



Technical Support Standing Out

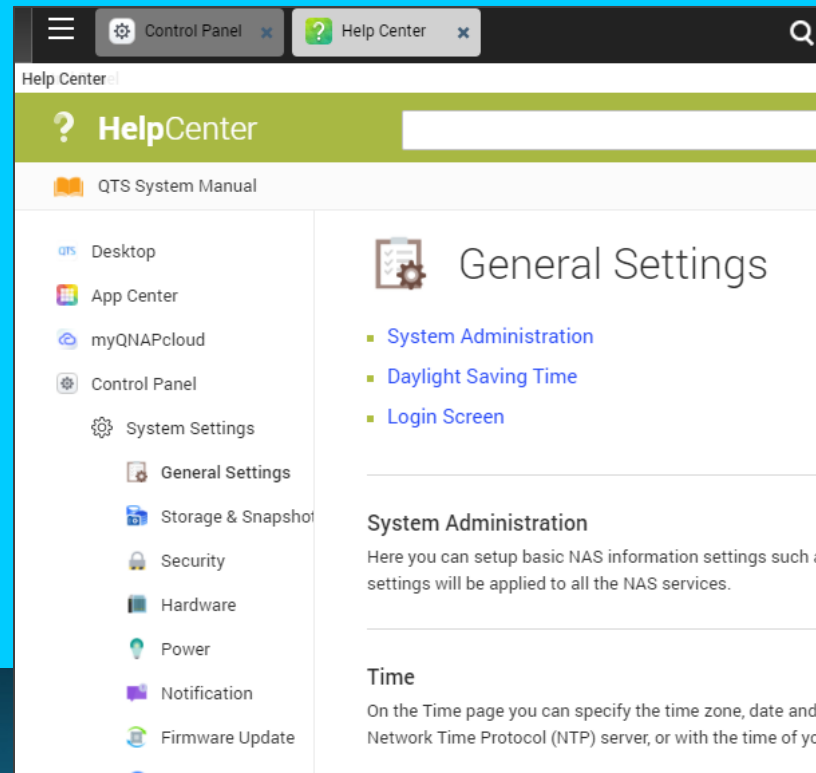
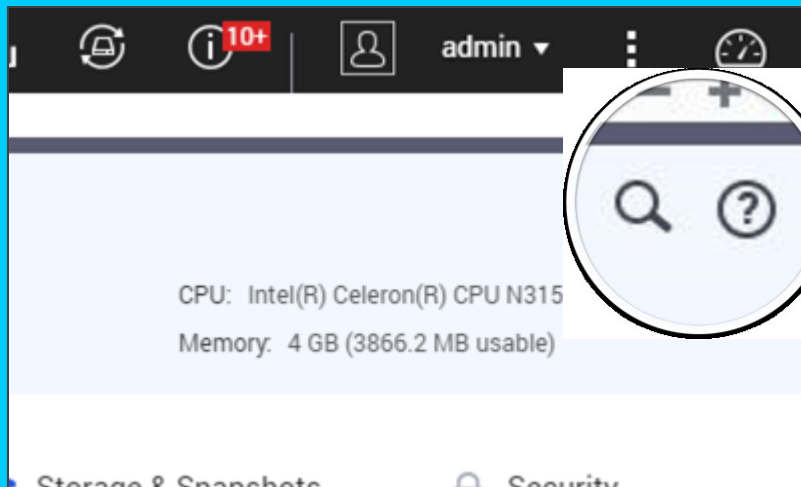
QNAP Support Processes Reveal

Have Trouble When Using QTS?



QTS Management Interface

Support Online Help



Specified App Online Help

The image displays the QNAP Hybrid Backup Sync Online Help interface. A circular menu is overlaid on the left side, containing the following options:

- Quick Start
- Help
- Download Diagnostic
- About

The background interface shows the "Hybrid Backup Sync" application window. The title bar includes "Hybrid Backup Sync" and "Table Display". The main content area is titled "Hybrid Backup Sync Help" and contains the following sections:

Overview

Create a backup, restore or sync job. View the status of jobs, error and warning logs, storage spaces and incoming jobs. The information displayed on this page can be customized.

[Tutorials on how to use Hybrid Backup Sync](#)

All Jobs

View and modify all backup, restore or sync jobs. Jobs are divided into three categories:

- Local: Destination is this NAS
- Remote: Destination or source is a remote server
- Cloud: Destination is a cloud service, such as Google Drive

Filters can be used to customize the list of jobs. Click on a job name to view the status and logs. Click ☒ to modify the job settings.

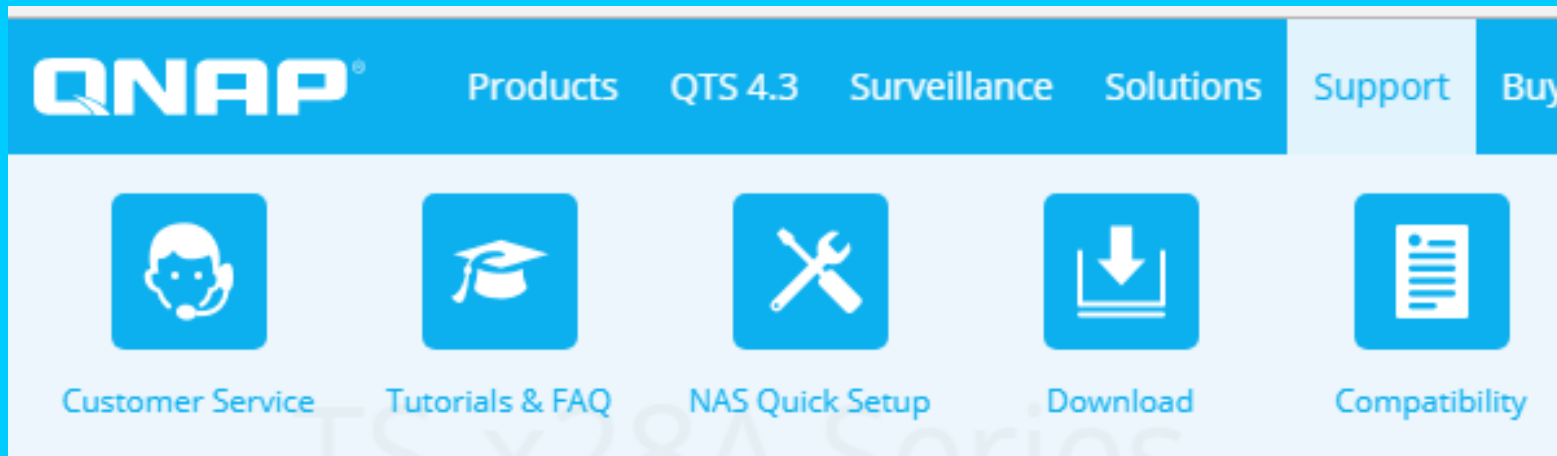
Storage Space

Storage Space

A storage space is a destination for a backup job. A storage space consists of a profile and a folder or bucket path.

This page lists all storage spaces with their corresponding jobs.

QNAP Website Support Information



QNAP Website Tutorial & Frequently Asked Questions



Tutorial

Guide you through with step by step instructions.

Latest

Hot

- [How to install license keys on a QNAP NAS](#)
- [How to use historical data access API on QNAP QIoT Suite Lite](#)
- [How to use Mass Deployment on QNAP QIoT Suite Lite](#)
- [How to setup AWS Greengrass on QNAP NAS](#)
- [How to Use Cinema28](#)

QNAP Website Compatibility List

QNAP® Products QTS 4.3 Surveillance Solutions Support Buy QIoT

3 - Category

Which kind of device do you want to check?

HDD or SSD

Choose Category

HDD or SSD

External Storage Device

UPnP Router

UPS

USB Printer

Expansion Card

USB Wi-Fi

USB Speakers / Sound Card

USB Bluetooth Adapters

M.2 SSD

Smart Phone

Brand	Model	Rank / Family	Type	HDD Firmware	Capacity	Note
Seagate	ST12000NM0007	Enterprise Drives	SATA 6Gb/s (SATA III)	SN01	12000	
HGST	HUS722T1TALA604	Enterprise Drives	SATA 6Gb/s (SATA III)	A07	1000	
HGST	HUS722T2TALA604	Enterprise Drives	SATA 6Gb/s (SATA III)	A07	2000	
WD	WD4002FYYZ	Gold Enterprise Drives	SATA 6Gb/s (SATA III)	01.01M02	4000	

QNAP Website Hand-On Live Streaming

New presentation

QNAP

Use QVPN to build a secure connection
for accessing network resources and
services via QNAP NAS

LIVE

Live Broadcast Date:
FEB 8, 2018

Live Broadcast Date:
6 p.m. (UTC+8)



2018/02/08

Slides

Use QVPN to build a secure connection for
accessing network resources and services

QNAP

The TES-1885U/3085U explained:
Experience the powerful ZFS-based
QES operating system

LIVE

Live Broadcast Date:
FEB 6, 2018

Live Broadcast Date:
6 p.m. (UTC+8)



2018/02/06

Slides

The TES-1885U/3085U explained:
Experience the powerful ZFS-based QES

Contact QNAP Technological Support Team



QNAP Technological Support



QTS Helpdesk App

helpdesk.qnap.com

**eMail-based Conversion
Online Chat**

Hotline

**Taiwan, China, Hong Kong,
Germany, Netherlands, India**

- **US, UK**

QNAP Support Ticket Lifecycle



User

Tech. Support

Quality Assurance

Development

QNAP Support Ticket Lifecycle

- **Issue Category**
By NAS functions

- **Issues Type**
 - a. NAS Configurations
 - b. Function Abnormal
 - c. Features Request

- **Issue Investigation**
 - a. Hand by hand
 - b. Function Abnormal
 - Remote Check
 - Reproduce
 - c. Report to PM
- **Confirm Issue Solved**
- **Close Case**
- **Survey**



What is Helpdesk?



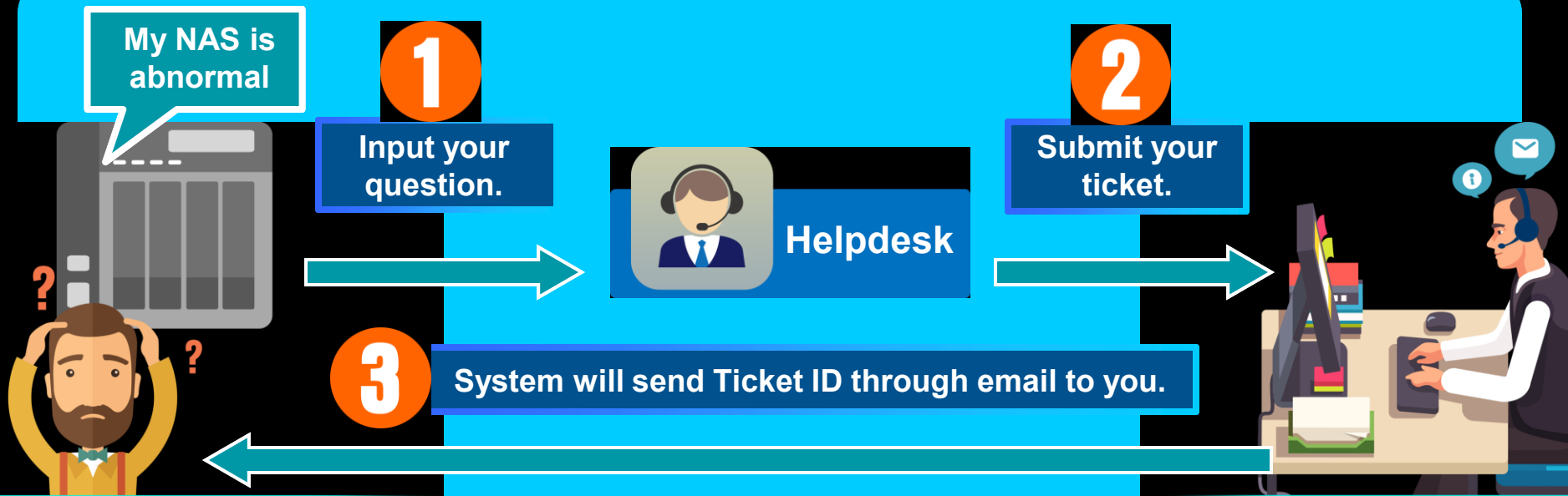
What is Helpdesk ?

Helpdesk allows support engineer using remote session to help your issues.



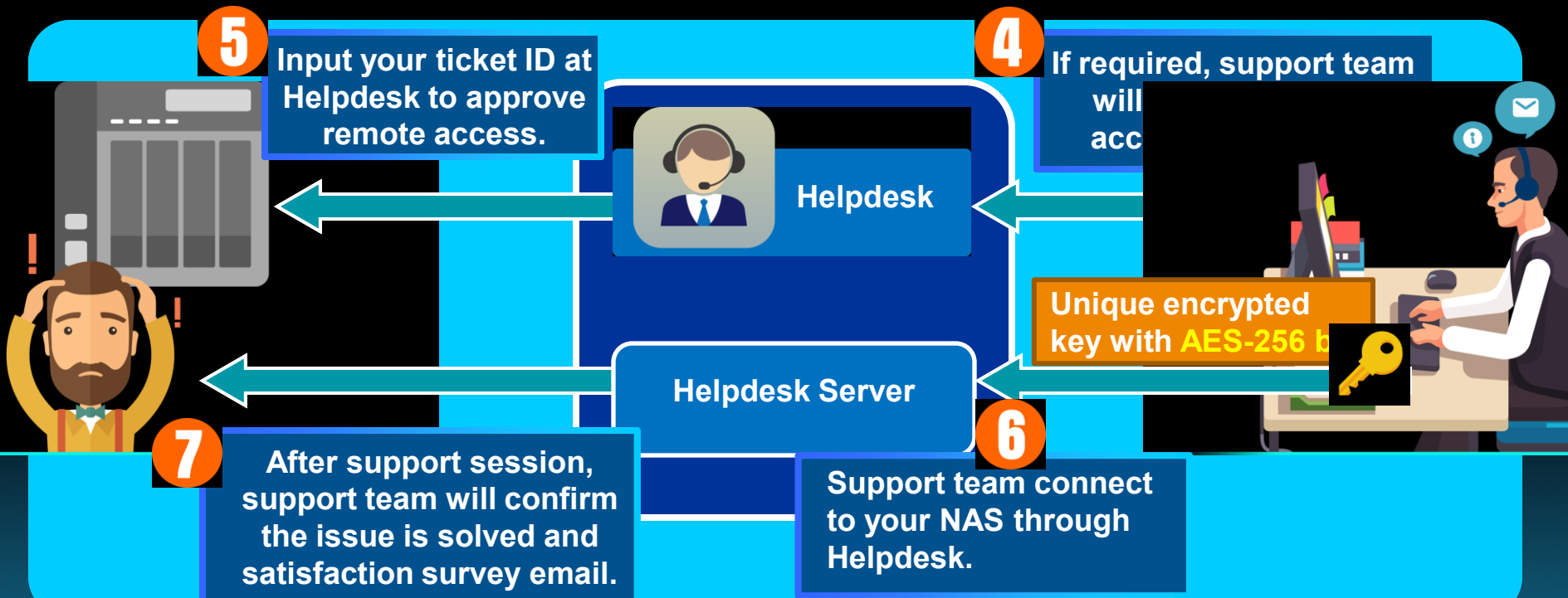
How to Use Helpdesk? (1/2)

Using Helpdesk to submit your issue to the support team.



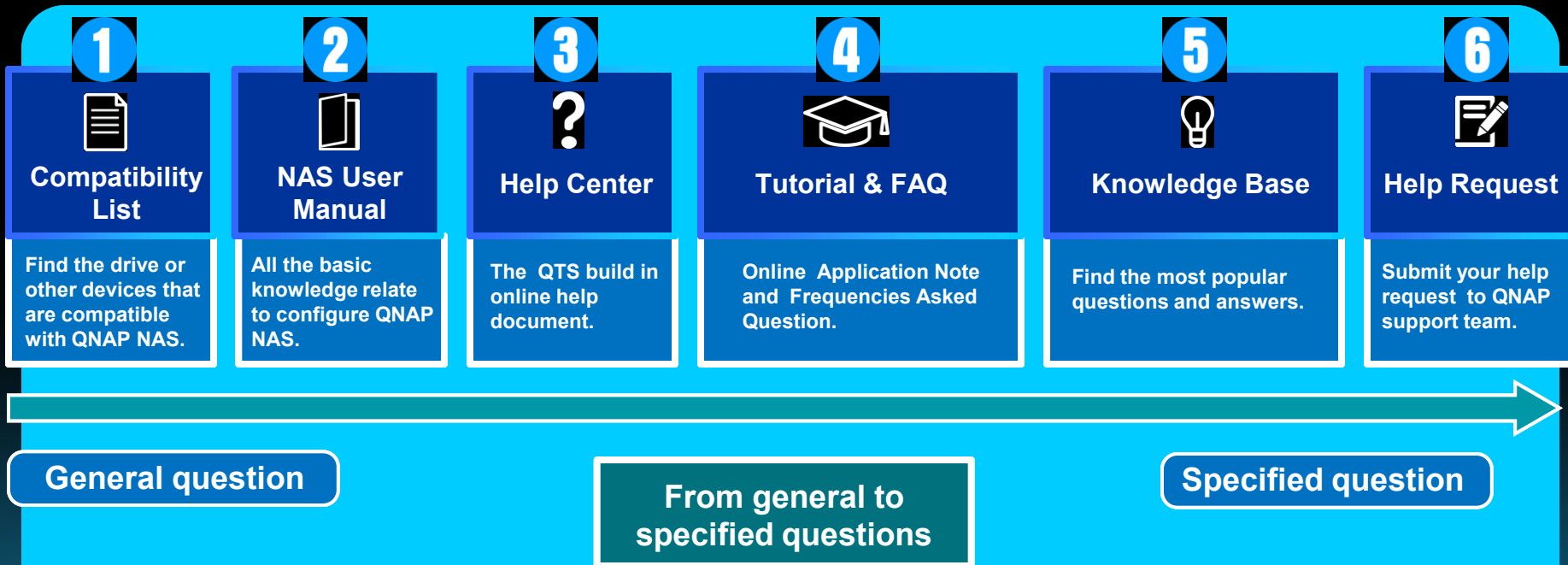
How to use Helpdesk ? (2/2)

Support team will answer within 24 hours for your question!



What resource is available at Helpdesk ?

Every channel that can help you is prepared in Helpdesk.



Helpdesk Kind Reminder



The system logs will **never include your personal data such as stored files or passwords.**



You can encrypt one or more shared folders before submitting the ticket.



You can turn off the remote support session at any time.



Every remote support session will have record for tracking.

Attachments

☒ I allow my system logs to be sent to QNAP to assist in providing support.

Upload a related screenshot or file.

You can upload up to 8 attachments (including system log) and each file must be under 5MB.

Submit

Cancel

☐	Folder Name	Size	F..	FL..	..	Volume	Action
☐	Download	4 KB	1	1	..	DataVol1	
☐	Folder 1	4 KB	1	1	..	DataVol1	
☐	Multimedia	480...	547	14...	..	DataVol1	
☒	Public	190...	56	296	..	DataVol1	

2 ☒ Encrypt this folder

Input Password:

Verify Password:

☐ Save encryption key

3 **Encryption Management - Folder 1**

Download Save Lock

This will lock the shared folder. Are you sure?

Case Study

There are 8 folders in Media Folder but user only found 2 videos in Video Station. User submit a helpdesk ticket via helpdesk app ...



What is Diagnostic Tool?



QNAP Diagnostic Tool

An Official App for support team and power user to diagnostic NAS issue

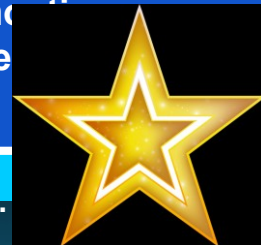
- Download system log same as Helpdesk does
- Acquire Linux Kernel log and other information without the need of using SSH (Command Line)

Report
abnormal
NAS
resets

Support
team
identify
issue note
related to
QTS

Install
Diagnostic
Tool to
retrieve
Kernel Log

Improve
diagnostic
efficiency



Kernel Logs can identify errors including : UNC path error, abnormal hard reset, Segfault error...

File System Analyzer

- Retrieve mount path, free block and performance records
- Check Extent distribution percentage
- QNAP already optimized this item for the user!



Diagnostic Tool v1.1.3

- Dump Log
- Kernel Log Analyzer
- File System Analyzer**
- HDD Analyzer
- HDD Stress Test
- Memory Test
- SSD cache Diagnostics

Model: TES-3085U Firmware: 4.3.4

File System Analyzer

Choose volume to analyze: DataVol1

Start **Download**

File system analysis completed on 2018-02-12 07:34:33

Mount Path: /share/CACHEDEV1_DATA
 Free Block: 77974217 (99.1%)
 Write Performance: 728.42 MB/s
 Read Performance: 2678.70 MB/s
 Use Extent: 2

Download the file to your computer and then send it to the QNAP Helpdesk for further analysis.
 You can find the QNAP Helpdesk at: <http://helpdesk.qnap.com/>

File System Analysis Results (from Notepad++):

```

13 Device: /dev/mapper/cachedev1
14 Blocksize: 4096 bytes
15 Total blocks: 52428800
16 Free blocks: 44816618 (85.5%)
17
18 Min. free extent: 4 KB
19 Max. free extent: 2064256 KB
20 Avg. free extent: 832944 KB
21 Num. free extent: 215
22
23 HISTOGRAM OF FREE EXTENT SIZES:
24 Extent Size Range : Free exten
25 4K... 8K- :
26 8K... 16K- :
27 16K... 32K- :
28 32K... 64K- :
29 64K... 128K- :
30 128K... 256K- :
31 256K... 512K- :
32 512K... 1024K- :
33 1M... 2M- :
34 2M... 4M- :
35 4M... 8M- :
36 8M... 16M- :
37 16M... 32M- :
38 32M... 64M- :
39 64M... 128M- :
40 128M... 256M- :
41 256M... 512M- :
42 512M... 1024M- :
43 1G... 2G- :
44
  
```

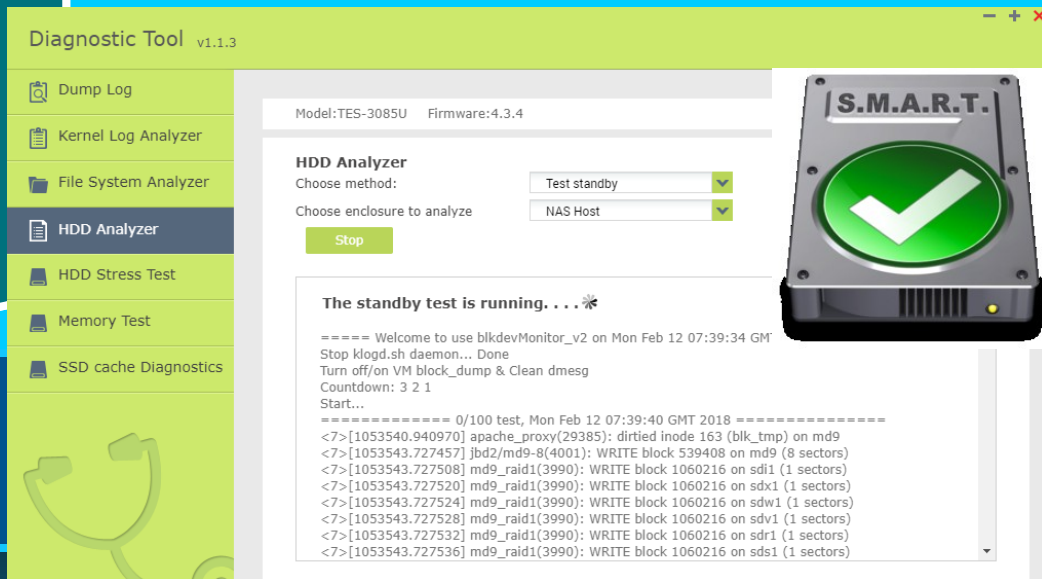
Free Blocks Summary Table:

Extent	Free Blocks	Percent
12	12	0.00%
7	16	0.00%
3	12	0.00%
6	50	0.00%
7	168	0.00%
6	263	0.00%
2	194	0.00%
6	963	0.00%
7	3065	0.01%
22	18533	0.04%
10	15841	0.04%
2	4608	0.01%
2	8192	0.02%
2	16410	0.04%
28	686146	1.53%
3	162309	0.36%
5	961249	2.14%
85	42892855	95.71%

Disk Test

- Disk S.M.A.R.T. Download
- Disk Performance Test
- RAID information
- Disk Stand By Test
(Identify process that wake disk up)

Allow support team
to quickly grasp disk
condition



Diagnostic Tool v1.1.3

Dump Log

Kernel Log Analyzer

File System Analyzer

HDD Analyzer

HDD Stress Test

Memory Test

SSD cache Diagnostics

Model: TES-3085U Firmware: 4.3.4

HDD Analyzer

Choose method: Test standby

Choose enclosure to analyze: NAS Host

Stop

The standby test is running...

===== Welcome to use blkdevMonitor_v2 on Mon Feb 12 07:39:34 GMT
Stop klogd.sh daemon... Done
Turn off/on VM block_dump & Clean dmesg
Countdown: 3 2 1
Start...
===== 0/100 test, Mon Feb 12 07:39:40 GMT 2018 =====
<7>[1053540.940970] apache_proxy(29385): dirtied inode 163 (blk_tmp) on md9
<7>[1053543.727457] jbd2/md9-8(4001): WRITE block 539408 on md9 (8 sectors)
<7>[1053543.727508] md9_raidd1(3990): WRITE block 1060216 on sdx1 (1 sectors)
<7>[1053543.727520] md9_raidd1(3990): WRITE block 1060216 on sdx1 (1 sectors)
<7>[1053543.727524] md9_raidd1(3990): WRITE block 1060216 on sdw1 (1 sectors)
<7>[1053543.727528] md9_raidd1(3990): WRITE block 1060216 on sdv1 (1 sectors)
<7>[1053543.727532] md9_raidd1(3990): WRITE block 1060216 on sdr1 (1 sectors)
<7>[1053543.727536] md9_raidd1(3990): WRITE block 1060216 on sds1 (1 sectors)

S.M.A.R.T.

What is Disk S.M.A.R.T.

Disk Self-Monitoring Analysis and Reporting Technology

- An industry standard defined by system and disk vendor
- Record more than 50 disks operation attributes
- EX: Power On Hours, Reset Count, Error Sectors Count.

**When contact disk vendor,
download SMART report
to increase support
efficiency.**

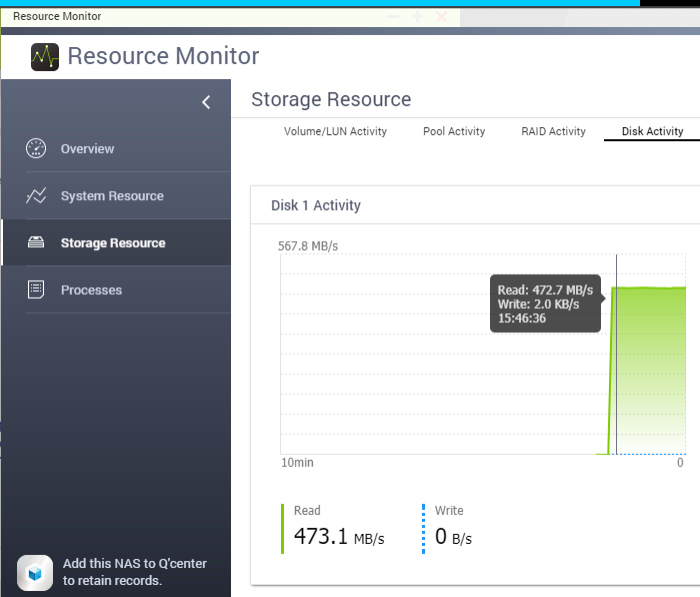
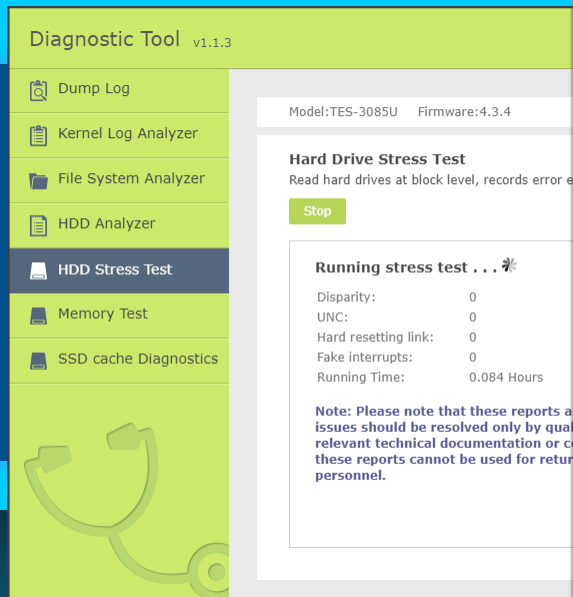
The screenshot displays the QNAP Storage & Snapshots management interface. A 'Disk Health' window is open, showing a table of SMART attributes for 'Disk 4'. The table includes columns for ID, Description, Value, Wors..., Thre..., Raw Value, and Status. The status of most attributes is 'Good', while 'Current_Pending_Sector' is 'Warning'.

ID	Description	Value	Wors...	Thre...	Raw Value	Status
9	Power-On_Hours	054	054	000	18722	Good
10	Spin_Retry_Count	253	100	030	0	Good
12	Power_Cycle_Count	100	100	000	5419	Good
191	G-Sense_Error_Rate	100	100	000	34	Good
192	Power-Off_Retract_Count	091	091	000	4572	Good
193	Load_Cycle_Count	074	074	000	261081	Good
194	Temperature_Celsius	100	100	000	29635379...	Good
196	Reallocated_Event_Count	100	100	000	2	Good
197	Current_Pending_Sector	100	100	000	104	Warning
198	Uncorrectable_Sector_Count	100	100	000	0	Good
199	SATA_R-Error_Count	200	253	000	0	Good

Disk Stress Test

- Using maximum load to test disk performance in log time
- Conduct performance stability test and record error event

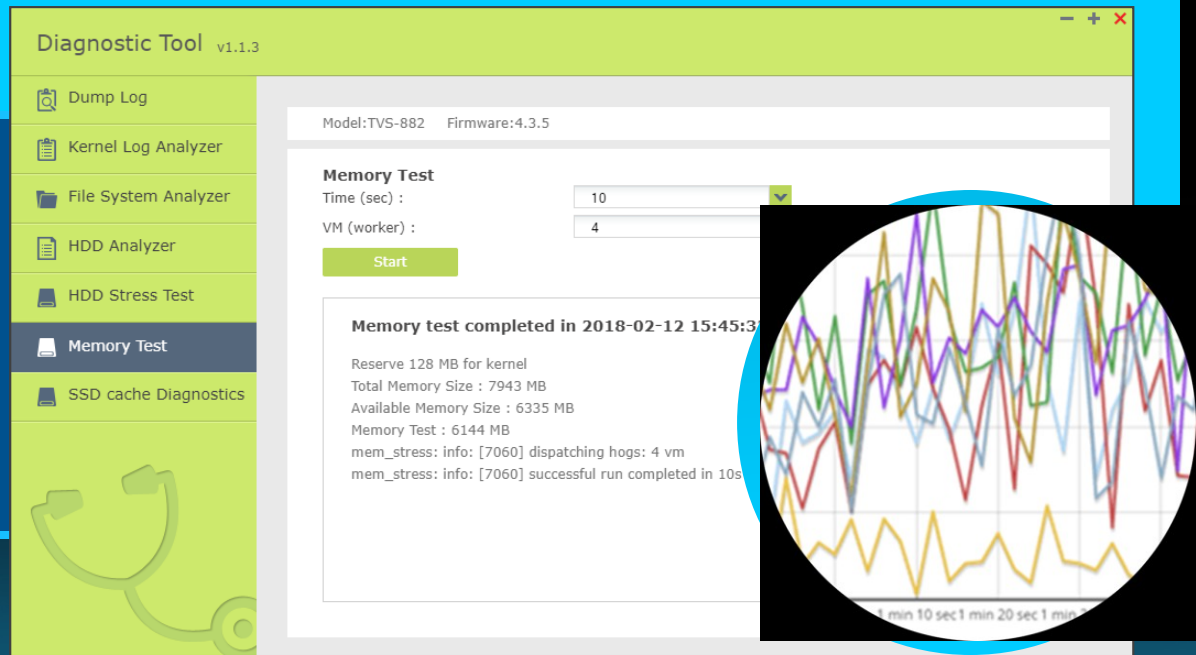
This function is recommended only to be used by power user to avoid performance side effect!



Memory Test

- Create Virtual Worker inside the NAS
- Continually write Memory Pages to identify actual RAM size

This function is recommended only to be used by power user to avoid performance side effect!

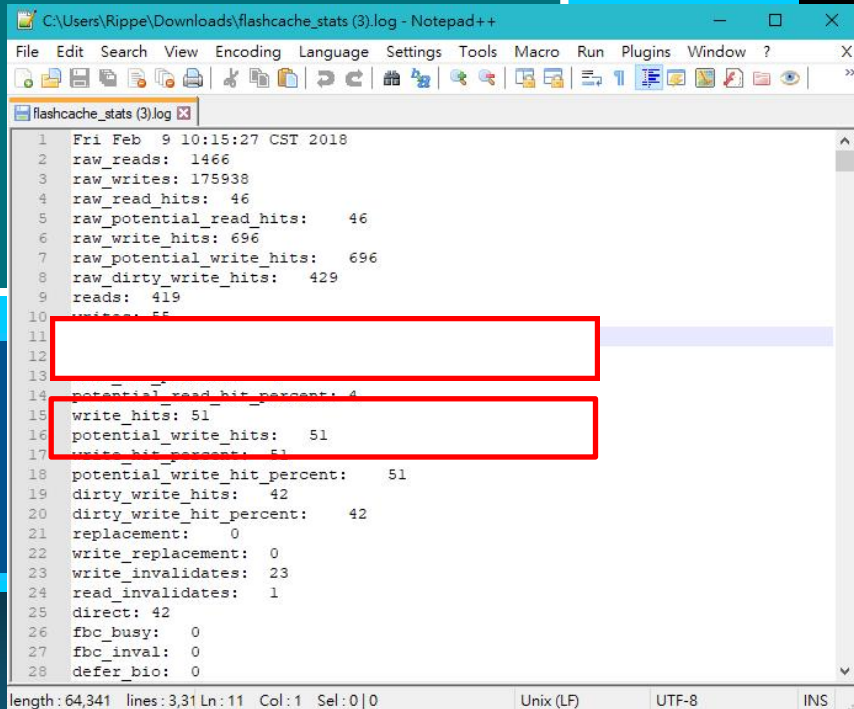


SSD Cache Test

- When NAS has SSD cache and is writing data, conduct this test to record cache operations.
- EX: Potential Read/Write Hits

When this value is larger than Read/Write Hits, it may mean SSD Cache need to be expended

Allow support team to understand if the SSD configuration suit specified scenario



```
C:\Users\Rippe\Downloads\flashcache_stats (3).log - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
flashcache_stats (3).log
1 Fri Feb 9 10:15:27 CST 2018
2 raw_reads: 1466
3 raw_writes: 175938
4 raw_read_hits: 46
5 raw_potential_read_hits: 46
6 raw_write_hits: 696
7 raw_potential_write_hits: 696
8 raw_dirty_write_hits: 429
9 reads: 419
10 writes: 55
11
12
13
14 potential_read_hits_percent: 4
15 write_hits: 51
16 potential_write_hits_percent: 51
17 write_hits_percent: 51
18 potential_write_hit_percent: 51
19 dirty_write_hits: 42
20 dirty_write_hit_percent: 42
21 replacement: 0
22 write_replacement: 0
23 write_invalidates: 23
24 read_invalidates: 1
25 direct: 42
26 fbc_busy: 0
27 fbc_inval: 0
28 defer_bio: 0

length: 64,341 lines: 3,31 Ln: 11 Col: 1 Sel: 0|0
Unix (LF) UTF-8 INS
```

Summary



Diagnostic Tool allows Support Team to quickly grasp NAS condition without the need of using command line.



Power User can also use this tool to identify interest fact on QNAP NAS.



For General User, it is recommended to run this tool only under support team's instruction.



**QNAP NAS,
Your best choice!**

