# Minimize server support hassle using Dell EMC™ ProSupport™ Plus for Enterprise with Dell EMC SupportAssist

ProSupport Plus with SupportAssist immediately identified a simulated server hard drive failure, quickly delivered a replacement drive, and required minimal administrator involvement

A disruption in your data center caused by failing components can have a significant impact on your organization. You may have redundancy measures in place for a drive failure on a server, but administrators need to act quickly to mitigate data loss that could affect users and revenue. The quicker support staff can address a failed disk, the sooner your server can start performing optimally again. To help organizations minimize the impact of these events for Dell EMC™ PowerEdge™ servers, Dell Technologies offers proactive, fast support with ProSupport™ Plus and SupportAssist technology.*

At Principled Technologies, we simulated a hard drive failure on a Dell EMC PowerEdge R740 server to test how quickly Dell EMC Basic Hardware Support and ProSupport Plus with SupportAssist could help an organization fix the issue. The higher tier of support with SupportAssist proactive technology got the server back to full operational status faster, partially due to getting us a replacement drive in just four hours. In addition, ProSupport Plus with SupportAssist required only six minutes of an administrator's time—nearly half an hour less than the other support tier.
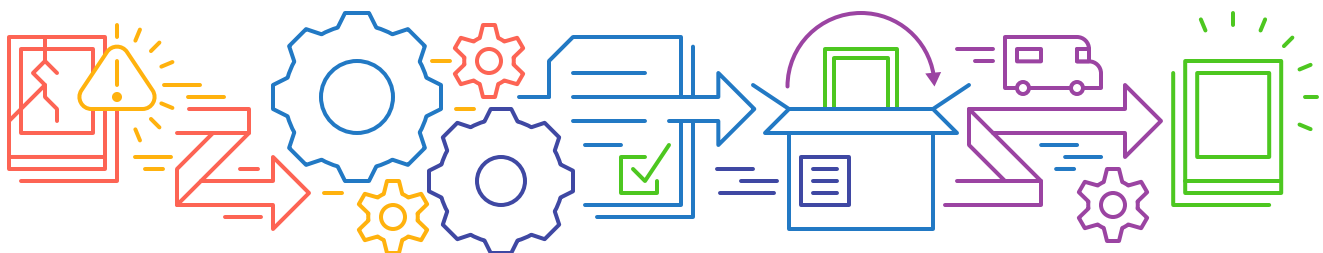
ProSupport Plus with SupportAssist
reduced the amount of IT administrator involvement by up to 80%
compared to Basic Hardware Support (6 mins vs 30+ mins)

*We first published this report in September 2020. As of the revised publication of this report, Dell EMC SupportAssist Enterprise capabilities are part of secure connect gateway technology.

Get a proactive resolution using ProSupport Plus with SupportAssist

When you choose Dell EMC PowerEdge servers for your data center, you can boost your support level by adding ProSupport Plus for Enterprise, the highest enterprise-grade tier of support from Dell Technologies, and proactive SupportAssist technology.

The combination of ProSupport Plus and SupportAssist technology gave our IT staff a significant jump on hardware issue resolution. ProSupport Plus with SupportAssist immediately identified the hard drive failure, created a support case, and notified us; then, a Dell Technologies technical support engineer initiated contact with us. (We consider the technology proactive because it informed us of the hard drive failure and initiated the support case process before we contacted Dell Technologies technical support.) A member of the their tech support staff emailed our IT administrator to confirm our contact and delivery information and asked how our organization would like to handle the replacement. Without ProSupport Plus and SupportAssist, your IT administrators would have to monitor the server, notice a failed component, spend time troubleshooting the problem, and then call Dell Technologies support to create a case and have the drive replaced.

As previously noted, we compared our experiences seeking help from Dell Technologies with only Basic Hardware Support and with SupportAssist technology enabled under ProSupport Plus coverage. Each scenario began with the simulated hard drive failure and ended when Dell Technologies confirmed that we would receive a replacement hard drive. For details on the test system and our test procedure, see the science behind this report.
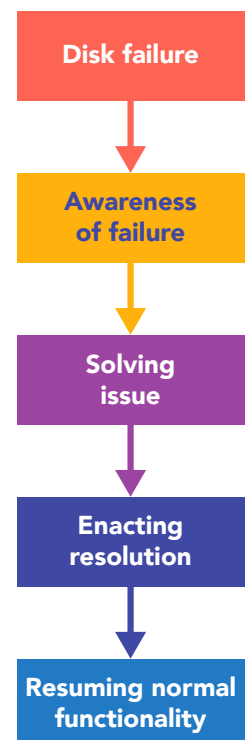
Return PowerEdge servers to full operational status sooner while saving time for administrators using ProSupport Plus with SupportAssist

A hard drive failure can cause anything from a stressful inconvenience to a major setback. In any instance, replacing the hard drive and minimizing server performance degradation requires someone identifying and resolving the problem quickly.

Basic Hardware Support

Under Basic Hardware Support, IT administrators can't start fixing a problem until they have noticed there is an issue and spent time troubleshooting and identifying the cause. If something fails over the weekend (or another period of less activity), it could take more time to identify and address the issue. Once aware, the administrators may have to reschedule meetings and delay other tasks to make time to call Dell Technologies technical support and resolve the issue.

Using Basic Hardware Support, it took a mix of phone calls and emails to address the problem and reach resolution. One of our administrators spent 25 minutes communicating with Dell Technologies technical support via phone.

Disk failure

↓

Awareness of failure

↓

Solving issue

↓

Enacting resolution

↓

Resuming normal functionality

ProSupport Plus with SupportAssist

In our scenario using ProSupport Plus with SupportAssist, the technology quickly informed us via email of the failure just one minute after the drive failed. The email also stated that SupportAssist was opening a support case.[1] Dell Technologies technical support then emailed us to get basic information, to which we responded. Six minutes after we received the initial email from technical support, they emailed us again to let us know that a replacement drive should arrive in four hours, which it did.

With SupportAssist, getting the replacement hard drive did not require us to call Dell Technologies technical support because they already had our troubleshooting logs and system state information. We only contacted ProSupport Plus technical support staff after their first email, which asked us to confirm our data center location and delivery address.

Compared to Basic Hardware Support, ProSupport Plus with SupportAssist reduced the amount of IT administrator involvement by 80 percent.

Required involvement from in-house admin in each scenario
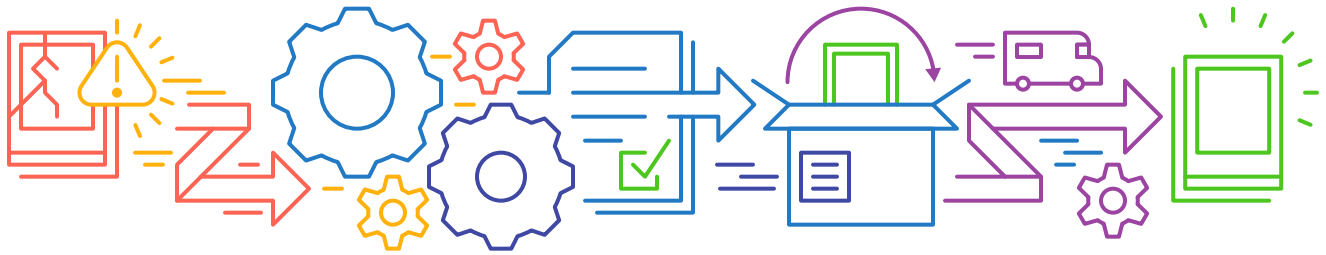Less time is better

ProSupport Plus with SupportAssist

6 min total
(0 min call time)

Basic Hardware Support without SupportAssist

25 min
call time

30 min 45 sec
total

Figure 1: Total time for each support tier to return the Dell EMC PowerEdge R740 server to a normal operational state. Lower is better. Source: Principled Technologies.

Conclusion

Unexpected drive failures can derail your organization's operations and productivity, but responding to these issues swiftly and accurately helps minimize the effect. In our experience, using ProSupport Plus with SupportAssist proactive technology enabled quicker resolution of a drive failure than using Basic Hardware Support. In addition, ProSupport Plus with SupportAssist required minimal administrator effort, which allowed our administrator to focus their time on other tasks. If you're concerned about maintaining uptime to meet service level agreements and keep users happy, consider choosing ProSupport Plus with SupportAssist for your Dell EMC PowerEdge servers to recover from hard drive failure more quickly.

1   According to Dell Technologies, when SupportAssist detects an issue, it notifies administrators about the issue and automatically creates a Support Request with Dell Technologies. "Dell EMC SupportAssist Enterprise 2.x – Guide and Download," accessed August 28, 2020, https://www.dell.com/support/article/en-us/sln299049/dell-emc-supportassist-enterprise-2-x-guide-and-download?lang=en

We concluded our hands-on testing on July 7, 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 June 23, 2020 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

Our results

Table 1: Timings from our two support scenarios for the simulated hard drive failure on the Dell EMC PowerEdge R740.

	Basic Hardware Support	ProSupport Plus with SupportAssist
Call time (minutes:seconds)	25:00	N/A
Email time (minutes:seconds)	05:45	06:00
Total time (minutes:seconds)	30:45	06:00
		80.48% less time for ProSupport Plus with SupportAssist

System configuration information

Table 2: Detailed information on the server we tested.

Server configuration information	Dell EMC PowerEdge R740	
BIOS name and version	2.6.4	
Non-default BIOS settings	None	
Operating system name and version/build number	VMware ESXi™ 7.0 15843807	
Date of last OS updates/patches applied	6/22/20	
Power management policy	Balance	
Processor		
Number of processors	2	
Vendor and model	Intel® Xeon® Silver 4216	
Core count (per processor)	16	
Core frequency (GHz)	2.1	
Stepping	7	
Memory module(s)		
Total memory in system (GB)	96	
	Memory module A	Memory module B
Number of memory modules	2	2
Vendor and model	Samsung® M393A2K43BB1-CTD6Q	Samsung M393A4K40CB2-CTD7Q
Size (GB)	16	32
Type	DDR4	DDR4
Speed (MHz)	2,666	2,666
Speed running in the server (MHz)	2,666	2,666
Storage controller		
Vendor and model	Dell PERC H740P Mini	
Cache size (GB)	4	
Firmware version	50.9.4-3025	
Driver version	7.712.50.00	
Local storage (type A)		
Number of drives	2	
Drive vendor and model	Micron® MTFDDAK480TDN	
Drive size (GB)	480	
Drive information (speed, interface, type)	6GB/s, SAS, SSD	

Server configuration information	Dell EMC PowerEdge R740
Local storage (type B)	
Number of drives	1
Drive vendor and model	Seagate® ST600MM0069
Drive size (GB)	600
Drive information (speed, interface, type)	12GB/s, SAS, HDD
Network adapter (type A)	
Vendor and model	Broadcom Adv. Dual 10GBASE-T Ethernet
Number and type of ports	4
Driver version	21.60.22.11
Network adapter (type B)	
Vendor and model	Intel Ethernet Server Adapter X520
Number and type of ports	2
Driver version	1.7.1.26
Cooling fans	
Vendor and model	Nidec Ultraflo XN44V-A00
Number of cooling fans	6
Power supplies	
Vendor and model	Dell PWR SPLY, 750W
Number of power supplies	2
Wattage of each (W)	750

How we tested

Basic Hardware Support

1. We opened a web browser, and accessed the Dell Technologies Support website.
2. We input the service tag of the server with the bad drive (3Q01333).
3. On the right side of the page, we clicked Contact Us, and selected Technical support.
4. The website opened a pop-up window about the equipment being registered in another country. For support from the registered country, we clicked Okay. Alternatively, we could have clicked Cancel for international support or ignored the pop-up window to make it disappear after 10 seconds.
5. We clicked Hard Drive and RAID controllers.
6. In the drop-down menu, we selected Failed disk error message. The website displayed a phone number (1-866-516-3115).
7. We called the number, and reached the automated voice-recognition operator.
8. We verbally provided and confirmed the service tag. The automated system transferred us to a Dell Technologies Support Technician.
9. When asked, we provided our name, phone number, email address, and location.
10. When asked, we provided the service tag info.
11. When the technician inquired about our issue, we informed them of the failed hard drive. They asked how many potential users the failure affected, what OS the system was running, and what the system's purpose and location was. We provided this information, and the technician created a case for our issue.
12. The technician transferred us to a Dell Technologies Engineer. When asked, we informed the Dell Technologies Engineer of the failed hard drive, and provided the slot location.
13. When the Engineer asked for an iDRAC IP, we informed the Engineer that it was not connected.
14. When the Engineer asked for the SupportAssist Log, we informed them that we were unfamiliar with the process for acquiring it.
15. When the Engineer asked for the drive's part number, we provided it.
16. The engineer processed the claim, and informed us that the replacement drive would arrive the next day. We emailed the contact name and address to the Engineer.

Call time: 25 min
Email time: 5 min 45 sec
Total time: 30 min 45 sec

ProSupport Plus with SupportAssist

1. We received an email from Dell EMC SupportAssist informing us of a failed disk. The email stated SupportAssist would open a case with Dell Technologies technical support.
2. We received an email from Dell Technologies technical support asking to provide the part description and verify the primary contact name, phone number, and address.
3. We replied to the technical support email.
4. We received a verification email stating that we needed to have the faulty drive ready for collection and that the new part dispatch should arrive within 4 hours, subject to part availability.

Call time: N/A
Email time: 6 min
Total time: 6 min

This project was commissioned by Dell Technologies.