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**Report on “**[**Enterprise SSDs**](http://auraria.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwTZ07DgIxDEQjehokqLlApJjJt2WVFRXVVnRJ7JRbcX-RIAruYPkVM_ZT6poI1aIAQgYogYljNWMwYo_zo_g0KNzt8kJ-Iv9t8_WkDrKf1bbmbXnonwxAF2uD9lKjFTSWBgRHYqh2V_gmKbQBJSafCrzpDoORBFvbAG8MTWb0lDxd1LHMzvj-_t6W8QdBCCh_)**”**

The article is an analysis of enterprise SSD (Solid State Drives). SSD has distinguished superiorities because it combined the best attributes of two memory technologies: flash and DRAM. The authors focus their studies on enterprise level and compare SSD with HDD(Hard Disk Drive) performance in all aspects, such as SSD has faster sequential read and write, faster random write, but SSD also has poor performance in random write. In reliability of data protection, article mention three ways to evaluate SSD: extensive full data-path error detection/correction, wear leveling, bad-block management. However, SSD still has disadvantages in potential loss of metadata and write amplification. With the help of the structure chart, we can see how every part of SSD under the hood works. Need to mention is that SSD has exceptional performance in power saving, comparing with HDD. At the end of the article, the authors get the conclusion that SSD is an effective solution for improving the delivery of mission-critical applications while controlling costs and simplifying management. Despite this article is written in 2008 which is 6 years ago from now on, it is a good reference to review the history of the development of SSD.

<http://0-queue.acm.org.skyline.ucdenver.edu/detail.cfm?id=1413263>

**Reference**

[1] Mark Moshayedi, Patrick Wilkison, “Enterprise SSDs”, Originally published in Queue vol. 6, no. 4—