

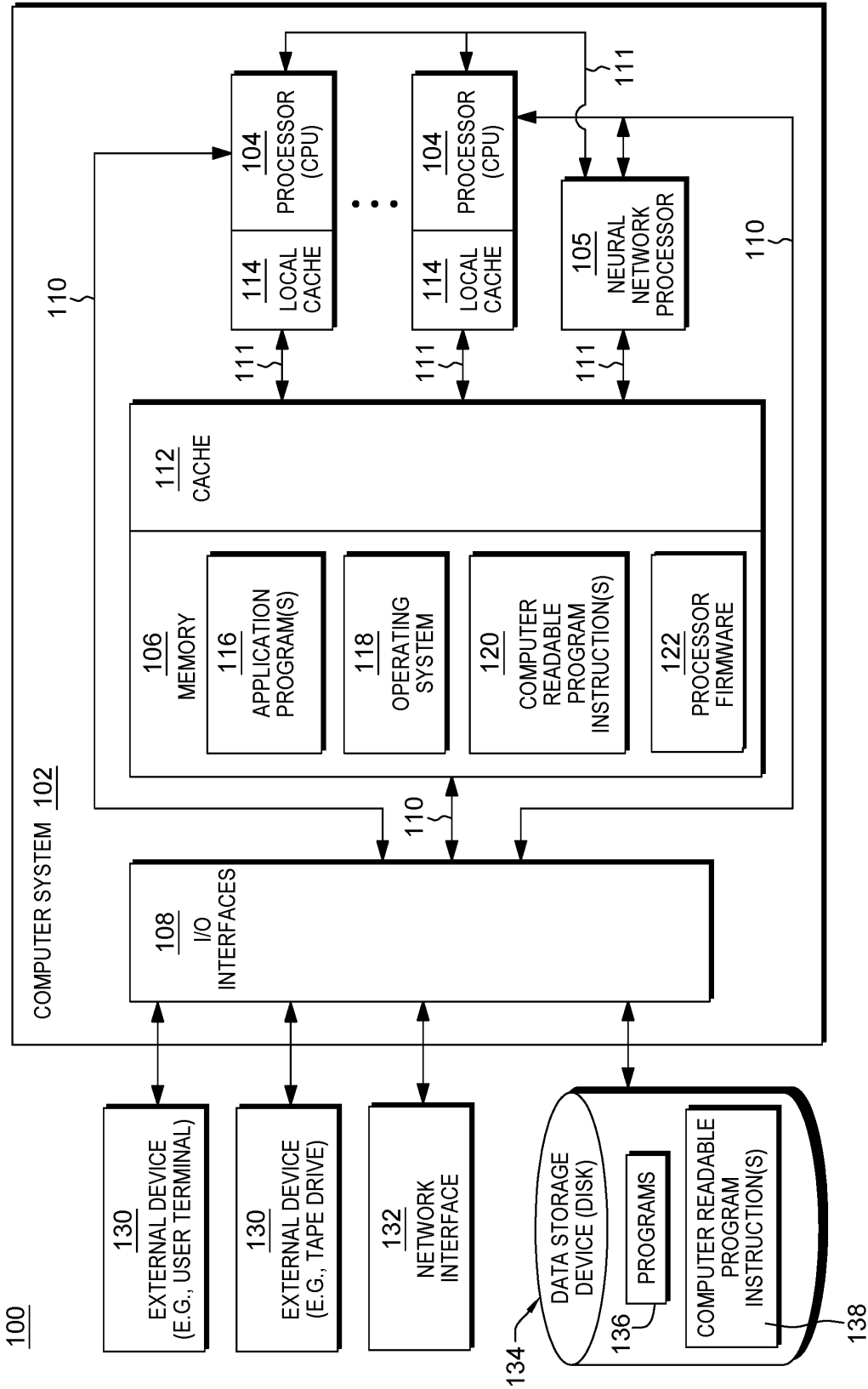


FIG. 1A

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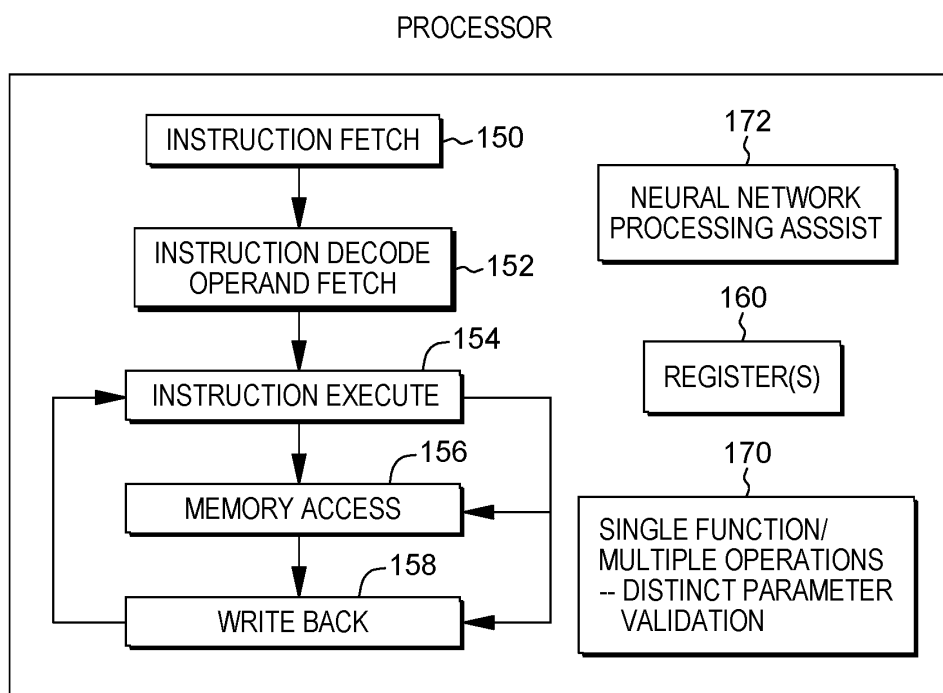


FIG. 1B

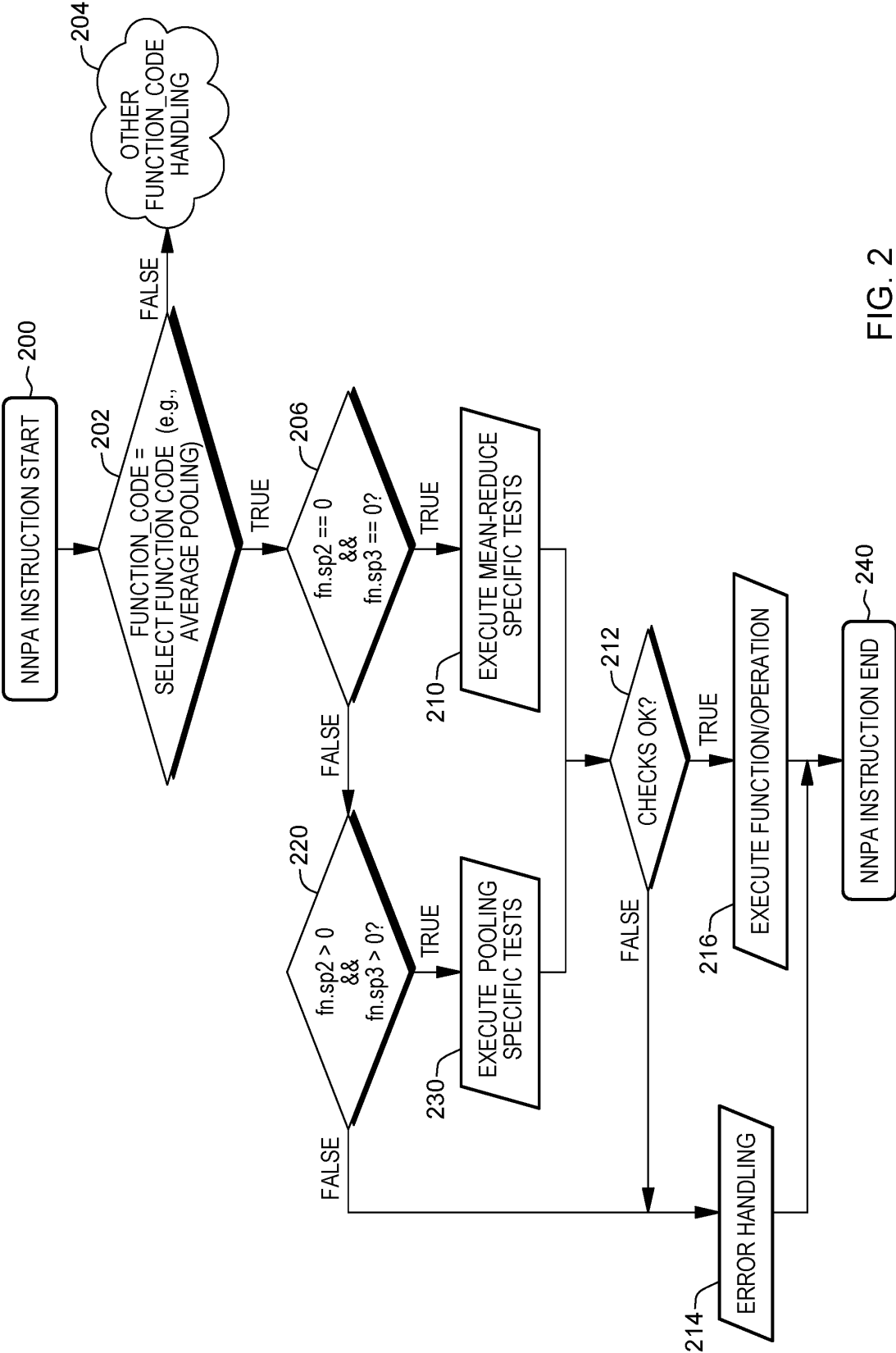


FIG. 2

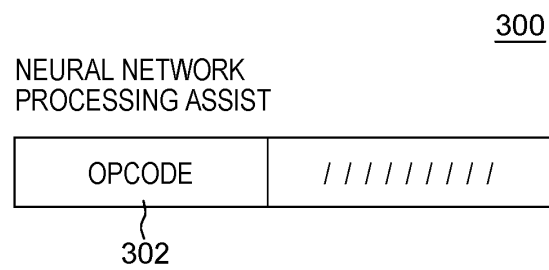


FIG. 3A

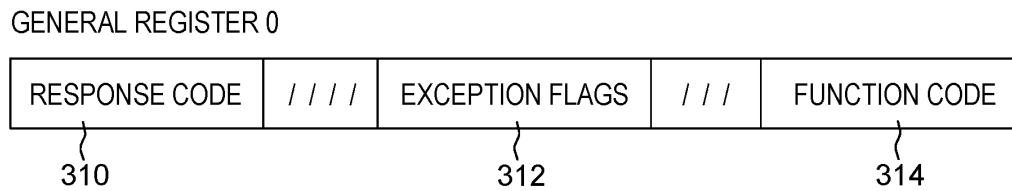


FIG. 3B

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CODE (DEC)	CODE (HEX)	FUNCTION	PARAMETER BLOCK SIZE (BYTES)
0	0	NNPA - QAF	256
16	10	NNPA - ADD	4096
17	11	NNPA - SUB	4096
18	12	NNPA - MUL	4096
19	13	NNPA - DIV	4096
20	14	NNPA - MIN	4096
21	15	NNPA - MAX	4096
32	20	NNPA - LOG	4096
33	21	NNPA - EXP	4096
49	31	NNPA - RELU	4096
50	32	NNPA - TANH	4096
51	33	NNPA - SIGMOID	4096
52	34	NNPA - SOFTMAX	4096
64	40	NNPA - BATCHNORM	4096
80	50	NNPA - MAXPOOL2D	4096
81	51	NNPA - AVGPOOL2D	4096
96	60	NNPA - LSTMCT	4096
97	61	NNPA - GRUACT	4096
112	70	NNPA - CONVOLUTION	4096
113	71	NNPA - MATMUL-OP	4096
114	72	NNPA - MATMUL-OP-BCAST23	4096

FIG. 3C

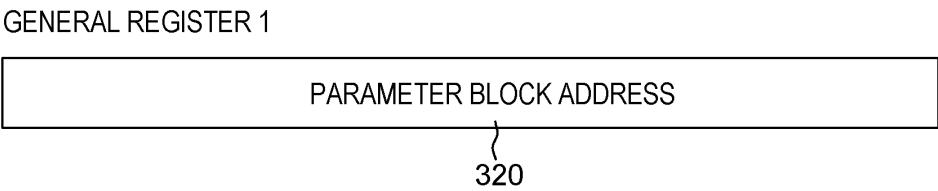


FIG. 3D

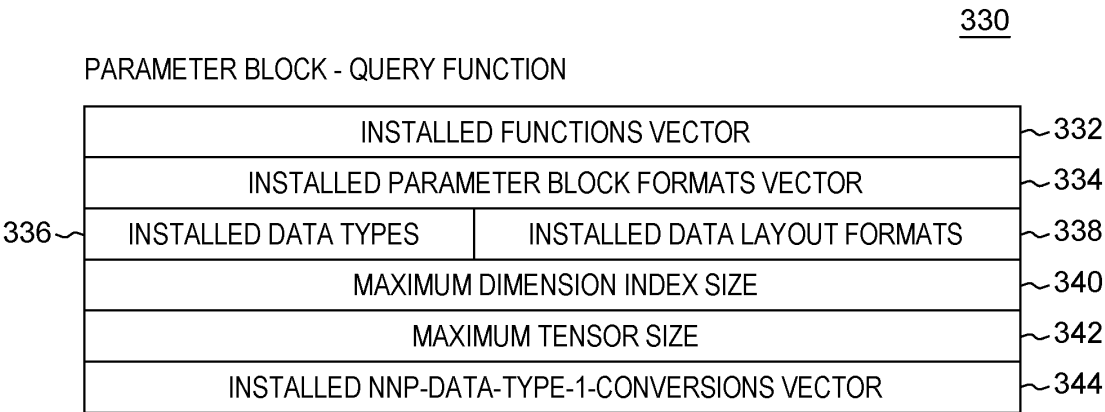


FIG. 3E

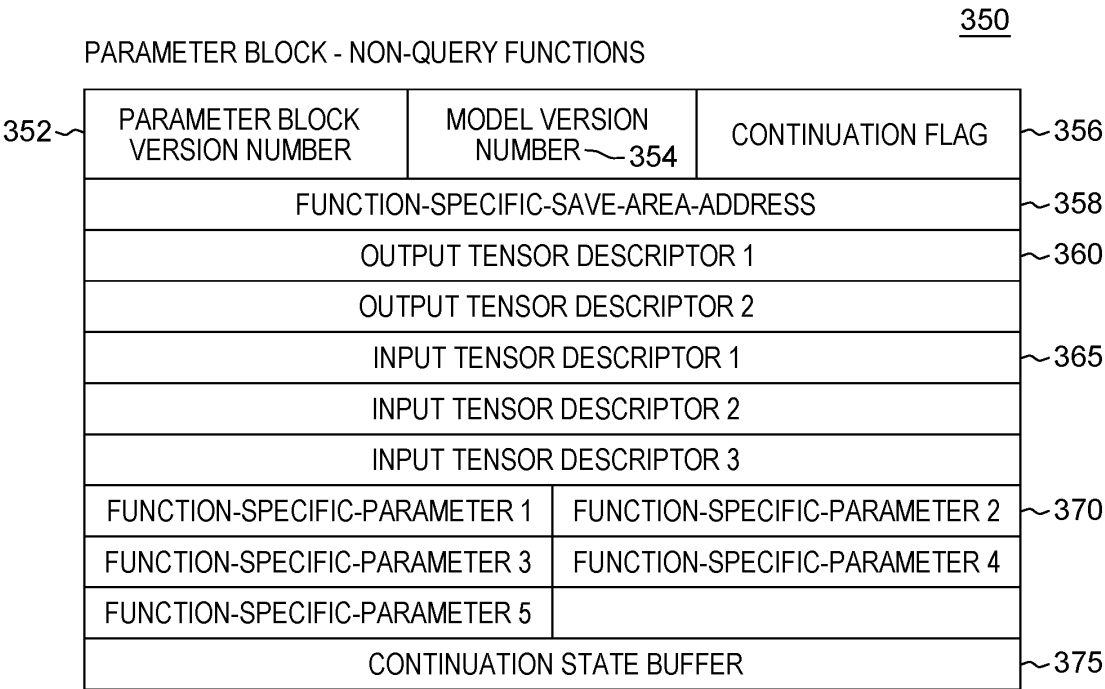


FIG. 3F

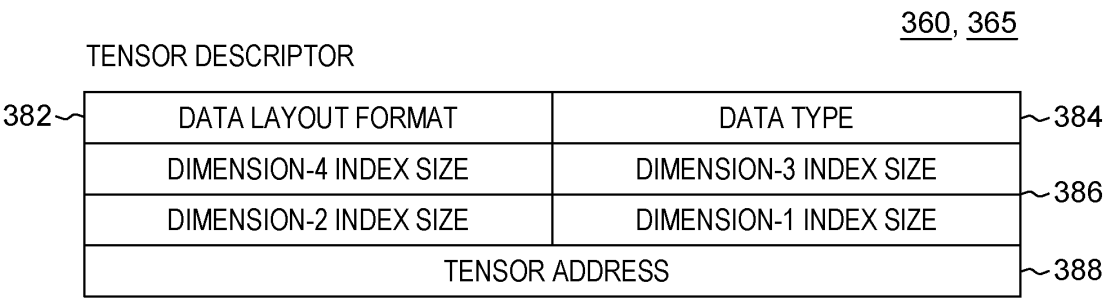


FIG. 3G

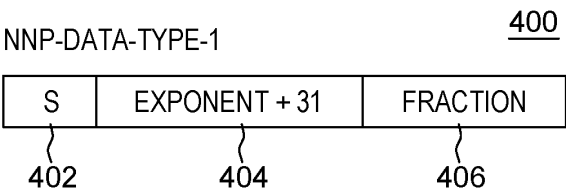
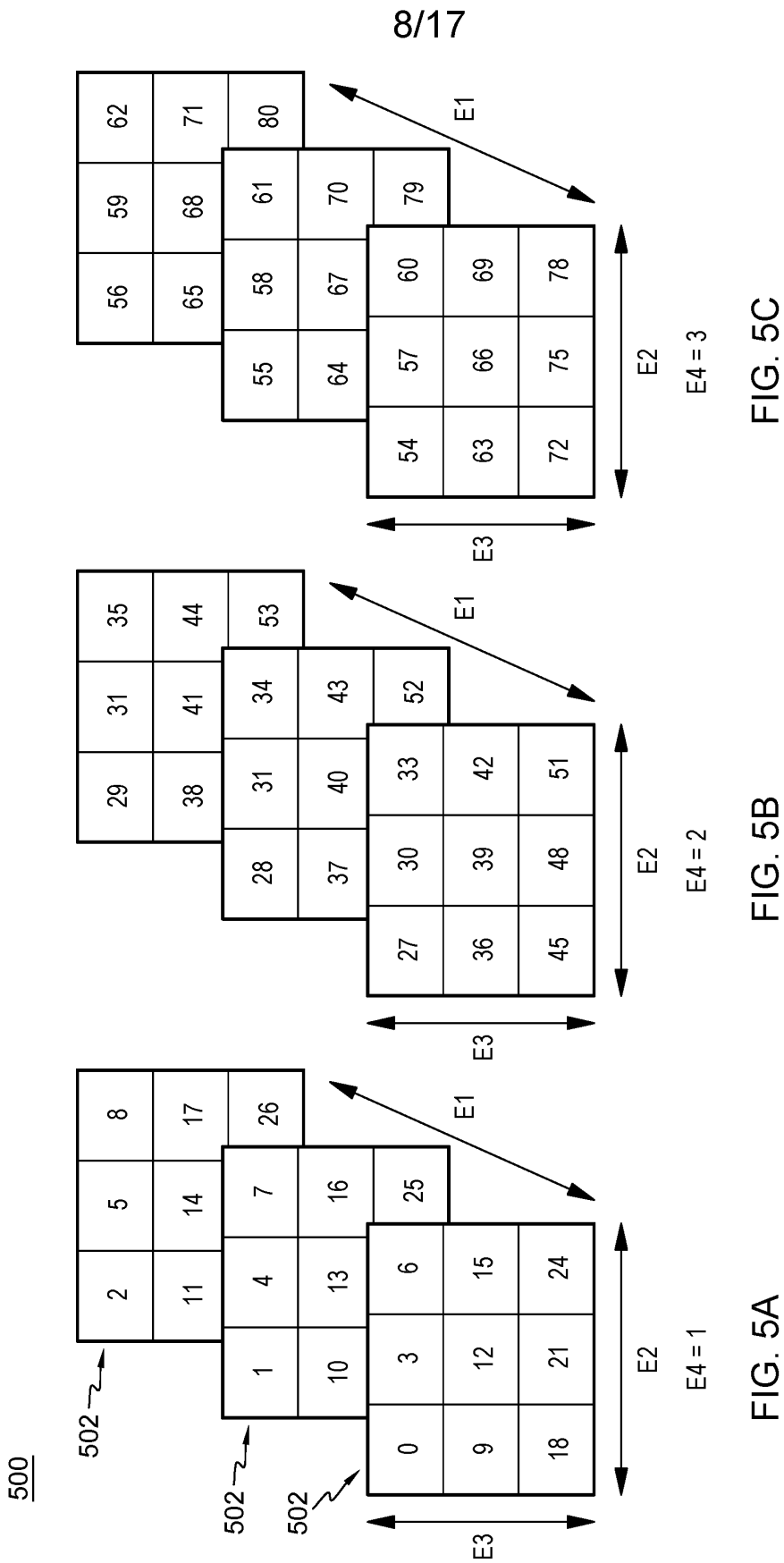


FIG. 4



E4 = 1

PAGE 0

e2_page_idx	e1_page_idx		
	0	1	2
0	0	1	2
1	3	4	5
2	6	7	8
3-31	PAD	PAD	PAD

PAGE 3

e2_page_idx	e1_page_idx		
	0	1	2
0	27	28	29
1	30	31	32
2	33	34	35
3-31	PAD	PAD	PAD

PAGE 6

e2_page_idx	e1_page_idx		
	0	1	2
0	54	55	56
1	57	58	59
2	60	61	62
3-31	PAD	PAD	PAD

E4 = 2

PAGE 1

e2_page_idx	e1_page_idx		
	0	1	2
0	9	10	11
1	12	13	14
2	15	16	17
3-31	PAD	PAD	PAD

PAGE 4

e2_page_idx	e1_page_idx		
	0	1	2
0	36	37	38
1	39	40	41
2	42	43	44
3-31	PAD	PAD	PAD

PAGE 7

e2_page_idx	e1_page_idx		
	0	1	2
0	63	64	65
1	66	67	68
2	69	70	71
3-31	PAD	PAD	PAD

PAGE 2

e2_page_idx	e1_page_idx		
	0	1	2
0	18	19	20
1	21	22	23
2	24	25	26
3-31	PAD	PAD	PAD

PAGE 5

e2_page_idx	e1_page_idx		
	0	1	2
0	45	46	47
1	48	49	50
2	51	52	53
3-31	PAD	PAD	PAD

PAGE 8

e2_page_idx	e1_page_idx		
	0	1	2
0	72	73	74
1	75	76	77
2	78	79	80
3-31	PAD	PAD	PAD

FIG. 6A

FIG. 6B

FIG. 6C

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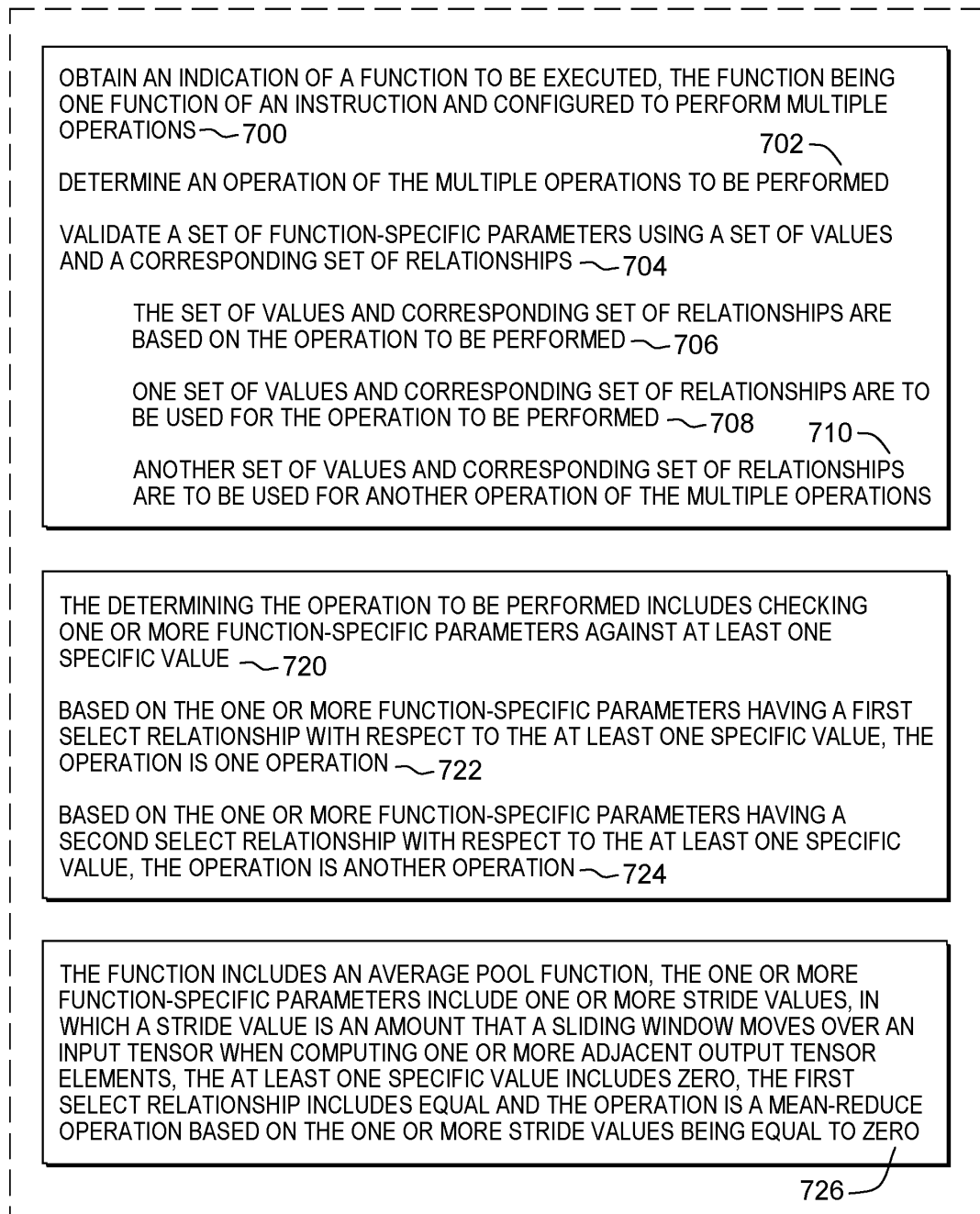


FIG. 7A

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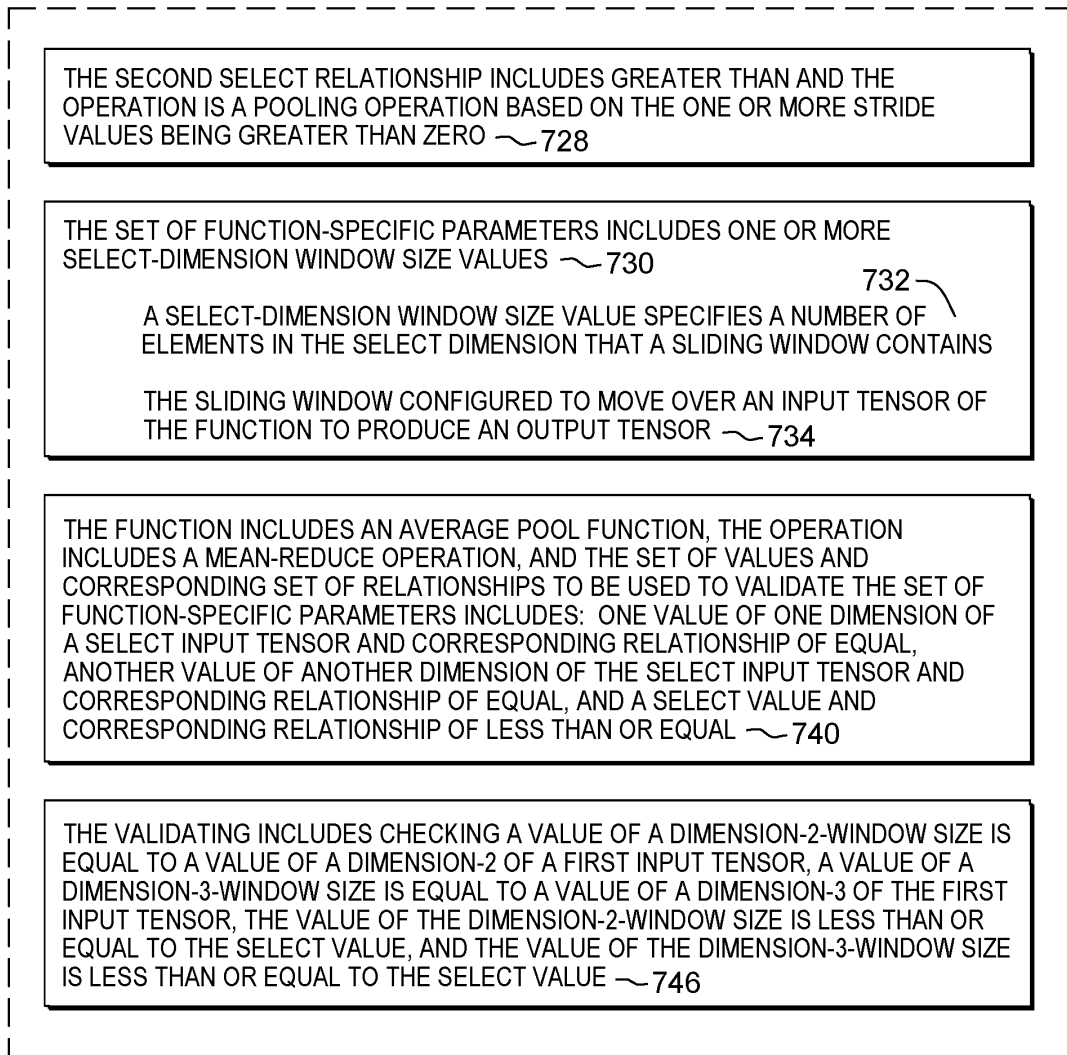


FIG. 7B

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THE FUNCTION INCLUDES AN AVERAGE POOL FUNCTION, THE OPERATION INCLUDES A POOLING OPERATION, AND THE SET OF VALUES AND CORRESPONDING SET OF RELATIONSHIPS TO BE USED TO VALIDATE THE SET OF FUNCTION-SPECIFIC PARAMETERS INCLUDES: ONE VALUE OF ONE DIMENSION OF A SELECT INPUT TENSOR AND CORRESPONDING RELATIONSHIP OF LESS THAN OR EQUAL, AND ANOTHER VALUE OF ANOTHER DIMENSION OF THE SELECT INPUT TENSOR AND CORRESPONDING RELATIONSHIP OF LESS THAN OR EQUAL ~ 750

THE VALIDATING INCLUDES CHECKING THAT A VALUE OF A DIMENSION-2-WINDOW SIZE IS LESS THAN OR EQUAL TO A VALUE OF A DIMENSION-2 OF A FIRST INPUT TENSOR AND THAT A VALUE OF A DIMENSION-3-WINDOW SIZE IS LESS THAN OR EQUAL TO A VALUE OF A DIMENSION-3 OF THE FIRST INPUT TENSOR ~ 756

DETERMINE WHETHER A TYPE OF PADDING IS SET TO A PARTICULAR TYPE, IN WHICH THE TYPE OF PADDING INDICATES WHICH ELEMENTS OF A WINDOW ARE TO BE USED IN COMPUTING THE OUTPUT, AND BASED ON THE TYPE OF PADDING BEING SET TO THE PARTICULAR TYPE, THE VALIDATING IS PERFORMED ~ 760

BASED ON THE TYPE OF PADDING NOT BEING SET TO THE PARTICULAR TYPE, ONE OR MORE CHECKS ARE PERFORMED RELATING TO ONE OR MORE DIMENSIONS OF AN OUTPUT TENSOR ~ 762

THE DETERMINING THE OPERATION IS BASED ON AT LEAST ONE SLIDING WINDOW STRIDE VALUE OF AN INPUT TENSOR ~ 770

THE SET OF FUNCTION-SPECIFIC PARAMETERS INCLUDES AT LEAST ONE SLIDING WINDOW DIMENSION OF AN INPUT TENSOR ~ 772

FIG. 7C

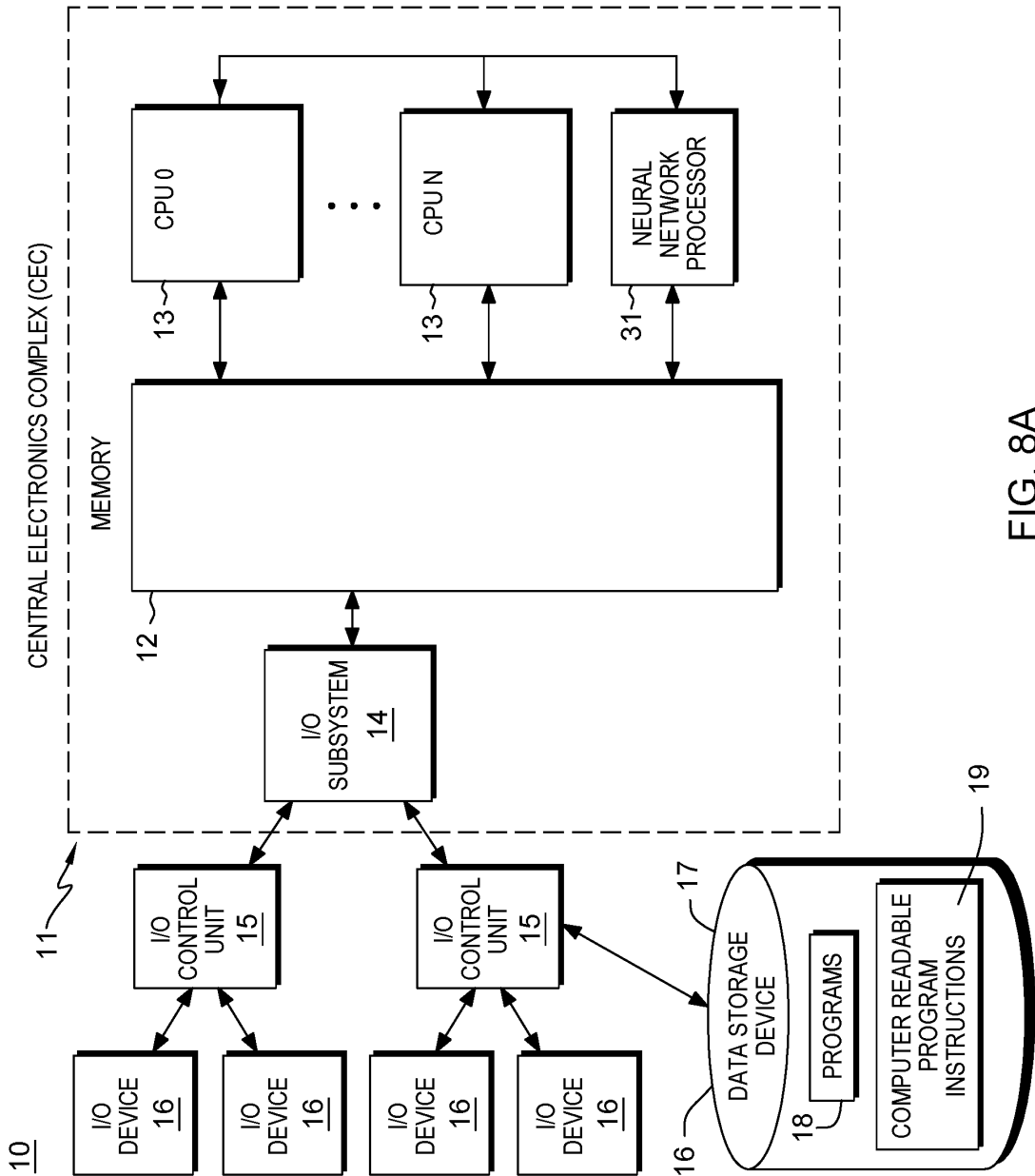


FIG. 8A

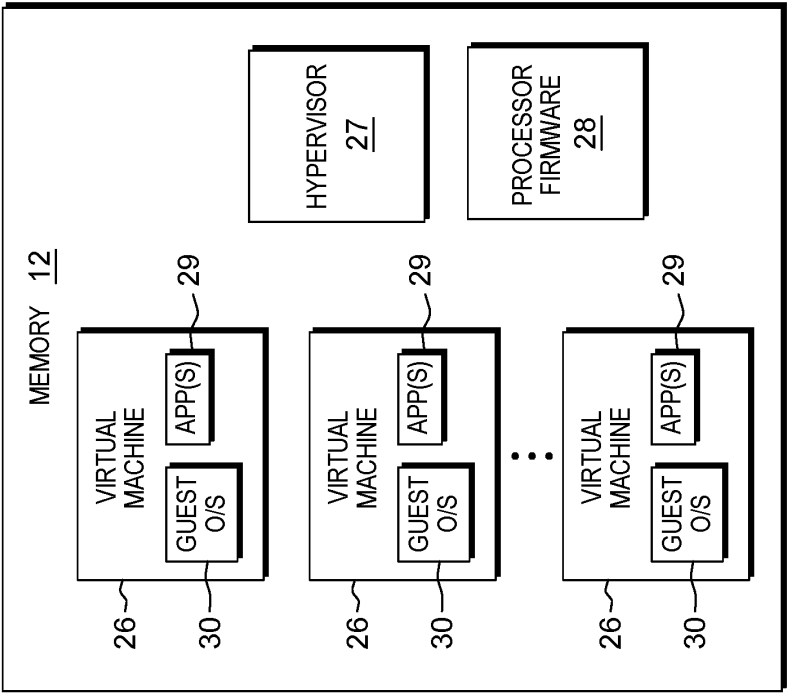


FIG. 8C

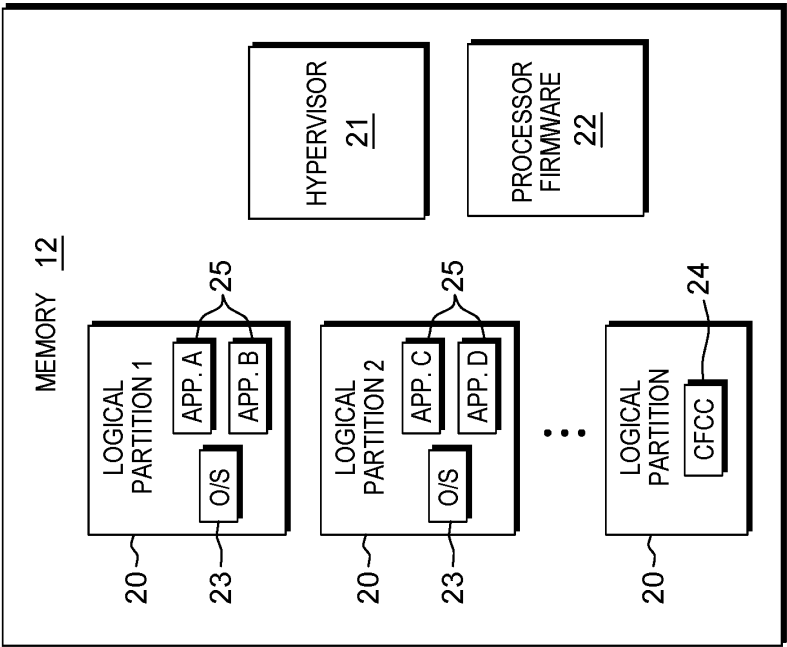


FIG. 8B

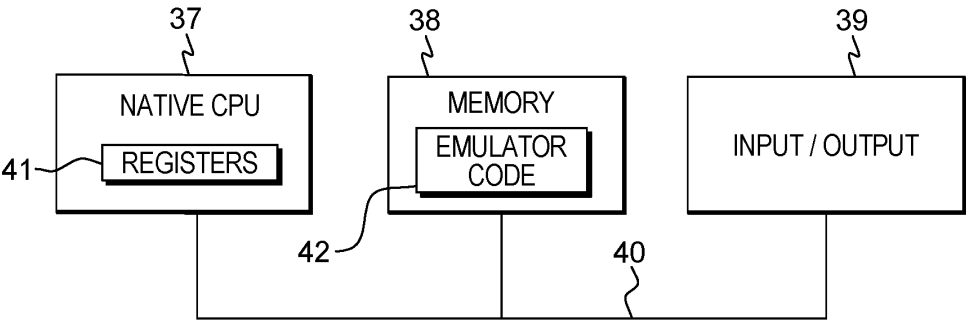


FIG. 9A

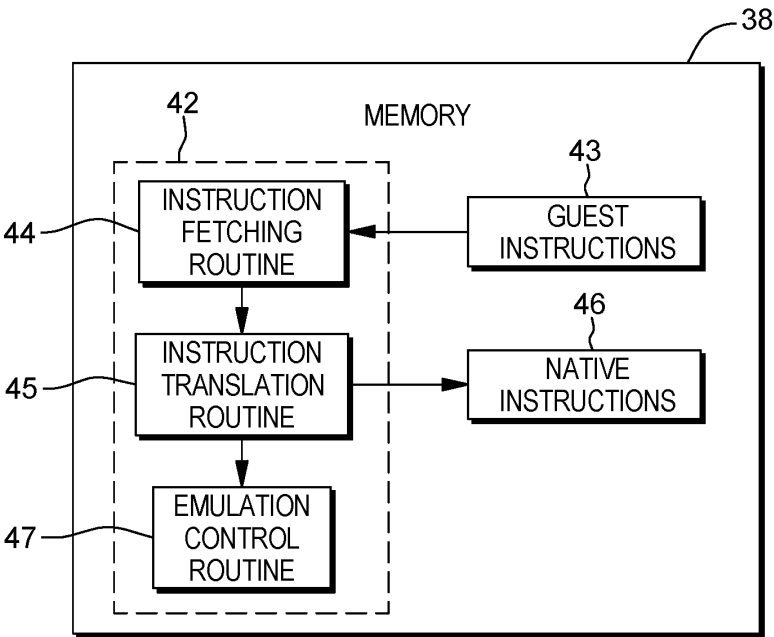


FIG. 9B

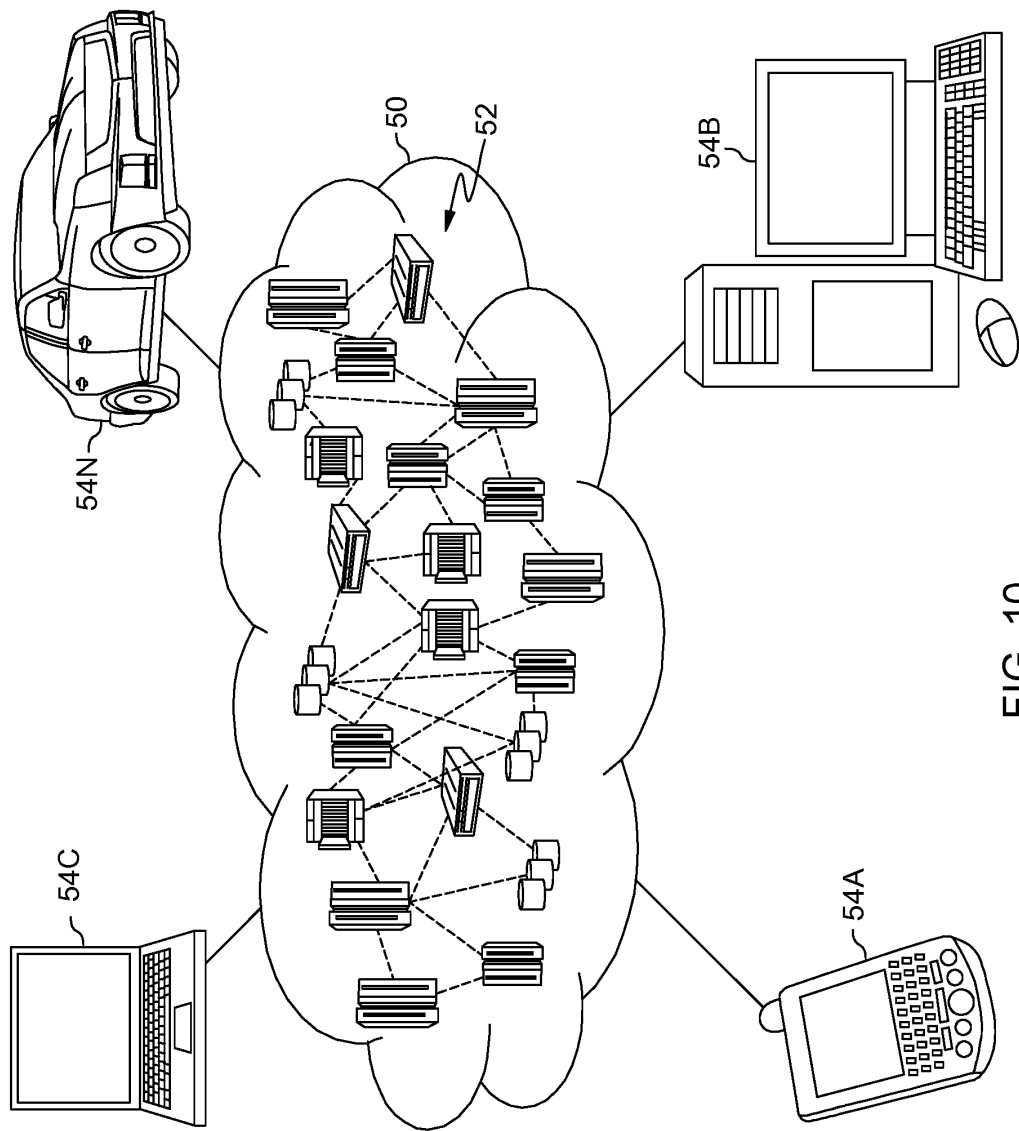


FIG. 10

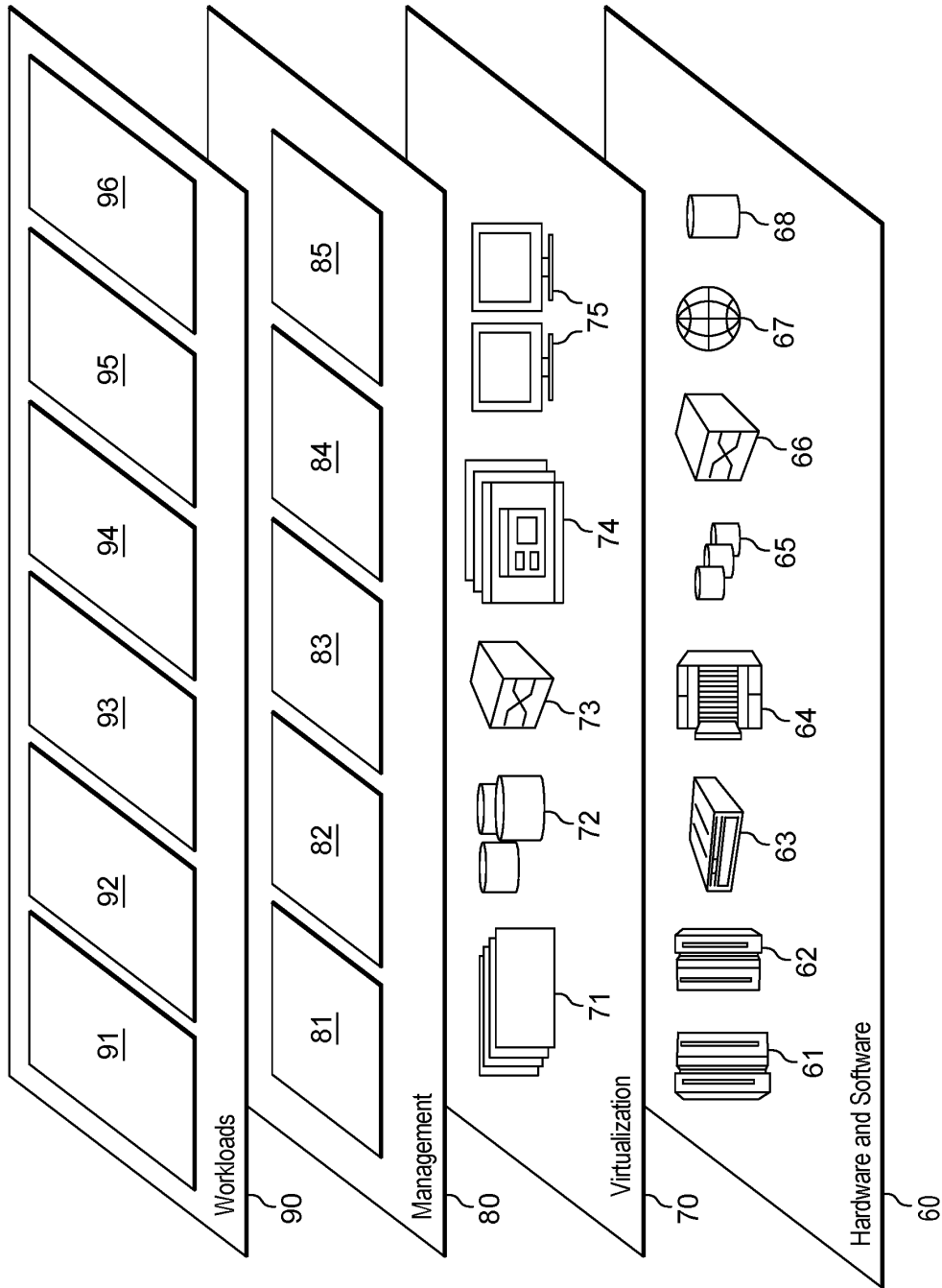


FIG. 11