



Get a faster PC with Intel® Optane™ memory

An affordable memory upgrade that boosts system responsiveness



Boost responsiveness by up to **2.1X***

Congratulations on your decision to purchase a new computer! It's exciting to get new tech, because you know that pretty soon you'll likely be browsing faster, seeing game levels load faster, and getting through your old vacation photos more quickly.

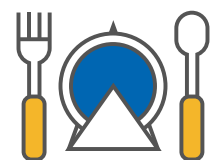
Now, of course, comes the hard part: spec'ing out a system that can do everything you want it to now and handle future tasks as well. Is the money you spend for a faster system going to be worth it to you? Our Principled Technologies tech experts think that choosing an Intel® Optane™ memory upgrade could be worth your while. That's because adding either 16GB or 32GB Intel Optane memory modules to systems with hard disk drives (HDDs) significantly improved benchmark scores in our tests, and better benchmark scores generally translate into a more responsive experience.

While many tech upgrades can leave you looking mouth agape at your empty wallet, Intel Optane memory isn't expensive: for just the cost of a new-release book, you can get 16GB of Intel Optane memory, or choose the 32GB option for the cost of dinner for two at a mid-range restaurant. The best news? Intel Optane memory helps speed up your system's responsiveness as long as you're using it—it's a small investment into something you'll use every day.

for the same low cost as:



A new-release book¹



Dinner for two²

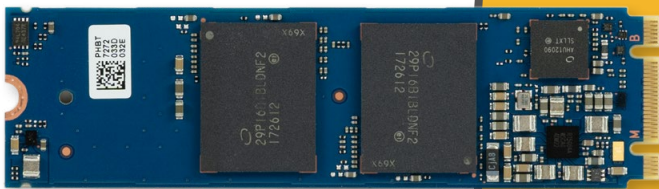
*8th Gen Intel Core i7 processor-powered system with 8GB RAM +32GB Intel Optane memory vs. the same system with 8GB RAM alone

The following pages describe a fictional scenario in which a consumer named Conrad is purchasing a new desktop. Though the story is hypothetical, it's based on PT facts. For more detailed testing information, see the science behind the report at <http://facts.pt/dvit6d>.

Decision time: buying a new system

It's been a while since Conrad purchased a new computer; he's been holding onto his desktop for the last four years. The system has served him well, but he's starting to notice that he's waiting longer and longer to complete certain tasks.

He's pretty sure he's found the computer he wants, but he's struggling a little when it comes to deciding on his memory configuration. What exactly will it mean for Conrad and his computing experience if he decides to check the box to add Intel Optane memory? Is it worth the money? Conrad knows it will be a few more years before he's ready to get another new system, so he's hoping to get the fastest computer he can within his somewhat limited budget.



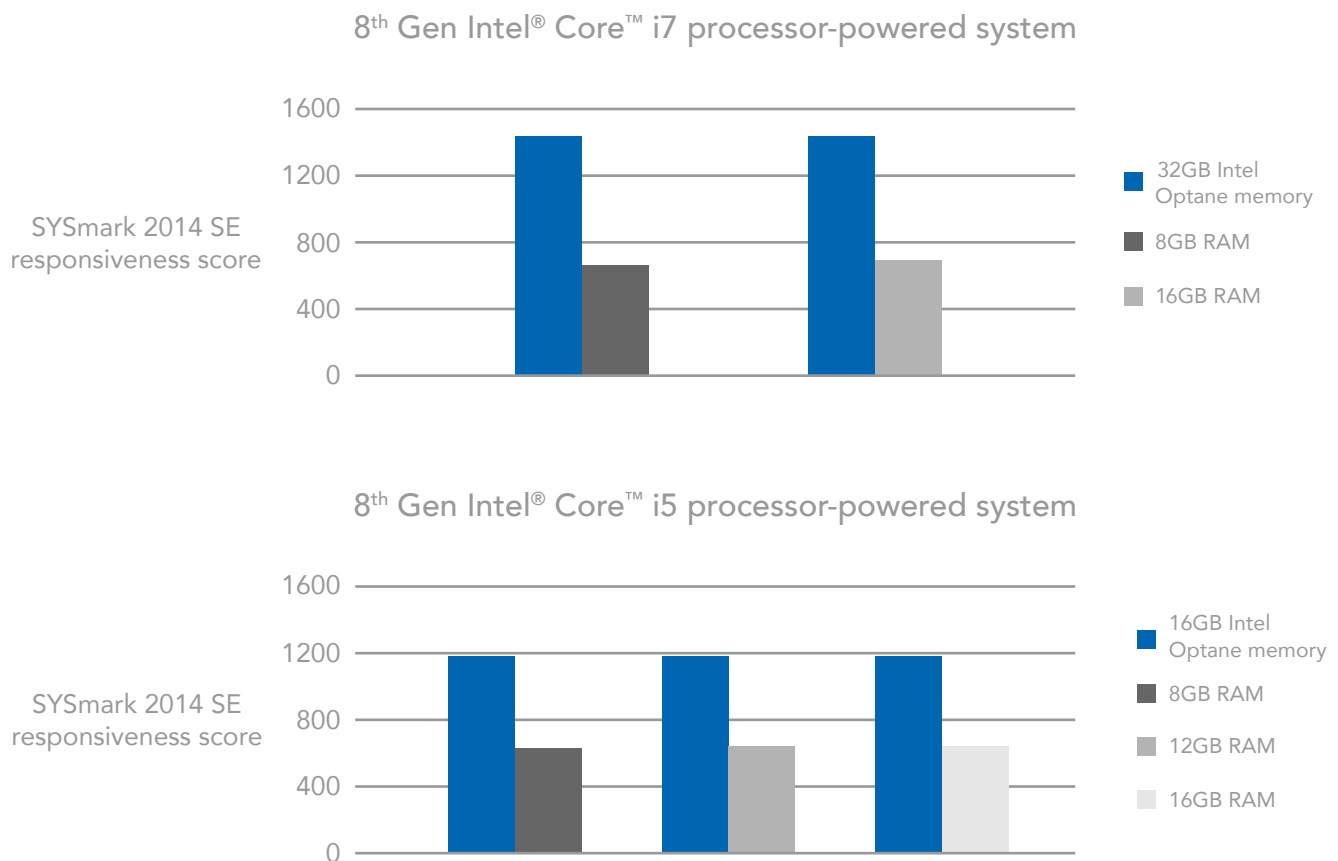
What is Intel Optane memory?

Intel Optane memory is memory. Intel calls it a "smart, adaptable system accelerator" that you can add to a desktop or laptop, either at purchase or after, to boost the performance of that system. To learn more, visit intel.com/optanememory.



Adding Intel Optane memory boosted benchmark scores

To help Conrad and folks like him navigate these potentially expensive waters, we used an industry-standard benchmark to compare the responsiveness of two new systems with basic RAM—8GB, 12GB, or 16GB—compared to those same systems with Intel Optane memory added. We tested a desktop with an 8th Gen Intel Core™ i5 processor and another with an 8th Gen Intel Core i7 processor, and we noticed the same thing on both: Adding Intel Optane memory delivered up to 2.1x better Responsiveness scores on the SYSmark® 2014 SE benchmark. That's important because higher scores on industry-standard benchmarks such as SYSmark 2014 SE Responsiveness generally indicate a system that can deliver a more responsive experience across everyday tasks.



But what about the cost?

Conrad looked into choosing a solid-state drive (SSD) or buying traditional RAM to add to his system, but he quickly found that wasn't really in his budget. Adding 16GB of Corsair® Vengeance RAM (the memory we used in our tests) costs \$190.99, compared to the \$27.99 for 16GB of Intel Optane memory. Adding 32GB of that same RAM currently runs for \$379.99, compared to a cool \$54.99 for 32GB of Intel Optane memory. Conrad is happy that he doesn't have to spend the cost of a new tablet to get a faster computer—he can boost his system's responsiveness for the cost of a hardcover book. He thinks that's more than worth it!



Get a big boost for a small investment with Intel Optane memory

It's unboxing day and Conrad finally has his new system up and running. It's definitely an improvement on his old system, and he's glad that he ensured even better responsiveness by getting an Intel Optane memory upgrade—for him, the 32GB boost was a no-brainer. Conrad's friend Becky is jealous with his new system's responsiveness. When she bought her 8th Gen Intel Core i7 processor-powered system with a hard disk recently, she didn't notice she had the option to upgrade. Luckily, Conrad informs Becky that she can order Intel Optane memory and upgrade her system herself if she wants an inexpensive boost for her computer.

If you're looking for a new system and want to know which upgrade options can give you the best value for your money, upgrading with Intel Optane memory modules is a safe bet. Our test results prove that making a small investment now could make a big difference in responsiveness.

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- 1 Book prices vary. Most new-release hard cover fiction books priced at ~\$28-\$30 USD before discounts. See www.barnesandnoble.com.
 - 2 Dinner prices vary. Dinner for two from popular chain US restaurants ranges from \$24.34 - \$52.40 as of 2015. Accessed May 7, 2018, at www.businessinsider.com/how-much-it-costs-to-eat-at-restaurants-2015-3.

Read the science behind this report at <http://facts.pt/dvit6d> ►



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