

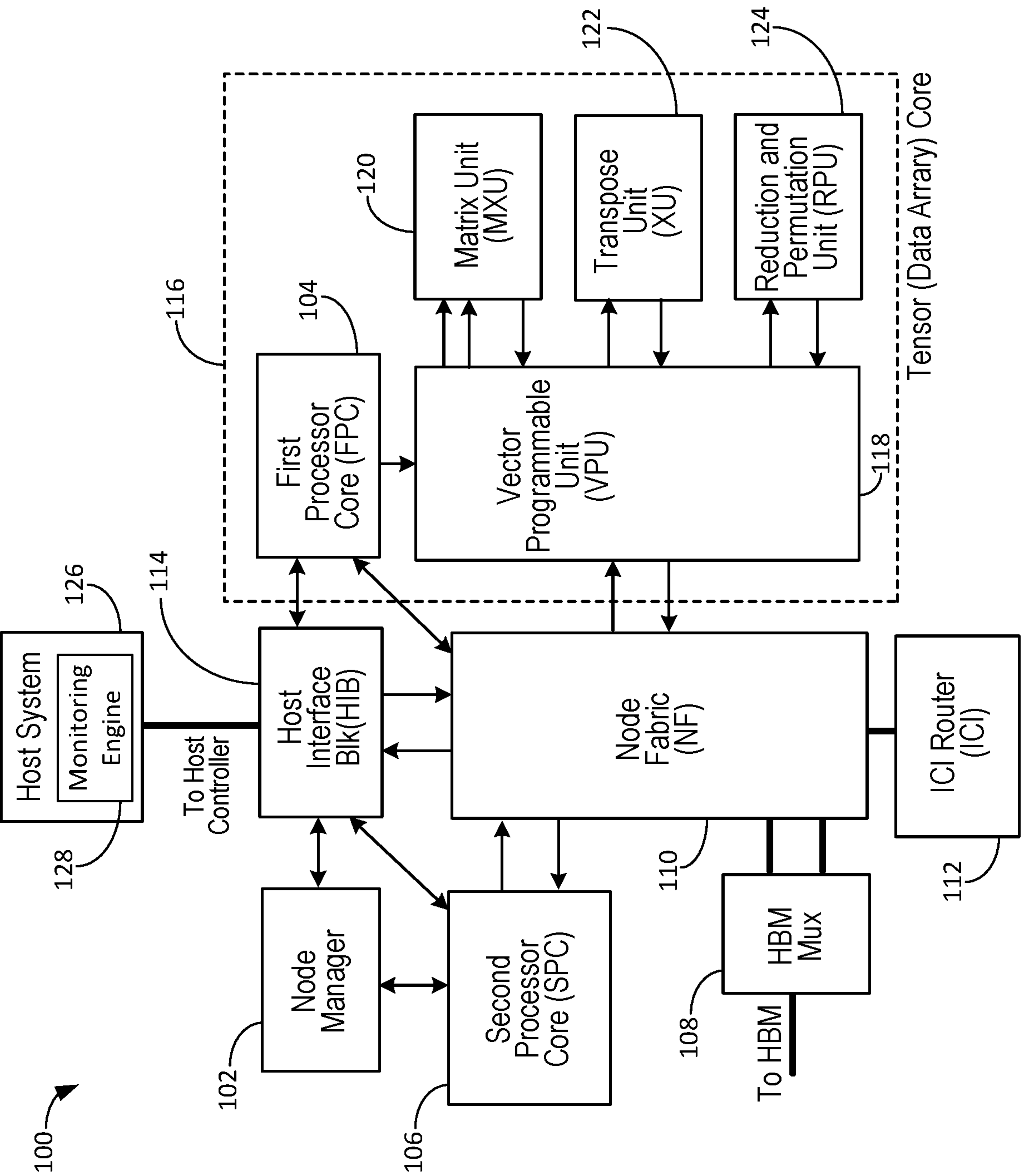


FIG. 1

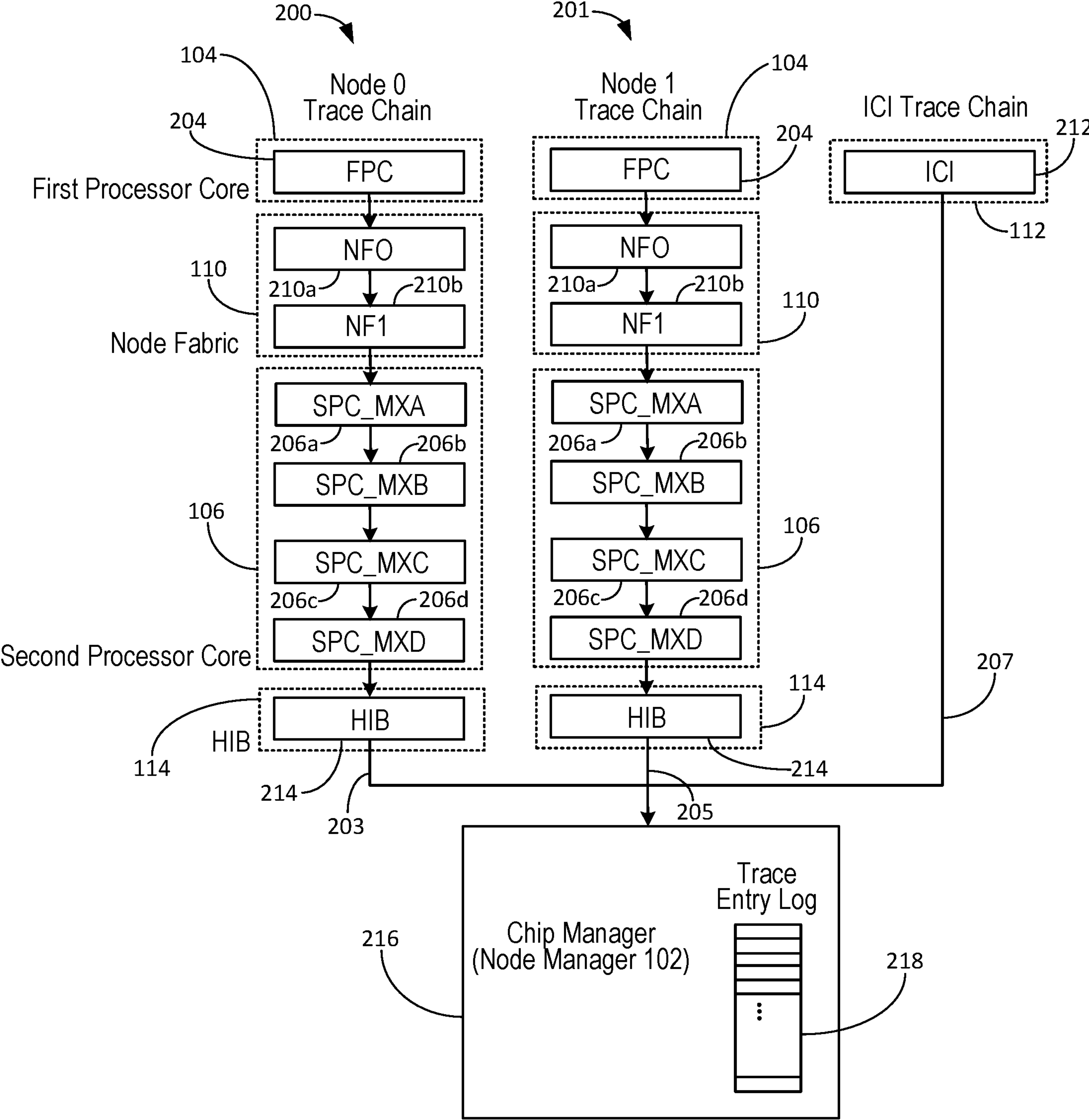
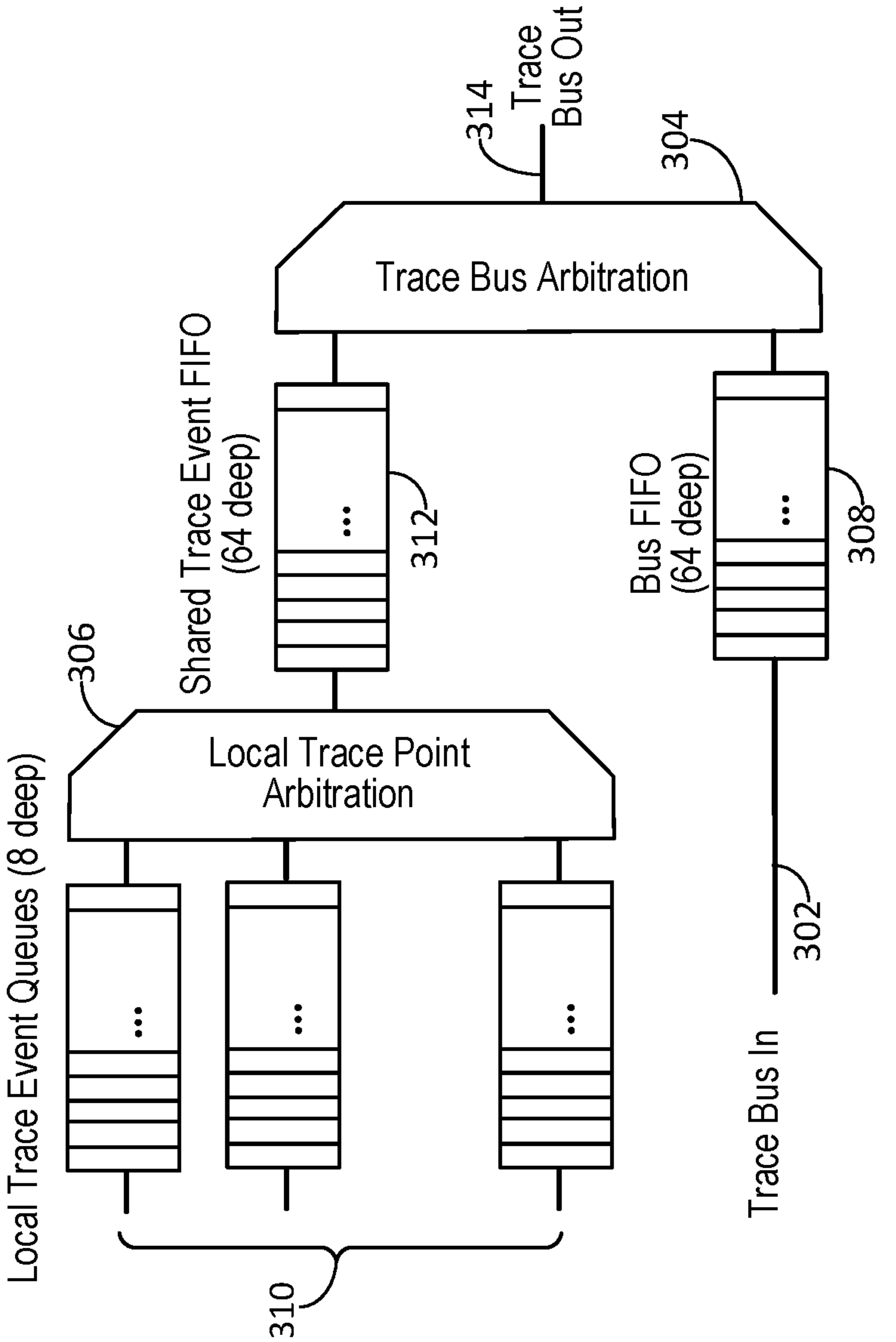


FIG. 2

300



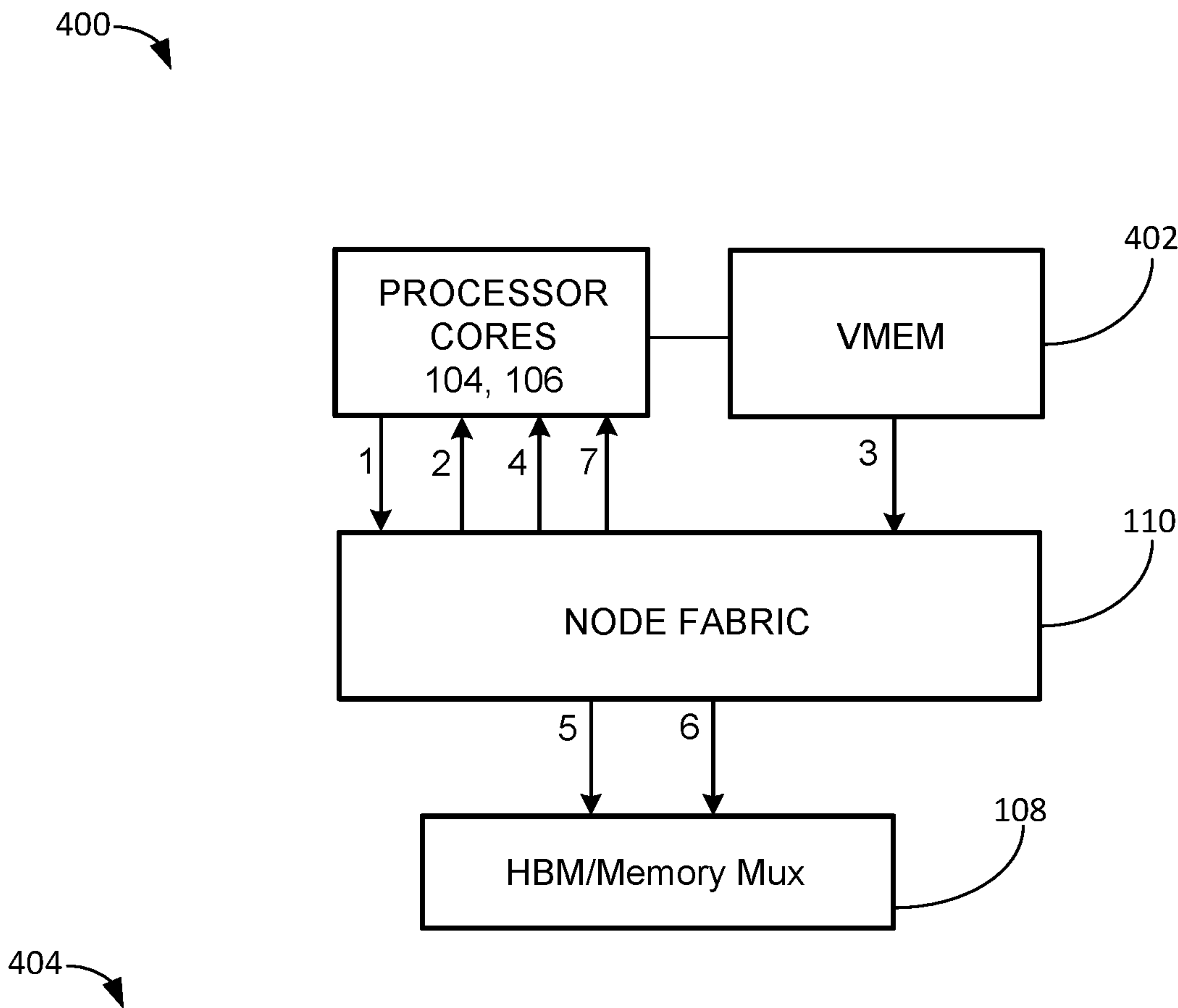
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Time	Trace ID	Source	Destination	Component(s)	Trace Event	Size	Latency
09:01.13	000001	0x00F100	0x00F200	FPC → FPC	DMA	128 bytes	9µs
09:05.27	000002	0x00F300	0x00F400	FPC → SPC	DMA	256 bytes	.023ms
09:12.35	000003	0x00F500	0x00F600	SPC → NF	DMA (issued)	512 bytes	.xxx secs
09:12.49	000003	0x00F600	0x00F700	NF → HBM	DMA (executed)	512 bytes	.xxx secs
09:12.58	000003	0x00F700	0x00F800	NF → FPC	DMA (complt)	512 bytes	.xxx secs

322

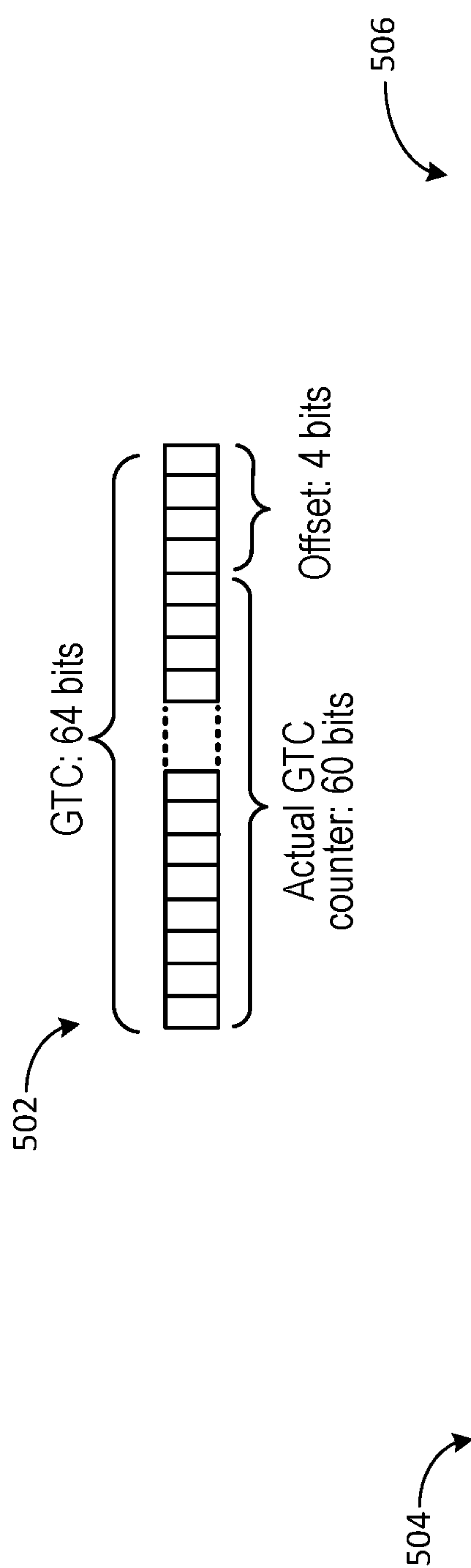
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FIG. 3



STEP	OPERATION
1	INITIAL DMA REQUEST; TRACEPOINT IN NODE FABRIC
2	READ CMD: NF ASKS CORE TO TRANSFER DATA; TRACEPOINT IN NF
3	READ COMPLETE: NO TRACEPOINT IN NF HERE!
4	READ RESOURCE UPDATE: SYNC FLAG UPDATE IN CORE; TRACEPOINT IN FPC
5	WRITE CMD: NF NOTIFIES HBM; TRACEPOINT IN NF
6	WRITE COMPLETE: TRACEPOINT IN NF
7	WRITE RESOURCE UPDATE: SYNCH FLAG UPDATES IN FPC; TRACEPOINT IN FPC

FIG. 4



GTC Rate	Local activities	Remote activities	Local & Remote activities (e.g., two local activities wrt a remote activity)
Normal (GTC ticks at the same rate as LTC)	GTC or GTC-ext	GTC or GTC-ext	GTC or GTC-ext
GTC slower than LTC	GTC-ext	GTC or GTC-ext	GTC-ext
GTC faster than LTC	GTC or GTC-ext	GTC or GTC-ext	GTC or GTC-ext

508

510

FIG. 5

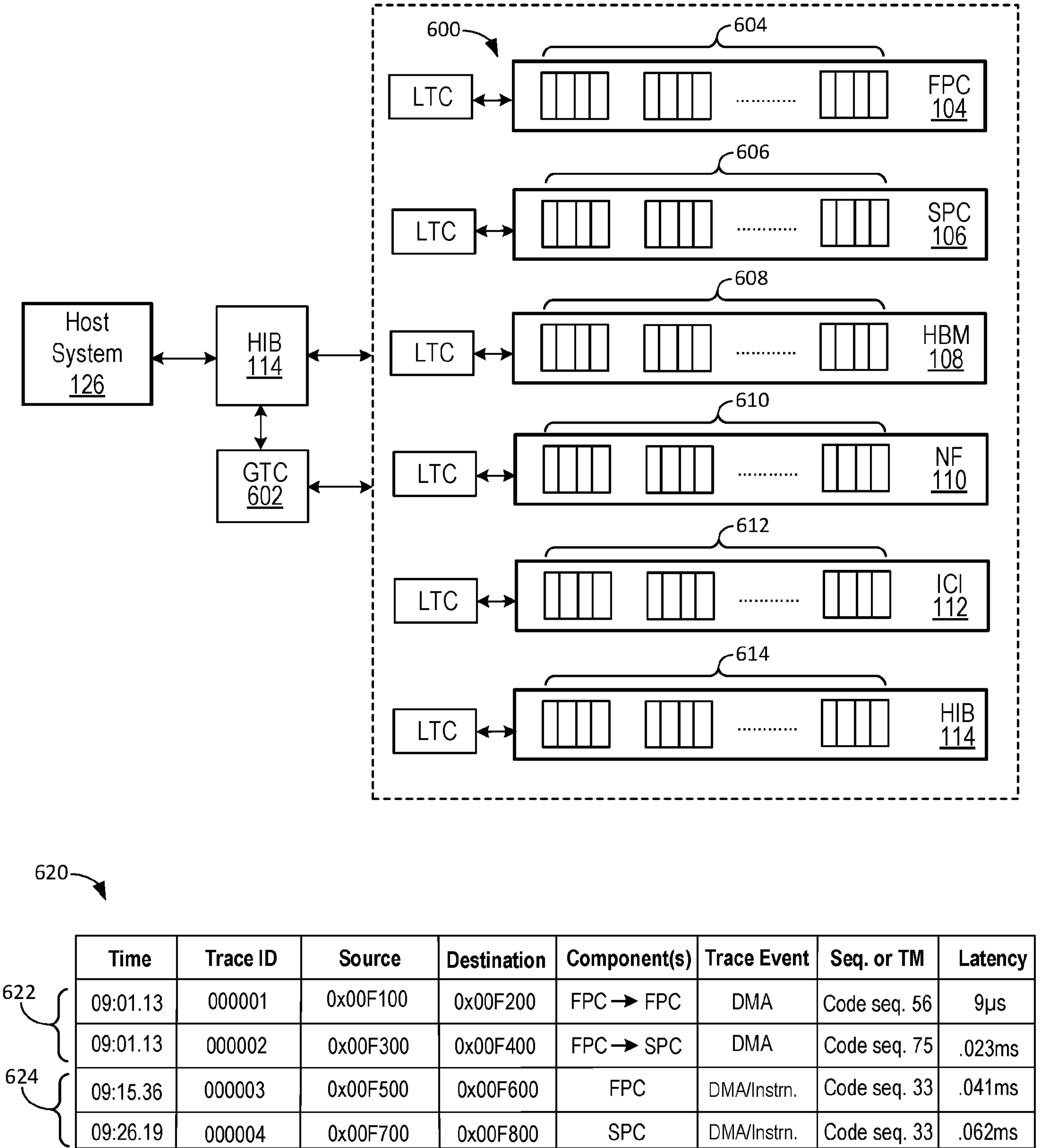


FIG. 6

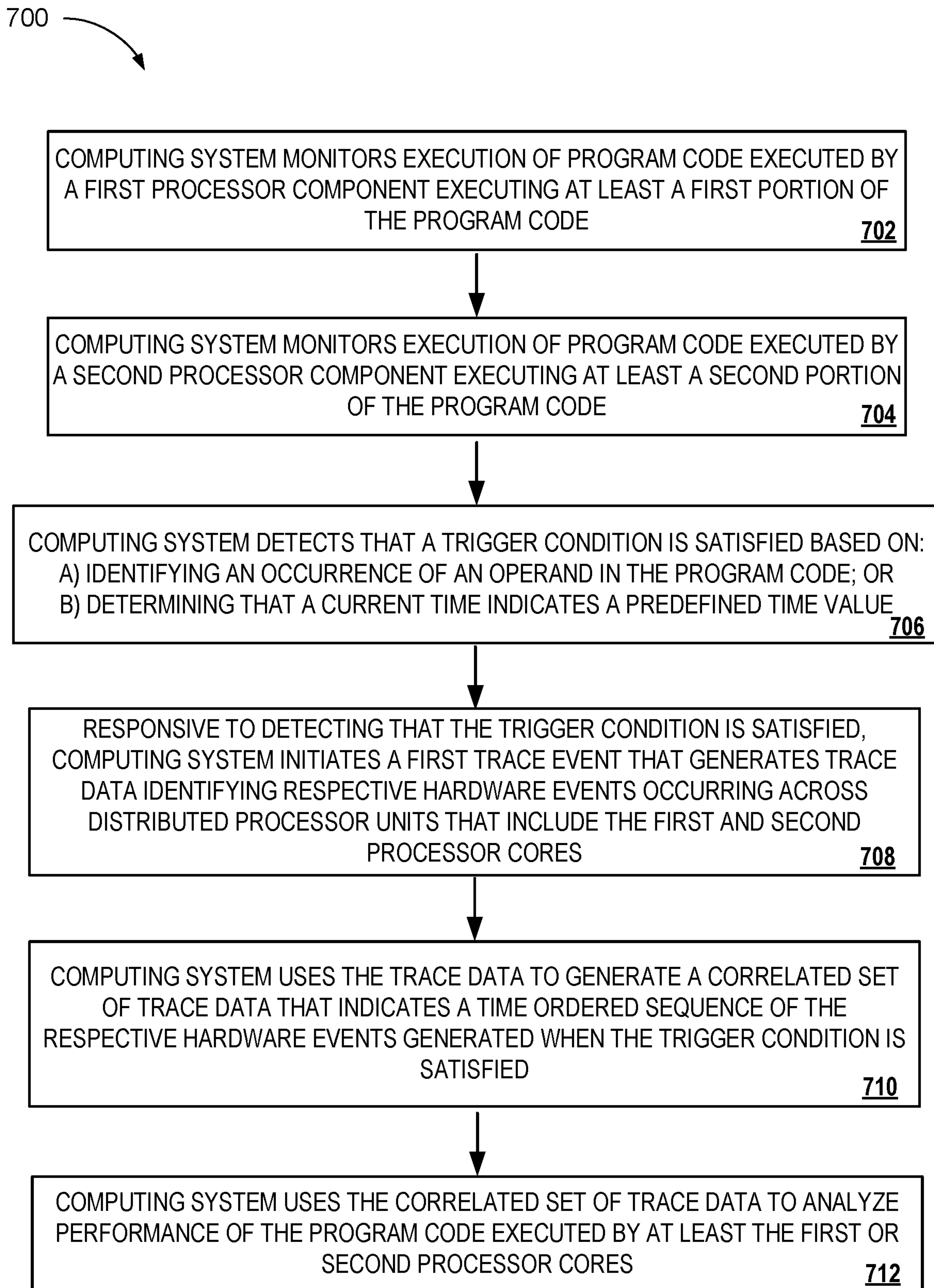


FIG. 7