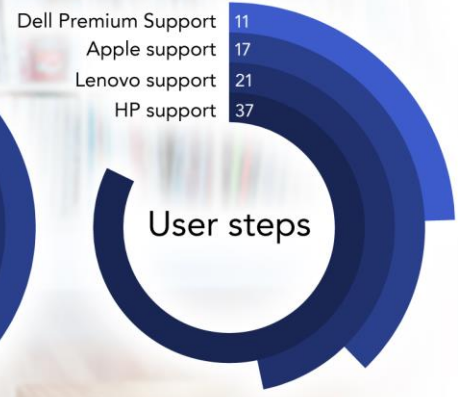
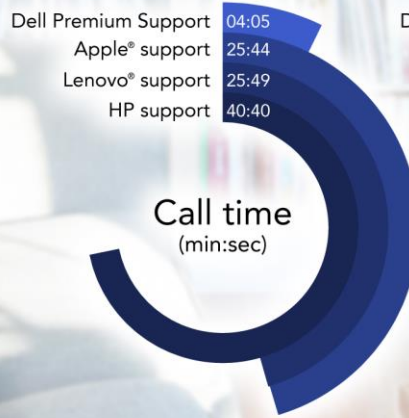
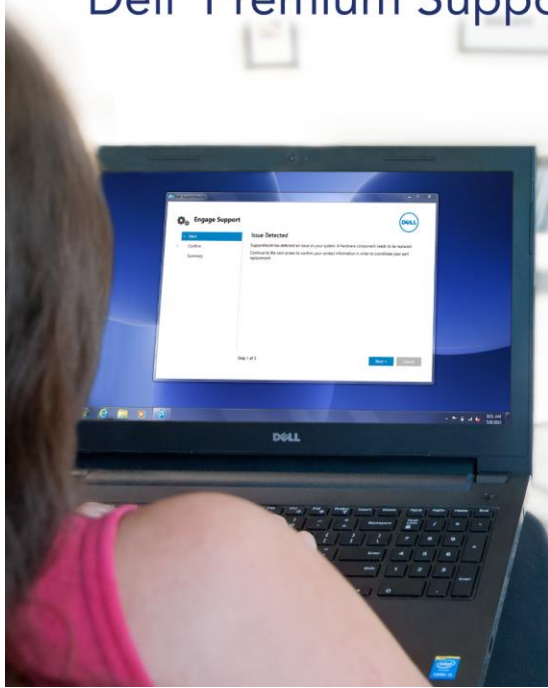


DELL PREMIUM SUPPORT WITH SUPPORTASSIST TECHNOLOGY IMPROVES THE SUPPORT EXPERIENCE

PC problem? Hang up the phone. Dell™ Premium Support with SupportAssist has your back.

High-end help

Dell Premium Support with SupportAssist detected and resolved a hard drive failure faster and easier than the top-tier support* of Apple, Lenovo, and HP.



*See Appendix A for details.

Dell Premium Support with SupportAssist technology is an automated support solution that lets you avoid the pain of contacting tech support for critical issues. SupportAssist recognizes when a problem occurs, diagnoses the issue, and automatically provides Dell support experts the information they need to resolve the problem. This means less frustration, less time troubleshooting on the phone, and less time to get it fixed.

In our hands-on tests at Principled Technologies, Dell Premium Support technicians proactively called to alert us to our hard drive problem, something competing support plans didn't do. Because the Dell expert had the details of the problem in advance, provided by SupportAssist, Dell was able to cut call time by up to 90.0 percent and the number of support steps by 70.3 percent compared to the most comprehensive support plans from leading competitors. Apple AppleCare Protection Plan, HP Care Pack 3-Year Service plus HP SmartFriend PC Setup, and Lenovo 3-Year In-Home Warranty plus Unlimited Premium Support (annual subscription) all required us to initiate support calls and spend at least 25 minutes on the phone; HP took over 40 minutes of our time.

If something goes wrong with your laptop, tablet, or desktop PC, there's no need to waste your precious time on the phone explaining the problem and going through lengthy diagnosis. With Dell Premium Support and SupportAssist, you can get off the phone quickly and go on with your day, confident that the problem is being resolved.



THE PROBLEM: HARD DRIVE DAMAGE

Janice had a long day at work, and is taking her dog for a walk in her neighborhood. After that, she looks forward to unwinding on the couch and checking her social media pages for the latest pictures from her daughter’s trip to Europe. Little does Janice know that while she was out, her laptop hard drive suffered a failure, which may prevent her from doing what she wants. It’s going to be a problem. How quickly and easily can she get back to her routine?

How the support teams handled it

If Janice had Dell Premium Support with SupportAssist, Dell technicians would know about her hard drive problem immediately thanks to its proactive, automated approach to support. This means Dell support would be at work solving the issue before she even knew about the problem, which adds up to less hassle for her. She could get an email or a call from a Dell Support technician before returning from her walk and avoid experiencing the frustration of opening her laptop to find a critical problem. Then, because the Dell team would already have the information they need, Janice could spend less time on the phone and have her laptop back up and running sooner.

With the support options from Apple, HP, and Lenovo, she would return home to find that her laptop was down with a critical issue. Then she would have to call tech support and spend a lot more time going through the lengthy troubleshooting process to get the problem resolved (see Figure 1).

Vendor/support ¹	Call time	User steps	Troubleshooting actions	Resolution
Dell Premium Support with SupportAssist	4 minutes, 5 seconds	11	None necessary	Replacement hard drive will be shipped to us with Windows pre-installed
Top-tier Apple support	25 minutes, 44 seconds	17	Ran Internet Recovery and encountered an error code indicating hard drive failure	Made appointment at the nearest Apple Store® Genius Bar®, where we will have to go to continue the support process
Top-tier HP support	40 minutes, 40 seconds	37	Ran Quick Hard Drive Check in BIOS, and found problems with SMART Check and Short DST	We will ship the laptop to HP, and HP will give us a refund
Top-tier Lenovo support	25 minutes, 49 seconds	21	Booted into recovery mode, entered BIOS setup, and found ‘Hard Disk [Not Detected]’	Lenovo will send an on-site technician to replace the hard drive and start Windows recovery

Figure 1: Tech support comparisons for a failed hard drive with each vendor/support configuration.²

¹ For details on our test systems, see [Appendix A](#). For details on our test procedure, see [Appendix B](#).

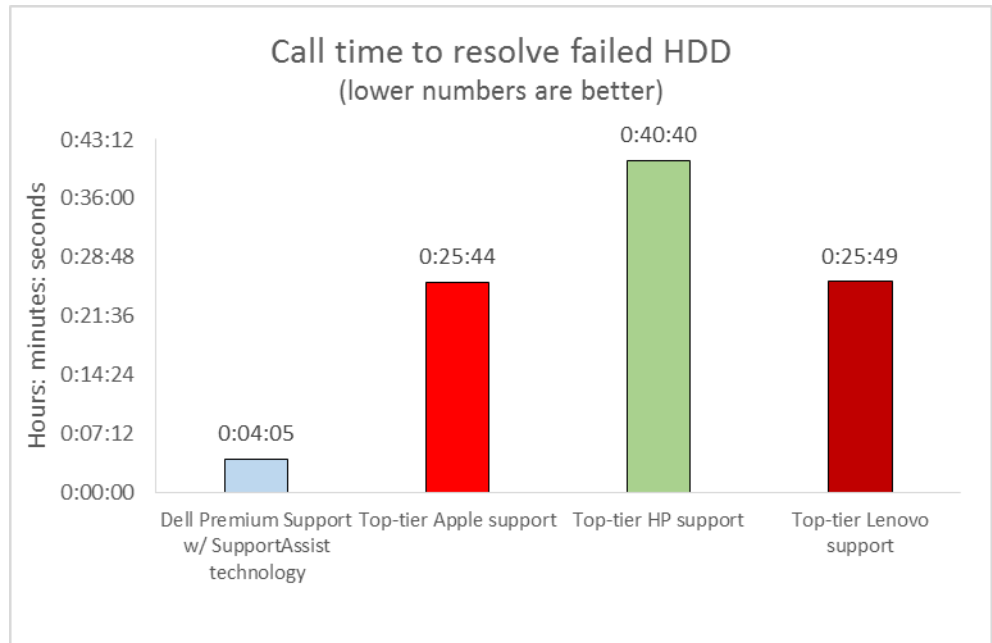
² See [Appendix C](#) for the steps we had to take to resolve each issue.

The Dell laptop with Premium Support and SupportAssist technology did a dramatically better job of resolving our problem than the competition. As soon as SupportAssist identified the hard drive failure, it automatically sent all the details to Dell support experts so they would know how to help us. A SupportAssist prompt appeared on our screen to let us know about the hard drive problem, and it directed us to provide our shipping and contact info. Dell Support called us within the hour to confirm our hard drive problem and to instruct us how to replace the drive with the one they would ship that same day with Windows pre-installed. According to Dell, Premium Support also includes onsite service, meaning a technician would come to our location and install the replacement drive for us.

Tech support for the other three competing laptops determined that there was a hard drive failure only after significant time on the phone attempting to troubleshoot the problem. Because they lacked Dell's proactive approach to support, we had to find the support number, dial in, wait for an available representative, and follow their troubleshooting tips. After 25 minutes on the phone with Apple Support, the representative made us an appointment at the nearest Apple Store, which would take more time out of yet another busy day. Lenovo promised to send an on-site technician to help with the problem, but we had to wait until the next day for them to call and set up an appointment for another day. HP kept us on the phone for 40 minutes and determined that we should send them our laptop for a refund, rather than simply get a replacement part. In this case, we would need to find and purchase another laptop, which could be a big hassle.

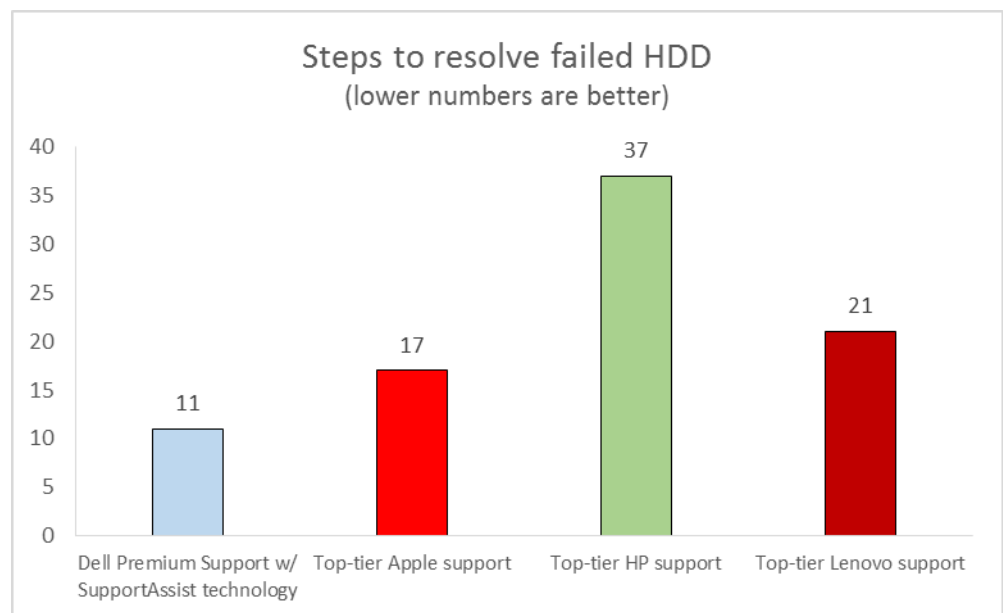
As Figure 2 shows, with Dell Premium Support and SupportAssist technology, the Dell-initiated call took just over 4 minutes, which is up to 90.0 percent less time than support calls with other vendors.

Figure 2: Dell Premium Support with SupportAssist technology cut call time by up to 90.0 percent versus top-tier support options from other vendors.



Getting the issue resolved with Dell Premium Support and SupportAssist technology wasn't just faster—it was also easier, taking only 11 steps. That's a 70.3 percent reduction in the number of user steps compared to the competitors (see Figure 3). See [Appendix C](#) for details about the user steps required.

Figure 3: Dell Premium Support with SupportAssist technology cut user steps by up to 70.3 percent versus top-tier support options from other vendors.



For techies, there's an auto-dispatch option

For customers who are comfortable replacing hardware on their own, Dell Premium Support with SupportAssist has an auto-dispatch option that ships certain

components automatically after a failure without any support call. When hard drive damage is detected, for example, the SupportAssist prompt pops up, you enter your shipping information, and the hard drive is on its way. That means even less effort and downtime before your system is up and running.

CONCLUSION

Even the best-designed laptops, tablets, and desktops can have problems: sometimes hardware simply gives out. That's why Dell has your back with Dell Premium Support and SupportAssist technology. If something goes wrong, Dell's proactive, automated approach makes it as painless as possible to get your system running again. SupportAssist provides Dell support experts with all the details of a problem, so they know exactly what the problem is *and* they contact you, something the competing support plans did not offer. This cuts down on both frustrating troubleshooting time and downtime until you are up and running again. In our test, Dell support called us within an hour of our hard drive failure and the call lasted a brief four minutes. That's all it took for the technician to verify the problem, let us know a new hard drive with Windows pre-installed was on the way, and walk us through the simple steps to install the hard drive when it arrived. Top-tier support options from Apple, HP, and Lenovo don't have proactive support, so our support calls with them took anywhere from 25 to 40 minutes before they resolved the problem.

So, hang up the phone. Dell Premium Support with SupportAssist technology gets the jump on solving your issue by recognizing a problem has occurred, contacting you, and resolving it quickly.

APPENDIX A – SYSTEM CONFIGURATION INFORMATION

Figure 4 provides detailed configuration information for the test systems.

System	Dell Inspiron™ 15 3543	Apple 13" MacBook Pro®	HP Pavilion 15t Touch	Lenovo G50-80
Processor	Intel® Core™ i5-5200U	Intel Core i3-4100M	Intel Core i5-5200U	Intel Core i5-5200U
Processor frequency	2.70 GHz	2.50 GHz	2.70 GHz	2.70 GHz
Processor cores	2	2	2	2
Memory	8 GB	4 GB	8 GB	8 GB
Storage	1 TB	500 GB	1 TB	1 TB
Graphics	Intel HD Graphics 5500	Intel HD Graphics 4000	Intel HD Graphics 5500	Intel HD Graphics 5500
Battery capacity	40 Wh	64 Wh	41 Wh	41 Wh
Display	15.6" 1,366×768 Touchscreen	13.3" 1,280×800	15.6" 1,366×768 Touchscreen	15.6" 1,920×1,080
Wireless	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n/ac
Bluetooth®	4.0	4.0	N/A	4.0
Weight (lbs.)	5.29	4.50	5.93	4.96
OS	Windows 7 Professional 64-bit	OS X® Yosemite	Windows 8.1 64-bit	Windows 8.1 64-bit
Support	Dell Premium Support with SupportAssist	AppleCare Protection Plan for 13" MacBook Pro	<ul style="list-style-type: none"> HP Care Pack 3-Year Service for Pavilion/Stream Laptops HP SmartFriend PC Setup 	<ul style="list-style-type: none"> Lenovo 3-Year In-Home Warranty Unlimited Premium Support (annual subscription)

Figure 4: Configuration information for the laptops we used in our tests.

APPENDIX B – HOW WE TESTED

Simulating a hard drive failure

Dell installed a beta version of the SupportAssist service on the Dell system with Premium Support. Using a tool provided by Dell, we simulated a hard drive failure that produced a hard drive failure alert in Dell SupportAssist. Dell SupportAssist technology gathered information on the issue and sent that information to Dell Support. In the non-automated dispatch scenario, Dell Support preemptively called us to fix the issue. In the automated dispatch scenario, Dell Support emailed us to inform us that a replacement hard drive was on the way.

For the competitors' systems, we removed the hard drives that came with the systems, covered the SATA connection with electrical tape, and reconnected the drive to the systems' motherboards to simulate a hard drive failure. We then called tech support for each system to troubleshoot the problem over the phone.

The differences in hard drive failure methodology between the Dell system with Premium Support and the other systems do not affect the tech support data, because the cause of the failure is irrelevant to the tech support teams. Each vendor's support staff works only to resolve the issue for the customer, and are not concerned with why the failure occurred. We measured the time to resolve the issue and nothing concerning drive failure simulation.

Running the hard drive failure test

On the Dell system with Premium Support and SupportAssist technology

1. Navigate to the desktop, and right-click the Create HDD Alert shortcut.
2. Click Run as Administrator.
3. Allow SupportAssist to capture the failure details.
4. Click through the screens in SupportAssist, providing contact info when prompted, until you get to the final screen that displays the details of the issue.
5. When Dell Support calls, start the stopwatch and video camera.
6. Stop the stopwatch when the tech support call ends. If the issue is not fixed, and requires an additional tech support call, record additional call times, and add these times to the total.
7. Stop the video camera when all tech support calls have completed.

On the competitors' systems

1. Attempt to boot the system.
2. Start the stopwatch and video camera, and call tech support.
3. Describe the problem. Note any unusual issues that arise during the call.
4. Stop the stopwatch when the tech support call ends. If the issue is not fixed and it requires an additional tech support call, record additional call times, and add these times to the total.
5. Stop the video camera when all tech support calls have completed.

APPENDIX C – STEPS TO RESOLVE THE ISSUE

Figure 5 shows the user steps required to resolve the hard drive issue for the five support scenarios.

Steps by user	Dell Premium Support with SupportAssist Technology	Top-tier Apple support	Top-tier HP support	Top-tier Lenovo support
1	Click Next when SupportAssist GUI appears.	Call 1-800-275-2273.	Call 1-800-474-6836.	Call 1-877-453-6686.
2	Select Use existing My Account login, and click Next.	Tell phone menu you are calling about a MacBook Pro.	Tell phone menu you are calling to get tech support.	Press 4 for Idea-branded products.
3	Sign in.	Tell phone menu you are ready.	Tell phone menu you are calling about a laptop.	Press 2 for tech support.
4	Provide contact info.	Tell phone menu your serial number.	Tell phone menu you are calling about a Pavilion model.	Provide name.
5	Click Next.	Confirm misinterpreted digit.	Tell support technician you are calling about a laptop.	Provide phone number.
6	Enter shipping address.	Provide name.	Describe problem symptoms.	Describe problem to support technician.
7	Click Next.	Provide phone number.	Power off computer.	Provide serial number.
8	Click Finish.	Provide email address.	Power on computer, pressing Esc key.	Describe status of system before failure.
9	Answer phone call from Dell support technician.	Describe problem symptoms.	Press F1 for System Information.	Provide physical address.
10	Confirm shipping address.	Power off computer.	Provide serial number.	Provide email address.
11	Walk through finding the hard drive bay.	Power on computer, pressing the Option key.	Provide name.	Describe lack of physical damage to laptop.
12		Connect to Wi-Fi®.	Provide phone number.	Describe attempted troubleshooting steps.
13		Click Internet Recovery.	Provide shipping address.	Transfer to second support technician.
14		Provide timeline of problem symptoms.	Power off computer.	Describe problem to second support technician.
15		Describe error message.	Press F2 for System Diagnostics.	Describe status of system before failure.

Steps by user	Dell Premium Support with SupportAssist Technology	Top-tier Apple support	Top-tier HP support	Top-tier Lenovo support
16		Schedule Apple Store Genius Bar appointment.	Select Hard Drive Check.	Power off computer.
17		Write down Case Number.	Select Quick Check.	Press recovery button next to charging port on laptop.
18			Describe results of Quick Check.	Select BIOS Setup.
19			Provide timeline of problem symptoms.	Find "Hard Disk [Not Detected]."
20			Transfer to supervisor.	Verify contact info.
21			Confirm name.	Write down Case Number.
22			Confirm email address.	
23			Power off computer.	
24			Open battery compartment.	
25			Provide product number.	
26			Confirm shipping address.	
27			Write down Reference Number.	
28			Provide timeline of purchase.	
29			Confirm phone number.	
30			Transfer to case manager.	
31			Confirm timeline of purchase.	
32			Confirm symptoms.	
33			Confirm email address.	
34			Confirm phone number.	
35			Provide order number.	
36			Transfer to sales department.	
37			Confirm email address.	
Total	11	17	37	21

Figure 5: User steps required to resolve the failed hard drive issue.

ABOUT PRINCIPLED TECHNOLOGIES



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