

A survey of operating system support for persistent memory

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Problems & Ideas

- Emerging persistent memory technologies have revolutionized the existing operating system stack and attracted great attention from system researchers and developers.
- This paper gives a comprehensive and in-depth study on operating system support for persistent memory based on recent research works.

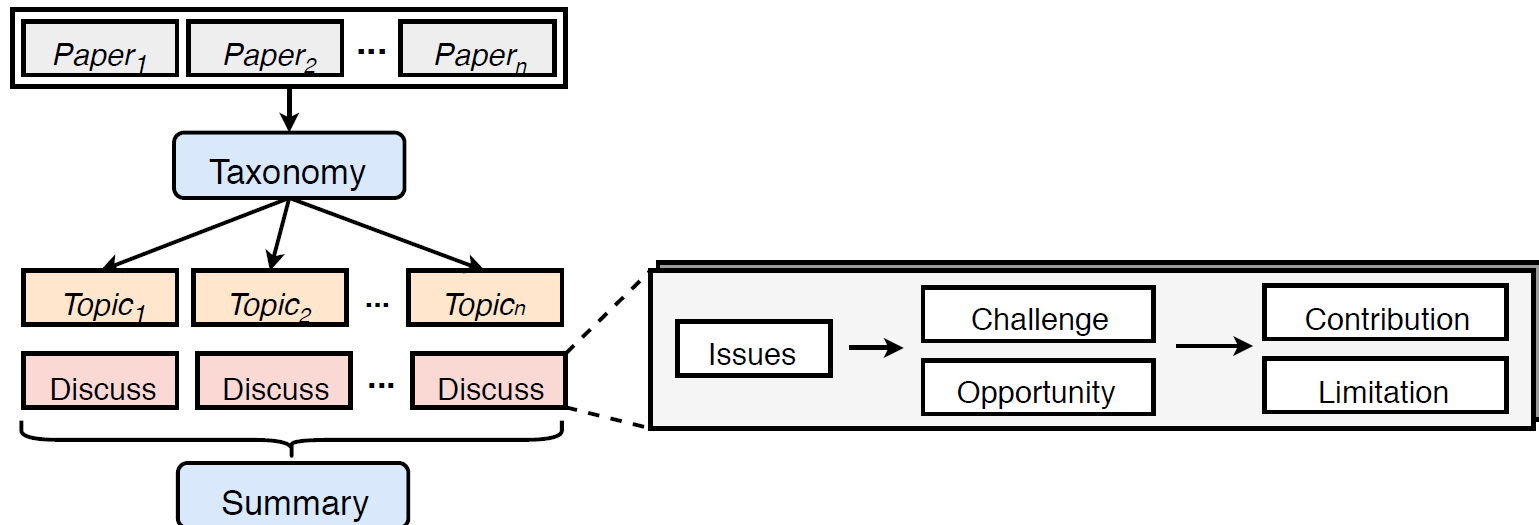


Figure 1. Study Methodology

Main Contributions

- First, we discuss the OS design for persistent memory on three aspects: system abstraction, crash consistency, and system reliability.
- Then, we describe the OS design and implementation with three important system components: storage stack, persistent memory manager, and OS-bypassing library.
- Finally, we carefully envision the future operating system architecture.

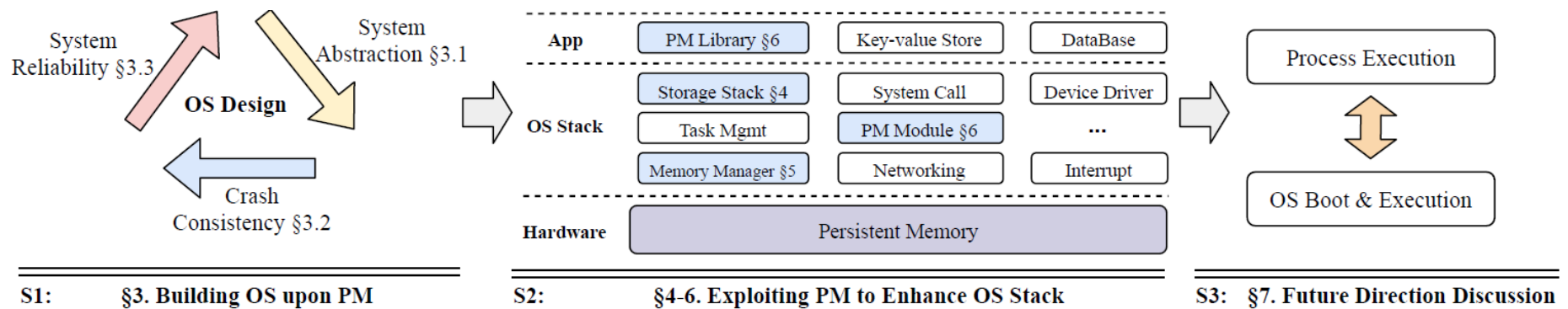


Figure 2. Paper Structure