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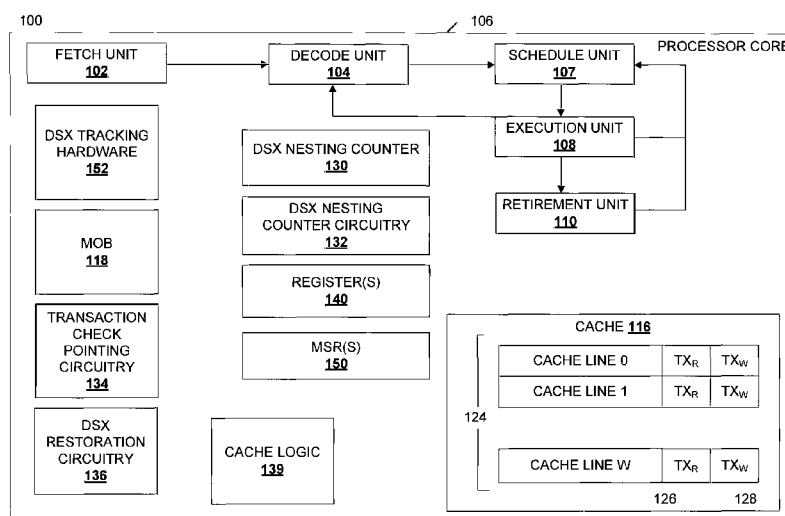


FIG. 1

(57) Abstract: Systems, methods, and apparatuses for data speculation execution (DSX) are described. In some embodiments, a hardware apparatus for performing DSX comprises a hardware decoder to decode an instruction, the instruction to include an opcode and an operand to store a portion of a fallback address, execution hardware to execute the decoded instruction to initiate a data speculative execution (DSX) region by activating DSX tracking hardware to track speculative memory accesses and detect ordering violations in the DSX region, and storing the fallback address.