

# Adding Intel Optane memory vs. doubling the RAM:<sup>1</sup>

Which upgrade to the HP EliteDesk 800 G4 delivered more bang for the buck?

Intel® Optane™ memory can boost system responsiveness more than adding extra RAM

**Better performance doesn't have to come with a higher price tag**

We performed tasks using two HP EliteDesk 800 G4 desktops:<sup>2</sup>



EliteDesk 800 G4  
with 32GB RAM



EliteDesk 800 G4 with 16GB RAM +  
16GB Intel Optane memory

The model with Intel Optane...

Took up to  
**87% less time**  
to perform  
everyday tasks

Opening Adobe® Photoshop®  
and launching a project:

16GB RAM +  
16GB Intel Optane  
configuration



32GB RAM  
configuration



Had a  
**15% lower**  
purchase price<sup>3</sup>

\$2,012



\$

32GB RAM  
configuration

\$1,706



\$

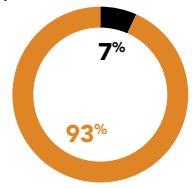
16GB RAM +  
16GB Intel  
Optane  
configuration

Could deliver savings of  
**over \$4 million**  
across 1,000 users  
over three years



Estimated desktop  
hardware savings  
**\$306,000**

Estimated staff  
productivity  
savings  
**\$3,990,348**



**\$4,296,348**

Dive into the details of our research at <http://facts.pt/pqv8ua2>

1 Intel Optane memory (cache) is sold separately. Intel Optane memory system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations (HP Z240 Tower/SFF, Z2 Mini, ZBook Studio, 15 G5, and 17 G5) and requires a SATA HDD, 7th Gen or higher Intel Core® processor or Intel Xeon® processor E3-1200 V6 product family or higher, BIOS version with Intel Optane supported, Microsoft® Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe Spec 1.1, and an Intel Rapid Storage Technology (Intel RST) 15.5 driver.

2 Complete configurations for both systems appear in the science addendum to the test report available at <http://facts.pt/mq0buag>.

3 HP online store, accessed October 25, 2018, <https://store.hp.com/us/en>.

DISCLAIMER: The January 2019 Principled Technologies reports were commissioned by HP. We have based the results of the calculations on a combination of a variety of features and functionalities under comparison and use industry figures and/or costs to determine the potential ROI savings customers may derive from the use of the HP products. We present these values not to represent actual savings a customer may expect to see but solely to illustrate potential savings. Many factors and variables may affect whether any customer sees any potential savings.