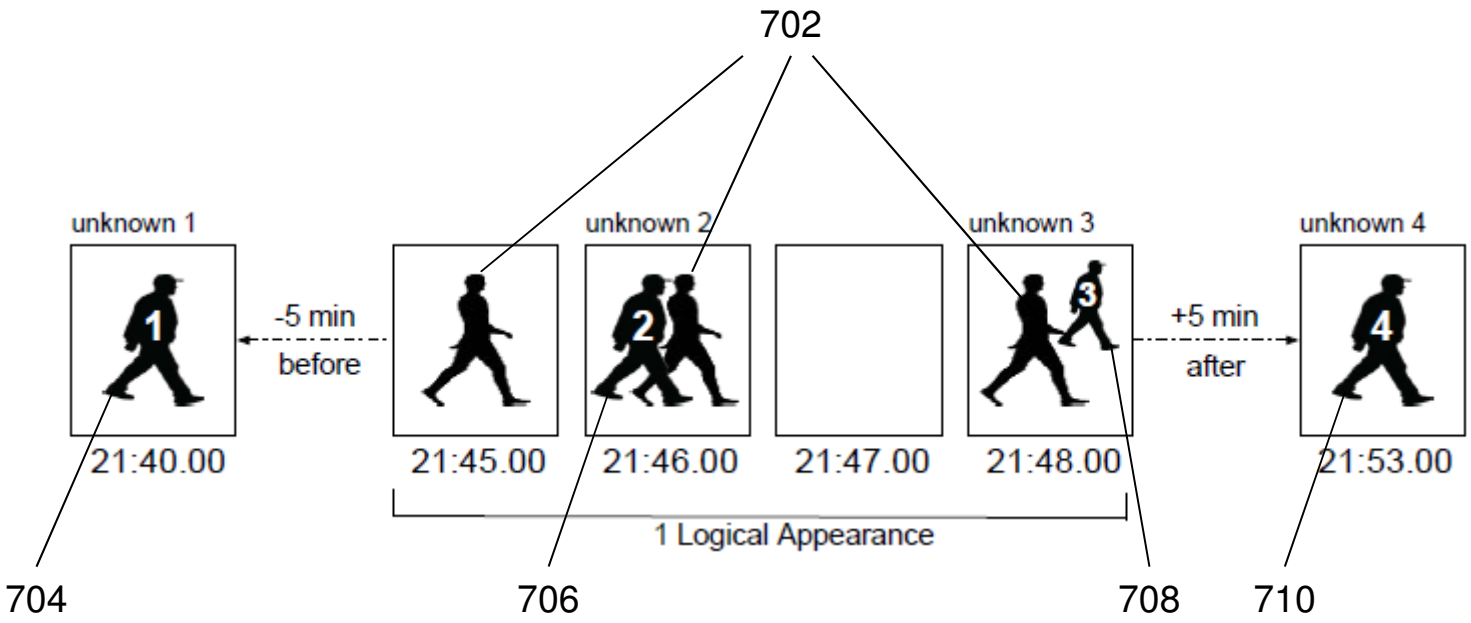
702
unknown 1
unknown 2
unknown 3
unknown 4
1
2
3
4
-5 min
before
+5 min
after
21:40.00
21:45.00
21:46.00
21:47.00
21:48.00
21:53.00
1 Logical Appearance
704
706
708
710

**Figure 7**

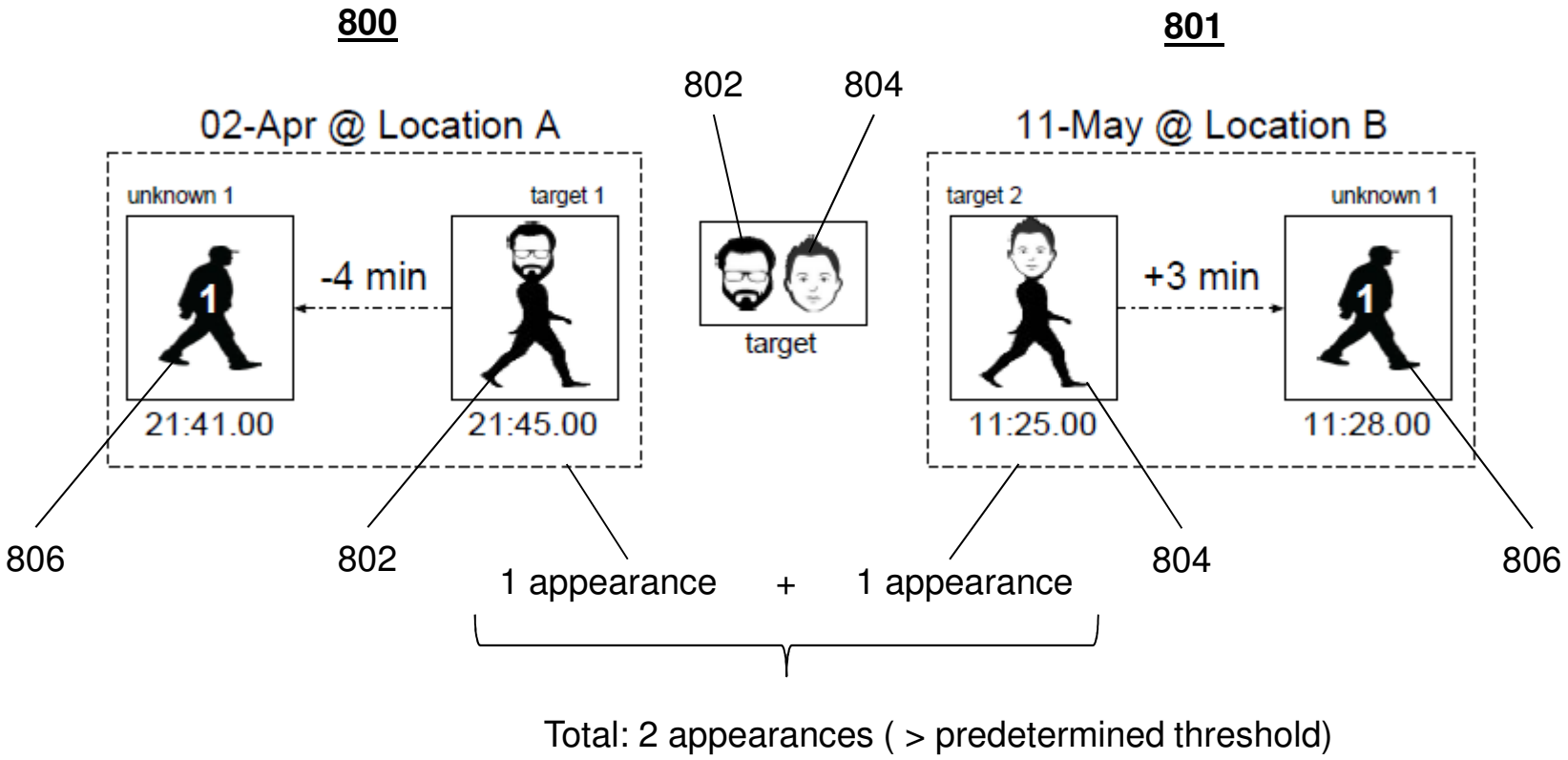
800
801
802
804
02-Apr @ Location A
11-May @ Location B
unknown 1
target 1
target 2
unknown 1
-4 min
+3 min
target
21:41.00
21:45.00
11:25.00
11:28.00
806
802
804
806
1 appearance
+
1 appearance
Total: 2 appearances ( > predetermined threshold)

**Figure 8**

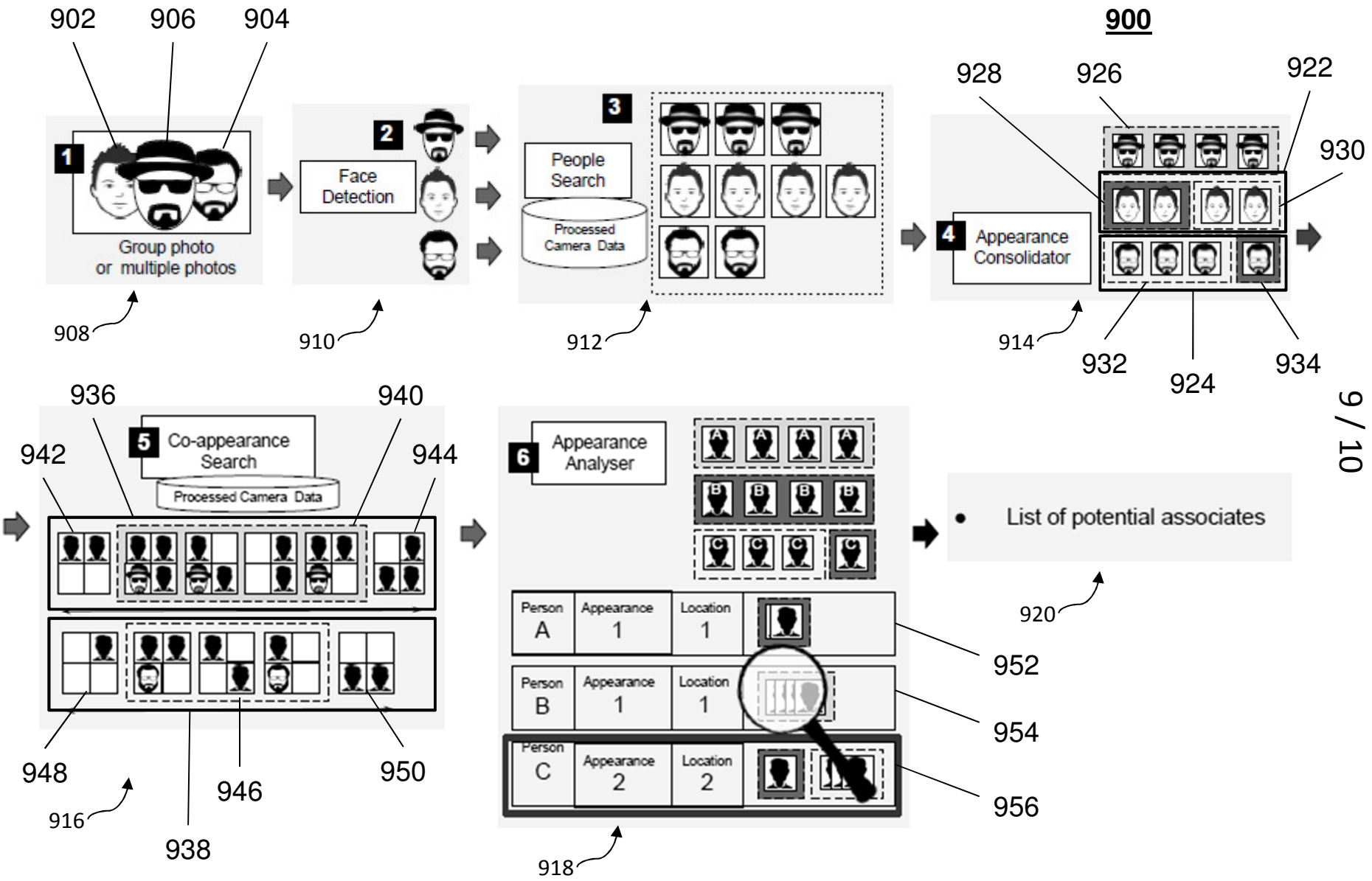
900
902
906
904
1
Group photo
or multiple photos
908
2
Face
Detection
910
3
People
Search
Processed
Camera Data
912
928
926
922
930
4
Appearance
Consolidator
914
932
924
934
936
940
942
5
Co-appearance
Search
Processed Camera Data
944
948
916
946
938
950
6
Appearance
Analyser
Person
A
Appearance
1
Location
1
Person
B
Appearance
1
Location
1
Person
C
Appearance
2
Location
2
952
954
956
918
List of potential associates
920

**Figure 9**

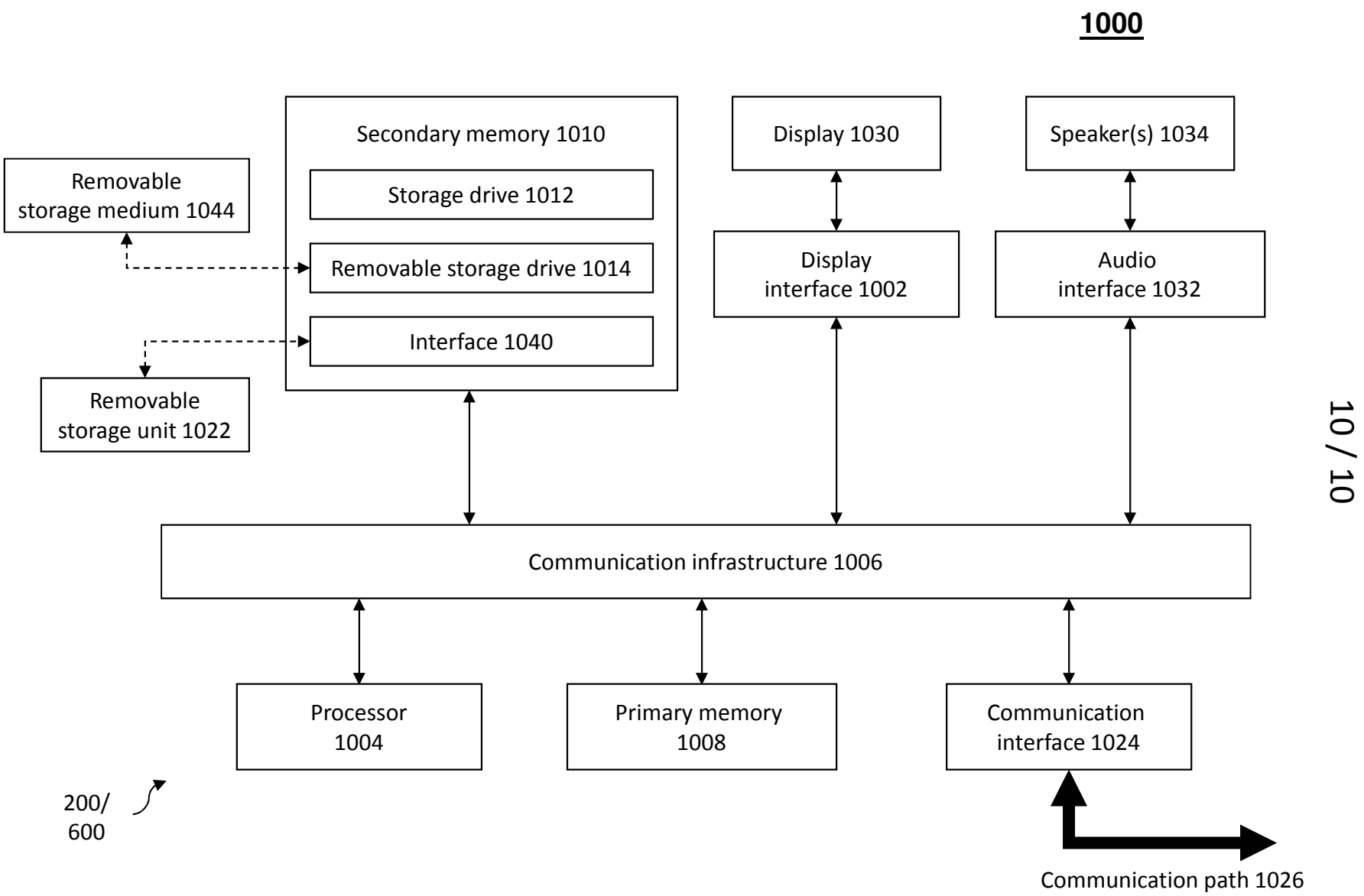
1000
Secondary memory 1010
Storage drive 1012
Removable storage drive 1014
Interface 1040
Removable storage medium 1044
Removable storage unit 1022
Display 1030
Display interface 1002
Speaker(s) 1034
Audio interface 1032
Communication infrastructure 1006
Processor 1004
Primary memory 1008
Communication interface 1024
Communication path 1026
200/ 600



**Figure 10**