# Make the Switch to SSDs

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# Why Choose the Intel<sup>®</sup> Solid-State Drive Data Center Family

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It's no mystery that data center Solid-State Drives (SSDs) outperform Hard Disk Drives (HDDs), but many see SSD deployment as expensive. However, SSDs offer significant advantages compared to HDDs and, over time, prove to be a better long-term investment.

# TODAY'S **DATA CENTERS** FACE NEW CHALLENGES



# **STORAGE:**

INTEL SOLID-STATE DRIVE

A lack of responsive storage slows your business down. HDDs can't keep up with the processing power of the **data center**.



# DATA GROWTH:

As data grows to billions of gigabytes, so does the demand for server space, energy consumption, and IT budgets.



# **POWER:**

Power-hungry **data centers** consume in the range of 150 KwH of electricity annually, costing up to \$12.8 million per facility.<sup>1</sup>

# THE SOLUTION IS SOLID

The Intel<sup>®</sup> Solid-State Drive Data Center Family offers consistent performance and greater efficiency than HDDs. That's better for your IT budget and better for the planet.



# Storage at the Speed of Light

Breakthrough Performance, Breakneck Pace

SSDs are thousands of times faster than HDDs.<sup>2</sup> It's like flying from San Francisco to Shanghai in 20 seconds instead of 13 hours.<sup>3</sup>





### SSDs Are Cooler Beat the Heat of HDDs

Data center SSDs use up to 16x less energy.<sup>4</sup> Flash storage generates 3x less heat than spinning disk drives, which also means lower operating costs.<sup>5</sup>





## Solid as a Rock Reliability You Can Count On

Compared to HDDs with an average annual failure rate of 4.5%, the Intel<sup>®</sup> SSD Data Center Family has a rate of just .44%.<sup>6</sup> That's an exceptional 2 million hours mean time between failures.<sup>7</sup>





Built to Last

**Prevents IT Headaches** 

With no moving parts, SSDs are more durable than HDDs. The Intel<sup>®</sup> SSD Data Center Family undergoes over 5000 unique tests to ensure quality.





## Never Skip a Beat Smooth-Sailing Storage

Built with end-to-end data protection, the Intel<sup>®</sup> SSD Data Center Family maximizes uptime for high performance 99.9% of the time.<sup>8</sup>



Make the switch to the Intel<sup>®</sup> SSD Data Center Family. Get the total package for low total cost of ownership: high performance, efficiency, reliability and consistency.

Learn more about the Intel<sup>®</sup> SSD Data Center Family > intel.com/ssd

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to http://www.intel.com/performance.

- 1. "Intel® SSDs are Consistently Amazing." Intel, 2013. https://www.youtube.com/watch?v=Oe-zxsF9TWw
- Ratio calculated by average flight time from San Francisco to Shanghai: 13 hours; number of seconds in 13 hours: 46,800 seconds; divided by 2300: 20 seconds.
- 3. "Facebook Data Centers' Energy Use Up in 2012." Datacenter Dynamics, 2012. http://bit.ly/1wgzTUi

Calculation based on average commercial energy cost of \$0.0838 for Oregon in 2012, see "Latest U.S. Electricity Prices by State." Electric Choice, 2013. http://www.electricchoice.com/electricity-prices-by-state.php

- 4. Results have been estimated based on internal Intel analysis and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.
- 5. "Tame Data Center Challenges with Intel SSDs and Symantec Software." Intel and Symantec, 2013. http://bit.ly/1t5FVoZ
- 6. Based on the Intel® SSD DC S3700 Series Product Specification
- 7. "Accelerating Data Center Workloads with Solid-State Drives," Intel, 2012. http://intel.ly/1reqX3s
- 8. Based on the Intel® SSD DC S3500 Series Product Specification

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