

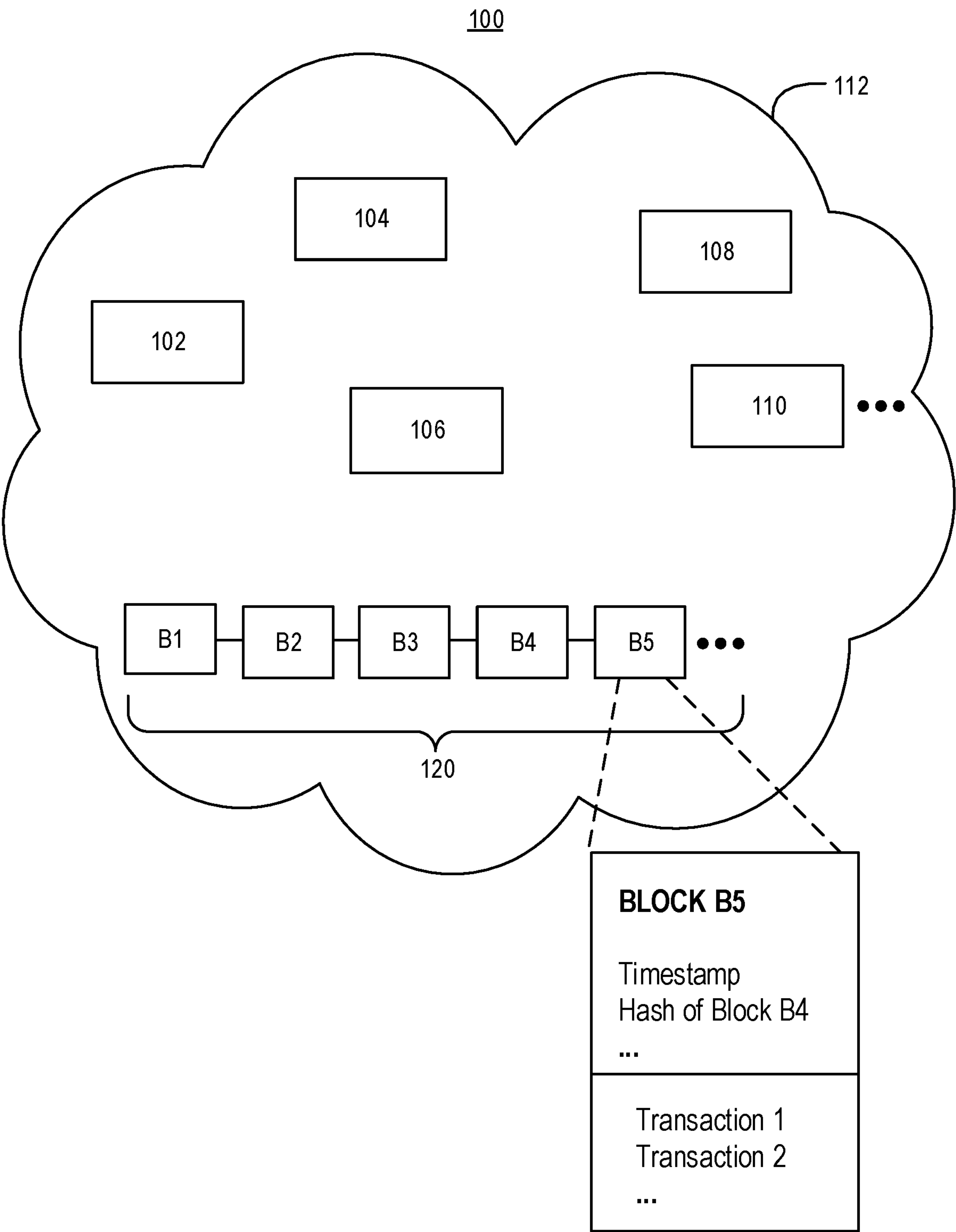


FIG.1

200

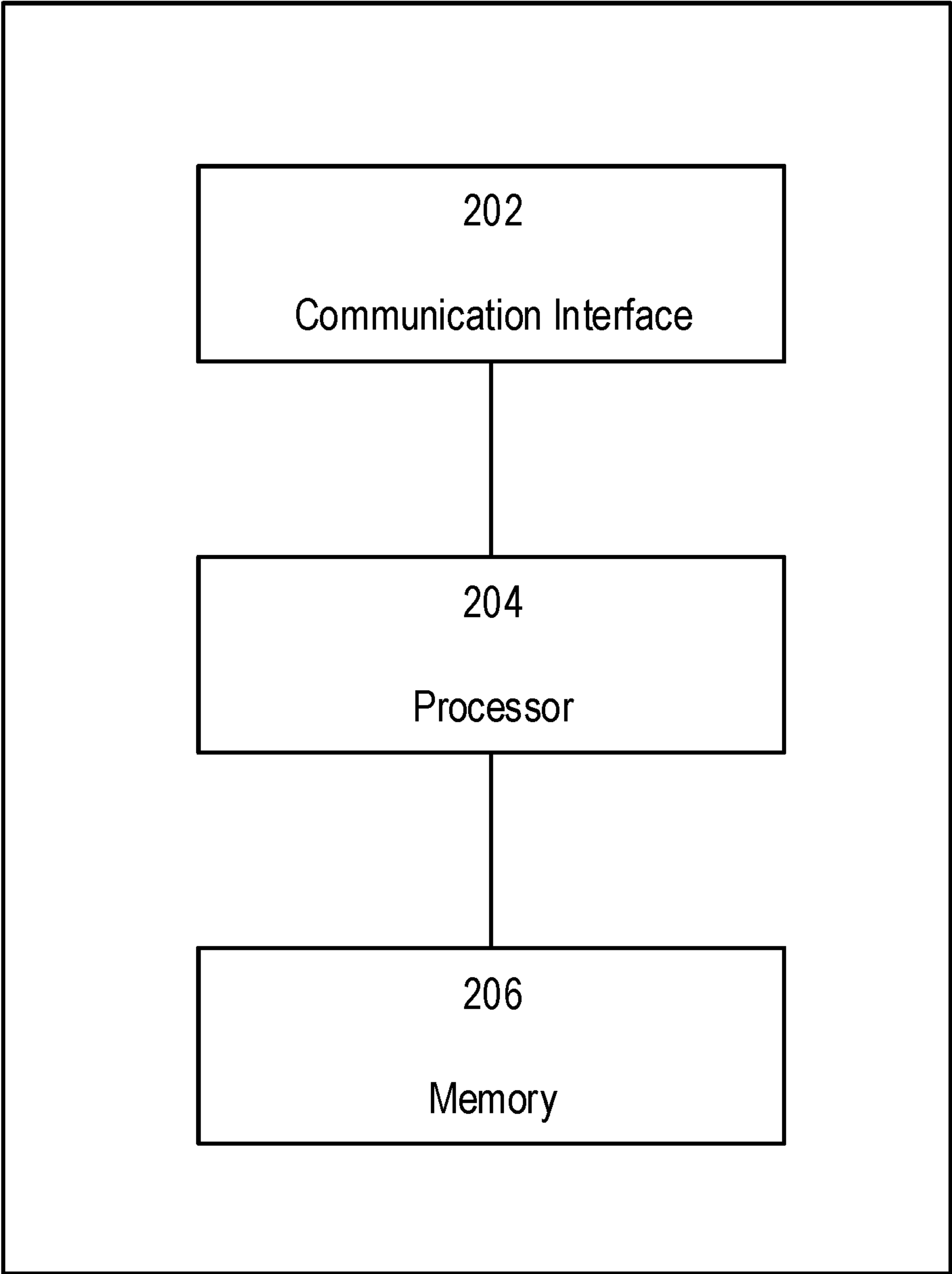


FIG.2

300

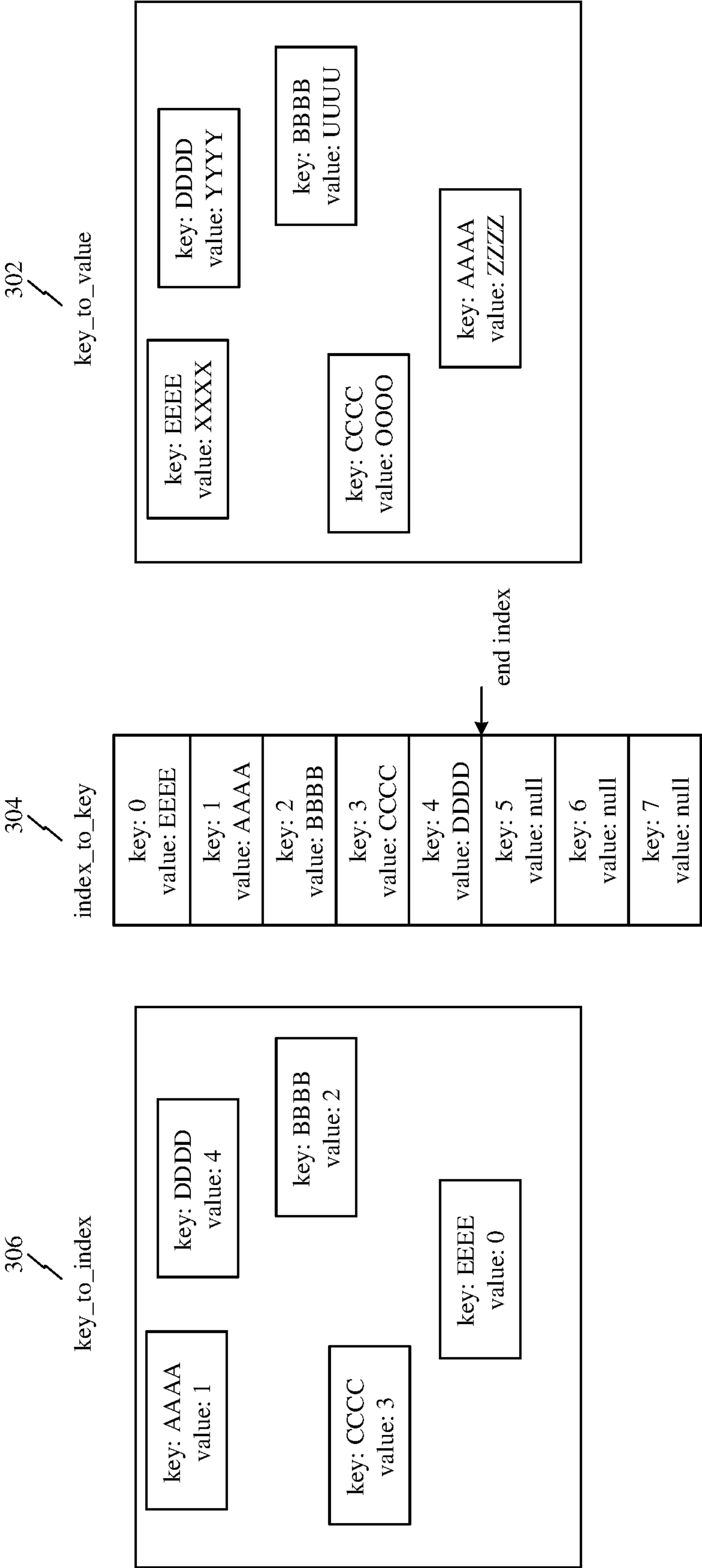


FIG.3

400

KEY		VALUE
302	USERID_KEY_TO_VALUE_AAAA	ZZZZ
	USERID_KEY_TO_VALUE_BBBB	UUUU
	USERID_KEY_TO_VALUE_CCCC	OOOO
	USERID_KEY_TO_VALUE_DDDD	YYYY
	USERID_KEY_TO_VALUE_EEEE	XXXX
304	USERID_INDEX_TO_KEY_0	EEEE
	USERID_INDEX_TO_KEY_1	AAAA
	USERID_INDEX_TO_KEY_2	BBBB
	USERID_INDEX_TO_KEY_3	CCCC
	USERID_INDEX_TO_KEY_4	DDDD
306	USERID_KEY_TO_INDEX_AAAA	1
	USERID_KEY_TO_INDEX_BBBB	2
	USERID_KEY_TO_INDEX_CCCC	3
	USERID_KEY_TO_INDEX_DDDD	4
	USERID_KEY_TO_INDEX_EEEE	0
USERID_END_INDEX		4

FIG.4

500

KEY		VALUE
302	USERID_KEY_TO_VALUE_AAAA	ZZZZ
	USERID_KEY_TO_VALUE_BBBB	UUUU
	USERID_KEY_TO_VALUE_CCCC	OOOO
	USERID_KEY_TO_VALUE_DDDD	YYYY
	USERID_KEY_TO_VALUE_EEEE	XXXX
304	USERID_INDEX_TO_KEY_0	EEEE
	USERID_INDEX_TO_KEY_1	AAAA
	USERID_INDEX_TO_KEY_2	BBBB
	USERID_INDEX_TO_KEY_3	CCCC
	USERID_INDEX_TO_KEY_4	DDDD
306	USERID_KEY_TO_INDEX_AAAA	1
	USERID_KEY_TO_INDEX_BBBB	2
	USERID_KEY_TO_INDEX_CCCC	3
	USERID_KEY_TO_INDEX_DDDD	4
	USERID_KEY_TO_INDEX_EEEE	0
USERID_END_INDEX		4

FIG.5

600

302 {

304 {

306 {

KEY	VALUE
USERID_KEY_TO_VALUE_AAAA	ZZZZ
USERID_KEY_TO_VALUE_BBBB	UUUU
USERID_KEY_TO_VALUE_CCCC	OOOO
USERID_KEY_TO_VALUE_DDDD	YYYY
USERID_KEY_TO_VALUE_EEEE	~~XXXX~~ KKKK
USERID_INDEX_TO_KEY_0	EEEE
USERID_INDEX_TO_KEY_1	AAAA
USERID_INDEX_TO_KEY_2	BBBB
USERID_INDEX_TO_KEY_3	CCCC
USERID_INDEX_TO_KEY_4	DDDD
USERID_KEY_TO_INDEX_AAAA	1
USERID_KEY_TO_INDEX_BBBB	2
USERID_KEY_TO_INDEX_CCCC	3
USERID_KEY_TO_INDEX_DDDD	4
USERID_KEY_TO_INDEX_EEEE	0
USERID_END_INDEX	4

312

602 →

← 604

FIG.6

700

KEY		VALUE
302	USERID_KEY_TO_VALUE_AAAA	ZZZZ
	USERID_KEY_TO_VALUE_BBBB	UUUU
	USERID_KEY_TO_VALUE_CCCC	OOOO
	USERID_KEY_TO_VALUE_DDDD	YYYY
	USERID_KEY_TO_VALUE_EEEE	KKKK
	USERID_KEY_TO_VALUE_FFFF	VVVV
304	USERID_INDEX_TO_KEY_0	EEEE
	USERID_INDEX_TO_KEY_1	AAAA
	USERID_INDEX_TO_KEY_2	BBBB
	USERID_INDEX_TO_KEY_3	CCCC
	USERID_INDEX_TO_KEY_4	DDDD
	USERID_INDEX_TO_KEY_5	FFFF
306	USERID_KEY_TO_INDEX_AAAA	1
	USERID_KEY_TO_INDEX_BBBB	2
	USERID_KEY_TO_INDEX_CCCC	3
	USERID_KEY_TO_INDEX_DDDD	4
	USERID_KEY_TO_INDEX_EEEE	0
	USERID_KEY_TO_INDEX_FFFF	5
USERID_END_INDEX		✕ 5

708: store on blockchain

← 704

← 706

← 702

FIG.7

800

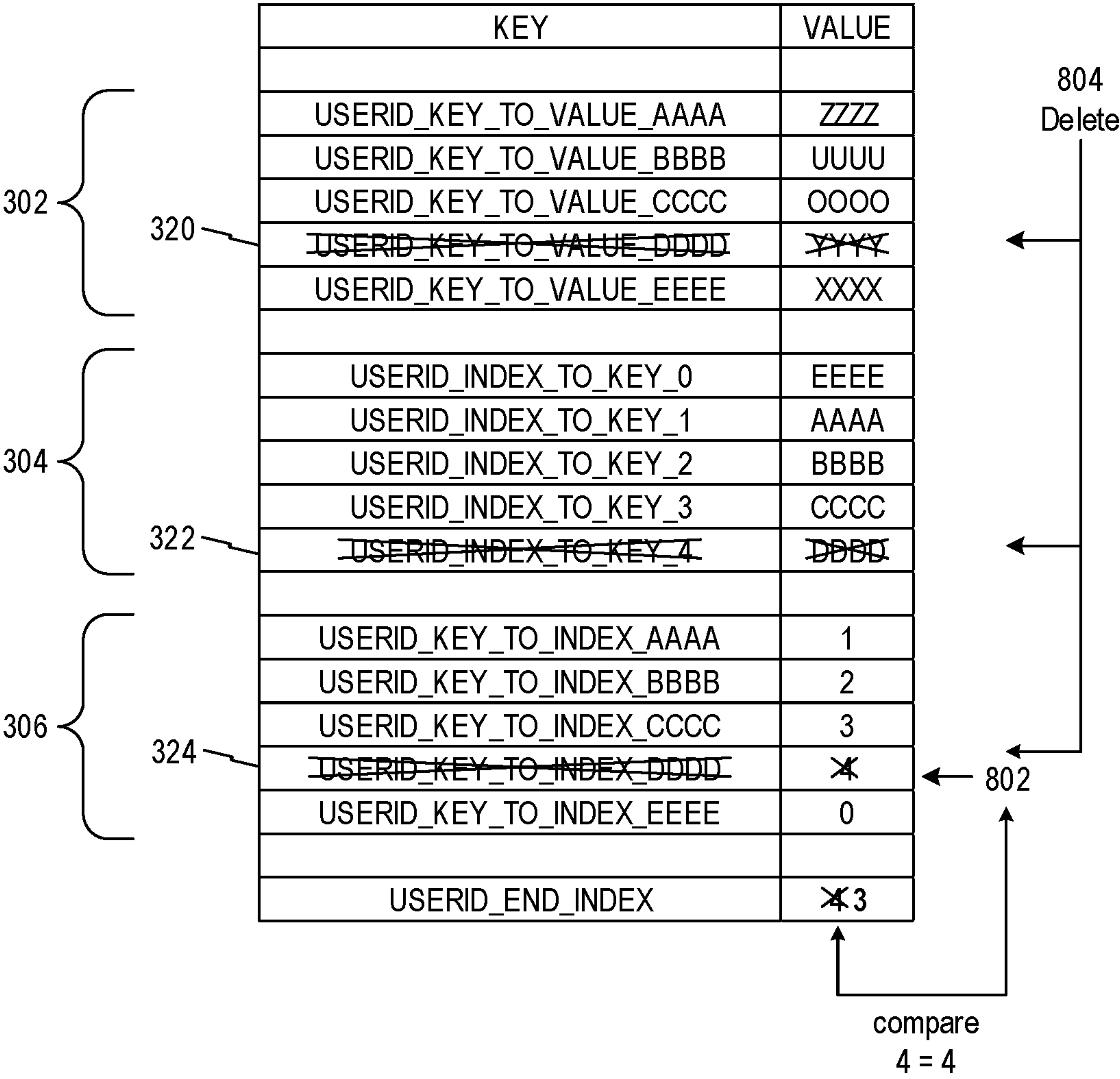


FIG.8

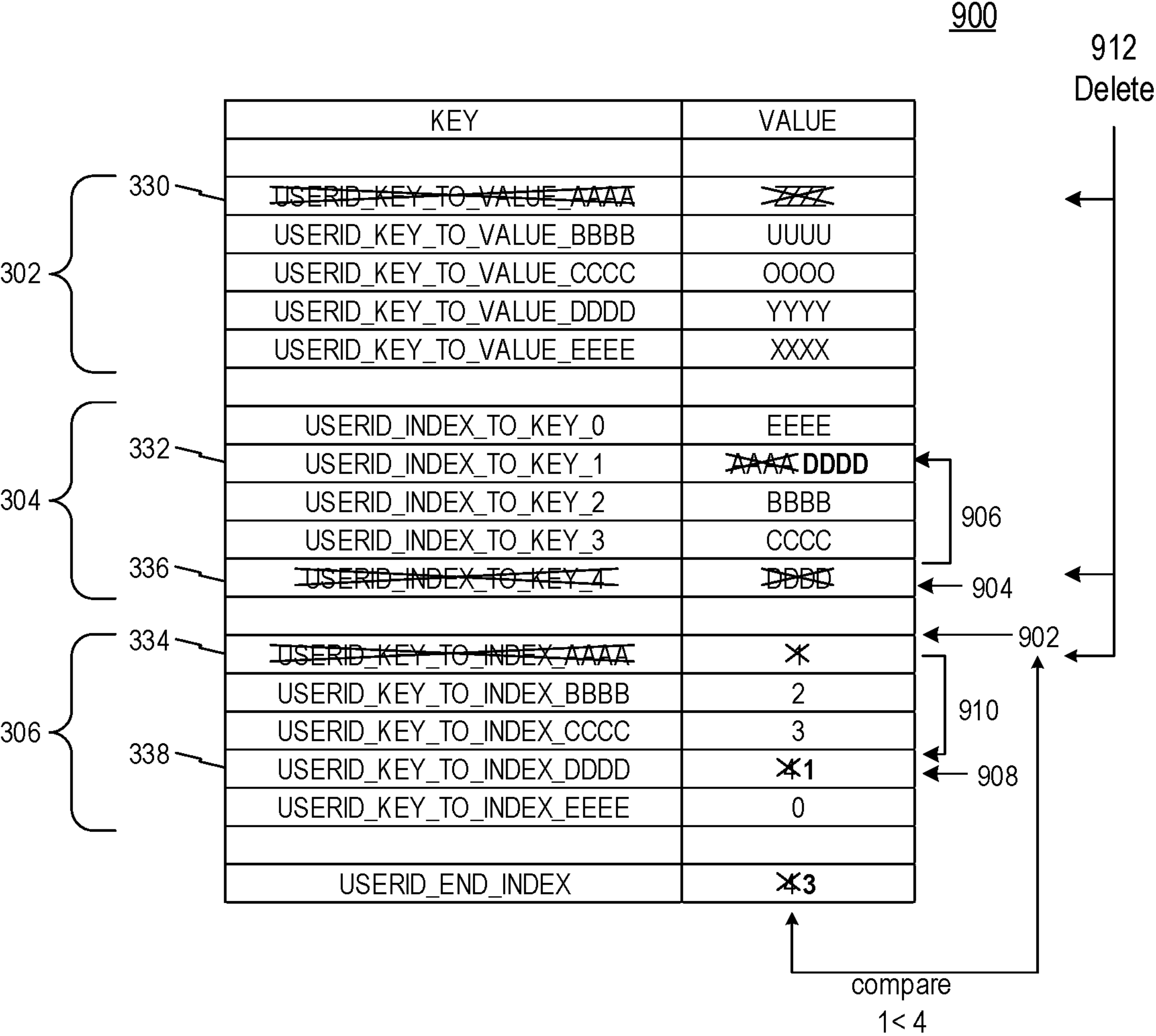


FIG.9

1000

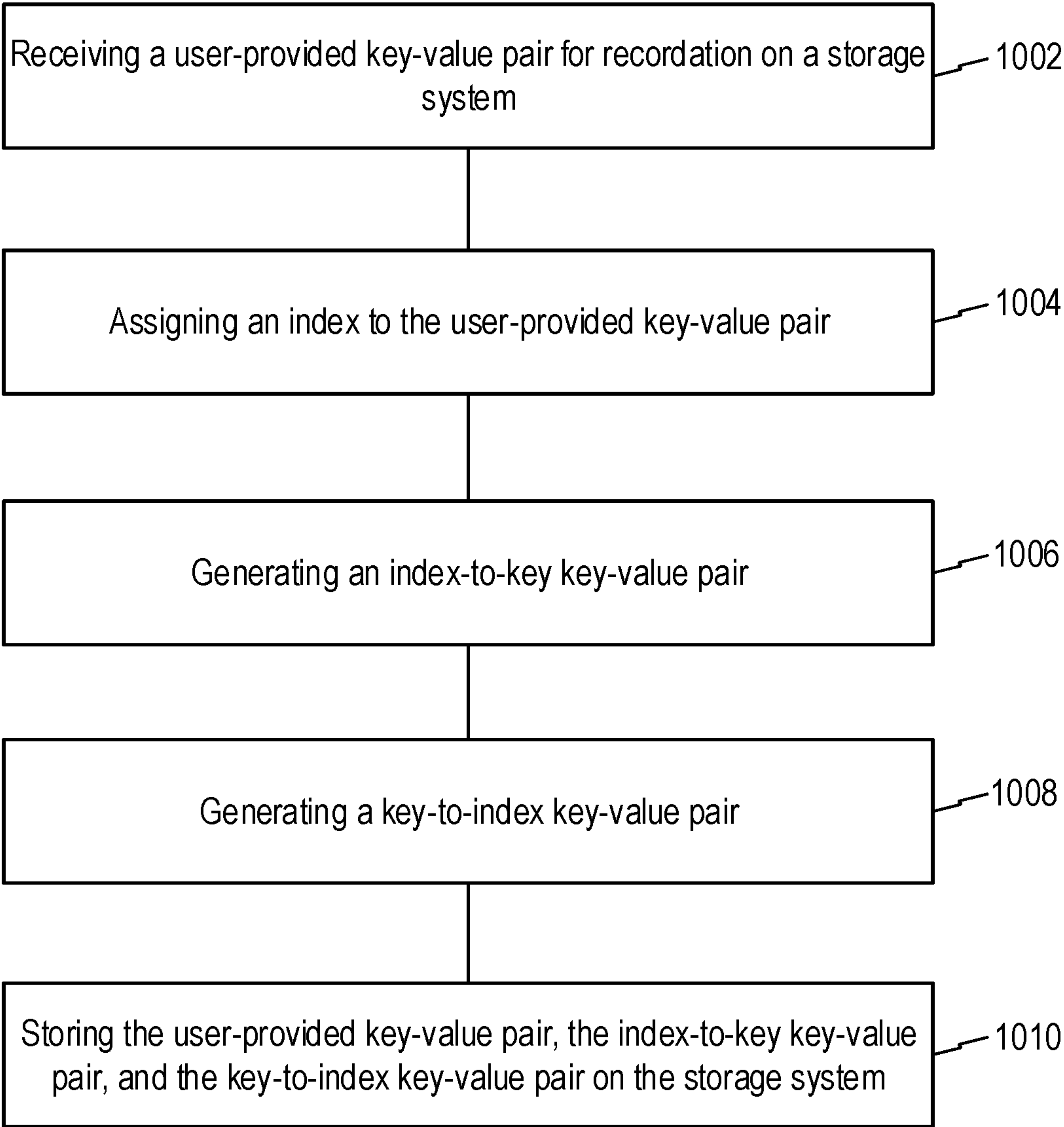


FIG.10

1100

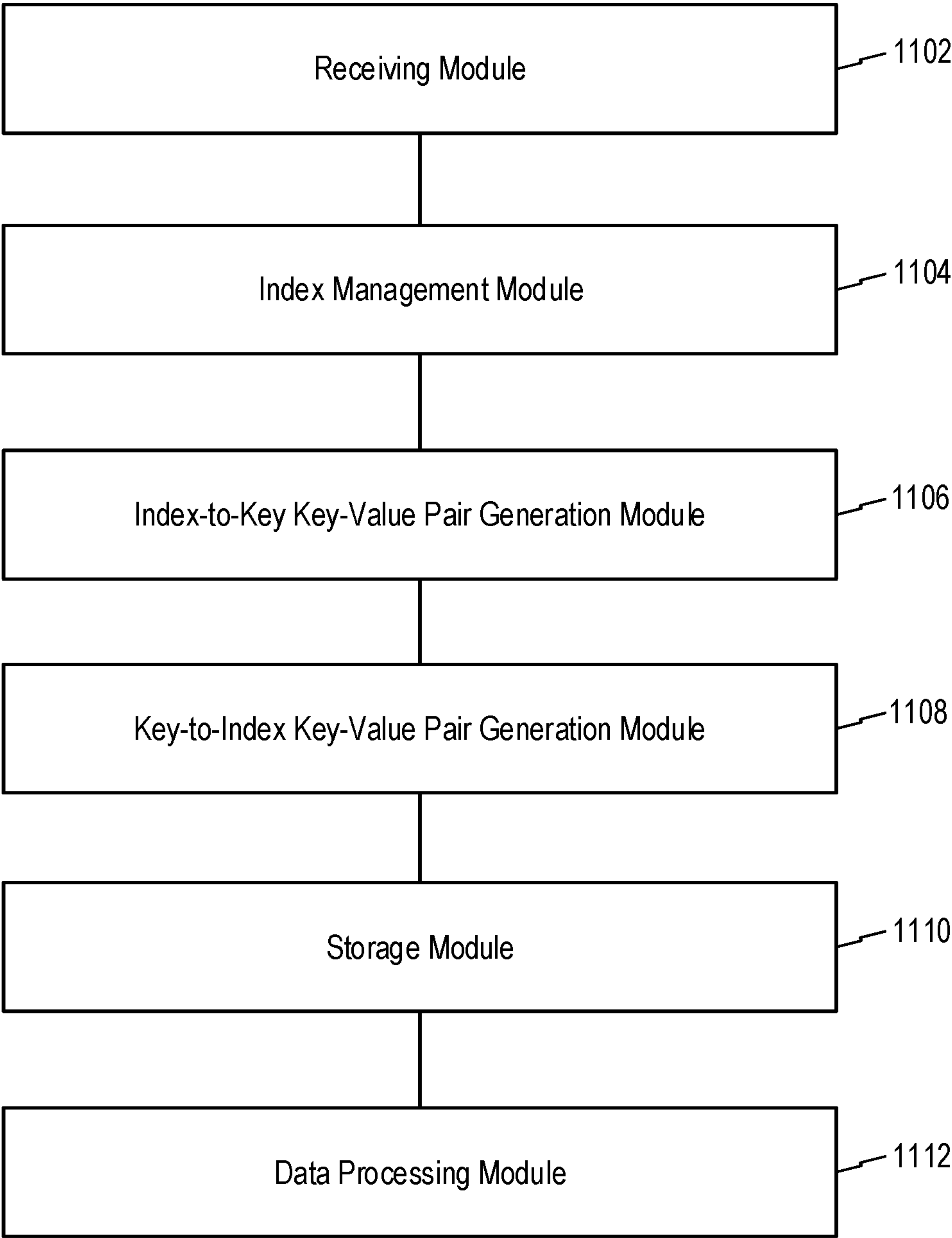


FIG.11