Dell™ SupportAssist provided proactive support for a hard drive failure

Less time

4.5
minutes

Fewer steps

8
user steps

Less hassle

Zero
phone time

When something goes wrong with your PC or tablet, dealing with technical support can be a real hassle. Between finding the information technical support needs about your laptop, waiting to speak with the correct person on the phone, and troubleshooting the problem, it can be a frustrating process to resolve the problem and get back to work.

That's why Dell offers ProSupport Plus for PCs and tablets—its premier support service with Dell SupportAssist technology. According to Dell, ProSupport Plus provides proactive and predictive automated support that can reduce the amount of time and number of steps in the troubleshooting process. For more info from Dell, visit dell.com/supportassist.

To compare the support experience provided by Dell, Apple®, HP, and Lenovo® from a customer's perspective, we fatally damaged the hard drive in a laptop from each vendor and worked with the respective technical support staff to troubleshoot the issue. Dell delivered a better experience than Apple, HP, and Lenovo—we had a resolution in just a few minutes and a small number of steps, without having to call technical support.

FASTER SUPPORT RESOLUTION WITH LESS HASSLE

We induced a hard drive failure by dropping each laptop until it could no longer load the operating system. We then measured the amount of time and number of steps it took to resolve the issue using each vendor's top-level support service. We considered our issue resolved when the technical support staff correctly identified the hard drive failure and/or initiated an action that would fix it.

Figure 1 shows the amount of time required to resolve a hard drive failure with technical support staff from the four vendors.

Time required to resolve a hard drive failure
(Less time is better)

Dell 4:31
ProSupport Plus with next business day Onsite Service

Lenovo 11:41
Onsite and Accidental Damage Protection

HP 21:30
Next Business Day On-Site Coverage for Notebooks with Accidental Damage Protection Service

Apple 52:47
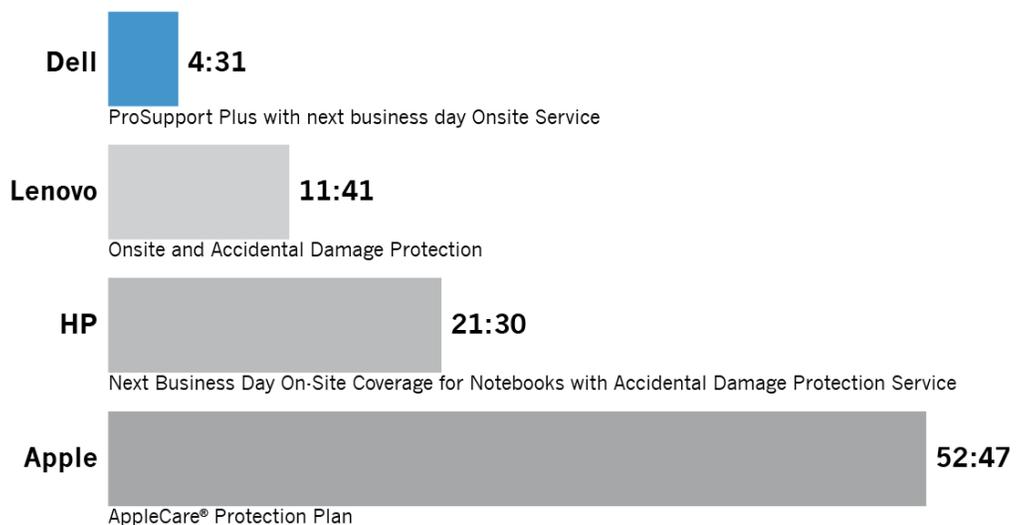AppleCare® Protection Plan

Figure 1: Dell ProSupport Plus with SupportAssist required less than 5 minutes to resolve a hard drive failure (mm:ss).

Dell ProSupport Plus with SupportAssist provided the fastest resolution to our hard drive failure with the least amount of effort. Dell's pre-boot diagnostics gave us an error code to enter into an online form at supportassist.dell.com, and a short time later we received an email confirmation that our replacement hard drive was on the way.

For the other three vendors, we had to make a phone call to technical support. That required going through menu options, waiting on hold, and providing basic information before technical support staff could even start to tackle the actual problem. While the amount of time spent waiting to talk to a technical support representative can vary widely due to factors such as call volume, the process takes away valuable time for your busy workday and can be very frustrating.

In addition to time, we also measured the number of steps required to resolve our hard drive failure. As Figure 2 shows, Dell ProSupport Plus with SupportAssist required the fewest number of steps.

Steps required to resolve a hard drive failure
(Fewer steps is better)

Dell ●●●●●●●● **8 steps**
ProSupport Plus with next business day Onsite Service

Lenovo ⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪ **23 steps**
Onsite and Accidental Damage Protection

HP ⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪ **24 steps**
Next Business Day On-Site Coverage for Notebooks with Accidental Damage Protection Service

Apple ⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪⚪ **29 steps**
AppleCare Protection Plan

Figure 2: Dell ProSupport Plus with SupportAssist required only 8 steps to resolve a hard drive failure.

DETAILED RESULTS
Dell ProSupport Plus with SupportAssist

Even though the hard drive failure prevented our Dell laptop from loading the operating system, we could still run pre-boot diagnostics by pressing F12 during the boot process. The Dell SupportAssist pre-boot environment provided an error code, which we entered into the form at supportassist.dell.com.

Within two minutes, we received an email from Dell SupportAssist notifying us that it had detected a failed component, and that a replacement hard drive would arrive on the next business day. Dell SupportAssist had collected details of the hard drive failure and determined the appropriate solution for us. The replacement hard drive did indeed arrive the next business day with Microsoft Windows® 10 pre-installed. We installed the replacement drive, and we were back in business. Dell allowed us to keep our damaged hard drive with our sensitive corporate data.

With Dell ProSupport, the troubleshooting process only took 8 steps, less than 5 minutes, and no time on the phone. Instead of us picking up the phone and calling technical support, Dell SupportAssist proactively diagnosed

00:00 *minutes of phone time*

8 *user steps*

the issue, and then Dell automatically dispatched the replacement hard drive. With Dell ProSupport Plus and Dell SupportAssist, our issue was resolved with little time or effort on our part.

Lenovo – Onsite and Accidental Damage Protection

11:41 *minutes of phone time*

23 *user steps*

Our phone call with Lenovo's technical support lasted 11 minutes. The call time was shorter than with Apple and HP because Lenovo technical support did not attempt to troubleshoot our issue. Instead of sending us a replacement hard drive, Lenovo sent us a shipping box that required us to return the entire laptop for repair.

Even though the phone time was shorter with Lenovo's top-tier support, the plan still required us to call, and phone wait times can vary. We were unable to use the laptop for several days, and Lenovo kept the damaged hard drive with our sensitive corporate data.

HP – Next Business Day On-site Coverage for Notebooks with Accidental Damage Protection Service

21:30 *minutes of phone time*

24 *user steps*

HP's top-tier support package required over 20 minutes on the phone to resolve our support case. We also had to provide system information about our laptop that Dell SupportAssist collected proactively on our behalf. After the phone call, HP sent us a blank replacement hard drive that arrived the next day. Two days later we received two restore discs, which we used to reinstall the operating system. HP's top-tier support required that we return the damaged drive within a week, without providing a way to wipe the drive. If we had not returned the drive that included our corporate data, we would have been charged for the cost of the replacement drive.

Apple – AppleCare Protection Plan

52:47 *minutes of phone time*

29 *user steps*

We spent almost an hour on the phone with Apple technical support. Apple's resolution required us to drive to the closest Apple Store and leave the MacBook Pro® at the Genius Bar overnight for repair. Apple replaced the hard drive, and we returned to the store the following day to pick up the repaired laptop. The Apple Store kept the damaged hard drive with our sensitive corporate data.

CONCLUSION

Dell ProSupport Plus with SupportAssist technology provided the best support experience for our hard drive failure test case, with the least amount of time and fewest number of steps to resolution. Dell SupportAssist diagnosed the damaged hard drive and sent the relevant information to Dell technical support, greatly reducing the amount of effort on our part in comparison to Apple, HP, and Lenovo.

APPENDIX A — SYSTEM INFORMATION

Figure 3 provides support plan and detailed configuration information for the test systems.

System	Dell Latitude™ 14 E5450	Apple 13-inch MacBook Pro	HP EliteBook 840 G2	Lenovo ThinkPad® T450
Support plan (3 years)	ProSupport Plus with next business day Onsite Service	AppleCare Protection Plan	Next Business Day On-site Coverage for Notebooks with Accidental Damage Protection Service	Onsite and Accidental Damage
Processor	Intel® Core™ i5-5200U	Intel® Core™ i5-3210M	Intel® Core™ i5-5200U	Intel® Core™ i5-5200U
Processor frequency	2.2-2.70 GHz	2.50 GHz	2.2-2.70 GHz	2.2-2.70 GHz
Processor cores	2	2	2	2
Memory	4 GB	4 GB	4 GB	4 GB
Storage	500 GB	500 GB	500 GB	500 GB
Graphics	Intel HD Graphics 5500	Intel HD Graphics 4000	Intel HD Graphics 5500	Intel HD Graphics 5500
Battery capacity	38 Wh	60 Wh	50 Wh	23.2 Wh (front) 23.2 Wh (rear)
Display	14" 1366×768	13.3" 1280x800	14" 1366×768	14" 1366×768
Wireless	802.11 a/b/g/n/ac	802.11 a/b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
Bluetooth®	4.0	4.0	4.0	4.0
OS	Windows 10 Professional 64-bit	OS X® El Capitan	Windows 10 Professional 64-bit	Windows 10 Professional 64-bit

Figure 3: Support plan and configuration information for the laptops that we tested.

APPENDIX B — HOW WE TESTED

DAMAGING THE HARD DRIVES

We dropped each system while running the MAXON CINEBENCH R15 benchmark, and repeated the process until each system could no longer load the operating system.

Setting up CINEBENCH R15
1. Download CINEBENCH R15 from http://www.maxon.net/en/products/cinebench/overview.html.
2. Install CINEBENCH:
   a. Right-click the CINEBENCH ZIP file, and choose Extract All.
   b. In the Select a Destination and Extract Files window, click Browse, click Desktop, and click OK.
   c. Click Extract.

Conducting the drop test
1. Place the fully charged notebook onto the platen of the drop tester, with the notebook's base flat on the platen and the screen facing forward, open at a 120-degree angle.
2. Launch CINEBENCH R15 by double-clicking the CINEBENCH R15.exe file in the CINEBENCH R15 folder located on the Windows desktop.
3. Click File, and select Run all selected tests, from the drop down window.
4. Unplug the system from AC power.
5. On the drop table controller, hold down the Arm button, and press the Drop button to drop the laptop.
6. Scan the hard drive with HDDScan to check for bad blocks.
7. Repeat steps 1 through 6 until the hard drive fails to launch Windows 10.

APPENDIX C – STEPS FOR PROBLEM RESOLUTION

Figure 4 shows the steps required to resolve the hard drive failure for each vendor.

Steps	Dell	Apple	HP	Lenovo
1	Press F12 and select Diagnostics to launch the Enhanced Pre-boot System Assessment (ePSA).	Call 1-800-275-2273.	Call 1-800-334-5144.	Call 1-855-253-6686.
2	Click Yes when you see the color bars during the display diagnostic. Note the Error Code, Validation Code, and Service Tag when the hard drive error is detected.	Tell phone menu you are calling about a MacBook Pro.	Tell phone menu you are calling about a notebook.	Press 3 for repair.
3	On another computer, navigate to http://supportassist.dell.com	Tell phone menu you are not calling about signing in or authentication.	Tell phone menu that you have an EliteBook	Press 1 for ThinkPad branded products.
4	Enter Error Code, Validation Code, Service tag from the ePSA alert window, and click Next.	Tell phone menu you are ready.	Describe problem to support technician.	Press 1 for Lenovo Product.
5	Click Next.	Tell phone menu your serial number.	Remove battery and AC adapter.	Press 1 for ThinkPad branded support.
6	Sign in to your Dell account.	Provide name.	Hold power button for 60 seconds.	Press 1 for laptop.
7	Click Complete Request.	Describe problem symptoms.	Put battery and AC adapter back into the laptop	Press 1 for technical support.
8	Received email that states hard drive will be shipped next business day.	Hold down Command and R and power on the computer.	Press power button and start pressing F2.	Provide info about laptop problem.
9		Connect to Wi-Fi.	Select English	Provide serial number for the laptop.
10		Click Apple menu.	Select Component Test.	Provide machine type.
11		Select startup disk.	Select Hard Drive test.	State whether laptop is a personal or business laptop.
12		Close out of screen.	Click Quick Test.	Provide business name.
13		Select Disk Utility.	Report failure ID.	Provide business address.
14		Select Disk 0.	Provide serial number.	Provide phone number.

Steps	Dell	Apple	HP	Lenovo
15		Click Info.	Provide phone number.	Provide name.
16		Provide more details of accident.	Provide name.	Provide email address.
17		Provide email address.	State that laptop is a company laptop.	Approve status updates via email.
18		Power off laptop.	Provide company name.	Describe laptop behavior.
19		Power on laptop while pressing Command + Option + P +R.	Provide corporate email address.	Approve depot box being sent.
20		Power off laptop.	Provide business street address.	Write down case number.
21		Press power button and hold down Command + R.	Describe physical damage.	Verify laptop problem timeline.
22		Connect to Wi-Fi.	State whether you need a technician to replace the HD for you.	Re-verify physical damage.
23		Select English.	State what type of image is on the laptop.	State if system is password protected.
24		Select Re-install OS X.	Validate OS type.	
25		Click Continue.		
26		Click I agree.		
27		Click on Open Disk Utility.		
28		Verify no Time Machine Backup on system.		
29		Schedule Apple Store Genius Bar appointment.		

Figure 4: The steps required to resolve a hard drive failure for each vendor.

ABOUT PRINCIPLED TECHNOLOGIES

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Principled Technologies, Inc.
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We provide industry-leading technology assessment and fact-based marketing services. We bring to every assignment extensive experience with and expertise in all aspects of technology testing and analysis, from researching new technologies, to developing new methodologies, to testing with existing and new tools.

When the assessment is complete, we know how to present the results to a broad range of target audiences. We provide our clients with the materials they need, from market-focused data to use in their own collateral to custom sales aids, such as test reports, performance assessments, and white papers. Every document reflects the results of our trusted independent analysis.

We provide customized services that focus on our clients' individual requirements. Whether the technology involves hardware, software, Web sites, or services, we offer the experience, expertise, and tools to help our clients assess how it will fare against its competition, its performance, its market readiness, and its quality and reliability.

Our founders, Mark L. Van Name and Bill Catchings, have worked together in technology assessment for over 20 years. As journalists, they published over a thousand articles on a wide array of technology subjects. They created and led the Ziff-Davis Benchmark Operation, which developed such industry-standard benchmarks as Ziff Davis Media's Winstone and WebBench. They founded and led eTesting Labs, and after the acquisition of that company by Lionbridge Technologies were the head and CTO of VeriTest.