# Dual-core Lockstep Processor using RISC-V Softcore Processors

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# Dual-core Lockstep Processor Demo

- **Lockstep processor provides real-time diagnostics using additional slave processor and a comparator.**
  - Two identical processors run in lockstep with address and data compared for consistency.
  - Fast fault detection

- **Hardware based context saving and rollback can be implemented at processor level for faster recovery from fault**
  - RISC-V soft-processor is the right choice due to its open source licensing
  - Flash FPGA is the ideal hardware platform for implementation
    - Reliability and Security

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