



## Resolve PC problems quicker using Dell Premium Support Plus with SupportAssist technology

The proactive solution beat top-tier service plans from HP, Lenovo, and Apple

Many of us purchase service plans, just in case. Dell™ Premium Support Plus is the only service plan on the market that automatically detects and diagnoses problems when they occur and can even predict problems before they happen—leading to a quick resolution.

We compared Premium Support Plus with SupportAssist technology to the best service plans HP, Lenovo®, and Apple® offer. To determine the impact of this cutting edge SupportAssist technology on user experience, we caused hard drive failures on PCs from each company, then measured time and manual troubleshooting attempts needed to resolve the problem using each service plan.

SupportAssist diagnosed the issue as soon as we powered up the Dell laptop, which saved us from having to troubleshoot the problem ourselves, and resulted in a fast resolution. HP, Lenovo, and Apple couldn't help us detect or resolve the issue until we brought the problem to their attention.

Read on to learn exactly how Dell Premium Support Plus with SupportAssist technology could save you time and effort if your PC has a problem.

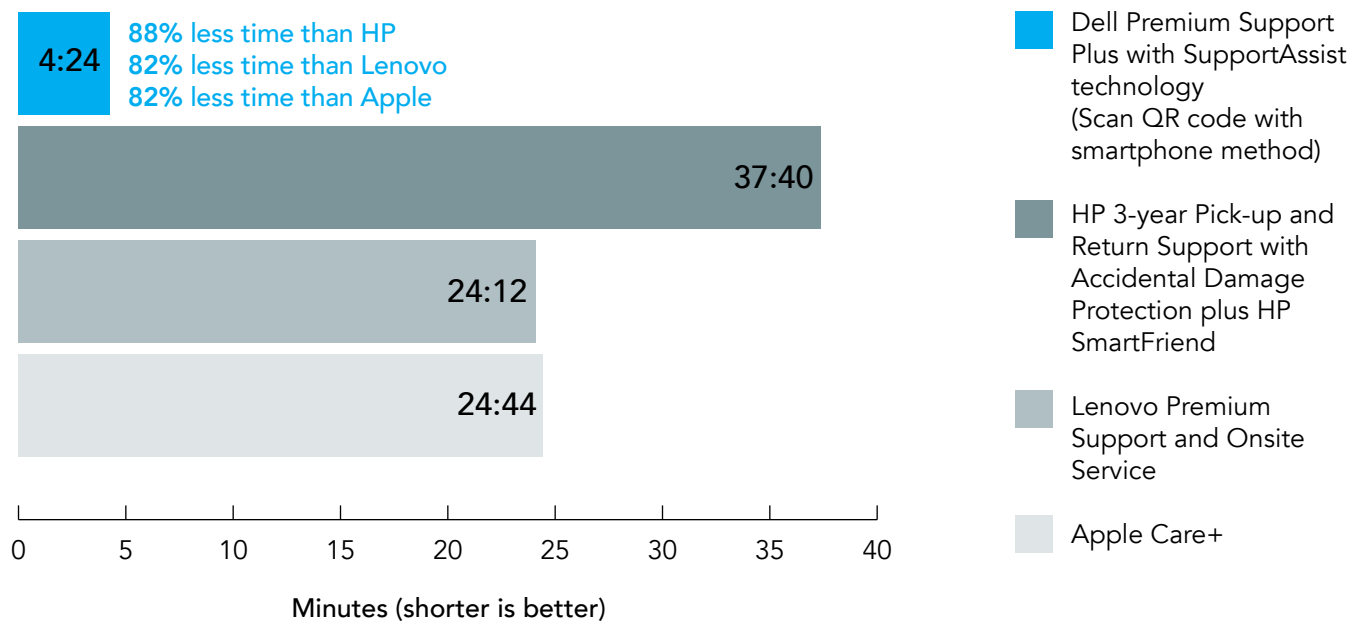


## Get the help you need, as efficiently as possible

You rely on your PC for everything from research to entertainment to keeping in touch with others. So, when something catastrophic happens, like a hard drive failure, your life is disrupted until the computer is up and running again. Getting the problem fixed in a day or two (as opposed to 3-5 days) can make a big difference.

We replaced the working hard drives in Dell, HP, Lenovo, and Apple computers with the same broken hard drive. Then, we recorded how long it took each support team to figure out what was wrong, using the top-tier service plan from each vendor.

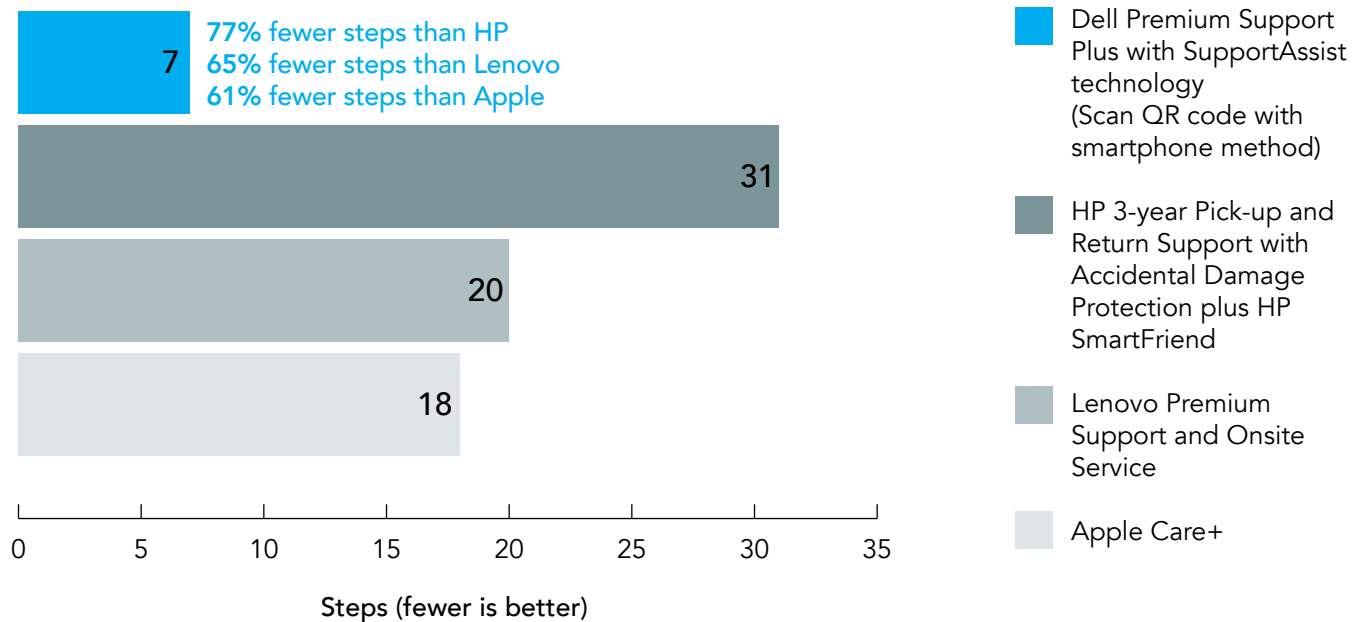
### A quick and accurate diagnosis saves time



Premium Support Plus with SupportAssist technology is the only service plan that approached technical support in a proactive way. SupportAssist detected a hardware issue when we turned the computer on and automatically scanned the system. It diagnosed the hard drive problem and instructed us to either visit <https://supportassist.dell.com> on another web-enabled PC or scan a QR code with a smartphone. We scanned the QR code with a smartphone and SupportAssist notified Dell Tech Support with our pertinent information—so we didn't need to. Within seconds we received an email confirming that SupportAssist had opened a Support Request to start the replacement process. They also scheduled an onsite visit the next morning to resolve the issue.<sup>1</sup> The others didn't do that.

Our hands-on testing proved that HP, Lenovo, and Apple users would not have such an easy time of it. Premium Support Plus with SupportAssist technology was the only service plan that automatically scanned the computer when we turned it on, notified us that something was wrong, and resolved the issue. All the other service plans required us to encounter the problem, figure out how to reach tech support on our own, and perform the troubleshooting ourselves while they walked us through options to try. In each instance, tech support didn't actually resolve the issue, they only offered us a preliminary diagnosis of a hard drive failure after we had spent a significant amount of time and effort answering questions and troubleshooting the problem with them.

### A proactive process saves effort



Premium Support Plus with SupportAssist technology identified the problem immediately and accurately. We knew help was on the way in under 5 minutes—and Premium Support Plus with SupportAssist technology was the only service plan that required absolutely no time on the phone with tech support whatsoever.

### Detailed results

#### Dell Premium Support Plus with SupportAssist technology



**4:24 minutes**  
to resolution



**0 troubleshooting**  
manual attempts



**00:00 minutes**  
phone time

As soon as we powered on the system, SupportAssist detected a problem and started a scan. The scan took 1 minute and 21 seconds to complete. Once the scan was complete, an on-screen message notified us that there

was a problem, and directed us to either visit <https://supportassist.dell.com> on another web-enabled PC or scan a QR code with a smartphone. We chose to scan the QR code with a smartphone. Scanning the code and logging into our SupportAssist account at the end of the process took approximately 3 minutes. We received an email from SupportAssist within seconds of logging in, telling us that Dell technical support had already opened a request for a replacement hard drive.<sup>2</sup>

The proactive, automated SupportAssist issue detection process ensured that the problem was resolved without having to troubleshoot the issue ourselves, sending the laptop out for repair, or taking it to a qualified technician for confirmation of a diagnosis made over the phone.

## HP 3-year Pick-up and Return Support with Accidental Damage Protection plus HP SmartFriend



HP support came in last place in this comparison. Not only did the reporting process eat up more time than the entire SupportAssist diagnosis process, but the diagnosis process itself was much more labor intensive and required two devices—a computer to look up contact information and a phone to call tech support

We were on the phone with the HP technician for almost half an hour as they asked us to do things like, “Remove the battery. Press and hold the power button for 30 seconds. Insert the battery and plug the system back in. Press the power button.” One of the onscreen prompts said, “The CMOS checksum is invalid.” How many users are comfortable being their own computer technician, especially when they’ve paid for tech support? The HP technician guided us through eight different troubleshooting scenarios before they diagnosed the hard drive issue correctly. HP was also the only vendor that instructed us to wait for a labeled box from them so we could ship the unit back to the service center for resolution.<sup>2</sup>

The HP diagnostic process required more hand-holding time and more user effort to pinpoint a hardware problem than any other service plan.

## Lenovo Premium Support and Onsite Service



Support under the Lenovo plan also required another web-enabled PC to fill out a tech support form to report the problem and a phone to receive a call after we put in a “Give me a call” request on the Lenovo customer service website. A Lenovo technician called us promptly, but we were still on the phone with them for 16

minutes. While this was shorter than the time spent on the phone with HP or Apple, it was still time we could have spent doing something else. In contrast, the SupportAssist automated process required no time on the phone with tech support and immediately identified the correct problem. Lenovo support technicians had us try three different troubleshooting techniques before they narrowed the possible problem down to two choices: OS or hard drive failure. Installation of a new hard drive would fix both problems, so they chose to send out a new hard drive to cover all their bases. In the end, they never actually diagnosed the problem correctly, but they promised to send the right part, so we stopped the clock. They informed us that we would get a call from Lenovo support within 3 business days for onsite hard drive replacement. We got that call on day 3.<sup>2</sup>

The Lenovo Premium Support and Onsite Service report and troubleshooting process demanded a lot of hands-on user trial and error, never quite diagnosed the problem, and exhausted almost half an hour of our time. Their resolution would have solved the issue, but they were unclear what the issue was to begin with.

## Apple Care+



**24:44 minutes**  
to resolution\*



**1 troubleshooting**  
manual attempt



**19:00 minutes**  
phone time

We manually searched for troubleshooting instructions online as well as an option to contact support on the Apple website via another web-enabled PC. We chose "Get help" under the "Talk to us" section of the "Contact Support" option on the main screen. The program wouldn't give us a phone number for an actual tech support person until we identified which Apple product had a problem, signed in with our Apple ID and password, and selected the Mac Mini from the registered products listed. Once we'd verified contact information and clicked "Continue to receive a call from Apple Support," we received a call in 10 seconds.

Unfortunately, our first foray into troubleshooting the problem with the technician was a dead-end: When the MAC Utilities dialog appeared, Apple Support told us to "Select Startup Disk from the Apple toolbar." There was no Startup Disk listed. Apple Support put us on hold for almost a minute and a half before coming back online to say that they suspected the hard drive was failing. They scheduled a Genius Bar appointment for us to confirm the diagnosis, so we stopped the clock. The 24 minutes until diagnosis we report doesn't include the hassle and wait times associated with a trip to the local Apple store for diagnosis confirmation and resolution.<sup>2</sup>

Apple Support's customer-driven process wasn't any more intuitive than the HP or Lenovo service plans. Out of all four plans, Premium Support Plus with SupportAssist technology was the only one that scheduled an onsite visit the next morning.

\*This time does not include taking the device to a local Apple store for further testing to confirm diagnosis.



## Conclusion:

When you pay for technical support, the last thing you want to do is do a lot of groundwork before anyone can help you figure out what's wrong with your PC. Premium Support Plus with SupportAssist technology mitigated this hassle by automating a large part of this process compared to customer-driven service plans from HP, Lenovo, and Apple.

You don't want to wait multiple days for your system to be up and running again, either. Premium Support Plus with SupportAssist technology was the only service plan that identified the problem, notified Dell Support and us about the problem, and scheduled an onsite visit the next morning.

In the end, SupportAssist technology reduced the amount of time and effort we expended when confronted with a catastrophic hard drive failure.

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- 1 Onsite service is not required in all situations and may require remote diagnosis with SupportAssist, online support tools, or a phone technician prior to the dispatch of a technician or part. Response times will vary depending on product's geographic location
  - 2 See [Appendix C](#) for detailed process steps

On March 17, 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. We concluded hands-on testing on March 31, 2017.

## Appendix A: System information

System	Dell Inspiron™ 15 5000	HP 15 Z	Lenovo IdeaPad® 310	Apple Mac mini®
Service plan (3 years)	Dell Premium Support Plus with SupportAssist technology	HP 3-year Pick-up and Return Support with Accidental Damage Protection plus HP SmartFriend	Lenovo Premium Support and Onsite Service	Apple Care+
Processor	Intel® Core™ i5-7200U	AMD A6-7310	Intel Core i3-7100U	Intel Core i5
Processor frequency	2.5 GHz – 3.1 GHz	2.0 GHz – 2.4 GHz	2.4 GHz	2.6 GHz – 3.1 GHz
Processor cores	2	4	2	2
Memory (GB)	8 DDR4	8 DDR3L	4 DDR4	8 LPDDR3
Storage capacity and RPM	1 TB 5,400	1 TB 5,400	1 TB 5,400	1 TB 5,400
Graphics	Intel HD Graphics 620	AMD Radeon™ R4 Graphics	Intel HD Graphics 620	Intel Iris™ Graphics
Battery capacity (WHr)	42	31	30	NA
Display	15.6"	15.6"	15.6"	NA
Wireless	Intel Dual Band Wireless-AC 3165	Realtek® RTL8188EE	Realtek 8821AE	802.11ac Wi-Fi wireless
Bluetooth®	4.0	NA	4.0	4.0
OS	Windows® 10 Home	Windows 10 Home	Windows 10 Home	macOS® 10.12 Sierra

## Appendix B: How we tested

We replaced the working hard drives in Dell, HP, Lenovo, and Apple computers with the same broken hard drive. Then, we figured out how long it took each support team to figure out what was wrong, using the top-tier service plan from each vendor.

### Setting up the test

1. When the system arrives, power on the system and register each system with each OEM.
2. Power off the system and replace the hard drive with the known corrupt test hard drive.

### Conducting the test on the Dell laptop

We stopped timing this experience when we received an email alerting us that SupportAssist had correctly diagnosed the problem and had submitted a Support Request.

1. Power on the system.  
A message saying SupportAssist is running a scan appears onscreen.  
Loud beeping noises sound and a warning appears, saying that there is a failing component and two options to proceed: go to supportassist.dell.com or scan QR code.
2. Scan QR code.  
A message outlining recommended actions appears on the SupportAssist page.
3. Follow instructions on screen to get parts shipped.

### Conducting the test on all other computers

We stopped timing these experiences when tech support provided their preliminary diagnosis of the problem and told us how to proceed from there.

1. Power on the system.
2. Follow the instructions on screen. If there are none, look up the information online about how to contact tech support.
3. Contact tech support, and follow the troubleshooting steps indicated by the technician.



## Appendix C: Steps for the problem diagnosis

Steps	Dell Premium Support Plus with SupportAssist technology	HP 3-year Pick-up and Return Support with Accidental Damage Protection plus HP SmartFriend	Lenovo Premium Support and Onsite Service	Apple Care+
1	Power on and start timer simultaneously.	Power on and start timer simultaneously.	Power on and start timer simultaneously.	Power on and start timer simultaneously.
2	DETECTION: SupportAssist will automatically detect a problem and start a scan. An error message appears with instructions on how to proceed	DETECTION: An error message appears.	DETECTION: An error message appears.	DETECTION: An error message appears.
3	Scan the QR code with a smartphone. (We presume a QR code reader is already installed on the smartphone.)	On another computer, navigate to <a href="http://www.hp.com/go/techcenter/startup">www.hp.com/go/techcenter/startup</a>	On another computer, navigate to <a href="#">LENOVO CUSTOMER SERVICE - ORDER SUPPORT</a>	On another computer, navigate to <a href="#">Mac Mini Support</a> .
4	Verify the information, and press Submit.	Click <a href="#">English (US)</a>	Click <a href="#">Get technical support for your Lenovo product</a>	Click <a href="#">Contact Support</a>
5	DIAGNOSIS: The diagnosis will appear on screen.  Sign into your Dell account.	Click <a href="#">Contact Support</a>	Enter the serial number.	Under Talk to Us, click <a href="#">Get help</a> .
6	Verify shipping information, and press Submit.	Enter the HP model number.	Click Give me a call.	Tell Apple <a href="#">What's happening with your Mac</a>
7	RESOLUTION: Receive email confirmation of Case Number.	Fill out contact information form, and click Show Options.	Fill out a tech support form, and click Submit.	Click <a href="#">Startup or Power?</a>
8		Enter the Product Number, and click Check warranty.	Receive a call from Lenovo technical support.	Click Talk to Apple Support Now.
9		Click Get phone number.	Begin first Lenovo troubleshooting attempt: (Reset the BIOS to Optimal Defaults):  Turn off the system, and unplug it.	Click Sign in, and choose a product.
10		Write down the Case Number, and call 1-877-852-0905.	Hold the power button down for 20 seconds.	Sign in with Apple ID and password.
11		Begin first HP troubleshooting attempt: Turn off the system, and unplug it.	Use a paperclip to press into the "B" hole, and hold for 3 seconds until a menu appears.	Select product.
12		Remove the battery.	Select the BIOS option.	Verify contact information, and click Continue to receive a phone call from Apple Support.
13		Press and hold the power button 30 seconds.	Press Function + F9 to load BIOS "Optimal Defaults", and press Enter.	Receive a call from Apple Support.
14		Insert the battery, and plug the system in.	Press Function + F10 "Exit Saving Changes", and press Enter.	Begin first Apple troubleshooting attempt: (Verify Startup Disk):  Power on the system while holding the Apple command key + R.

Steps	Dell Premium Support Plus with SupportAssist technology	HP 3-year Pick-up and Return Support with Accidental Damage Protection plus HP SmartFriend	Lenovo Premium Support and Onsite Service	Apple Care+
15		Press the power button.	Begin second Lenovo troubleshooting attempt: (Factory Image Reset):  Turn off the system, and plug it back in.	For Language, select English.
16		Begin second HP troubleshooting attempt: Turn off the system.	Use a paperclip to press into the "B" hole, and hold for 3 seconds until a menu appears.	From the Apple toolbar, select Startup Disk. There is no Startup Disk listed from the "Choose your Startup Disk" dialog.
17		Press and hold the Windows key + B key at the same time while pressing the power button.	Select the System Recovery option.	Apple Support puts you on hold.
18		Begin third HP troubleshooting attempt: Turn off the system. Press and hold the Windows key + V key at the same time while pressing the power button. "The CMOS checksum is invalid" message appears.	DIAGNOSIS: Begin third Lenovo troubleshooting attempt: (Put on Hold while the tech checks other resources)	DIAGNOSIS: Apple Support verifies contact information, and schedules a Genius Bar appointment for you.  Go to Genius Bar for RESOLUTION.
19		Begin fourth HP troubleshooting attempt: Turn off the system.	Confirm that you will receive a call from Lenovo support within 3 business days to replace the parts (hard drive) in the machine.	
20		Press and hold the Windows key + B key at the same time while pressing the power button.	RESOLUTION: Verify contact information, and receive a Case Number.	
21		Begin fifth HP troubleshooting attempt: Turn off the system.		
22		Tap the Esc key while pressing the power button. "BIOS Recovery files not found" message appears.		
23		Begin sixth HP troubleshooting attempt: Turn off the system.		
24		Tap the F2 key while pressing the power button. "HP PC Hardware Diagnostics" message appears.		
25		Select Hard Drive Check.		
26		Select Quick Check Test.		
27		Read Failure ID code to HP tech.		
28		Begin seventh HP troubleshooting attempt: Turn off the system.		

Steps	Dell Premium Support Plus with SupportAssist technology	HP 3-year Pick-up and Return Support with Accidental Damage Protection plus HP SmartFriend	Lenovo Premium Support and Onsite Service	Apple Care+
29		Tap the F11 key while pressing the power button.		
30		Begin eight HP troubleshooting attempt: (Put on Hold while the tech researches the problem)		
31		DIAGNOSIS: Learn from tech that it's a hard drive problem, and give them contact information so that HP can send you a box to send the unit to the HP service center.  Send PC to HP for RESOLUTION.		
	Dell accurately diagnosed and resolved the issue.	PT didn't send the PC to HP for resolution.	PT didn't replace the hard drive for resolution.	PT didn't take the PC to the Genius Bar for resolution.
<b>Total steps</b>	<b>6</b>	<b>31</b>	<b>20</b>	<b>18</b>
<b>Total time</b>	<b>4:24</b>	<b>37:20</b>	<b>24:12</b>	<b>24:44</b>

This project was commissioned by Dell Technologies.



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