

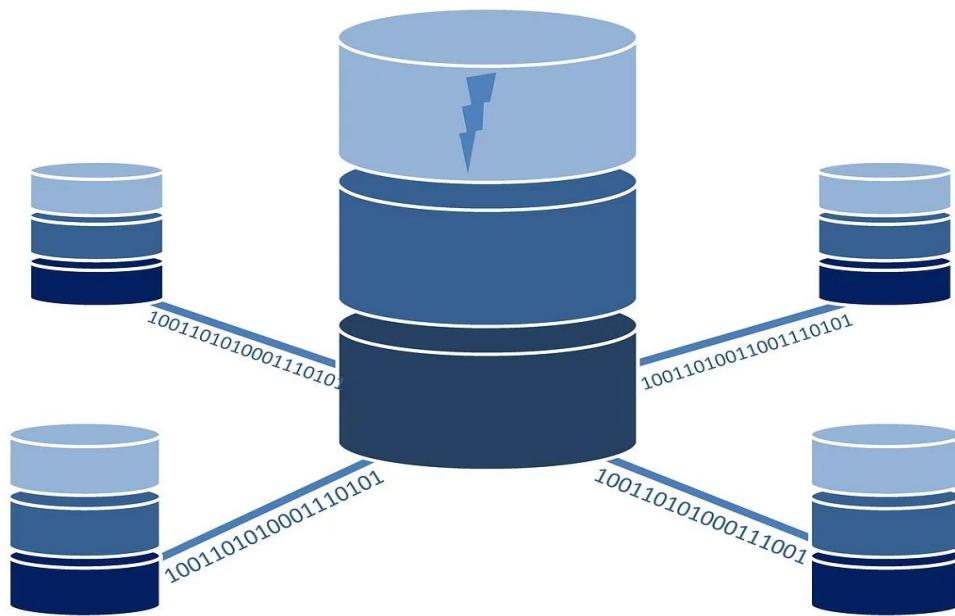


Mitigating Write-ahead Log Contention on Shared Storage Devices

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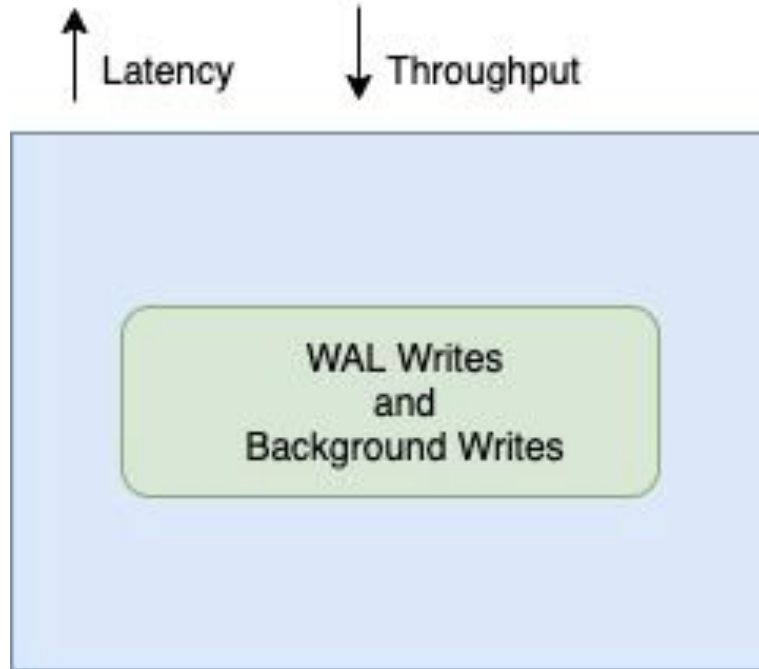
Write Ahead Logs (WAL)



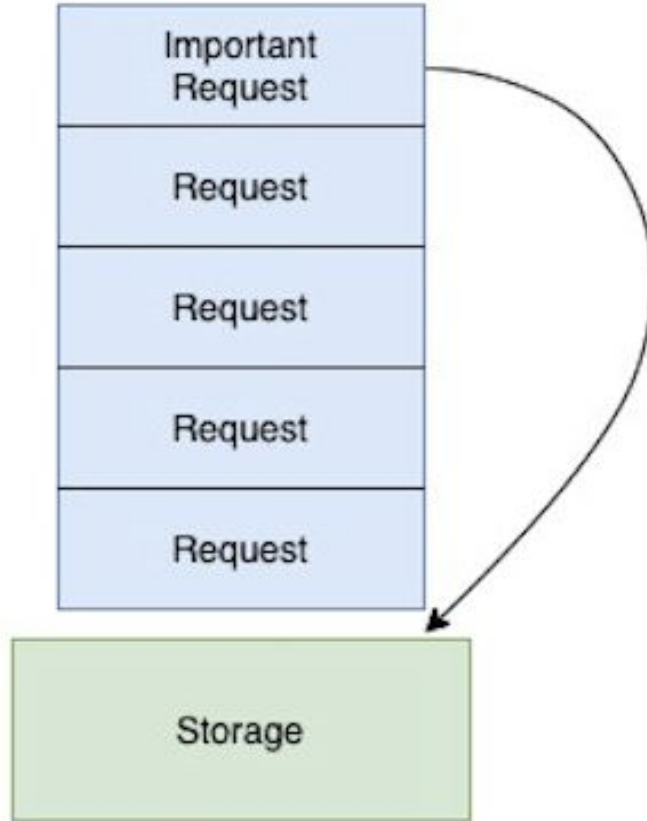
Dedicated Storage Devices



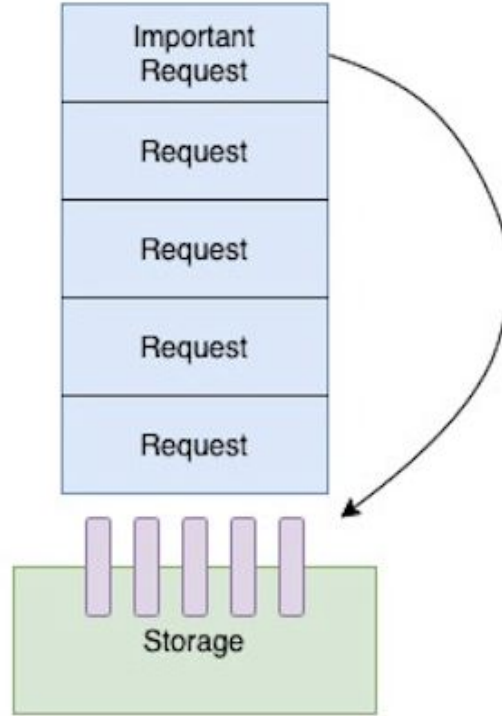
Contention Issue on Shared Devices



Priorities

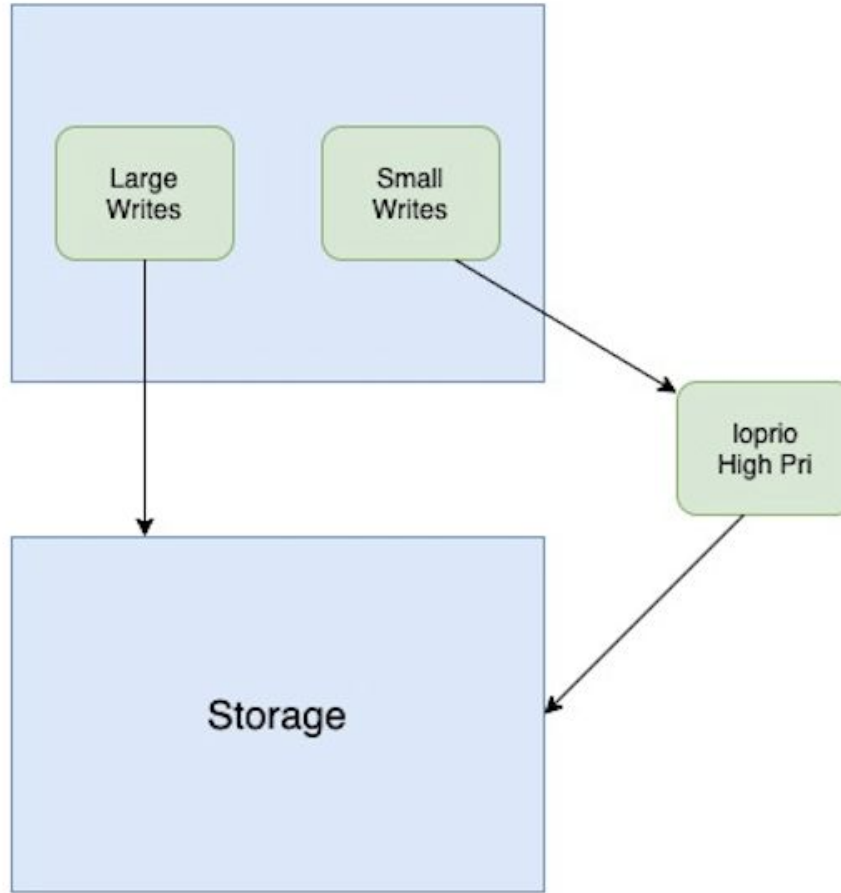


Priorities with Multiple Queues (Flash)

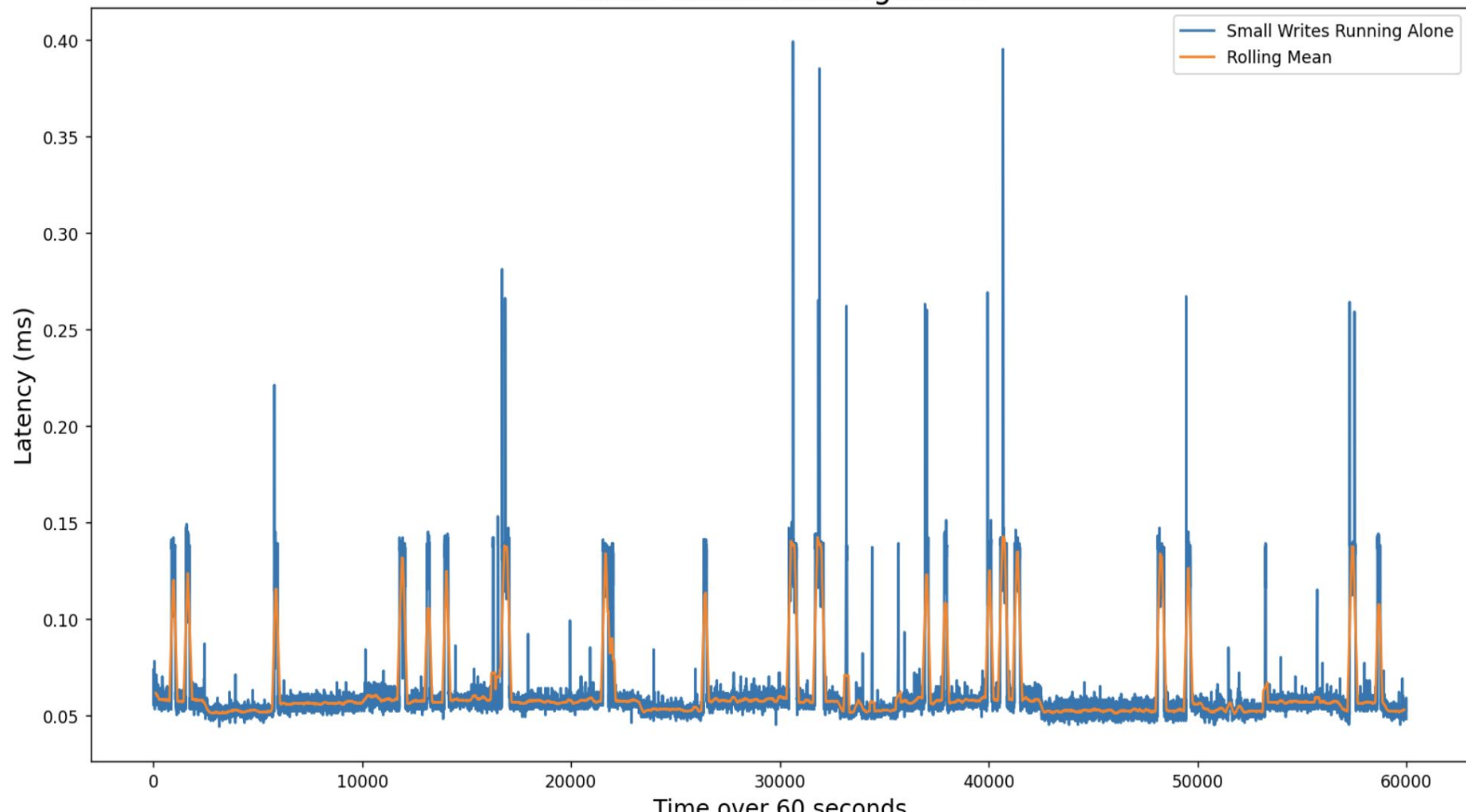


Experiment: ioprio High Pri

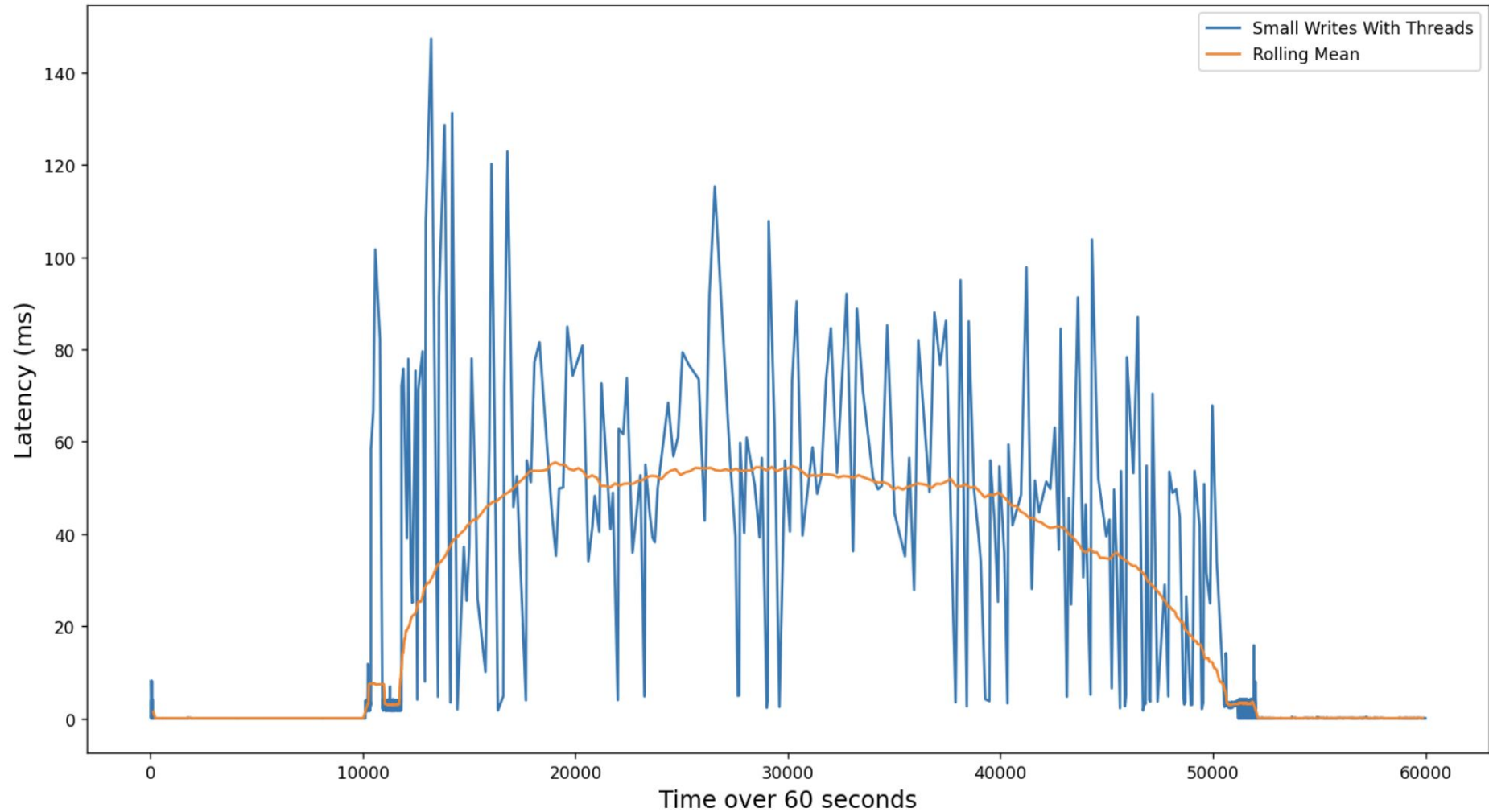
`ioprio_set()`



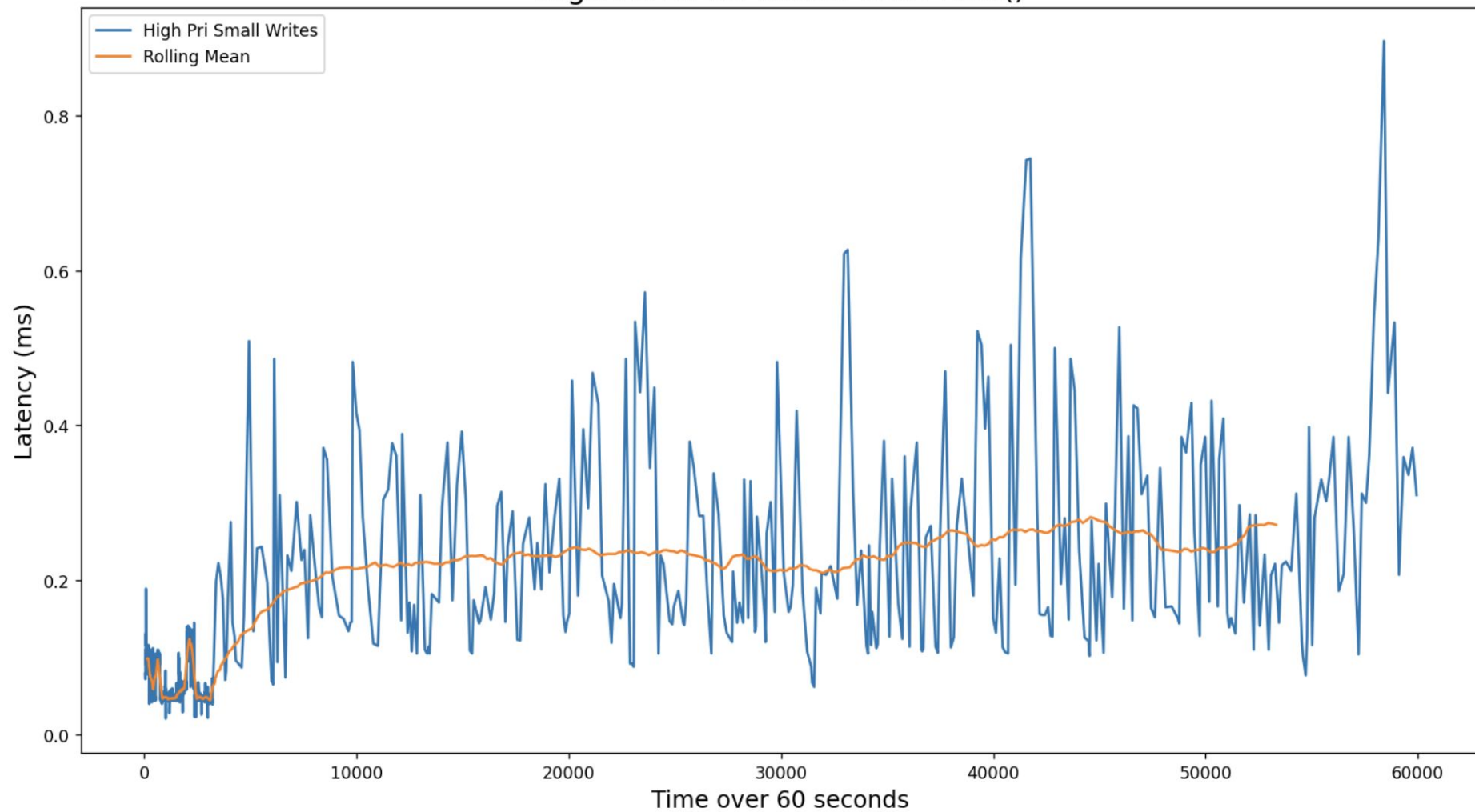
Small Writes Running Alone



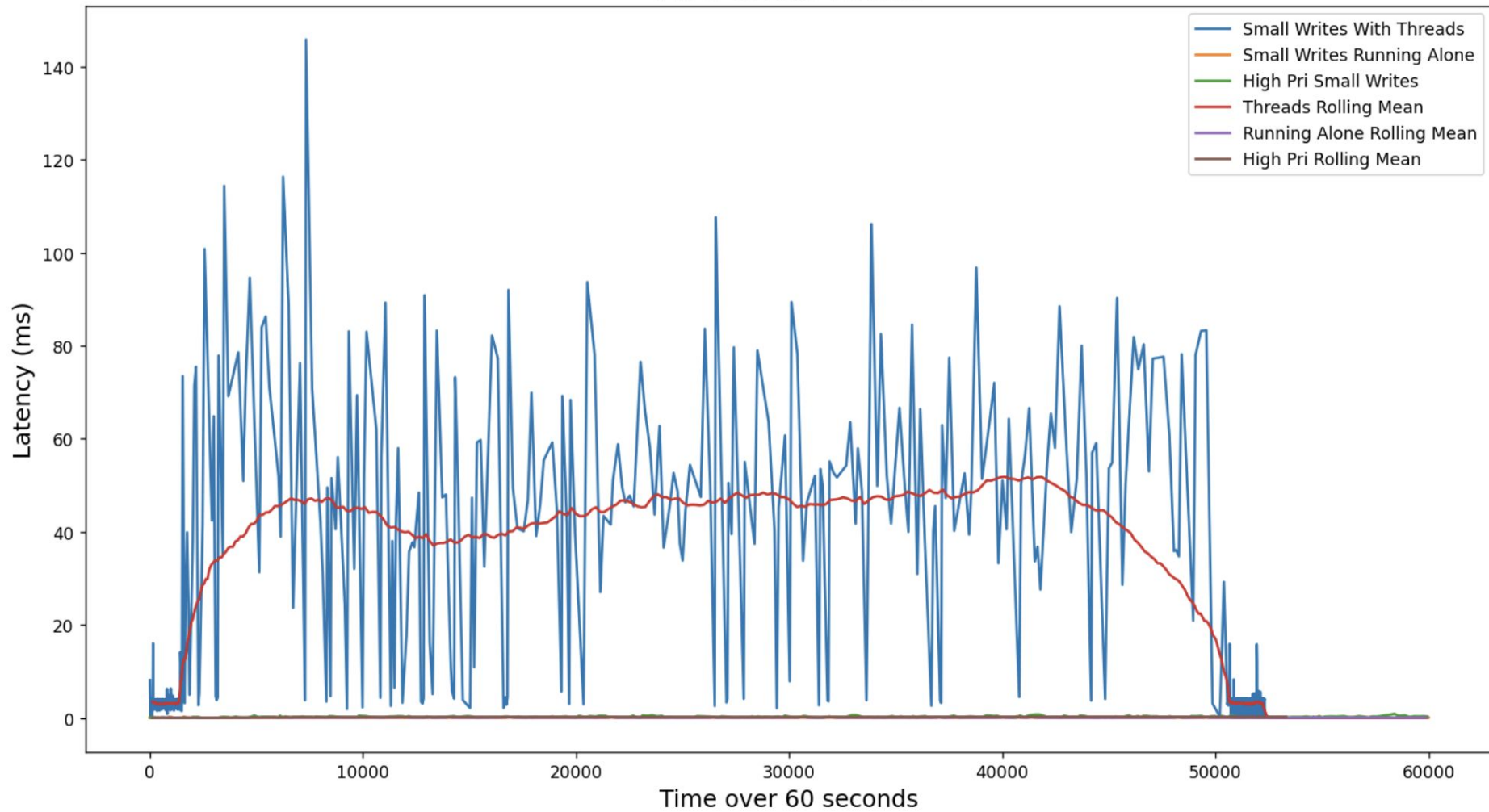
Small Writes With Threads



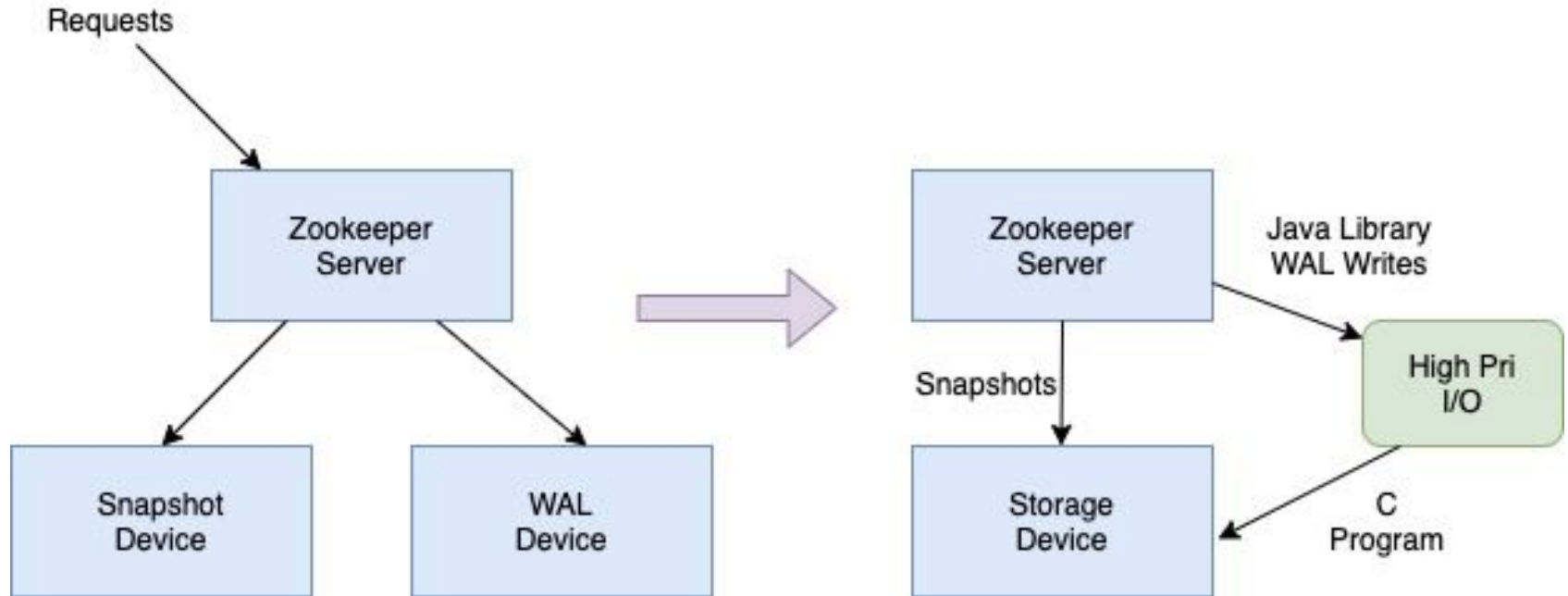
High Pri Small Writes With Fork()



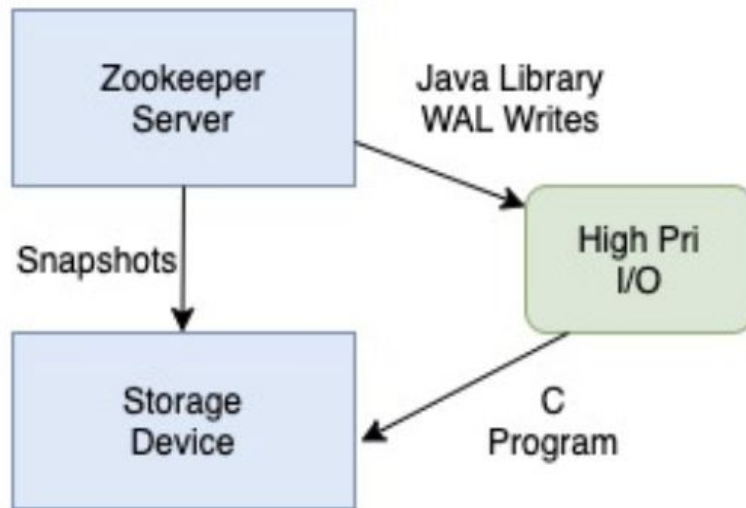
All 3 Small Writes



In progress: Apache Zookeeper Application



Consistent WAL Performance On a Shared Device



Thank you!

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