

What is dm-lc

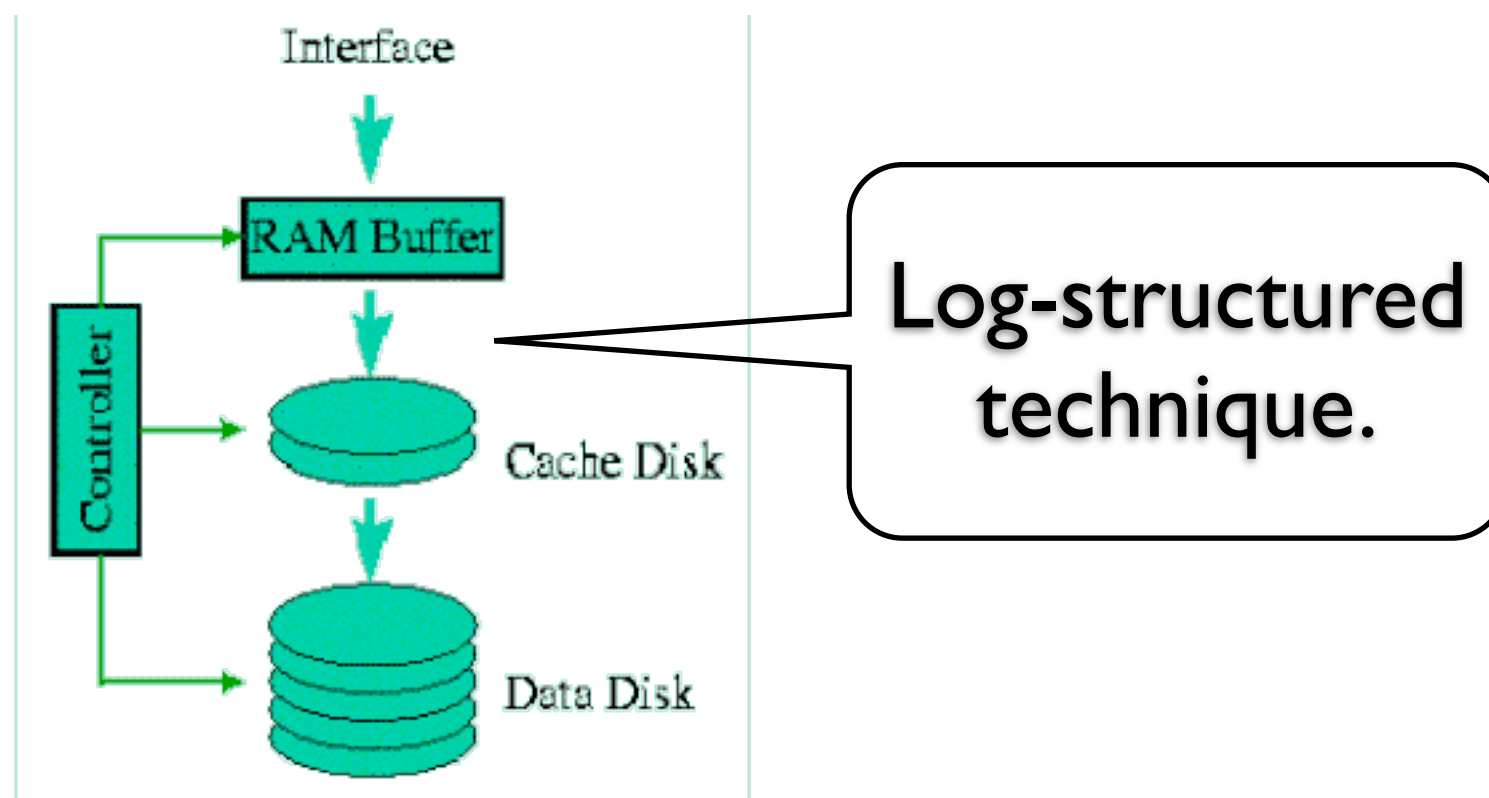
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dm-lc?

- Cache Module for Linux, based on Disk Caching Disk (DCD).
- cache ONLY writes.
- Small SSD cache boosts random writes of backing HDD.

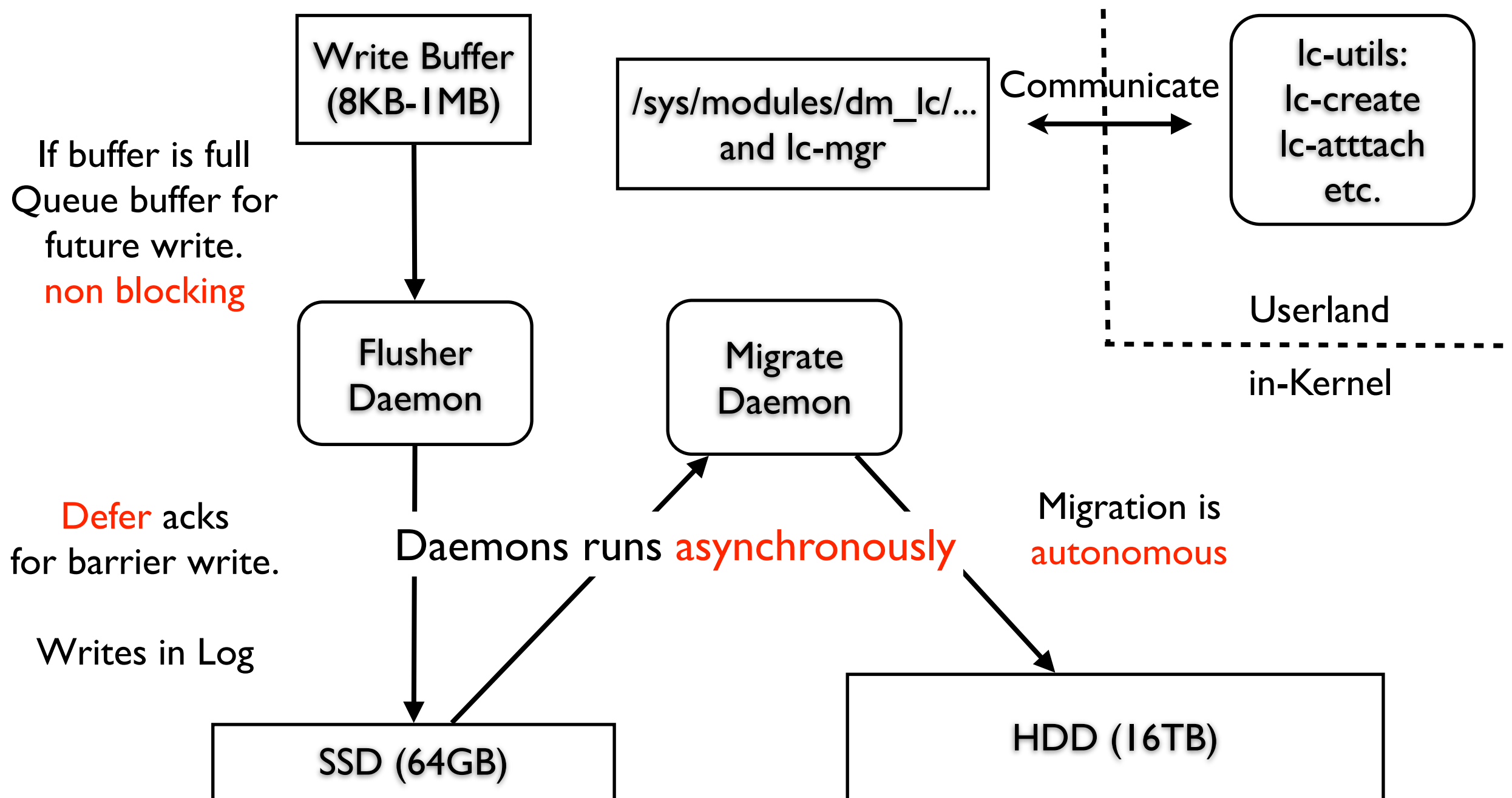
DCD?

- Log-structured filesystem in block layer.

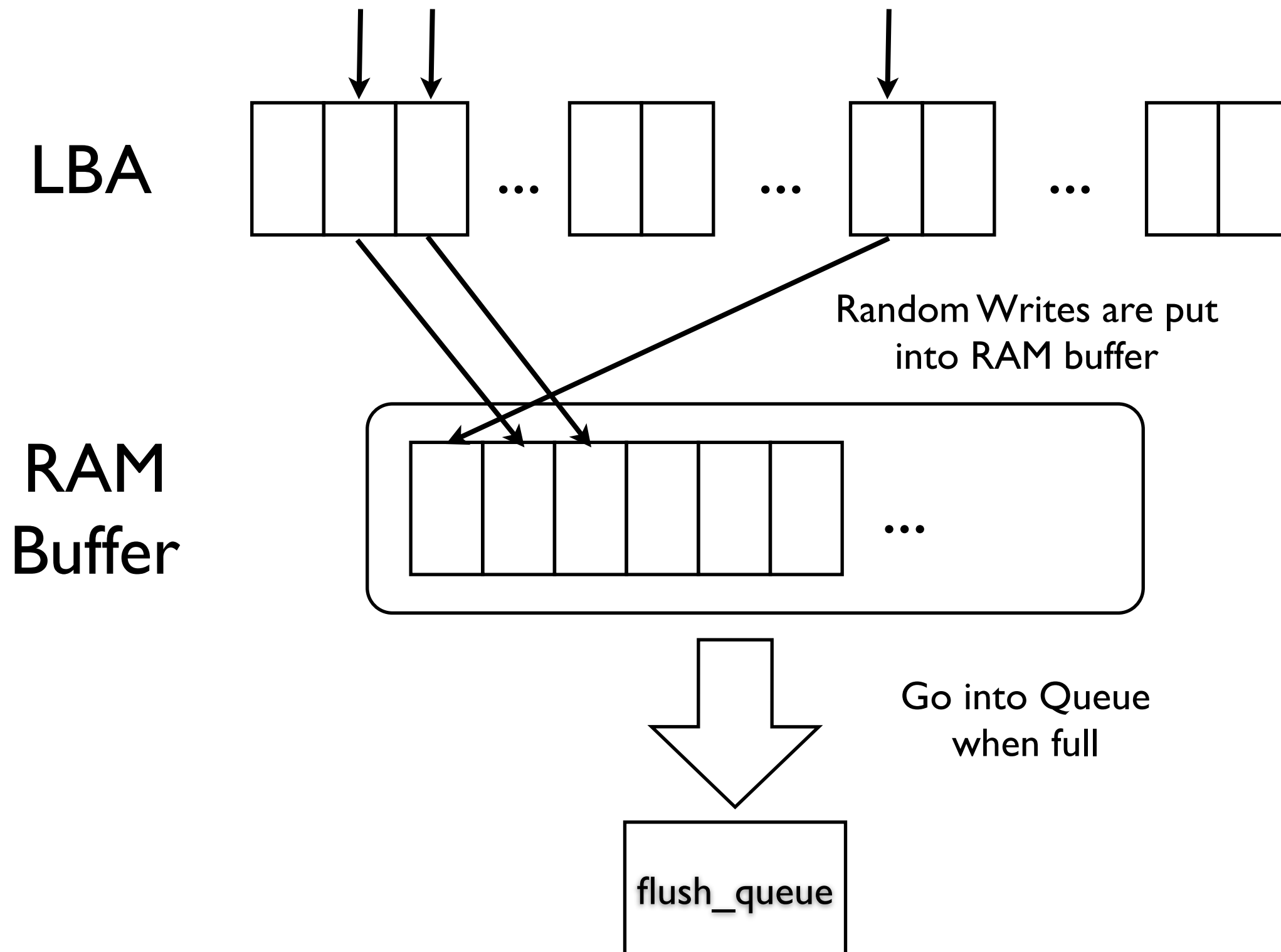


<http://www.ele.uri.edu/research/hpcl/DCD/DCD.html>

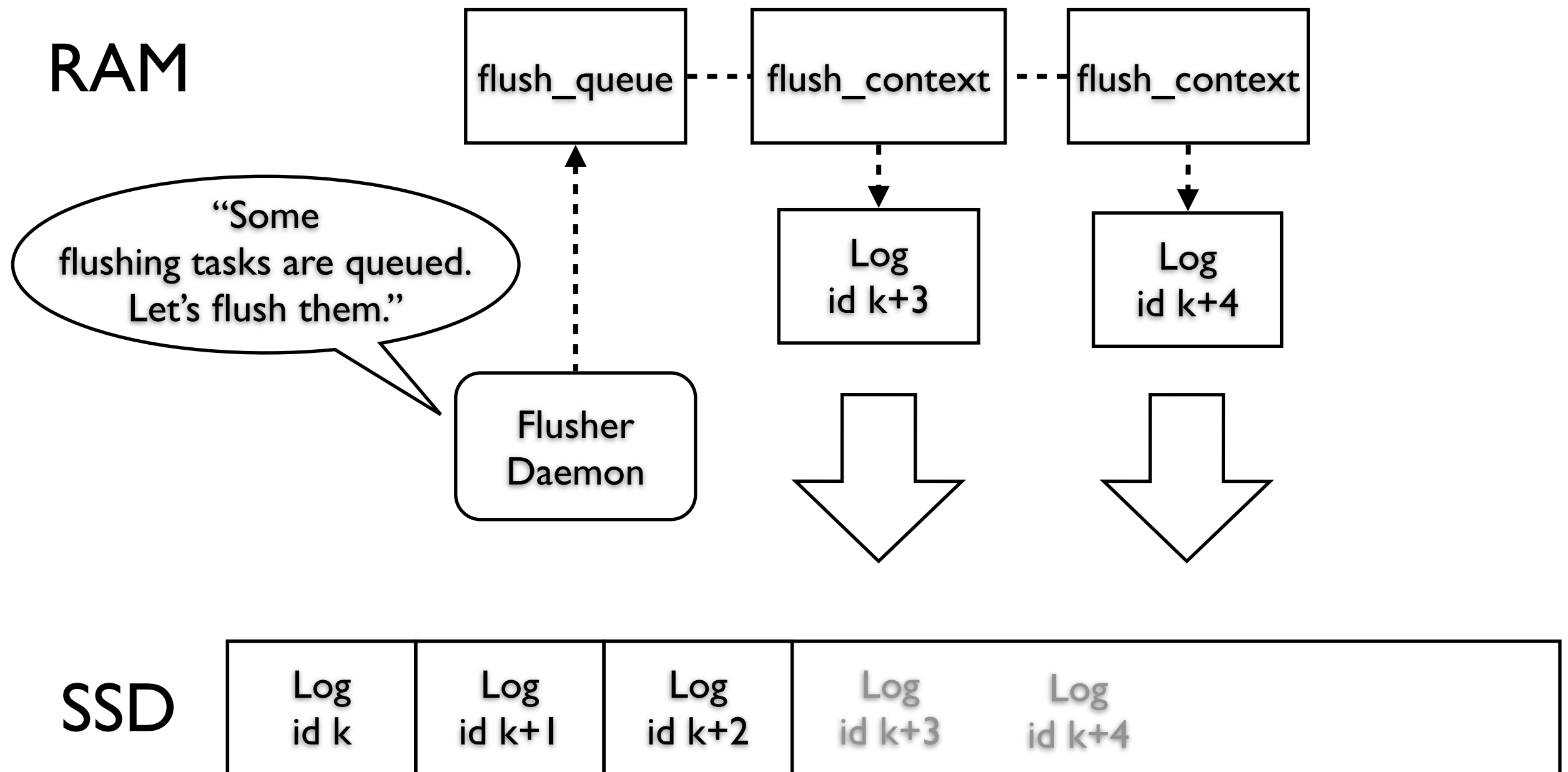
Architecture



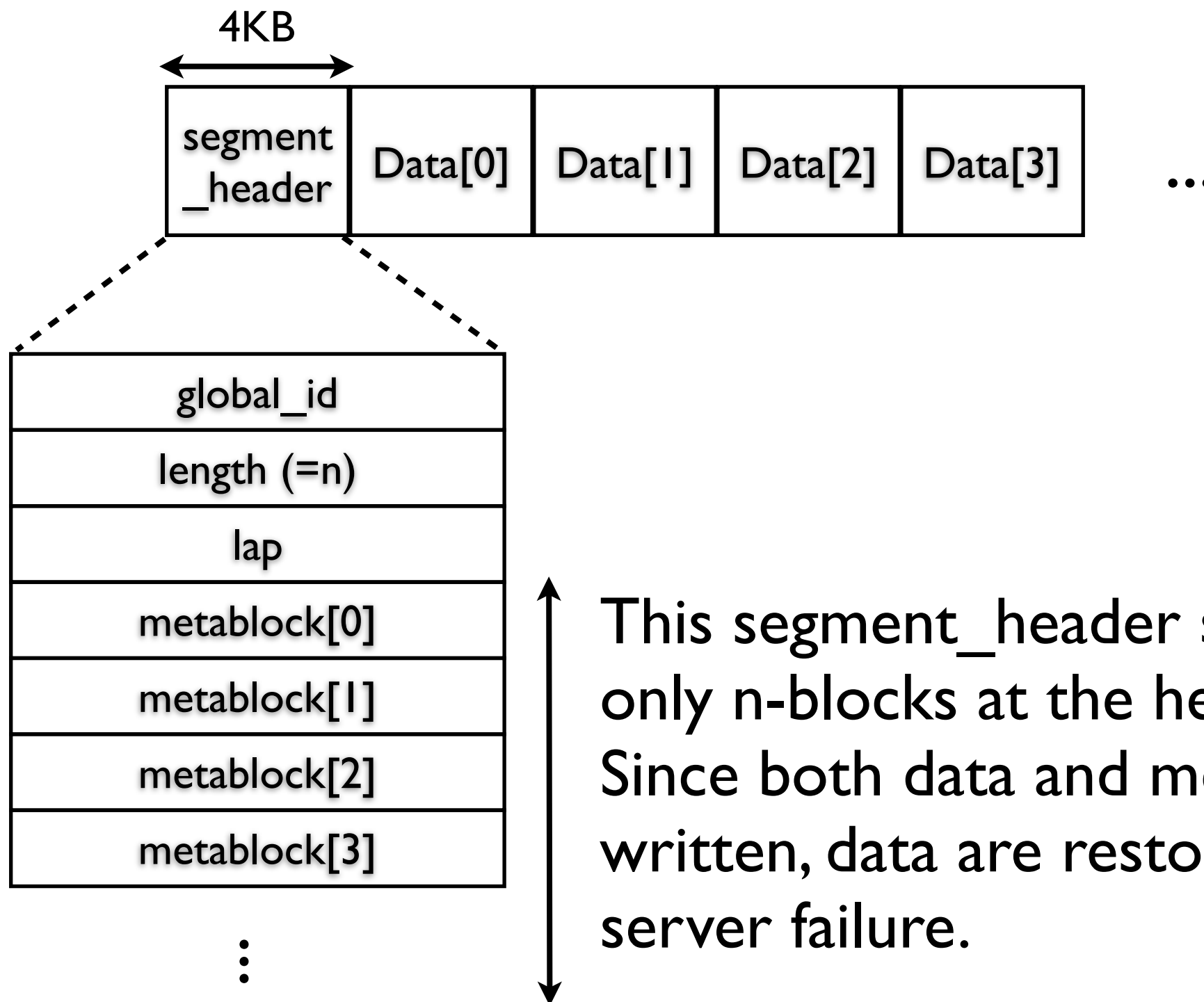
RAM Buffer



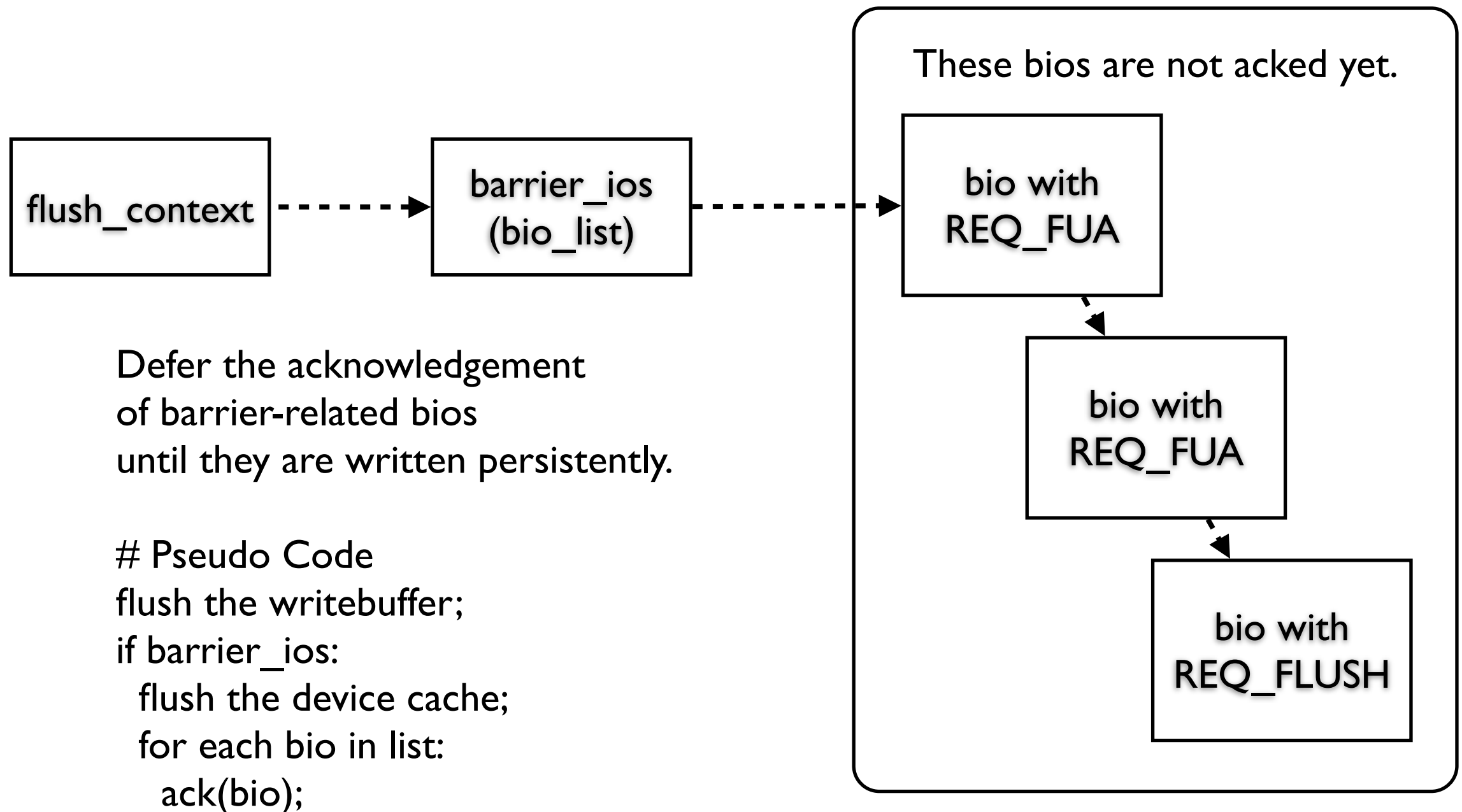
Queue and Flush



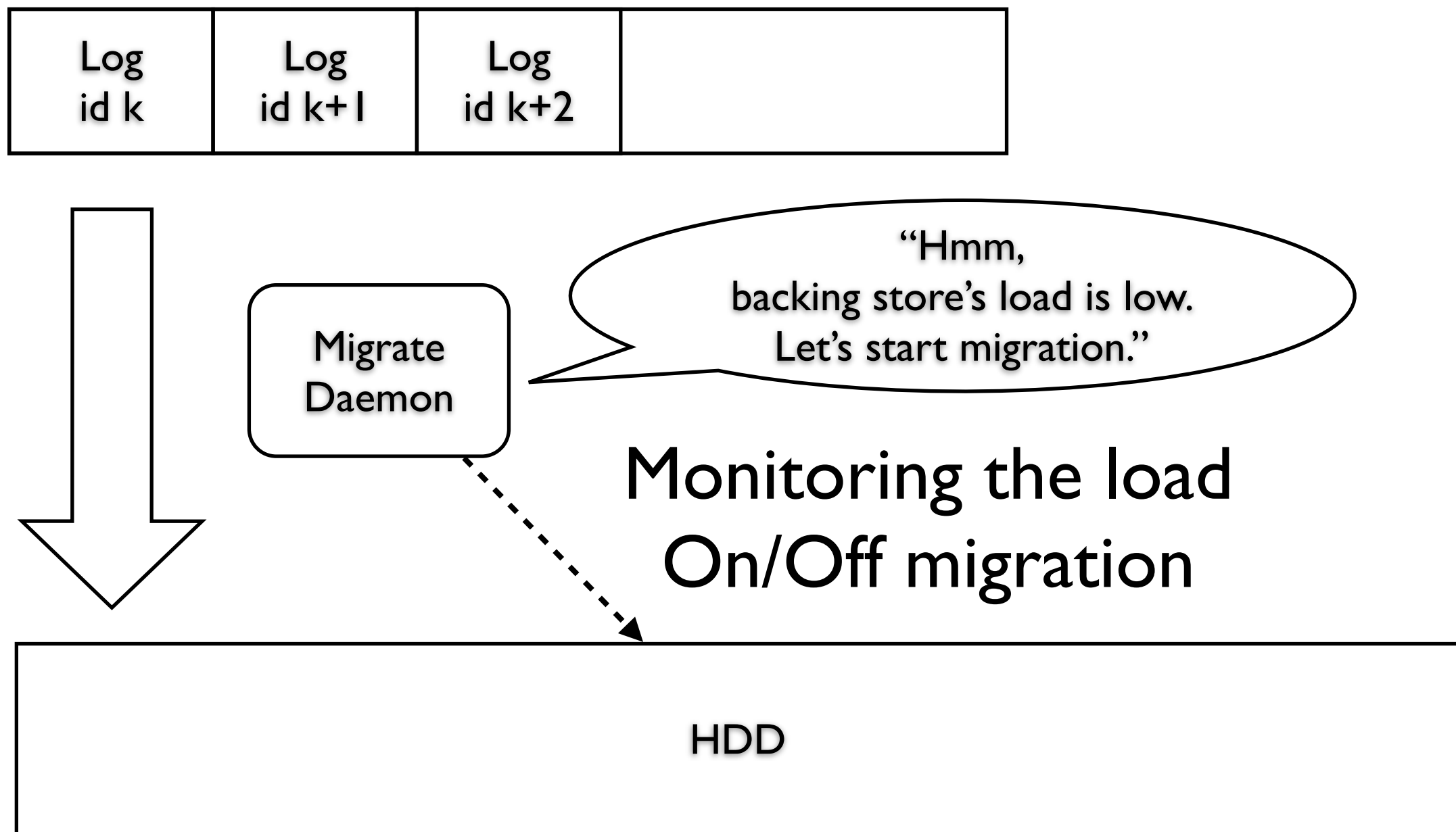
Log Format



Deferred ack for write barriers

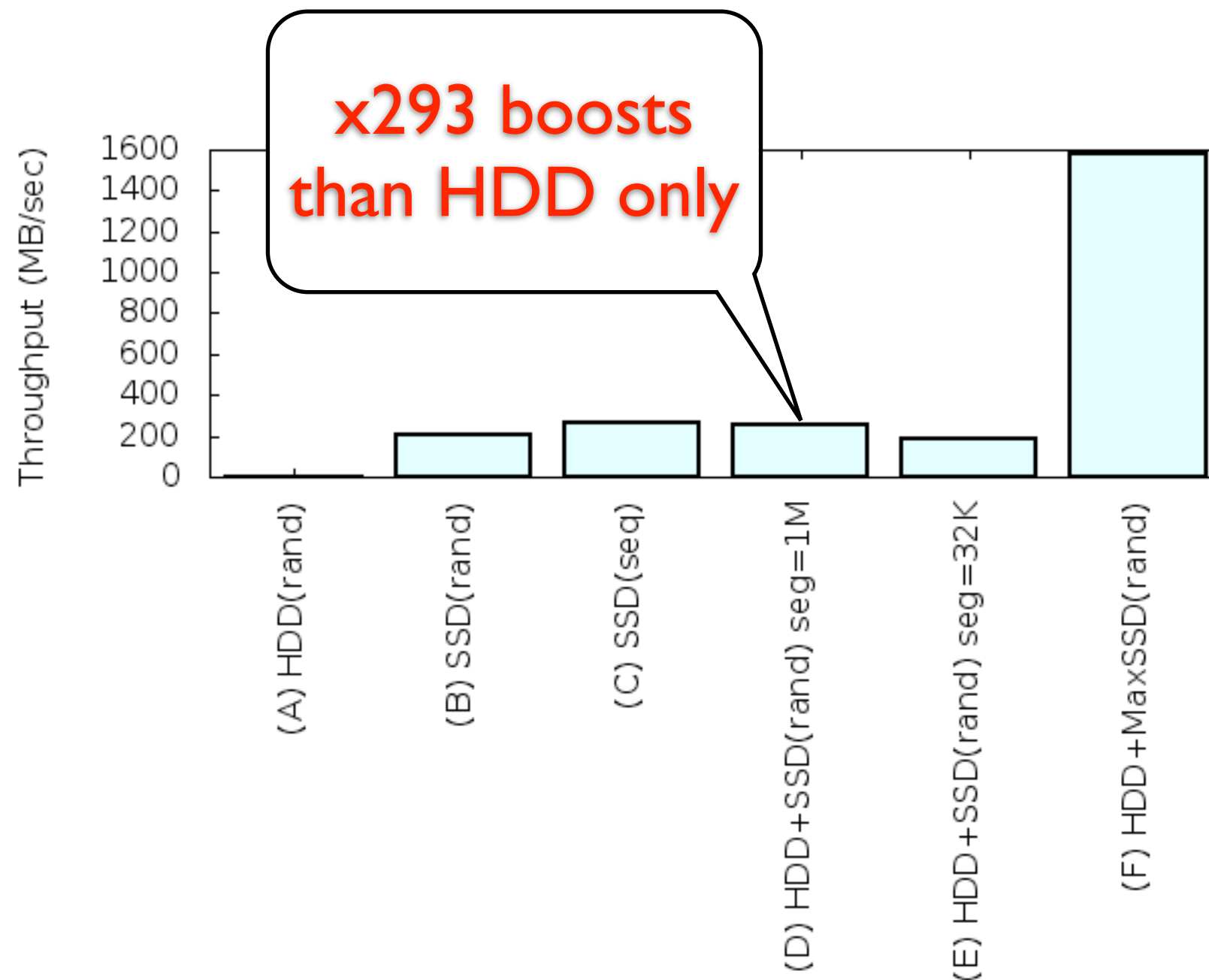


Autonomous Migration



Performance

<https://github.com/akiradeveloper/dm-lc/tree/develop/performance>



Thanks for Reading