

:

(54)

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가

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(ISDN)

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(HTTP) . HTTP (,
 , HTTP)
 HTTP . HTTP
 가 .
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 (HTML) . HTML
 " " " " HTML
 HTML " " HTML
 HTML , HTML
 , " " ,
 " image.jpg" .

```
< HTML>
< HEAD>
< TITLE> This is the documents title< /TITLE>
< /HEAD>
< BODY>
< H1> This text displayed using heading level one< /H1>
< IMG SRC="" http://java.sun.com/image.jpg" >
< /BODY>
< /HTML>
```

" " HTML . " < " HTML , " <
 ; /" HTML
 " > " 가 . HTML " > "
 < /" . HTML
 , " < HTML> " , " < /HTML> " , " < TITLE> " , " < /TITLE&
 gt; " " " HTML
 가 HTML , HTML " "
 , " < TITLE> This is the document title< /TITLE> "
 " This is the document title"

HTML 가 . HTML " < IMG> " , " SRC="" 가 . &
 It; IMG> , " SRC=""
 " < IMG SRC="" http://java.sun.com/image.jpg" > "
 " http://java.sun.com" image.jpg

" "

가

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가

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가

가

" Just - In - Time" (JIT)

1a

(111 - 113)(1B) , (10
 3:JRE) . JRE(103) (104), (105), (106)
 . JRE (108) (109) 가 (JVM)(107)
 . JVM(107) (108) (,
) , 가 JIT

JIT (110) 가 가 . JIT

1b

JVM(107) . JVM(107)
 (114 - 116) (111 - 113) (114 - 116)
 . JVM(107) (111 - 113) 가 (114 - 116)
 , (111) (112) 가
 (111) UNIX (114)
 , (112) (115)

가

, " "

< HTML >

< APPLET CODE="" animator.class" WIDTH="640" HEIGHT="480">

< /HTML >

(AppletViewer)

, " animator.class"

HTTP

P

FT

가

가

(201 - 210), (200) (211 - 215), (259) (216 - 220), (200) (221 - 223)
 (251) (252) (253)
 (250) (251) (200)
 (259) HTTP (253) HTTP (253) (200)
 (250)

HTTP / (250) (201)
 (203) / (250) 2 H
 TTP / (201 - 203) (250) HTTP /
 (260 - 282) (250) (251) HTTP /
 (260 - 282) (251) (201 - 223) HTTP /
 가 가
 (201 - 223)

가

가

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ZIP

ZIP

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ZIP

가

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ZIP

ZIP

가 ZIP

가

ZIP

HTTP

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. ZIP

ZIP

(JAR)

(ZAR)

. ZAR

가

. JAR

. JAR

JAR

(packager)

JAR

. JAR

JAR

. JAR

JAR

jar cf jar - file input - file(s).

JAR

. jar

MANIFEST.MF

, META - INF

JAR

. c

가 JAR

f

. c f

. jar - file

가

JAR

. input - file

(s)

가 JAR

. input - file(s)

. input - file(s)

(*)

JAR

JAR . JAR
 JAR JAR
 , JAR JAR 가 . ,

- 1) JAR ,
- 2) ,
- 3) JAR , META - INF
- 4) META - INF ZIP

JAR (, ,)
 , / HTTP /
 가 .
 . JAR 가 JAR
 . 가 JAR

3 (201 - 210), (211 - 215), (216 - 220), (221 - 223) (200)
 JAR (200) (300) (300)
 ZIP (252)가 < APPLET>
 HTML " " , HTTP (301) (300)
 (200) (200) jarFile.jar (jarFile.jar (jarFile.jar (jarFile.jar
 300) HTML jarFile.jar (251) jar

```
< APPLET CODE="Applet.class" ARCHIVE ="" jarFile.jar"
WIDTH="anInt" HEIGHT="anInt">
< PARAM NAME="parameter1Name" VALUE="aValue">
< PARAM NAME="paramater2Name" VALUE="anotherValue">
< /APPLET >
```

(259) jarFile.jar HTTP (302) (252)
 (200) (259) (251) (252)
 (300) (252) (25)
 2)가 (200) . JAR 가

JAR

(manually)

가

가

. ZIP

, ZIP

. JAR

가 가

가 가

)
가

가

가

가

ZIP

(JAR)

가

가

(Object - Oriented Programming)

(instance variables) (objects) (methods) (encapsulation)

(argumnt) (,)

가 가 가 , 가

(class)"

Lieberman, OOPSLA 86 Proceedings, 1986 9 , 214 - 223 , "

" name" " salary" " set_salary"

" employee" " name" " salary" "

set_salary" " name" " salary" "

" set_salary" " salary" 가)

가 가 가 (

) 가

" " 가 ,

(desired state)

가

(JAR)

, ZIP

가 가

(optimizor)

(optimization engine)

가

1a

1b 가

가

2

3

4

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6a

6b

7

8

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10 가

4

(401)

(401), (450), (401)

가, 가
가

API가

가

(450)
(450)

(430)
(450)

(435)

(435)

(401)

1 . (401) (402)
 . (402)
 , JRE " (class loader)" (402)
 . (402) " "
 , (hash table) "
 " . "
 . (duplicate) .
 , (public methods) (402)
 가 . (가),
 (402) (가
 가 (403)
 . (403)
 . (403)
 . (401)
 0) . (403) , (450) . (45
 (430) (403)
 , (401) (440) JVM (402)
 (440) (environment variable)(460)
 , (460) CLASSPATH . CLASSPATH (402) (path)
 (402)가 (440) C:\jdk1.1.6\lib\classes.zip , CLAS
 SPATH (440) (402) 가
 , classpath (402)가 ,
 (402) (402) (450) (inter
 mediate file)(403)

5 . (430)
 , 가 (500) ,
 (501) (440) (401) . (502) ,
 가 (401)
 (403)
 (503) , (API)
 , 가 , 가
 가 가 (504)

(401) ,
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 , (450) (504) . (401) (450)
 , (401) (

450) .

6a (601)가 (601) (621), (600)
 (617 - 620) . (602,603,604,605) (622), (602 - 616),
 , (430) (635) (617) (430)
 (601) . (430)

, (635) 가
 . (635) (650) (640)
 (430) (635)

6b (430)
 , (650) (600) (600)
 (650) (651) . (651) (660) , (640)
 (660)
 (660) / (TCP/IP) (66

0) IPX Apple Talk .

0) (640) HTTP (661) (660) (65
 (430) . (430) (600) (, (635))
 (650) , (635) (430) (

650) (430) (63
 5) , HTTP / (671) (660) ,
 (635) HTTP / (650) .

7 (730) (700)
 (751) , (730) (700) (760) (75
 5) (701) 가 (755) (701) (700) 가) (700)
 , (701)

, (723) , (723) (700)
 , (700) : (702 -
 716), (717 - 720), (721), (722) , (702 -
 - 705) (720) (700) 가 가 , (723) (702
 (702 - 705) (720) .

706 - 716), (723) (700) ((, (

(717 - 719), (721) (722)) ,

(723) (751) (750) (750)

30) (730) (JAR) ZIP 가 (7

(751) (730) (725) (700)

가 (data store)(775) (725) (730)

(770)((635)) 가 (751)

(725) (730) (760)

가 (770) (730) ,

(701) (750) 8 (800)

(750) (701) (723) , (750)

(402) , , (701) - xhpro

f (,) , 가

" hprof" (723)

API(JVMDI)

9 (730) (750)

(900) , (750) (730)

(750) (701) (723)

(723) (750) (750) (901) , (723)

(901.5) ,

, JDK

(902) , (750) (723)

(750) (904)

(750) (903) (750)가

Joint Photographic Experts Group(JPEG)

JPEG (750)가

(906) , (750) , META - INF

(723) (907) , (750)

가

(908) , META - INF

(909) , (750) , (730) , (730) , (750)

10 (1000) 가 (1010) (1011) (1013) (101) 8) (1011) (1010) (1018) I/O(/) (1019) , A/V(/) I/O I/O

(1000) (1014) , (1015) , (1012) , (1010) , (1011) , (1013) (1018) (10) 12) 가 (1018) (1014) (1015) 32 (1018) , (1013) , (10) 15) , (1014) , (1012) 32

(1013) 680X0 SPARC (1015) 80X86 (DRAM) (1014) (1016) (1016) (CRT) (1017) (1016) (1014) (1017)

(1000) (1018) (1020) (1020) (1021) (1022) 2 (1020) (1020) (1020)가 (ISDN) , (1021) (1021) (1) 020)가 (LAN) , 가 (1020) (1021) LAN (1020)

(1021)

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1 (runtime) 가 가 .

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2 2 , .

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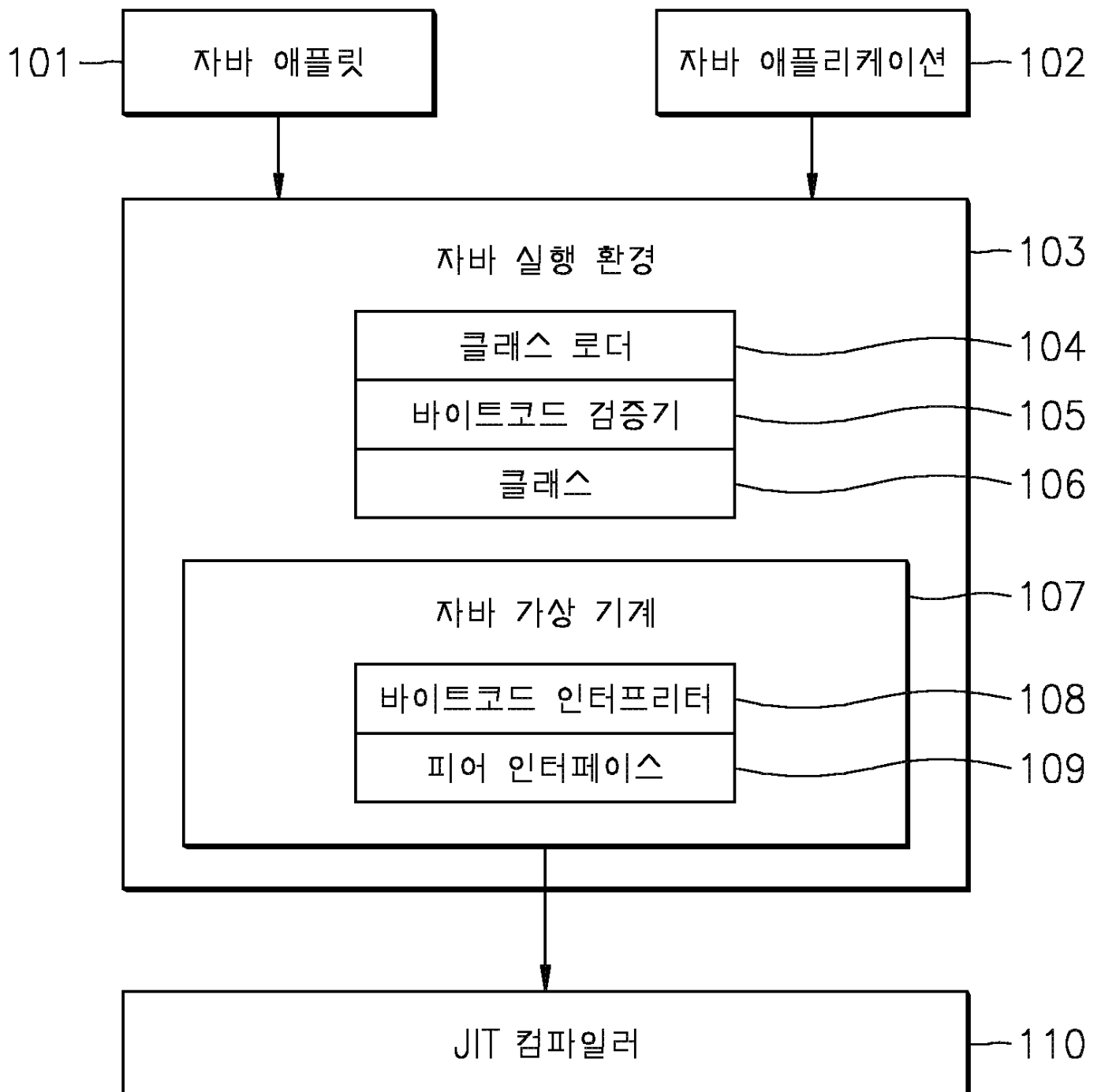
, .

27.

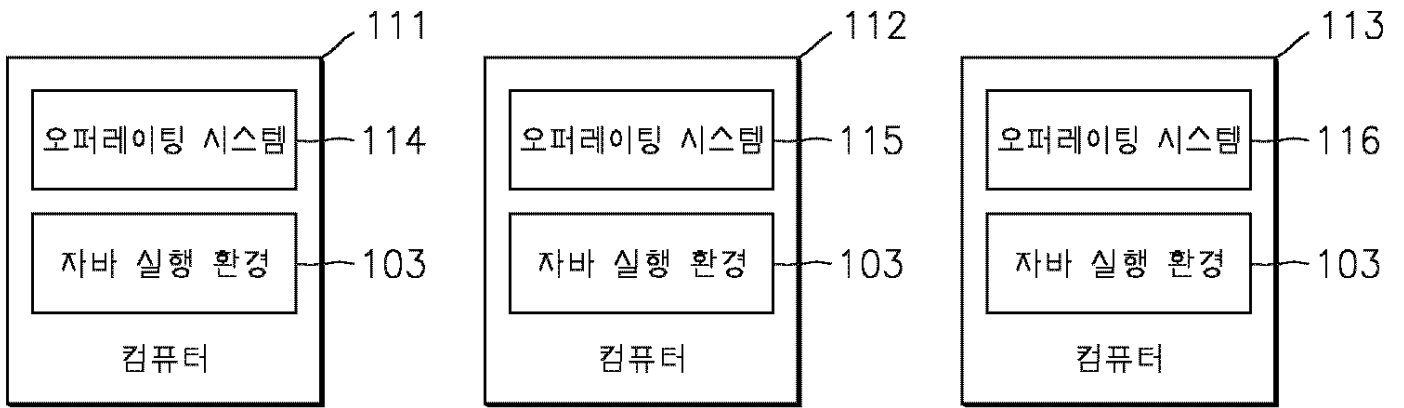
25 ,

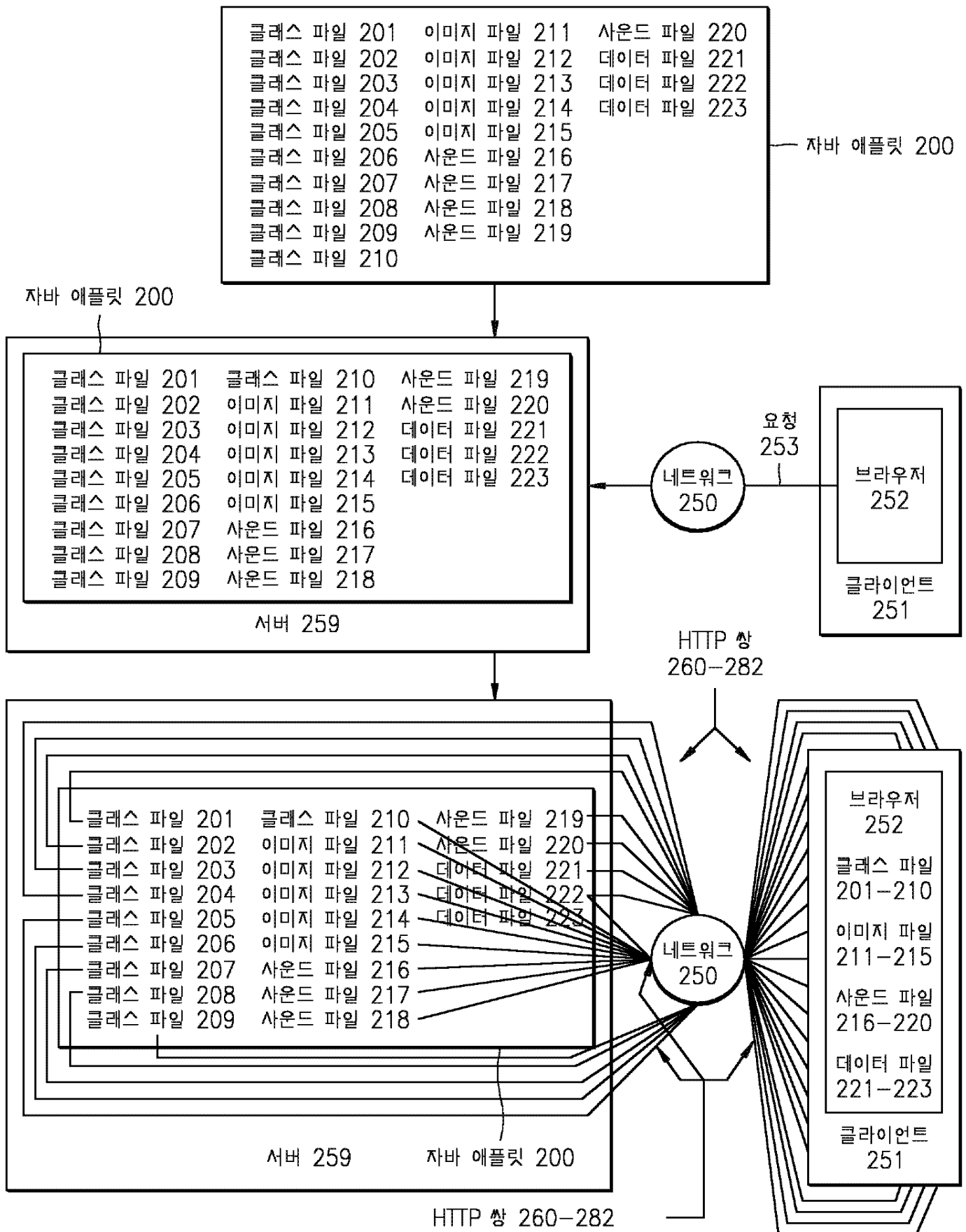
1 1 2 2 , 1

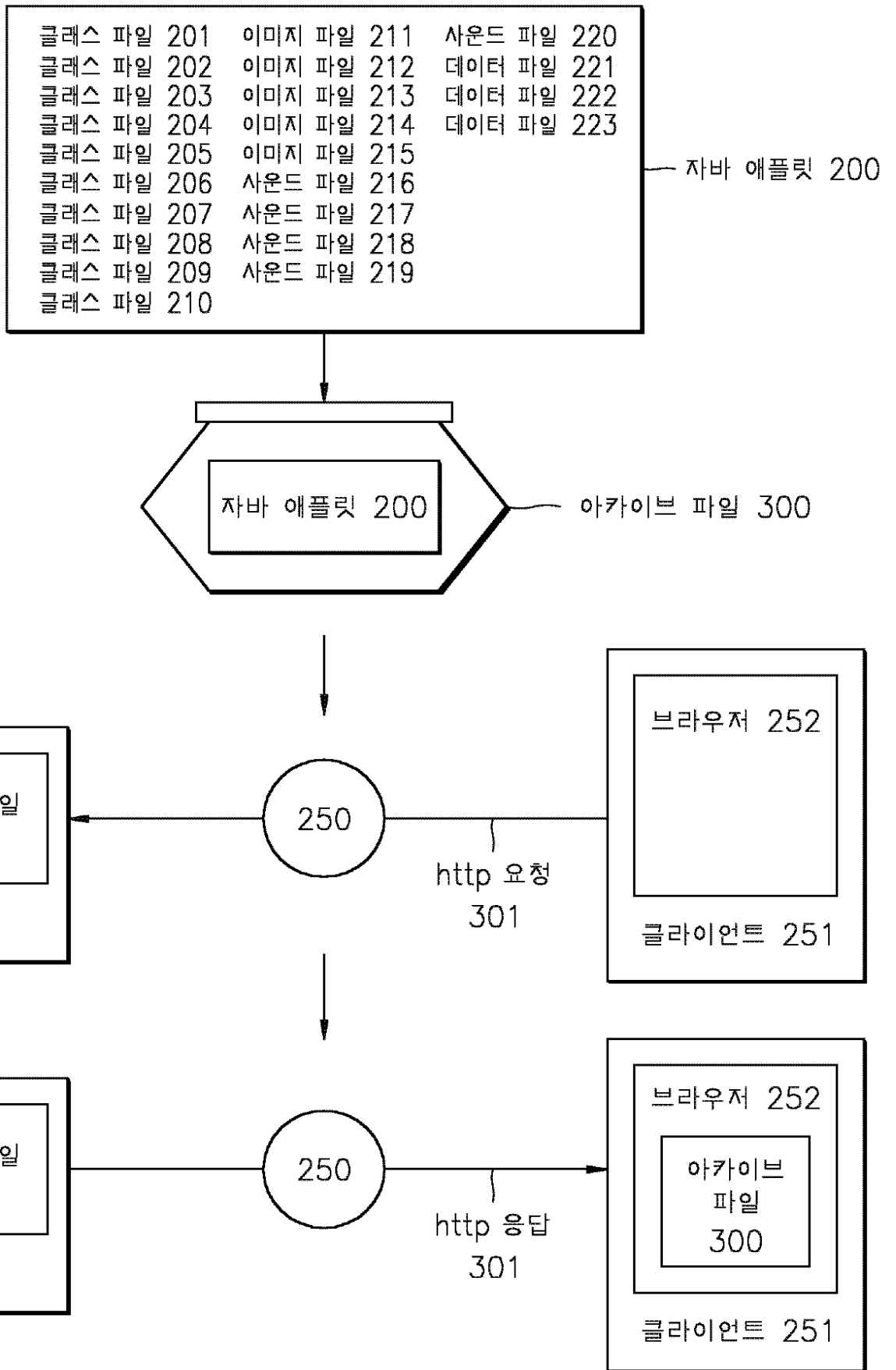
1a



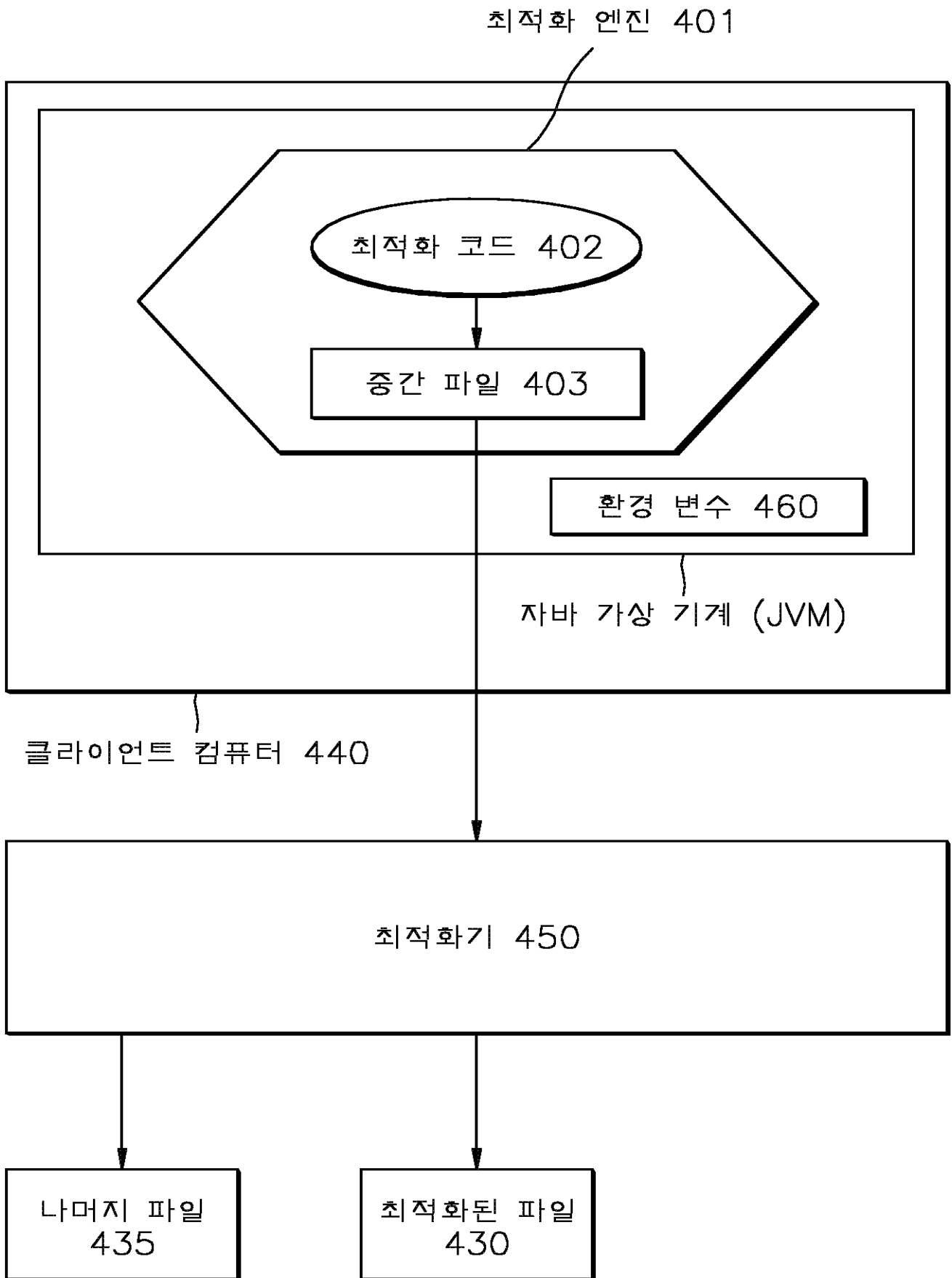
1b

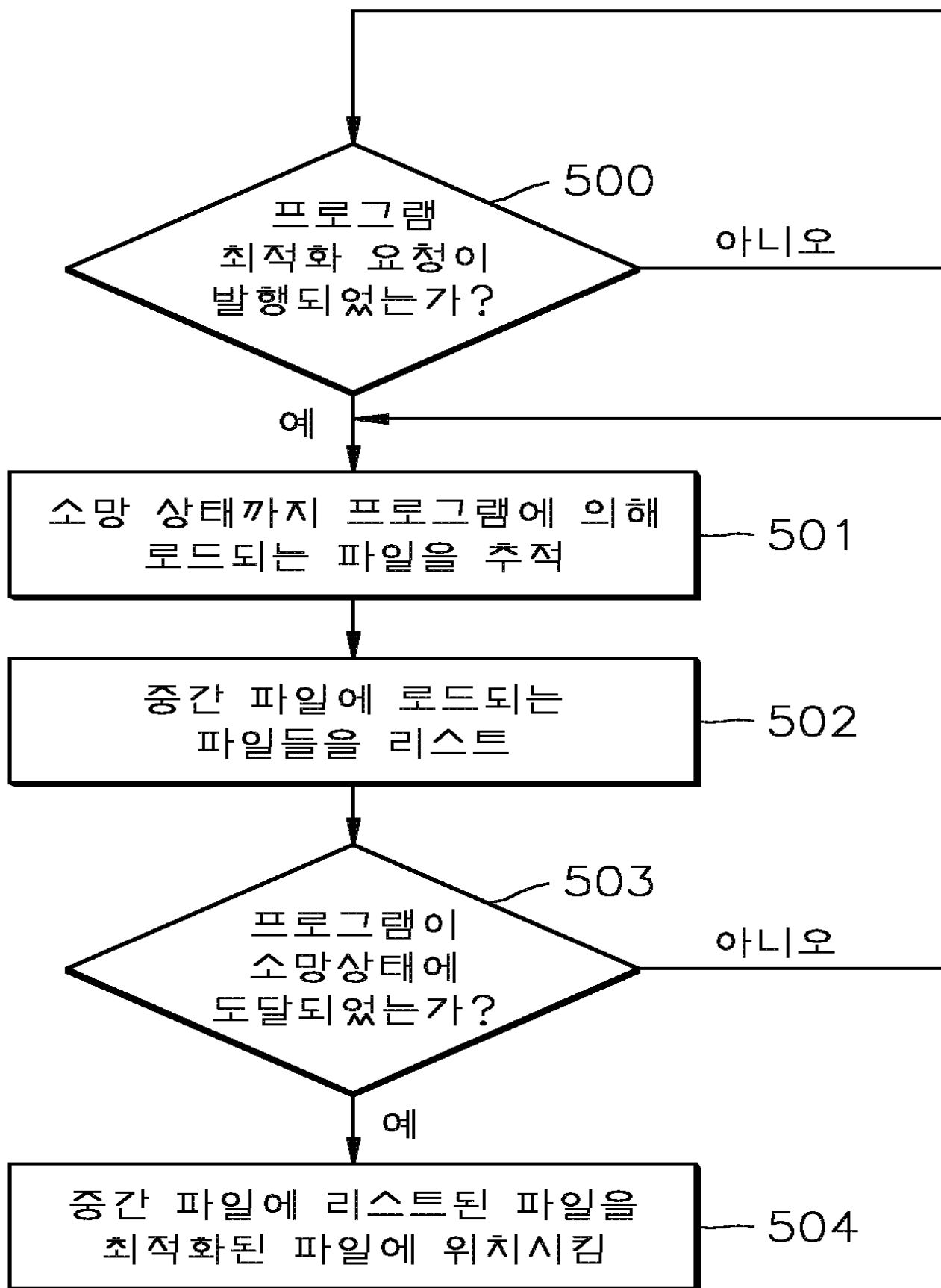




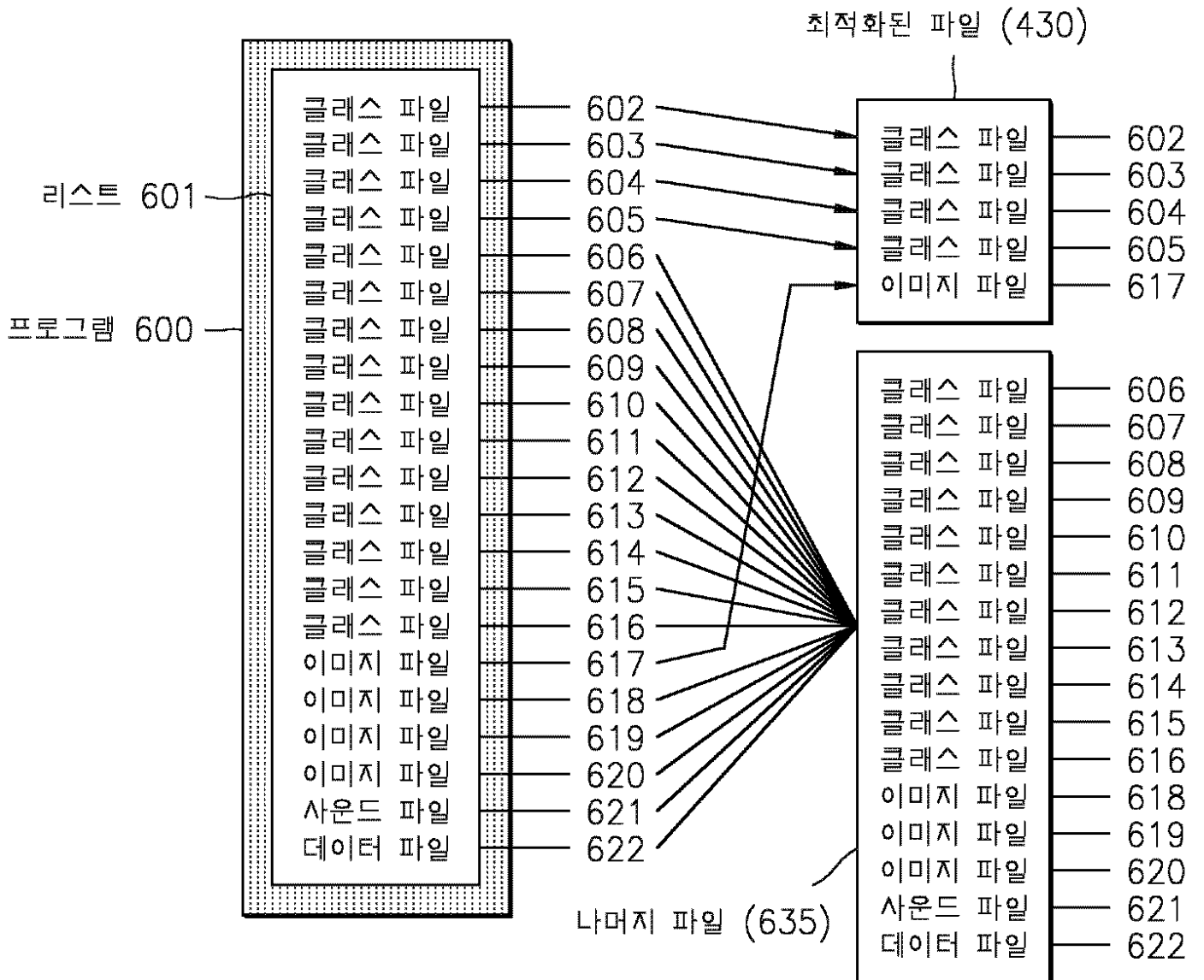


4

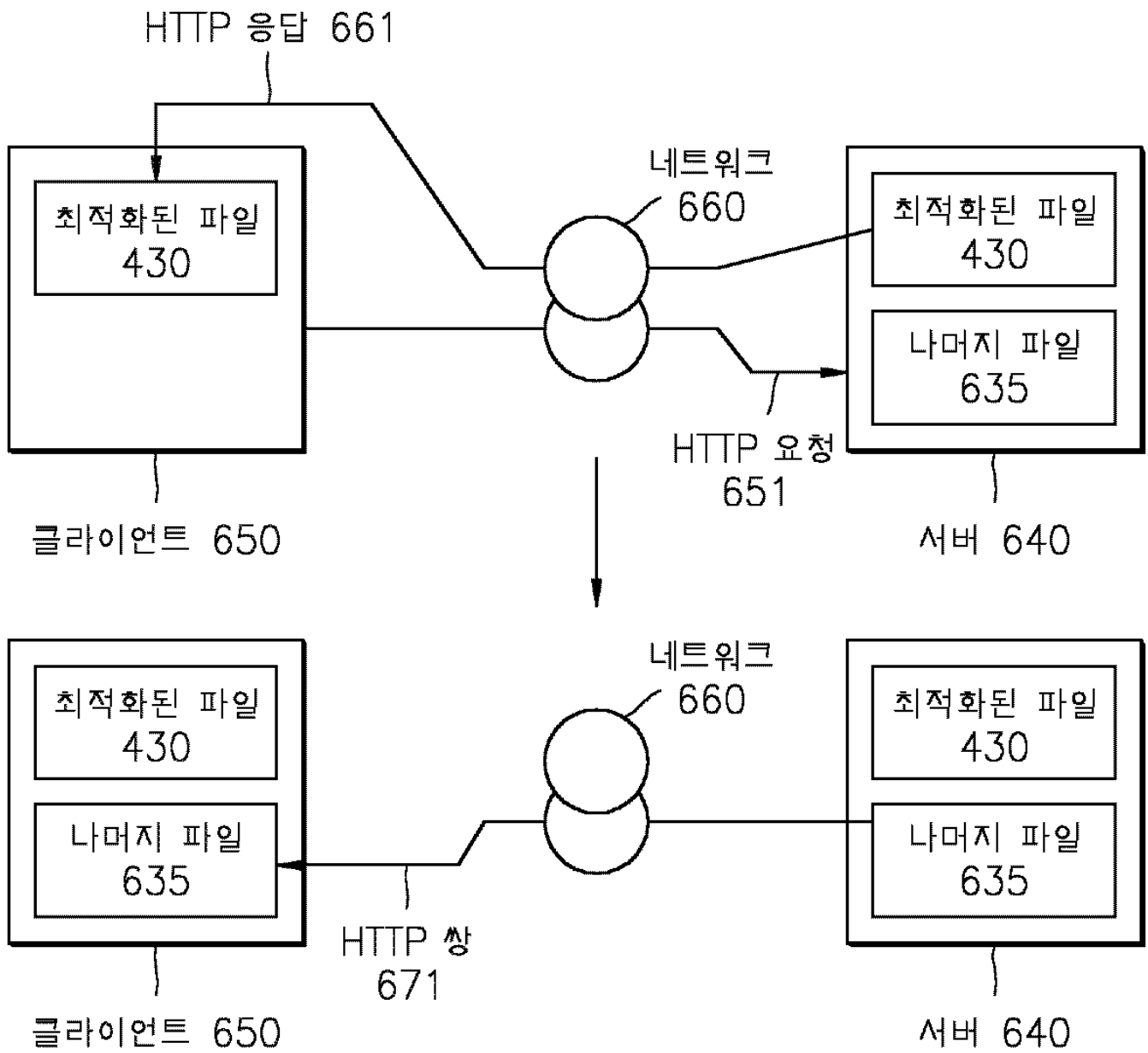




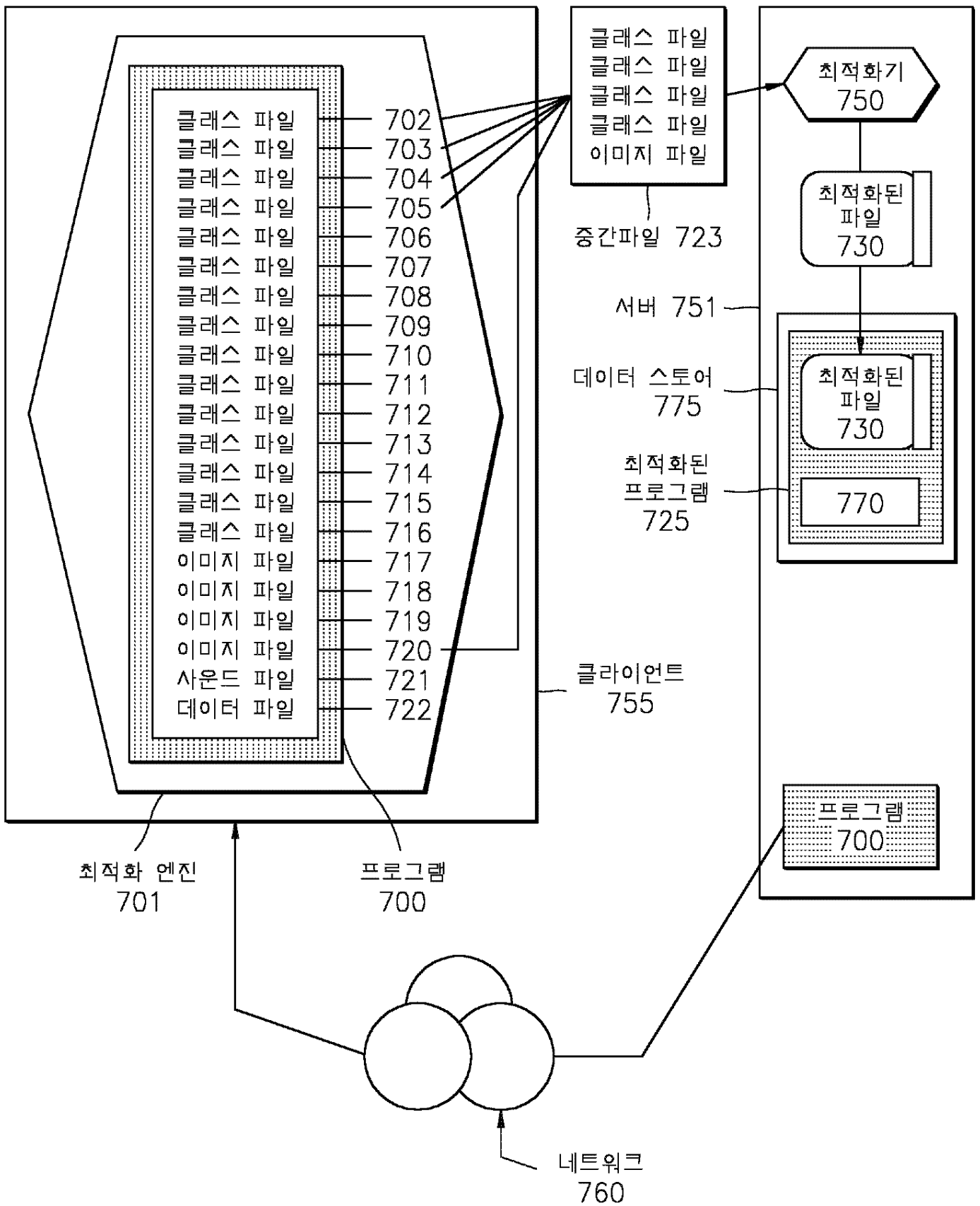
6a

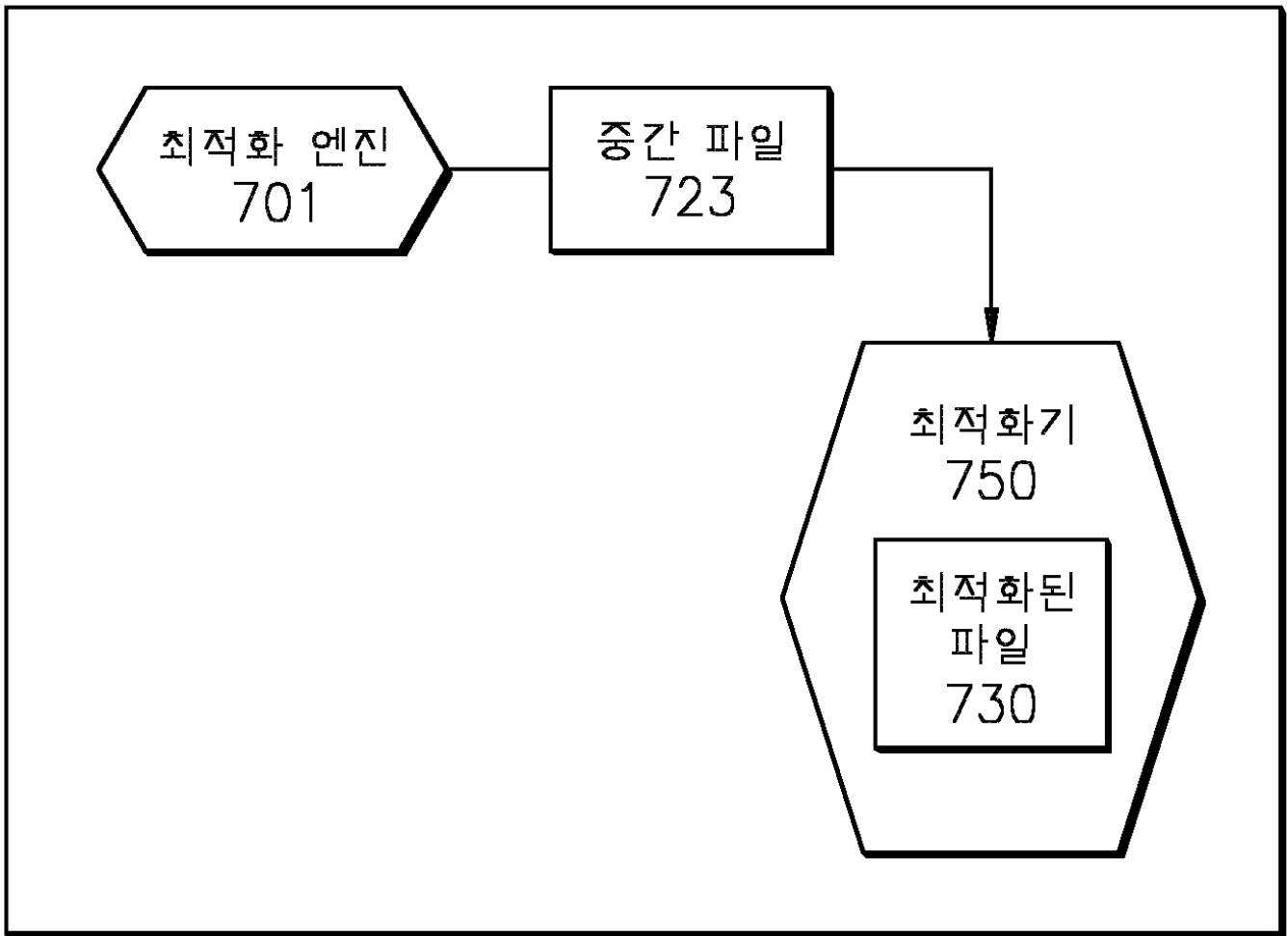


6b



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클라이언트 컴퓨터 800

