

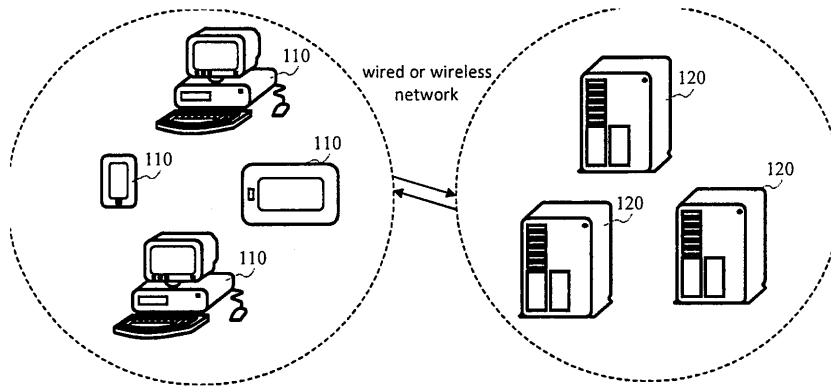


FIG.1

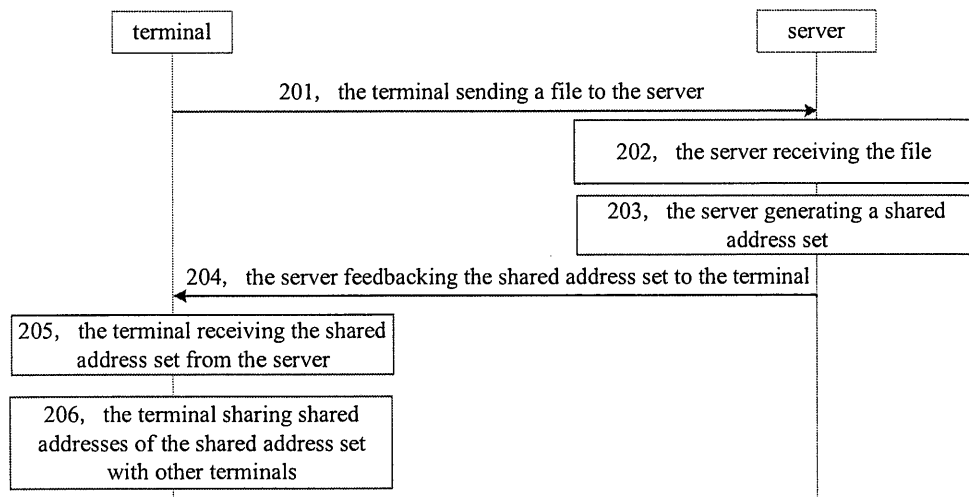


FIG.2

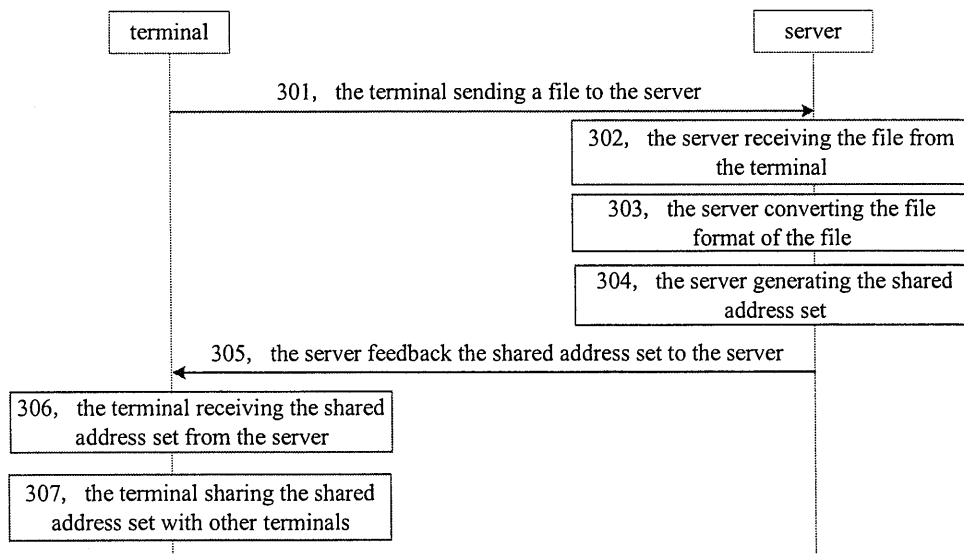


FIG.3A

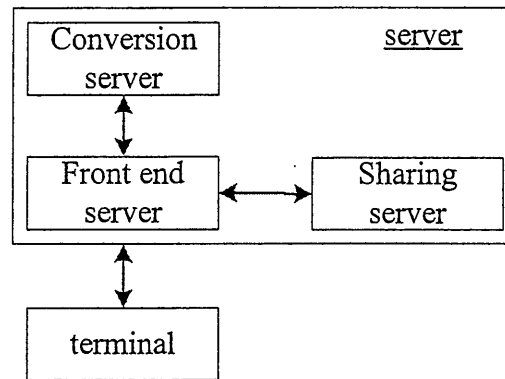


FIG. 3B

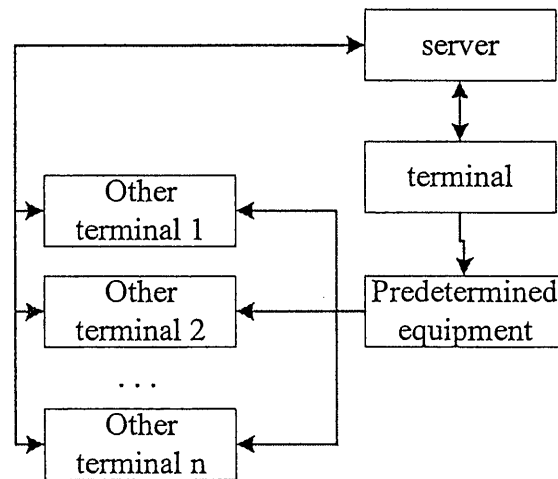


FIG. 3C

[Example 1] let one primitive function of $f(x)$ is: $F(x) = \ln^2|x + \sqrt{x^2 + 1}|$, solve $I = \int xf'(x) dx$
 Solution $I = \int xf'(x) dx = xf(x) - \int f(x) dx = xF(x) - F(x) + C$

$$= \frac{2x}{\sqrt{x^2 + 1}} \ln|x + \sqrt{x^2 + 1}| - \ln^2|x + \sqrt{x^2 + 1}| + C$$

[Example 2] Let $F'(x) = f(x)$, if $x \geq 0$, $f(x)F(x) = \frac{x^2}{2(1+x)^3}$, and $F(0) = 1$,
 $F(x) > 0$, solve $f(x)$ $x \geq 0$.
 Solution $2 \int f(x)F(x) dx = 2 \int F(x) dF(x) = F^2(x) + C$

teacher
 ❤ 788
 Floor control mode
 1. User A
 2. User B
 3. User C
 DiscussionQuestion(0)
 User A 11:32:05
 I think the teacher's lecture is good, and easy to understand.
 User D 11:34:19
 Yes, it is good.

Classroom list
 Audio controls
 pressF2talk
 Recording disabled
 My app My course

FIG. 3D

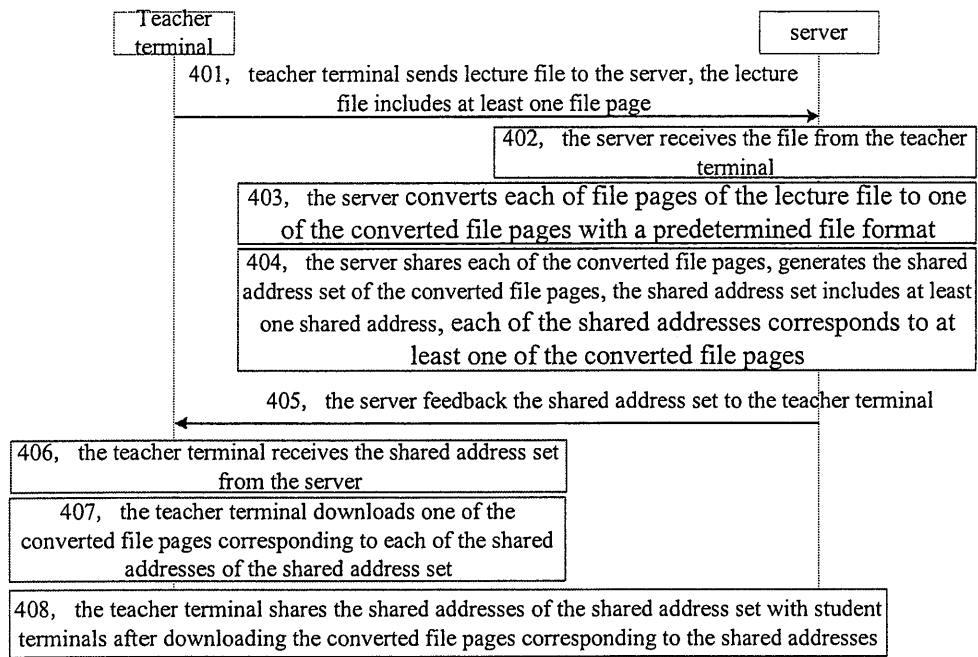


FIG. 4

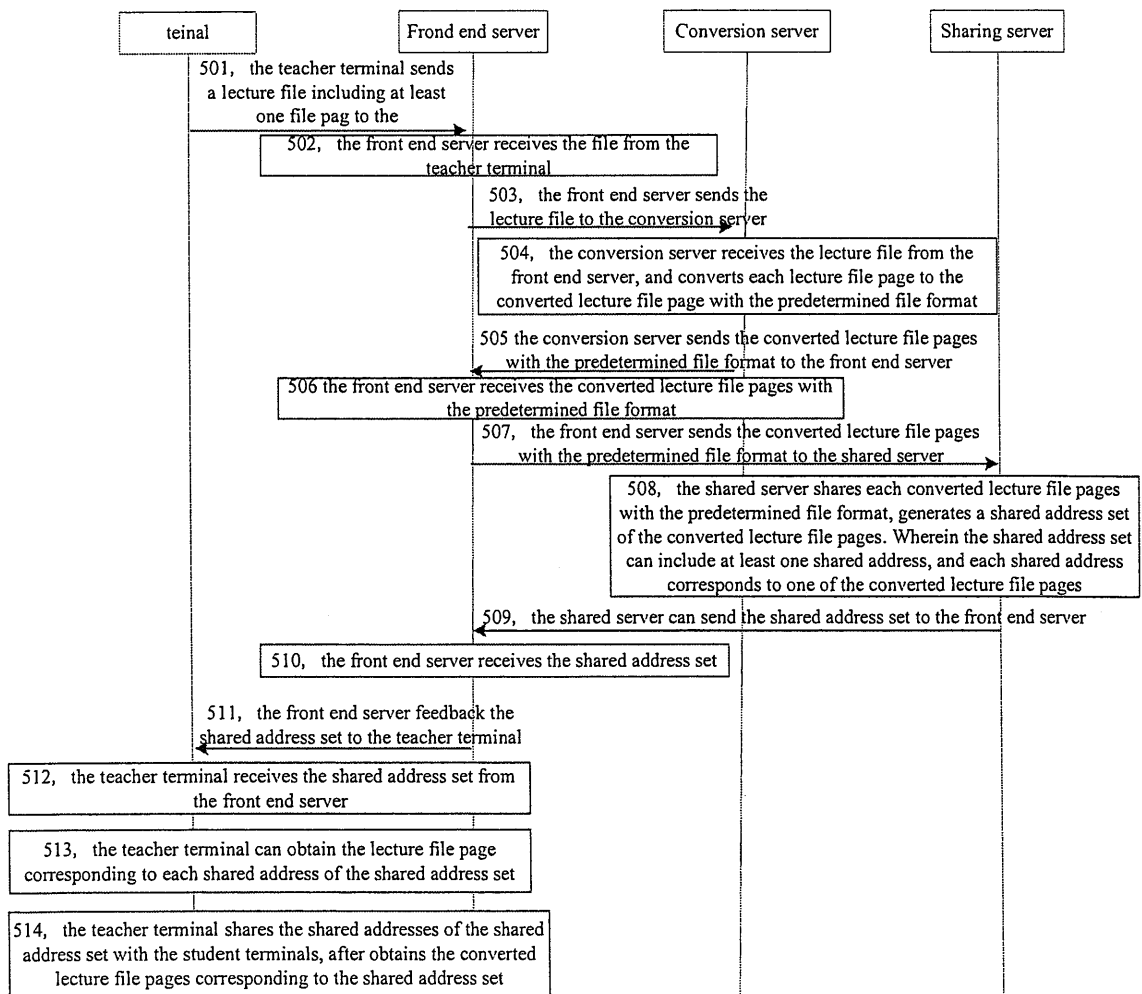


FIG. 5

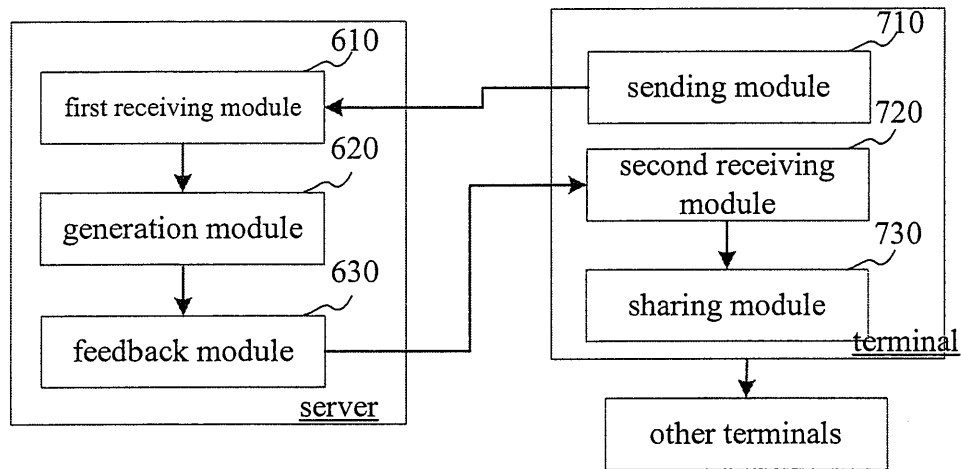


FIG. 6

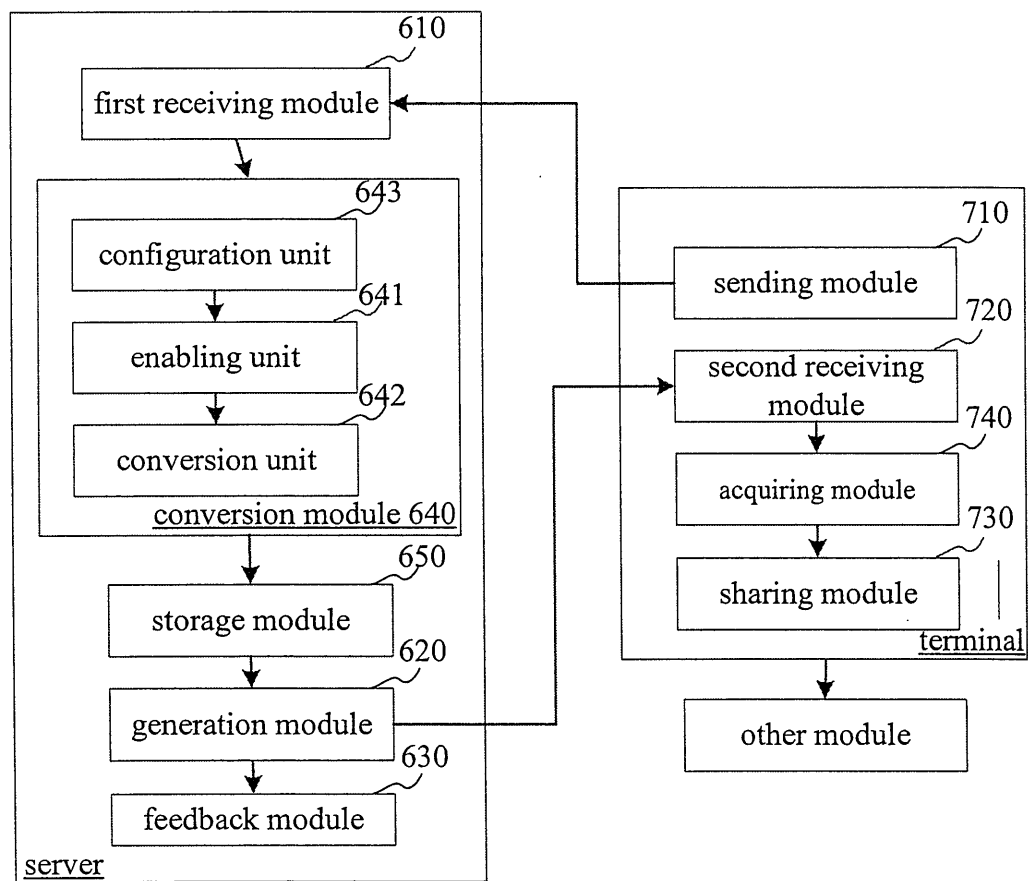


FIG. 7

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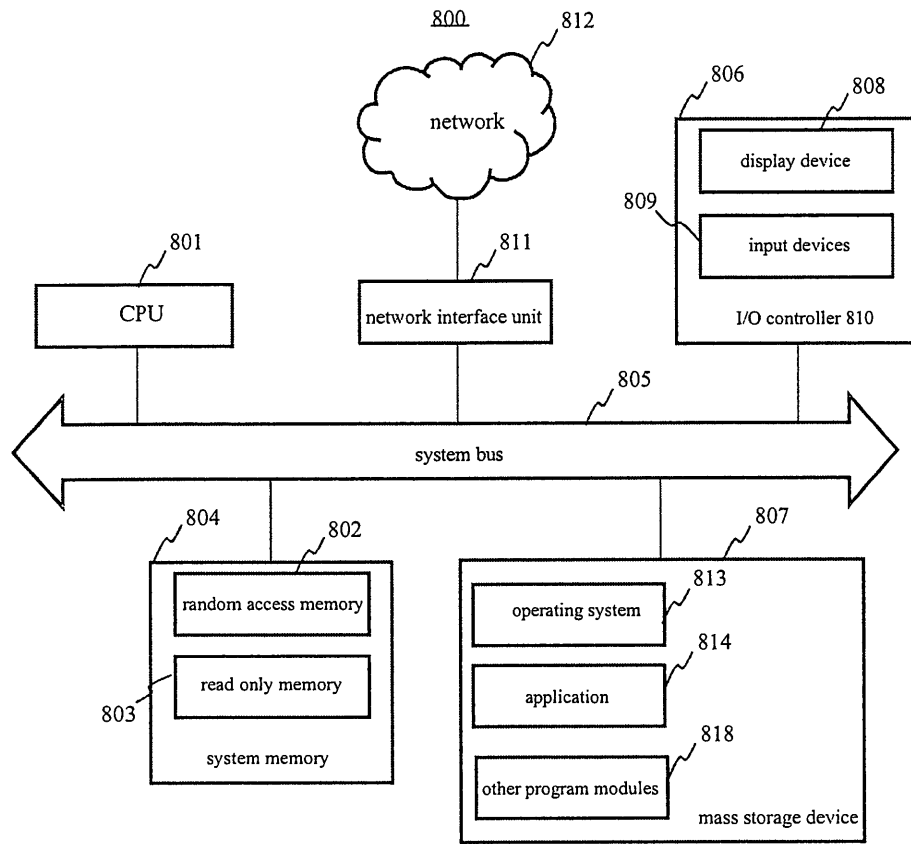


FIG. 8

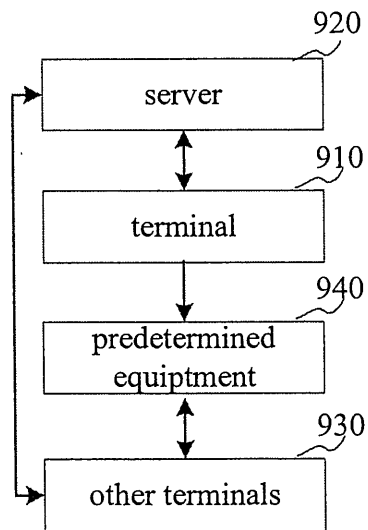


FIG. 9