A Principled Technologies report: Hands-on testing. Real-world results.



Don't get stuck on hold: Resolve a hard drive issue without calling technical support

Dell Premium Support Plus with SupportAssist technology diagnosed a hard drive failure and shipped us a new drive without us having to pick up the phone.

When your PC has a problem, you might instinctively sigh and reach for the phone to call tech support. But what if you didn't have to? Dell claims its toptier level of support, Premium Support Plus with SupportAssist technology, can automatically detect hardware issues and proactively order replacement parts, no human intervention required.

For this paper, we documented our experience using Dell Premium Support Plus to resolve a hard drive issue. We installed the same failing hard drive on a Dell[™] Inspiron[™] 15 3000, an HP Laptop 15t, and a Lenovo[®] IdeaPad[®] L340, and compared our support experiences. (Each device had an equivalent support package from their respective vendors.)

Dell Premium Support Plus with SupportAssist technology was the only service to resolve our issue without the need to contact technical support. SupportAssist automatically detected an issue, correctly diagnosed the problem, created a case, and enabled us to quickly initiate a replacement part shipment. Resolving the issue with the HP device took ten times longer. In the case of the Lenovo device, we did not get an accurate diagnosis at all.

Read on to see how Dell Premium Support Plus can save time and effort while offering peace of mind when dealing with hardware issues.

Up to 37 fewer minutes to resolution*



Up to 20 fewer steps for a streamlined experience*

Resolve your PC issues quickly

Your PC is an integral part of your life. It helps you accomplish work goals from home, connect with friends and family, store cherished memories, and relax at the end of a long day. When a hardware issue threatens to disrupt these activities, you'll want to know what's going on and find a solution quickly.

The three laptops we tested used the following support plans:

- **Dell Inspiron 15 3000** Dell Premium Support Plus with SupportAssist technology
- HP Laptop 15t HP 2 Year Pickup and Return with Accidental Damage Protection for Consumer Notebooks
- Lenovo IdeaPad L340 Premium Care Onsite Support

Dell Premium Support Plus with SupportAssist was the only service that diagnosed our issue automatically, resolving our issue quickly without us needing to pick up the phone. On the other hand, both HP and Lenovo required a phone conversation with a support technician to troubleshoot our problem manually. This took significantly longer and added hassle and a level of uncertainty compared to our experience with Dell Premium Support Plus. In the case of the Lenovo laptop, the support person we spoke to was unable to diagnose our issue during the call. Instead, they recommended mailing our device to a Lenovo repair facility or scheduling a home visit. Figures 1 and 2 show the time and steps we experienced with each support service. Steps to resolve a failed hard drive with each support service



Figure 1: Steps to resolve a failed hard drive with each support service. Lower is better. Dell Premium Support Plus resolved the issue through a largely automatic process. For a detailed description of steps, see page 6 of the Science behind this report. Source: Principled Technologies

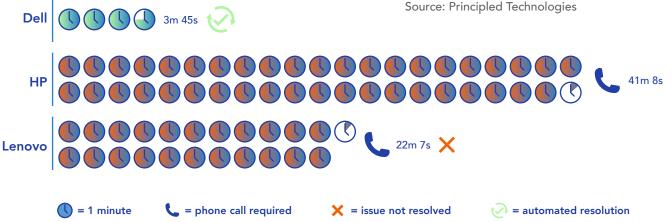


Figure 2: Time to resolve a failed hard drive with each support service. Lower is better. HP and Lenovo required we contact technical support. Lenovo did not successfully diagnose our issue, but suggested we send in our device or schedule an at-home appointment. Source: Principled Technologies

How SupportAssist technology helps you

Premium Support Plus enables its subscribers to reap the full benefits of Dell SupportAssist technology. According to Patrick Moorhead of Forbes, Dell SupportAssist "leverages machine learning and deep learning" to discover system issues. Moorhead reported that, at the time of his writing, SupportAssist was analyzing "over 250 million events a day," and performed "over 70 million auto-fixes annually."¹

In our testing, SupportAssist diagnosed our issue and immediately provided a solution, ordering a new hard drive for us in less than four minutes. Read below to see more of our experience.

To learn more about Dell Premium Support and SupportAssist technology, visit https://www.dell.com/en-us/ member/shop/premium-support-plus/ab/premium-support-plus.

Details of our experience

Dell Inspiron 15 3000 with Dell Premium Support Plus with SupportAssist technology

SupportAssist correctly diagnosed our problem and ordered a replacement with minimal effort on our part.

After powering on the laptop, the system automatically detected an issue and started a scan. The scan quickly completed in just over a minute, after which SupportAssist revealed the correct diagnosis and told us where to go next. We had the choice between using a second computer to navigate to http://supportassist.dell.com from a second computer or using our phone to scan a QR code. We chose the QR code method, which took us directly to the website.



After logging into Dell MyAccount, we simply provided our shipping information and our replacement drive was on its way.

HP Laptop 15t with 2 Year Pickup and Return with Accidental Damage Protection for Consumer Notebooks

It took quite a bit longer to resolve the same hard drive issue via HP support. The HP Laptop 15t booted to a screen that said "Windows failed to start. A required device isn't connected or can't be accessed," and indicated where to go for support.

We logged onto the HP website from a second computer, where we eventually found the number for technical support. After describing our issue through an online form, the website generated a case number and gave us a phone number to call. We described our issue in detail to the tech support specialist, and they had us try three different ways of troubleshooting the device. On the third troubleshooting attempt, the support specialist successfully diagnosed our issue and arranged for the system to be sent to the HP service center. After verifying our contact information, we ended the call. All in all, we spent 37 minutes on the phone with HP technical support.



Lenovo IdeaPad L340 with Premium Care Onsite Support

Ultimately, Lenovo was unable to correctly diagnose our failed hard drive during our support phone call.

After installing the failing hard drive, we tried booting the device, but the screen remained blank and the power began cutting on and off intermittently, of its own accord. We rebooted five times to see if we could get past this point before we decided to navigate to the Lenovo website to find the support phone number. After connecting to a technical support person, we explained our issue and gave them our system's serial number. The technical support person guided us through two different ways to troubleshoot the device; however, because the system would not respond at all, the support specialist ultimately recommended either sending a technician to our office or sending the laptop to the Lenovo Service Depot. They gave us a case number to follow up on our support status, verified our contact information, and ended the call after a total time of 17 minutes.

Though a Lenovo technician would likely be able to spot the bad drive with ease during an in-person visit, this delayed resolution has the potential to cause undue stress. How serious is the issue? How long will it take to fix? How much time and productivity might you lose? Dell Premium Support Plus with SupportAssist offers peace of mind by proactively diagnosing issues and automatically setting up a proper resolution.



Conclusion

When something goes wrong with your PC, you'll want to find a solution as quickly as possible. In our handson tests of top-tier service plans from Dell, HP, and Lenovo, Dell Premium Support Plus with SupportAssist technology required the least amount of time—and hardly any effort—to correctly diagnose our hardware issue and set us on the path to resolution. The time and effort you save with Dell Premium Support Plus could mean less stress and worry as you get back to using your device.

1 Patrick Moorhead, "Dell's Service AI Integration: A Hidden Gem At CES 2019," accessed July 13, 2020, https://www. forbes.com/sites/patrickmoorhead/2019/02/05/dells-service-ai-integration-a-hidden-gem-at-ces-2019/#30684cb49014. We concluded our hands-on testing on April 20, 2020. During testing, we determined the appropriate hardware and software configurations and applied updates as they became available. The results in this report reflect configurations that we finalized on February 10, 2020 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

Our results

Table 1: Steps for problem diagnosis.

Steps	Dell Inspiron 15 3000	HP Laptop 15t	Lenovo IdeaPad L340
	Premium Support Plus with SupportAssist	HP 2 Year Pickup and Return with Accidental Damage Protection for Consumer Notebooks	Premium Care Onsite Support
1	We simultaneously powered on the device and started a timer.	We simultaneously powered on the device and started a timer.	We simultaneously powered on the device and started a timer.
2	SupportAssist automatically scanned and detected a problem. We received an error message pertaining to a Failed Hard drive and instructions on how to proceed.	The system booted to a screen stating "Windows failed to start. A required device isn't connected or can't be accessed." There was no indication of where to go for more information or support.	The POST screen did not appear. The device's screen remained blank, and the power button cut off and on intermittently. We allowed this to happen five times before moving to the next step.
3	The Diagnostic result screen asked us to navigate to https://supportassist. dell.com either from a separate computer or by scanning the QR code with a smartphone. We chose the QR code option.	On another computer, we navigated to www.hp.com.	On another computer, we navigated to the main Lenovo website at https:// www.lenovo.com/us/en/pc.
4	 We verified the error code information, and pressed the Submit button on the smartphone. The diagnosis appeared on screen with a recommended action: "Your replacement part is free under your warranty coverage." 	We clicked Support.	We clicked the Support gear icon.
5	We signed into Dell MyAccount.	We clicked Contact an HP agent for support.	At the bottom of the screen, under How can we help you?, we clickd Contact Us.
6	We verified our shipping information, and pressed Submit.	We logged into our HP account.	We entered the serial number of the system into the search box, and press Enter.
7		We selected HP Laptop 15t from the Your Products list.	At the Is this your product dialog?, we clicked Yes.
8		We saw an option to use Chat or Phone. We chose Phone.	We clicked Call for Premium Care Support.
9		We clicked Get phone number.	Using a phone, we called the Premium Care phone line at 888-278-9707.
10		At the Before we talk screen, we filled out the requested information along with a brief description of the problem. We clicked Submit.	We explained the issue, and gave our system's serial number to the Lenovo technical support person.

Steps	Dell Inspiron 15 3000	HP Laptop 15t	Lenovo IdeaPad L340
11		The website generated a case number and provided a phone number to call. Using a phone, we called 877-232-8009.	The support person walked us through a set of troubleshooting instructions. Using a paperclip, we pressed into the device's "NOVO" hole, and held for 3 seconds until a menu appeared.
			This did not work.
12		We explained the issue, and read the error message on the screen to the HP technical support person. We pressed Enter as instructed.	The support person walked us through a second troubleshooting attempt. We repeated the process of inserting a paperclip into the "NOVO" hole. Again, the menu did not appear.
13		The support person walked us through a set of troubleshooting instructions. We unplugged the computer. To discharge any static electricity, we pressed and held the power button for 30 seconds.	Because the troubleshooting attempts did not work, the Lenovo technical support person recommended either sending a tech to our office or sending the laptop to their Lenovo Service Depot. The support person generated a case number. We verified our contact information, and ended the call.
14		To clear the CMOS, we pressed and held Windows Key + V while pressing and releasing the power button. The error message reappeared.	
15		The support person walked us through a second troubleshooting attempt. To power off the system, we pressed and held the power button for five seconds.	
16		We pressed and held the Esc key while powering on the system.	
17		At the Startup menu, to open the Boot Device Options, we pressed F9.	
18		We chose Windows Boot Manager, and pressed Enter. The error message reappeared.	
19		The support person walked us through a third troubleshooting attempt. We turned off the system.	
20		We pressed and held the Esc key while powering on the system.	
21		At the Startup menu, to open System Diagnostics, we pressed F2.	
22		We selected Hard Drive Check.	
23		We selected Quick Check Test.	
24		We selected Test All Hard Drives.	
25		We read the Failure ID code to the HP technical support person.	

Steps	Dell Inspiron 15 3000	HP Laptop 15t	Lenovo IdeaPad L340
26		The HP technical support person arranged for the system to be sent to their HP service center. We verified our contact information, and ended the call.	
Total steps	6	26	13
Total time	3:45	41:08	22:07

System configuration information

Table 2: Detailed information on the systems we tested.

System	Dell Inspiron 15 3000	HP Laptop 15t	Lenovo IdeaPad L340
Processor			
Vendor	Intel®	Intel	Intel
Model number	Core™ i7-1065G7	Core i7-10510U	Core i5-8265U
Core frequency (GHz)	1.3 – 3.9	1.8 – 4.9	1.6 – 3.9
Cache (MB)	8	8	6
Memory			
Amount (GB)	8	8	8
Туре	DDR4	DDR4	DDR4
Speed (MHz)	2,666	2,666	2,400
Graphics			
Vendor	Intel	Intel	Intel
Model number	Iris Plus Graphics	UHD Graphics 620	UHD Graphics 620
Storage			
Amount (TB)	1	1	1
Туре	5,400 spindle	5,400 spindle	5,400 spindle

This project was commissioned by Dell Technologies.



Facts matter.°

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