- 0. Caveats and disclaimers:
 - a. Ensure that you know what you're doing.
 - b. Procedure tested and working on My Cloud 4TB device (1st Gen, FW 04.xx.xx).
 - c. Tools needed:
 - i. [required] <u>Putty</u> or similar
 - ii. [optional & useful] WinSCP or similar
 - iii. [optional & useful] <u>7-zip</u> or similarAnd obviously <u>HD Sentinel Pro</u> which is required to make it work.
- 1. Log in to your device via Web GUI using your administrative account:

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← → ☆ ♡ Ø 192.168.1.2/UI/		(♂ ┉ ♠° ୭ 💩 🖾 📚 🗮 ⊛ 🗏 Ξ
ば7つ)My Cloud"		^
	Username Password]	
	Logn	

2. Navigate to Settings and enable SSH under Network / Network Services (unless done already).

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(c) → Q 0 Q 192.163.5200/		••• 🏠 🔍 suum	C' in 💒 🖲 🦉 🗂 🛅 🖨 📾 🕸 🚍
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	Utitios F	Appless 192.168.1.2	
	Notifications	letwork Services	
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		latwork Worknesson	
	v	olgrup Name	

Acknowledge prior to accepting and make note of the account credentials:

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	Home	<u>Users</u>	Shares	Cloud Access	Safepoints	Settings				
	Settings	-	-	_						
	General	SSH	n In 1991 the first line	usual he excepted to	- 60					
	Network	change the def your device vul	ault password. Not ch nerable to attacks.	anging the password make	s.					
	Utilities	change your pa User Name	assword. root							
	Notifications	Password Please note the outside the nor	weicome at modifying or attemp mal operation of the p	ting to modify this device product voids your WD						
	Firmware	l accept								
		Cancel		0	ж					
		Network W	/orkgroup							
		Workgroup Nam	e	gi di)					

(Leave this window open as you might want to disable SSH once you complete all preparations – see point 15 below).

3. Once done, use WinSCP to log in to the MyCloud device. Navigate to \root folder.

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Local Mark Files Com	mands Session Options	<u>R</u> emote <u>H</u> elp						
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📮 WDMyCloud 🗙 📑	New Session							
🗮 C: WINDOWS 🚽	🗳 • 🕎 • 🛛 🛶 • 🛶 • '	i 🖿 🕋 🔗 🧏 🦌	root	- 🖂 - 🕎 - 🛶 - 1	🔸 - 🛛 🔂 🏫 🧭	🔯 Find Files	.	
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C.(C	0	71000		Channel	P. 14	0	
pp	Size Type	21/10/2017 12:27:25	Iname	5128	12/01/2021 00:20:22	nignus	owner	
boot	File folder	21/10/2017 13:27:53			15/01/2021 00:50:52	rwxr-xr-x	TOOL	
Garmin	File folder	03/05/2020 14:46:51						
inetnub	File folder	28/10/2020 14:58:39						
PerfLogs	File folder	28/11/2020 14:48:37						
Program Files	File folder	12/03/2021 09:49:33						
Program Files (x	File folder	04/02/2021 15:57:28						
Setup	File folder	26/08/2018 15:20:40						
SWSETUP	File folder	10/02/2021 15:32:17						
symcache	File folder	15/02/2021 15:15:13						
Users	File folder	29/11/2020 22:36:50						
Windows	File folder	15/02/2021 15:04:51						
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						SPIES -	0:01:40	

4. Launch Putty (you can also do it from WinSCP using CTRL+P), log into the device using the same credentials.



5. Create hdsentinel folder, either with Putty (enter mkdir hdsentinel) or via WinSCP.



💑 root - WDMyCloud -	WinSCP						×
Local Mark Files Com	mands Session Options I	Remote Help					
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Name	Size lype	Changed	Name	Size Changed	Rights	Owner	
BB	File folder	21/10/2017 13:27:35	t <mark>t</mark> el	13/03/2021 14:08:58	rwxr-xr-x	root	
boot	File folder	21/02/2021 12:14:49	hdsentinel	13/03/2021 14:09:52	rwxrwxrwx	root	
Garmin	File folder	03/03/2020 14:40:51					
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SWSETUP	File folder	10/02/2021 15:32:17					
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Users	File folder	29/11/2020 22:36:50					
Windows	File folder	15/02/2021 15:04:51					
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					Shik-2	0:07	

6. Open this folder, either with Putty (enter ${\tt cd}$ ${\tt hdsentinel}$) or via WinSCP.

🚽 login as: root			
<pre>g^a root@192.168.1.2's password: Linux WDMyCloud 3.2.26 #1 SMP Thu Jul 9 11:14:15 PDT 2015 wd-2.4</pre>	4-rel a	rmv71	<u>^</u>
The programs included with the Debian GNU/Linux system are free the exact distribution terms for each program are described in individual files in /usr/share/doc/*/copyright.	softwa the	re;	
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the exter permitted by applicable law. WDMyCloud:~# mkdir hdsentinel WDMyCloud:~# cd hdsentinel/ WDMyCloud:~/hdsentinel#	nt		

🎄 hdsentinel - WDM	lyCloud - Win	SCP						(<u>111</u>)		×
Local Mark Files C	ommands <u>S</u>	ession <u>O</u> ptions	<u>R</u> emote <u>H</u> elp							
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WDMyCloud X	New Ses	sion								
	- 🕰 - 🕅	•	- In In 🔺 🖉 🔍		hdsentine 🔽 😂 🛪 🗤	1 - 1		Find Files		-
Upload +	dit 👻 🏹 📫	Properties	New - + - V		Download - Edr	t 🔻 🏹 📫	New Properties			
C:/	-	and the second se			/root/hdsentinel/		Income and			
Name	Size	Туре	Changed		Name	Size	Changed	Rights	Owner	
BB		File folder	21/10/2017 13:27:35				13/03/2021 14:09:52	rwx	root	
boot		File folder	21/02/2021 12:14:49							
Garmin		File folder	03/05/2020 14:46:51							
inetpub		File folder	28/10/2020 14:58:39							
PerfLogs		File folder	28/11/2020 14:48:37							
Program Files		File folder	12/03/2021 09:49:33							
Program Files (x		File folder	04/02/2021 15:57:28							
Setup		File folder	26/08/2018 15:20:40							
SWSETUP		File folder	10/02/2021 15:32:17							
symcache		File folder	15/02/2021 15:15:13							
Users		File folder	29/11/2020 22:36:50							
Windows		File folder	15/02/2021 15:04:51							
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0 B of 0 B in 0 of 12				14 hidden	0 B of 0 B in 0 of 0					
1								SFTP-3 🔍	0:09:2	20 📑

7. Download Hard Disk Sentinel Linux version designed for ARMv7 CPU, either with Putty (wget <u>http://www.hdsentinel.com/hdslin/hdsentinel-armv7.gz</u>) or with any internet browser you use.

```
2 192.168.1.2 - PuTTY
                                                                              ×
                                                                                ~
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
WDMyCloud:~# mkdir hdsentinel
WDMyCloud:~# cd hdsentinel/
WDMyCloud:~/hdsentinel# wget http://www.hdsentinel.com/hdslin/hdsentinel-armv7.g
z
--2021-03-13 14:28:53-- http://www.hdsentinel.com/hdslin/hdsentinel-armv7.gz
Resolving www.hdsentinel.com (www.hdsentinel.com)... 79.172.252.41
Connecting to www.hdsentinel.com (www.hdsentinel.com) |79.172.252.41|:80... conne
cted.
HTTP request sent, awaiting response... 200 OK
Length: 1433042 (1.4M) [application/x-gzip]
Saving to: 'hdsentinel-armv7.gz'
100%[-----
                         ----->] 1,433,042
                                                         1.23M/s
                                                                   in 1.1s
2021-03-13 14:28:54 (1.23 MB/s) - `hdsentinel-armv7.gz' saved [1433042/1433042]
WDMyCloud:~/hdsentinel#
```

8. In Putty enter gunzip -N hdsentinel-armv7.gz to extract the executable (HDSentinelarmv7) file.



Or in Windows Explorer open *hdsentinel-armv7.gz* and drag HDSentinelarmv7 file out of it to temporary destination. Subsequently, use WinSCP to transfer it to your device to */root/ hdsentinel* folder you created earlier.

🍒 hdsentinel - WDM	lyCloud - Win	ISCP						<u>(20</u>		×
Local <u>M</u> ark <u>F</u> iles (ommands S	ession <u>O</u> ptions <u>R</u> em	ote <u>H</u> elp							
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E\Downloads)					/root/hdsentinel/					
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E PDF Arctobat_DC_We arntlib.dll Capture.JPG Capture.st HOSentinelarmv hdsentinelarmv rcv001fh.txt	959,375 KB 1,089 KB 35 KB 1 KB 2,749 KB 1,400 KB 1 KB	Parent directory File folder WinRAR ZIP archive Application exten JPG File Text Document File WinRAR archive Text Document	13/03/2021 14:24:15 05/02/2020 19:05:30 10/02/2021 20:40:29 02/02/2021 20:40:29 02/02/2021 10:51:03 12/11/2020 11:51:03 12/11/2020 11:51:26 20/01/2021 14:40:16 06/03/2021 09:08:51		HDSentinelarmv7	2,749 KB	20/00/2021 14:28:42 20/01/2021 14:00:14	rw.rw.rw-	root	
-										
0 B of 942 MB in 0 of 8				2 hidden	0 B of 2.68 MB in 0 of 1			ormo o 📖		24
								SFTP-3	0:29:	:24

9. In Putty use chmod to enable executable permissions: chmod 755 HDSentinelarmv7.



10. In Putty enter ./HDSentinelarmv7 to run the Hard Disk Sentinel on the NAS and get hard disk status information on screen.

🚰 192.168.1.2 - PuTTY	3 <u>444</u>		×
WDMyCloud:~/hdsentinel# ./HDSentinelarmv7 Hard Disk Sentinel for LINUX console 0.18e.8675 (c) 2020 info@hds Start with -r [reportfile] to save data to report, -h for help	entine	l.com	^
Examining hard disk configuration			
HDD Device 0: /dev/sda HDD Model ID : WDC WD40 HDD Serial No: HDD Revision : HDD Size : 3815448 MB Interface : S-ATA Gen3, 6 Gbps Temmerature : 46 °C			
Highest Temp.: 59 °C Health : 100 % Performance : 100 % Power on time: 2276 days, 22 hours Est. lifetime: more than 100 days The hard disk status is PERFECT. Problematic or weak sectors we d there are no spin up or data transfer errors. No actions needed.	re not	found	an
WDMyCloud:~/hdsentinel#			Ŷ

11. If that works, then the next part is to create a report (-r) and point to where to save it:

./HDSentinelarmv7 -r /shared_folder_path/hdsreport.html -html

Where */shared_folder_path/* could be */DataVolume/shares/SmartWare/*, or separate share created for the purposes of this task – it's entirely up to you. An example:

./HDSentinelarmv7 -r /DataVolume/shares/SmartWare/hdsreport.html -html

```
🚱 192.168.1.2 - PuTTY
                                                                                                 ×
Hard Disk Sentinel for LINUX console 0.18e.8675 (c) 2020 info@hdsentinel.com
                                                                                                           À
Start with -r [reportfile] to save data to report, -h for help
Examining hard disk configuration ...
HDD Device 0: /dev/sda
HDD Model ID : WDC WD40
HDD Serial No:
HDD Revision :
              : 3815448 MB
HDD Size
Interface
                : S-ATA Gen3, 6 Gbps
Temperature : 47 °C
Highest Temp.: 59 °C
Health
                : 100 %
Performance : 100 %
Power on time: 2276 days, 22 hours
Est. lifetime: more than 100 days
  The hard disk status is PERFECT. Problematic or weak sectors were not found an
d there are no spin up or data transfer errors.
     No actions needed.
Report file saved as: /DataVolume/shares/SmartWare/hdsreport.html
WDMyCloud:~/hdsentinel#
Local Mark Files Commands Session Options Remote Help
🔛 🚰 🚔 Synchronize 🛛 🌮 👪 🏘 🕋 Queue 🗸 🛛 Transfer Settings Default.
                                                           - 🧭-
🕎 WDMyCloud 🗙 💣 New Session
🚍 X: SmartWare (\\ 🔹 🚰 🔹 🛐 🔹 🛹 🔹 🧼 🔹 🔝 💼 🍙 🥔 🍡
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                                                       /root/hdsentinel/
                     Size Type
                                     Changed
                                                       Name
                                                                           Size Changed
                                                                                              Rights
Name
                                                                                                     Owner
                        File folder
                                                                              13/03/2021 14:28:42
                                                       🛀 ..
📄 HDSentinelarmv7
                                                                                                     root
                                                                        2.749 KB 20/01/2021 14:00:14
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                        File folder
                    38 KB Firefox HTML Doc... 13/03/2021 14:40:30
       rt.html
 MedialD.bin
                    1 KB BIN File
                                     17/12/2019 19:05:16
 smartsda.txt
                    26 KB Text Document
                                     20/01/2021 16:10:03
0 B of 63.3 KB in 0 of 9
                                                       0 B of 2.68 MB in 0 of 1
                                                                                       😭 SFTP-3 💐 0:41:17
```

All being well, tool is now ready to use and we're half-way through there already.

The next part is to create recurrent task to ensure that reports are generated and can be read by HD Sentinel Pro in Windows.

12. In Putty enter crontab -e to edit cron jobs and create a scheduled task: to start Hard Disk Sentinel Linux edition which should recurrently save a report (the Status Source) in a folder, which is readable over the network.



13. Navigate to the end of this file and add similar to the following line (assuming that /DataVolume/shares/SmartWare/ is the path you want to have the report saved – see point 11 above – and every 10 minutes either). Please refer to CRON documentation for further information or when in doubt:

*/10 * * * * ./hdsentinel/HDSentinelarmv7 -r /DataVolume/shares/SmartWare/hdsreport.html
-html



14. Then press CTRL+X to exit and confirm with 'Y' that you want to save the updated list.

```
🚰 192.168.1.2 - PuTTY
                                                                               ×
                                                                         Examining hard disk configuration ...
HDD Device 0: /dev/sda
HDD Model ID : WDC WD40
HDD Serial No:
HDD Revision :
          : 3815448 MB
HDD Size
            : S-ATA Gen3, 6 Gbps
Interface
Temperature : 47 °C
Highest Temp.: 59 °C
Health
         : 100 %
Performance : 100 %
Power on time: 2276 days, 22 hours
Est. lifetime: more than 100 days
 The hard disk status is PERFECT. Problematic or weak sectors were not found an
d there are no spin up or data transfer errors.
   No actions needed.
Report file saved as: /DataVolume/shares/SmartWare/hdsreport.html
WDMyCloud:~/hdsentinel# crontab -e
crontab: installing new crontab
WDMyCloud:~/hdsentinel#
```

By this new entry in crontab, the Linux HDsentinel (which is downloaded in the */hdsentinel* folder) is launched every 10 minutes and saves updated report to */shared_folder_path /hdsreport.html* file *[/DataVolume/shares/SmartWare/hdsreport.html* in the above example] which is accessible over the network from your PC.

You can now wait 10 minutes or so to check the results:



Assuming that all is working and as expected, the hard part is now done and you can just close WinSCP and Putty (use commands exit or logout).

What's still remaining is to disable SSH access via MyCloud's Web GUI (see point 2 above).

W0 My Cloud* × + ← → ① ② ~ 192.168.1.2/U/				🟠 Q s	earch		- □ × ℃ IN & • • □ □ ● Ⅲ ● ≡
	WD My Cloud*			14	· - A (9 - 1	v
	Home	Users	Shares	Cloud Access	Safepoints	Settings	
	Settings						
	General	Network Pr	ofile				
	Network	Status	Internet acce	ss (D)			
	Media	MAC Address					
	Utilities	IP Address	192,168,1.2				
	Notifications	Network Se	ervices				
	Firmware	Network Mode	Static	DHCP			
		SSH	111	OFF Ø			
		FTP Access	111	OFF			
		Network W	orkgroup				
		Workgroup Name	9		Ø		

15. The last action is to make HD Sentinel Pro (under Windows OS) aware of the existence of the report so software can start reporting on it.

Open HD Sentinel Pro, navigate to File / Configure NAS Monitoring and open dialogue box.

Configure NAS Disk Monitoring		×
Specify Status Source(s) to moni	tor Network Attached Storage (NAS) disk drives.	
Status Source files contain comp appropriate disk drives like if the	lete status of hard disk drives, SSDs, storage devices and Hard Disk Sentinel y would be connected directly.	reads them to show the
Status Source files saved and upo	dated on the NAS device, created by (for example) Hard Disk Sentinel Linux	version.
The Auto Detect function autom	atically detects possible Status Source files (HDSReport.html) on available n	etwork drives.
More information: How 1	o: monitor Network Attached Storage (NAS) status	
Status Source	Physical Disk(s)	Browse
		Add <u>U</u> RL
		Edit
		<u>D</u> elete
		Test
	Auto Detect	OK Cancel

Either browse and point to the report itself, or use Auto Detect option (this assumes that report is saved in the root folder mapped as virtual drive - X: in the below example):

Configure NAS Disk Monito	ving	×
Specify Status Source(s) to	o monitor Network Attached Storage (NAS) disk drives.	
Status Source files contain appropriate disk drives lik	n complete status of hard disk drives, SSDs, storage devices and Hard Disk Sentinel reads them to show the e if they would be connected directly.	
Status Source files saved a	ind updated on the NAS device, created by (for example) Hard Disk Sentinel Linux version.	
The Auto Detect function	automatically detects possible Status Source files (HDSReport.html) on available network drives.	
More information:	How to: monitor Network Attached Storage (NAS) status	
Status Source	Physical Disk(s) Browse	
👳 X:\HDSReport.html	1 Add <u>U</u> RL	
	Edit]
	Delete	
	Iest	
	Auto Detect OK Cance	:

16. And voilà!

	1	Hard Disk Sentinel 5.70.1 PRO — 🗆	×
Eile	Disk View Report Configuration Help		
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		🛇 Overview 🥒 Temperature 👒 S.M.A.R.T. 🤃 Information 📄 Log 🚳 Disk Performance 🔓 Alerts	
0	Health: 100.% C: [WINDOWS],	Performance: Excellent	0
	Temp.: 30 °C [Windows RE tools]	A Hashba	0
		rearth: Excellent	Ø
0	Health:100 % D: [BACKUP],	The hard disk status is PERFECT. Problematic or weak sectors were not found and there are no spin up or data transfer errors	0
	Temp.: 31 °C E: [RECOVERY]	uansier errors.	
	100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	No actions needed.	
0	Health: 100.% Disk: 2		
	Temp:: 32 °C F:[DATA]		
v	(3726.0 GB)	Power on time: 2276 days 23 hours	
0	Health: 100 % Disk: 3	Estimated remaining lifetime: more than 100 days] (2)
	iemp. 47 C	Total start/stop count: 13,738	_
		Click to add comment	
		Health (%)	
4			
-			
			0
-			
-		202 202 202 202 202 202 202 202 202 202	
		7,022 8,022 8,023 8,023 6,023 7,023 7,023 7,023 2,033	ļ
			-
		(>
Statu	last undated: 13/03/2021 Saturday 15:08:40		