A Principled Technologies report: In-depth research. Real-world value.



# Dell Latitude 5285 2-in-1 delivers laptop and tablet capabilities in one device and can save you money

Ownership costs of the Dell Latitude 5285 2-in-1 vs. a laptop plus iPad Pro

Many of today's employees benefit from having both a laptop **and** a tablet available as they work. The Dell<sup>™</sup> Latitude<sup>™</sup> 5285 2-in-1 provides both in a single device, which saves companies money by letting them purchase and manage one system per employee rather than two.

Principled Technologies investigated the three-year costs of purchasing and supporting:

- A single Dell Latitude 5285 2-in-1 device
- A laptop and a tablet—an HP EliteBook 820 G4 configured similarly to the Dell Latitude 5285 2-in-1 and an Apple<sup>®</sup> iPad Pro<sup>®</sup>

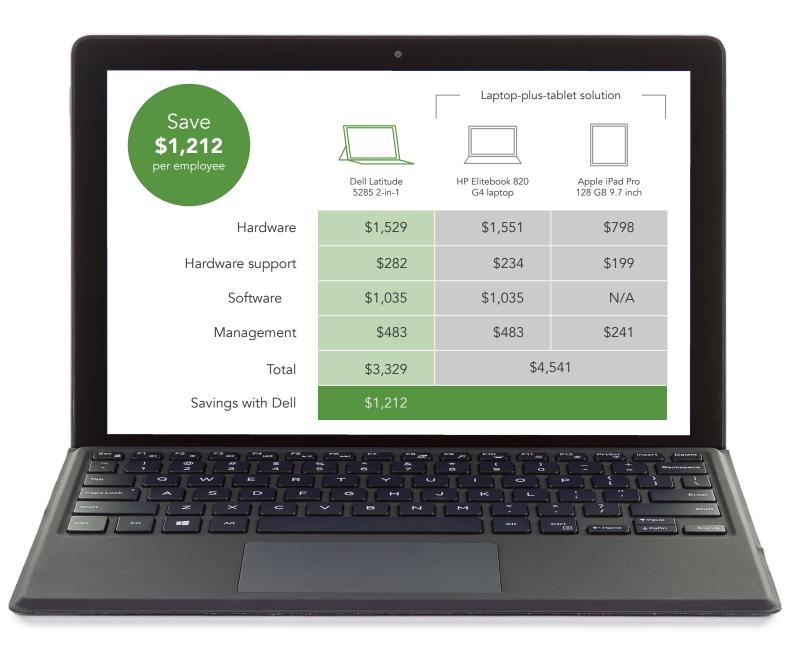


We found that because the laptop-and-iPad solution requires extra spending on hardware and on IT management time, a company could save \$1,212 per employee over three years by choosing the Dell Latitude 5285 2-in-1 device. For a 500-employee company, that adds up to more than half a million dollars. Even for smaller organizations, these savings add up quickly—equipping your employees with the techology they need to work effectively, while simultaneously helping your company's bottom line.

## When one is greater than two

For some work tasks, a tablet is perfect. For others, you really need a laptop. But buying and managing two devices for every employee can get very expensive. The Dell Latitude 5285 2-in-1 device, which is powered by the 7th generation Intel Core vPro processor, gives companies and their workers the benefits of having both a tablet and a laptop at a price that is in line with real-world budgets.

As the chart below summarizes, choosing the Dell Latitude 5285 2-in-1 rather than the separate laptop and tablet could save you \$1,212 per user over three years by reducing spending on hardware, hardware support, and management.



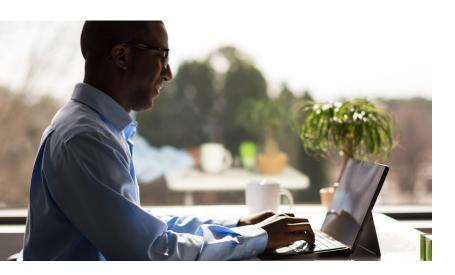
# Beyond dollars and cents

Later in this report, we'll explain how we arrived at the figures above. First, let's take a quick look at some of the other advantages the Dell Latitude 5285 2-in-1 can offer your employees.

#### A lighter load

In this corner, we have the Dell Latitude 5285 2-in-1, weighing in at a trim 2.64 pounds. In the other, the 2.78-pound HP laptop and the 0.96-pound iPad Pro. Together, they weigh 3.74 pounds, 41 percent more than the Dell 2-in-1. And those who use one case for the laptop and another for the iPad would carry a little extra weight on top of that. When you think of the bags your employees sling over their shoulders during their daily commutes or when dashing through the airport, which solution is more attractive?





#### Clutter be gone!

It's hard to pick up a lifestyle magazine that doesn't address the modern urge to simplify, streamline, and declutter. Your employees wouldn't need a separate wall outlet to charge the iPad—they could connect it to the laptop via USB—but they would need a cable. Along with the power cable for the laptop, that's two items they'd have to keep track of compared to one with the Dell Latitude 5285 2-in-1. Workers who rely on external keyboards when using their iPads also have those to manage.

#### Features of Intel Core vPro platform on both laptop and tablet

Both the Dell Latitude 5285 2-in-1 device and the HP Elitebook 820 G4 laptop are powered by the same processor, the 7th generation Intel Core i5-7300U with AMT vPro Technology Enabled. This processor includes a range of security and management features from which users of the Latitude 5285 2-in-1 can benefit, whether they are operating in notebook mode or tablet mode. (See the "And that's not all" box on page 6 to learn more.) In contrast, those who go with a laptop and an Apple iPad lose out of those advantages when using the iPad.

#### The software advantage

Some companies have non-cloud-based Windows<sup>®</sup> applications that users need to access from all devices. The Dell Latitude 5285 2-in-1 provides laptop and tablet functionality in a single Windows 10 device. This lets your employees use any Windows-only applications your company relies on with either form factor.

A number of options are available for using these applications on the iPad. At the low-cost end of the range are solutions such as Parallels Access for Business, which connects the iPad to the user's laptop to run applications remotely. The price is \$49.00 per year for five laptops (and some additional IT cost for help desk and support).<sup>1</sup> At the more expensive end of the range are virtual desktop infrastructure (VDI) solutions, which run Windows and Windows applications hosted on servers in datacenters or clouds. VDI incurs high costs for software, IT and support staff, and infrastructure. We do not include these costs in our analysis.

With the Dell Latitude 5285 2-in-1, companies enjoy another software advantage for any applications that require per-device licensing. Giving your employees laptop and tablet functionality in a single device means paying for one license, whereas giving them a separate laptop and tablet could double your cost.



## Deep dive: How we calculated costs

Here we explain some of the assumptions upon which we base our analysis. Appendix A includes additional details on the systems.

#### Hardware

We based our analysis on the Dell Latitude 5285 2-in-1, using a 7th generation Intel Core processor i5-7300U with AMT vPro Technology enabled. It also has 8 GB of RAM and a 256GB solid-state drive (SSD). We selected the HP EliteBook 820 G4 laptop because it comes with a similar size screen that can be configured with similar screen resolution, is powered by the same processor, has the same amount of memory, and uses the same size SSD.

The iPad Pro in our analysis has an A9X third-generation chip. Depending on screen size, memory capacity, and connectivity options (cellular and Wi-Fi or Wi-Fi only), iPad Pro prices range from \$599 to \$1,129. The 128GB Wi-Fi-only 9.7-inch model we used is the next-to-least-expensive iPad Pro available at \$699.

We also assume the company will provide a stylus for users of both solutions. We include the \$60 Dell Active Pen for use with the Dell Latitude 5285 2-in-1 and the \$99 Apple Pencil for use with the iPad.

The prices we cite came from the Dell, HP, and Apple websites on March 31, 2017. They reflect standard in-cart discounts when available, include one year of hardware protection, and exclude tax and shipping.

#### What if you choose a low-end iPad?

We base the figures in our analysis on the 128GB Wi-Fi-only 9.7-inch Apple iPad Pro (priced at \$699), but companies considering buying employees the least expensive iPad available along with a laptop would also save by opting for the Dell Latitude 5285 2-in-1.

When we substitute the 32GB Wi-Fi-only 9.7-inch iPad (priced at \$329) in our analysis, the per-user savings over three years changes to \$743. That would add up to \$371,500 for a 500-person company.

#### Hardware protection

Protecting the Dell Latitude 5285 2-in-1 and HP EliteBook 840 G4 laptop for years two and three would require purchasing a hardware protection plan from either the vendor or a third party. We include the cost of three year support and accidental damage protection from the vendors.

To protect the Apple iPad Pro for years two and three, we add \$199 for a three-year zero-deductible plan from SquareTrade.<sup>2</sup> Protection plans are also available from Apple, but only for years one and two.

#### Productivity software

We assume companies will provide a productivity suite such as Office 365<sup>®</sup> in a package that includes mobile apps. The \$720 price for the Office 365 Enterprise E3 subscription would be the same for both solutions, with no extra cost for the additional device in the laptop-plus-tablet solution.

#### Enterprise mobility management (EMM)

We assume the company uses a cloud-based enterprise mobility management tool to manage devices in both solutions. (See Appendix C to learn more about EMM.) We include costs for the Microsoft Enterprise Mobility + Security (EMS), using the E3 plan. Depending on current licensing and needs, a company could opt for the Intune add-on, the EMS E3, or EMS E5. These would pair with the Microsoft System Center Configuration Manager, which we assume the enterprise has in place and uses to manage servers, PCs, and other devices. All of these plans use a per-user pricing model, so the cost would be the same for both solutions. If a company selected an EMM tool with per-device pricing rather than per-user pricing, the costs for the laptop-plus-tablet solution would double, representing another extra cost that you would not incur with the Dell Latitude 5285 2-in-1.



#### IT admin and help desk services

All employee devices require a certain amount of time on the part of IT administrators, who use the EMM tools to manage and secure the devices and applications, and help desk staff, who answer questions and solve problems. For the Dell Latitude 5285 2-in-1 and the HP EliteBook 820 G4, we assume this time would be the same. We estimate one senior help desk full-time equivalent (FTE) per 5,000 laptops for device administration using automated EMM tools and one help desk FTE per 500 laptops.<sup>3</sup>

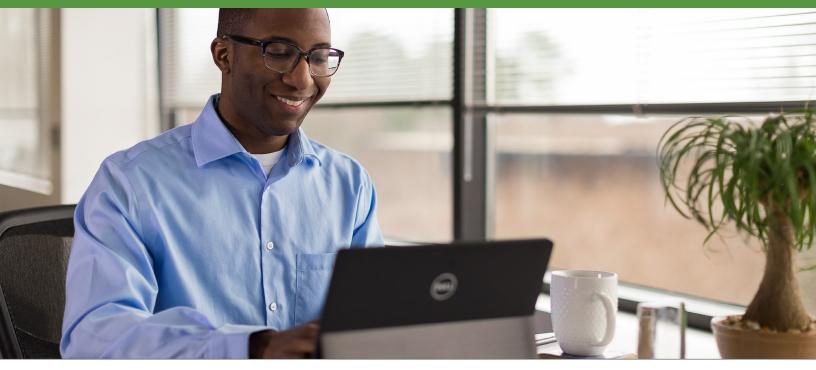
We used salary.com to determine the average national compensation of \$83,780 per year for a senior help desk technician and \$71,926 per year for help desk support.<sup>4</sup> Dividing the device counts by the three-year FTE costs at those compensation levels yields a three-year per-device IT cost of \$483 for the laptops.

In the laptop-plus-tablet solution, IT staff have one additional device to support. We assume that support costs for the iPad are half of those for the laptop, so we include an additional \$241.

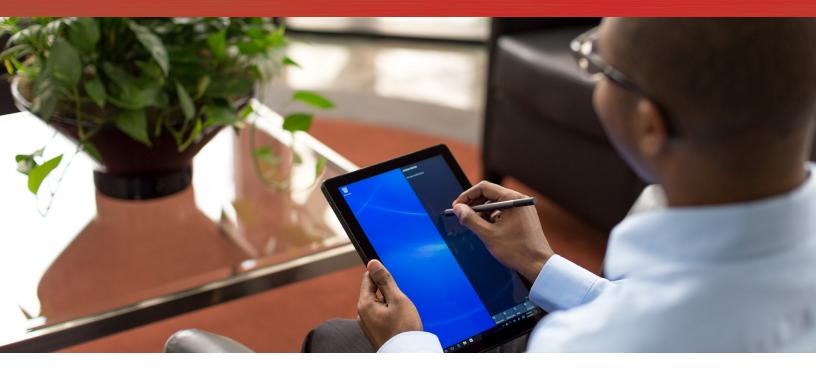
#### And that's not all

In addition to the advantages we've presented, companies who choose the Dell Latitude 5285 2-in-1 and their employees can potentially enjoy the following:

- More robust security features. The Dell Latitude 5285 2-in-1 has multiple security features that the iPad Pro lacks. These include smart card reader, finger print reader, TPM, Self Encrypting drives, Dell Endpoint Security Suite, and Dell ControlVault<sup>™</sup>, which strengthens credential storage and leverages Intel<sup>®</sup> Authenticate for deep, multifactor identity protection.
- Greater resistance to screen damage and scratches. The Dell Latitude 5285 2-in-1 screen employs Corning<sup>®</sup> Gorilla<sup>®</sup> Glass 4, whereas the Apple iPad Pro screen offers no such protection.
- Serviceable design. The Latitude 5285 2-in-1 design allows for servicing of hard drives, batteries, or WWAN cards onsite.<sup>5</sup>



Dell Latitude 5285 2-in-1 delivers laptop and tablet capabilities in one device and can save you money



## Buy one instead of two and save

Smart companies provide employees with all the tools they need to be effective at work. Really smart companies find the least expensive way to do this. As we found, buying and supporting a Dell Latitude 5285 2-in-1 device rather than an HP EliteBook 820 G4 together with an iPad Pro can save your company over \$1,000 over three years per employee—savings that add up quickly with dozens or hundreds of users. In addition to helping your bottom line, the Dell Latitude 5285 2-in-1 gives users laptop and tablet functionality in a single device that's lighter, requires one fewer cable, lets users access Windows applications natively, and offers the security and manageability benefits of the latest Intel Core vPro platform in both laptop and tablet modes. If you plan to equip your employees with laptops and tablets, the Dell Latitude 5285 2-in-1 makes a lot of sense.

<sup>1</sup> http://www.parallels.com/products/access/business/

<sup>2</sup> https://www.squaretrade.com/ipad-warranty

<sup>3</sup> https://www.mobileiron.com/en/whitepaper/windows-10-emm-tco-toolkit

<sup>4</sup> http://swz.salary.com/SalaryWizard/Help-Desk-Support-Salary-Details.aspx?hdcbxbonuse=off&isshowpiechart=true&iss-howjobchart=false&isshowsalarydetailcharts=false&isshownextsteps=false&isshowcompanyfct=false&isshowaboutyou=false

<sup>5</sup> https://si.cdn.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/Latitude-5285-2-in-1-spec-sheet.pdf Note: We did not test this.

# Appendix A: System configuration information

On February 14, 2017, we finalized the hardware and software configurations we tested. Updates for current and recently released hardware and software appear often, so unavoidably these configurations may not represent the latest versions available when this report appears.

| Operating system                           | Windows 10 Pro 64  | Windows 10 Pro 64   |  |
|--|--|---|--|
| Battery                                    | 42 WHr Polymer, ExpressCharge™ Capable   | HP Long Life 3-cell, 51 WHr Li-ion polymer  |  |
| Battery life claim by manufacturer         | 12 hours 29 minutes (according to Dell)  | 14 hours 45 minutes (according to HP)   |  |
| Processor                                  | Intel® Core™ i5-7300U with AMT vPro<br>Technology Enabled                        | Intel <sup>®</sup> Core <sup>™</sup> i5-7300U with AMT vPro<br>Technology Enabled |  |
| Memory (GB)                                | 8  | 8   |  |
| Solid-state drive                          | M.2 256GB SATA Class 20  | 256GB PCIe NVMe   |  |
| Warranty                                   | One-year hardware service with in-home/<br>onsite service after remote diagnosis | One-year (1/1/0) limited warranty   |  |
| Screen                                     | 12.3-inch 3:2 Touch (1920 x 1280)<br>Corning Gorilla Glass                       | 12.5-inch diagonal LED-backlit non-touch with camera (1920 x 1080)                |  |
| Adapter                                    | 45 Watt AC Adapter, USB Type-C   | HP 45 Watt Smart AC   |  |
| Dimensions (inches)                        | Tablet only: 11.5 x 8.22 x 0.38<br>With travel keyboard: 11.5 x 8.52 x 0.59      | 12.2 x 8.6 x 0.74   |  |
| Weight (lbs.)                              | Tablet only: 1.89<br>With travel keyboard: 2.64                                  | 2.78  |  |
| Price after in-cart discount as of 3/31/17 | \$1,469  | \$1,551   |  |

| Capacity (GB)                      | 128  | 32   |  |
|------------------------------------|--|--|--|
| Dimensions (inches)                | 9.4 x 6.6 x 0.24   | 9.4 x 6.6 x 0.24   |  |
| Weight (lbs.)                      | 0.96   | 1.03   |  |
| Battery life claim by manufacturer | 10 hours (according to Apple)                            | 10 hours (according to Apple)                            |  |
| Display                            | 9.7-inch (diagonal)<br>2,048 x 1,536 resolution          | 9.7-inch (diagonal)<br>2,048 x 1,536 resolution          |  |
| Chip                               | A9X third-generation                                     | A9 third-generation                                      |  |
| Camera                             | 12-megapixel photos                                      | 8-megapixel photos                                       |  |
| Video recording                    | 4K HD video recording (3840 by 2160)                     | 1080p HD video recording                                 |  |
| FaceTime HD camera                 | 5-megapixel photos                                       | 1.2-megapixel photos                                     |  |
| Cellular and wireless              | Wi-Fi (802.11a/b/g/n/ac); dual band (2.4GHz<br>and 5GHz) | Wi-Fi (802.11a/b/g/n/ac); dual band (2.4GHz<br>and 5GHz) |  |
| Connector                          | Lightning + Smart Connector                              | Lightning  |  |
| Price as of 3/31/17                | \$699  | \$329  |  |

# Appendix B: Research findings

|  | Dell Latitude 5285<br>2-in-1 | HP EliteBook 820<br>G4 and iPad Pro<br>(used in primary<br>analysis) | HP EliteBook 820<br>G4 and iPad Air<br>(see box on page 5) | Notes  |  |  |
|--|------------------------------|--|--|--|--|--|
| Laptop or 2-in-1   |                              |  |  |  |  |  |
| Hardware   | \$1,469                      | \$1,551  | \$1,551  | Includes one year of hardware protection   |  |  |
| Hardware support<br>plan with accidental<br>damage protection  | \$282                        | \$234  | \$234  | HP: 3-yr limited warranty (\$75.00) plus<br>3-yr next-business-say service with<br>accidental damage protection (\$159.00)<br>Dell: 3-yr ProSupport Plus with next-<br>business-say service (\$281.40) |  |  |
| Office 365 Enterprise<br>E3 subscription                       | \$720                        | \$720  | \$720  |  |  |  |
| Microsoft Enterprise<br>Mobility + Security<br>E3 subscription | \$315                        | \$315  | \$315  |  |  |  |
| IT admin & helpdesk  | \$483                        | \$483  | \$483  | Estimated three-year cost for IT<br>admin services   |  |  |
| Tablet   |                              | 128GB Wi-Fi-only<br>9.7-inch iPad Pro                                | 32GB Wi-Fi-only<br>9.7-inch iPad                           |  |  |  |
| Hardware   | N/A                          | \$699  | \$329  |  |  |  |
| Stylus   | \$60                         | \$99   | N/A  | We included the price of the Dell Active<br>Pen and the Apple Pencil at Dell's request.<br>The less-expensive iPad does not support<br>the Apple Pencil.   |  |  |
| Hardware protection for years 2 & 3                            | N/A                          | \$199  | \$199  | Three-year, zero-deductible warranty<br>from SquareTrade   |  |  |
| IT admin and<br>help desk                                      | N/A                          | \$241  | \$241  | Estimated three-year cost for IT<br>admin services   |  |  |
| Total costs for tablet   | \$60                         | \$1,238  | \$769  |  |  |  |
| Solution   |                              |  |  |  |  |  |
| Total costs for solution                                       | \$3,329                      | \$4,541  | \$4,072  | Includes Dell Latitude 5285 2-in-1 or<br>laptop plus tablet  |  |  |
| Total savings with Dell  | N/A                          | \$1,212  | \$743  |  |  |  |

# Appendix C: Enterprise mobility management

Enterprise mobility management provides mobile device management, mobile application management (MAM), and other technologies that provision, secure, and manage mobile devices and apps, and protect use of corporate data on those devices.

IT staff can use EMM tools in provisioning devices. An employee with a new device can access a portal and run through an enrollment procedure that, depending on specific EMM product features:

- Sets up the device to comply with configuration and security policies that IT has established, such as device encryption, use of and strength of device passwords, whether to wipe the device after a specified number of failed login attempts, and restricted use of features including camera, copy-paste, and save as.
- Installs and configures a core set of apps and/or points the user to a company app portal from which they can select and download apps.
- Configures email and other app profiles, Wi-Fi, virtual private network (VPN) profiles.

Throughout the device lifecycle, IT can use EMM capabilities to continue to enforce management policies or apply new ones, deploy app updates, inventory and track usage of supported and non-supported apps. IT help desk can remotely lock or wipe the device, reset the password, or control it remotely to troubleshooting problems on the device. When it's time to retire the device, IT can remotely wipe the device or selected apps.

This project was commissioned by Dell Technologies.





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