intel® OPTANE⟫⟫⟫
MEMORY

GET THE SPEED.
KEEP THE CAPACITY.

PC gamers and professionals alike have known for years that when it comes to choosing a computer, they'll have to concede on either speed or price. Hard-disk drives (HDDs) are affordable and deliver on capacity, but they're usually on the slower side when it comes to responsiveness. Solid state drives (SSDs) are faster, but they're more expensive and usually come with less storage. That "just right" combination of responsiveness, speed, and capacity has remained elusive—until now.

On March 28, 2017, Intel launched its answer to this computing conundrum with Intel® Optane™ memory—a smart, adaptable system accelerator that, when coupled with a large capacity hard drive, delivers affordable high-performance responsiveness without compromising storage.

Intel® Optane™ memory adapts to your everyday computing activities to make repetitive tasks increasingly faster, smoother, and easier to accomplish. In fact, a 7th gen Intel® Core™ processor-based computer with Intel® Optane™ memory can deliver *double* the responsiveness of a system without these components.[1]

When a "mega storage" device is coupled with Intel® Optane™ memory, you get the best of both worlds: high-speed acceleration *and* affordable storage capacity. It lets users store apps, photos, and games on a local level, ensuring that large files launch quickly without jeopardizing the user experience.

Intel has reported some impressive statistics surrounding the improved speed associated with Intel® Optane™ technology:

28%
Faster
overall system
performance[2]

5x
Faster
web-browser
launches[3]

67%
Faster game
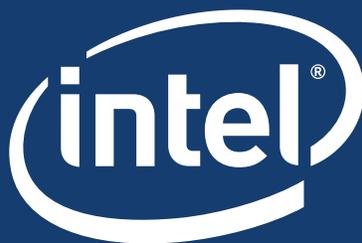launches[4]

5.8x
Faster email
launches[5]

4x
Faster
file search
and find[6]

And the cherry on top? Because Intel® Optane™ memory is a computer enhancement, rather than an integral part of the computer itself, any unlikely failure on the part of the technology will not result in a loss of data.

Intel® Optane™ technology represents a major advancement in the computing industry—for any user. Everyone wants a smoother, faster, easier user experience. Now, with a new smart accelerator from Intel, they can get it—without breaking the bank.

Modernize computing

experience
what's inside™

1. A benchmark from the BAPCo* consortium that measures the performance of Windows* platforms, SYSmark* tests four usage scenarios: Office Productivity, Media Creation, Data/Financial Analysis, and Responsiveness. Tested on Intel® Core™ i5-7500 processor, 65W TDP, 4C4T, Turbo up to 3.8GHz, Memory: 2x4GB DDR4-2400, Storage: Western Digital* 1TB 7200RPM WD1003FZEX, Intel® HD Graphics 630, OS: Windows* 10, as measured against the same system with a 16GB Intel® Optane™ memory module.

2. Benchmark from Futuremark* that measures Windows* everyday computing performance. PCMark* Vantage is made up of several benchmarking suites: PCMark Suite (produces "PCMark" Score), Memories Suite, TV and Movies Suite, Gaming Suite, Music Suite, Communications Suite, Productivity Suite, and HDD Suite. The HDD Suite contains an operating system startup workload that is sensitive to HDD versus SSD boot devices.

3. Workload developed by Intel measuring the time elapsed to launch Google Chrome*.

4. Workload developed by Intel measuring the time elapsed to launch Bethesda Softworks Fallout 4* and reach the main menu with intro videos disabled (Launch), and the time elapsed from the main menu to completion of level loading (Level Load). Gaming workloads were tested with same configuration, except using a discrete graphics card (NVIDIA* EVGA* GTX 1080), with and without 16GB Intel® Optane™ memory module.

5. Workload developed by Intel measuring the time elapsed to launch Microsoft Outlook* 2016 and load a 250MB local data file.

6. Workload developed by Intel measuring the time elapsed using Microsoft Windows* File Search to locate a specified file in a non-indexed directory.