Synology®

Synology High Availability (SHA) Troubleshooting Guide

Based on
DSM 7.0 and Synology High Availability 2.1.0

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Chapter 1: General Error-handling Procedure

This chapter explains how to analyze and troubleshoot general issues when they occur on your high-availability cluster.

1.1 Troubleshoot issues remotely

1. Sign in to DSM with the cluster IP address. Go to Synology High Availability and check the cluster status. If the status is Warning or Critical, follow the instructions in **Chapter 2: SHA Troubleshooting** according to the error message.

2. If you cannot sign in to DSM using the cluster IP, try the following:

   a. Use a computer located within the same network as your cluster and go to **find. synology.com** or open **Synology Assistant**.

   b. Find the cluster via the cluster name (under Server Name), or the cluster IP address. Note that the passive server IP address cannot be found here because it does not provide any services. Refer to **this article** for more information on how to find your cluster via **find. synology.com** or **Synology Assistant**.

   c. Try to sign in to DSM again. If the issue is still not resolved, continue to the section 1.2 to troubleshoot issues on-site.

1.2 Troubleshoot issues on-site

If you are still unable to connect to your cluster through the 2 methods listed in the **Troubleshoot issues remotely** section, you need to go to the physical location of your Synology NAS devices for the next steps.

• If the devices are powered on and the Power LED indicator is on, try the methods in the **Troubleshoot issues remotely** section again.

• If the devices cannot be powered on or the Power LED indicators are blinking, refer to **this article** to resolve the power issue. Then, try to connect to your cluster again.

• If you still cannot connect to the cluster through the methods above, refer to **Chapter 3: Contact Synology Service** to contact Synology Technical Support for further assistance.

1.3 Statuses in Synology Assistant

The following table provides the possible statuses of your NAS shown in **Synology Assistant**. You can refer to this table when troubleshooting.

Status	Details
Booting	The system is booting up.
Check progress	Your NAS is being installed/configured. Click to check the progress.
Checking quota	The system is checking the drive quota. This could be a result of improper shutdown.
Checking file system ([number] minutes remaining)	The system is checking the file system. This process will be completed within the time displayed. This usually occurs when DSM detects file system errors and is prompted to perform a file system check.
Configuration error	An error occurred during configuration. Double-click on the sever to re-apply the settings.
Configuration lost	This usually occurs after a **Mode 2 Reset**, which is done by pressing and holding down the RESET button. You can double-click on the server and re-install DSM to get a fresh start without impacting the data in the volume. If you did not press the RESET button, but you still see this message, refer to **this article**.
Connection failed	A network configuration error occurred. Double-click on the server or click **Setup** to configure network settings.
Getting connection status	The system is checking the connection status.
Migratable	System configurations on the drives can be migrated to this Synology NAS. This usually means that the DSM version recorded on the NAS's motherboard is newer than the DSM version on the drives. This sometimes occurs after receiving a repaired or replaced device. Double-click on the server to complete the migration process.
N/A	WOL is set up but the current status is unknown.
Not configured	The initial DSM configurations (i.e., admin password) after installation are incomplete. Double-click on the server to complete the configurations.

Not installed	This message may show up in any of the following scenarios: no drives are detected, DSM is not installed, DSM is not detected on the drives, or you have clicked **Erase All Data** in **Control Panel**. Make sure the drives are healthy, inserted properly, and are detectable by the server. Double-click on the server to start installing DSM. If DSM was already installed on the drives and you have been using the drives for some time, this message indicates that the server does not recognize the DSM data on the drives. In this case, abort the installation, shut down your device, and refer to **this article** for instructions. You can also connect the drives to your computer and use the following diagnostic tools to check your drives' health: Western Digital (WD): **Lifeguard**, Seagate: **Seatools**.
Offline	The system is offline.
Performing Memory Test (x%)	Memory test progress is currently x%. If you are asked to perform a memory test, make sure to perform the test at least 3 times. The test results are saved in the system log. Refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Ready	The system is installed and ready to use. Double-click on the server or click **Connect** to access the server.
Recoverable	The system is recoverable. This usually indicates that the DSM version recorded on the motherboard is older than the DSM version on the drives. This sometimes occurs after receiving a repaired or replaced device. Double-click on the server to complete the recovery process.
Starting services	DSM is starting up services. It can take up to 10 minutes for all services to fully start up.
Upgrading	DSM is updating. Please wait for the update process to complete.

Chapter 2: SHA Troubleshooting

We will use the following terms for example:

Terms	Description
My_Active_Hostname	The host name of the active server at the time the status occurred.
My_Passive_Hostname	The host name of the passive server at the time the status occurred.
My_Login_Node_Hostname	The host name of the logged-in server at the time a split-brain error occurred.
Another_Node_Hostname	The host name of the non logged-in server at the time a split-brain error occurred.
LAN X/Y	The network interfaces.
Bond Z	The bonded network interface.
Service A	The name of the service.
Drive B	The name of the drive.
Volume [X]	The name of the volume.
10.17.X.X	IP address.

Possible Logs can all be found in **DSM** > **Log Center**. You can filter between **General** and **Synology High Availability** logs by using the drop-down menu located on the top-right of the page.

2.1 Critical

2.1.1 Critical [Detail: The following network interfaces on the active server failed to connect: LAN X.]

Critical	
Detail: The following network interfaces on server My_Active_Hostname failed to connect: LAN X.	
Suggestion: Check if the external network cards on both servers are properly inserted and functional. If you want to remove the external network card, go to **Network** to stop monitoring the interface card [LAN X].	
Description	• The connection of the network interface [LAN X] on the two servers is abnormal. Any services connected using [LAN X] may be affected. • The external network interface cards are missing. This is a hardware issue that cannot be resolved with auto-failover.
Cause	The network interface [LAN X] is being monitored by the high-availability cluster. However, the external network interface card has been removed, causing the system to detect an abnormal LAN X network connection.
Resolution	1. If you have removed the network interface card, go to **Synology High Availability** > **Network** to stop monitoring the network interface card [LAN X]. 2. If you have **not** removed the external network card, make sure that it is properly inserted and working properly for both servers. 3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.1.2 Critical: An SSD cache on the active server is missing

Critical	
An SSD cache on My_Active_Hostname (active server) is missing.	
Suggestion: Make sure the drives are all installed properly on My_Active_Hostname (active server) and then go to Storage to repair the volume/LUN.	

LED Indicator	Active server (if data is missing)
	• Models without ALERT LED:
	  • STATUS LED: Static orange
	• Models with ALERT LED:
	  • STATUS LED: Static green
	  • ALERT LED: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• An SSD cache is lost. The data may be corrupted. • Because the servers' data may be inconsistent, the system will not perform auto-failover.
Cause	The SSD cache was not properly installed when the system powered on, so the data may have been corrupted.

Resolution	Make sure that the drive of the SSD cache is installed into the correct slot. Refer to the **Missing storage space or SSD cache** section in **2.3.2 Repair volumes on the active server** to repair the storage space.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: SSD cache is missing]
Possible Logs	• [warning] Auto failover is temporarily unavailable: SSD cache is missing.

2.1.3 Critical: A split-brain error occurred

<table>
<tr><td colspan="2">

Critical

A split-brain error occurred.

Detail: The data on the hosts are inconsistent. Services are suspended to prevent further data inconsistencies.

Suggestion: Click **Manage** > **Resolve split-brain errors** and follow the instructions to fix the issue.

</td></tr>
<tr><td>Description</td><td>Synology High Availability entered split-brain mode and is not able to provide services.</td></tr>
<tr><td>Cause</td><td>The active and passive servers failed to communicate with each other, causing each server to write data while functioning as the active server. This resulted in inconsistent data after the communication was recovered. To protect the data integrity, the cluster went into split-brain mode so that the user can select which data they want to keep.</td></tr>
<tr><td>Resolution</td><td>

• You can use the **Split-brain** page in **Synology High Availability** to compare the data differences between the servers.

• Click **Manage** > **Resolve split-brain error** to open the Split-brain wizard. You can choose from the following options:

  • **Keep all data of both servers**: Choose one host as the new active server and remove the other. The new active server will still be in the cluster. The removed host will keep its data and return to standalone status. A full data synchronization will be required the next time you add a passive server. This option is preferred when you are unsure of which data to keep but you want to restore services immediately. This way, you can decide which data to keep later on.

  • **Keep data from only one of the servers**: Choose one of the hosts as the new active server. The system will sync the new active server's data and settings to the new passive server. This option is preferred when you know exactly which data you want to keep. All passive server data will be overwritten by that of the active server.

</td></tr>
<tr><td>Related Notifications</td><td>• High-availability cluster My_SHA_Hostname stopped functioning [Detail: Split-brain error]</td></tr>
<tr><td>Possible Logs</td><td>

• [error] A split-brain error occurred and services are suspended.

If you selected **Keep all data of both servers**:

• [info] Split-brain error manually resolved. My_Active_Hostname is now the active server and My_Passive_Hostname was removed from the cluster.

If you selected **Keep data from only one of the servers**:

• [info] Split-brain error manually resolved. My_Active_Hostname is now the active server.

</td></tr>
</table>

2.1.4 Critical: A storage space on the active server became read-only

Critical A storage space on My_Active_Hostname (active server) became read-only. **Detail**: Some services are temporarily suspended. **Suggestion**: Go to **Storage Manager** for more details.	

LED Indicator	Active server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The storage space is read-only and your data is still available. • Because the servers' data may be inconsistent, the system will not perform auto-failover.
Cause	A hard disk error may have occurred. In order to protect your data, the storage space became read-only.
Resolution	Go to **Storage Manager** > **Storage** and follow the instructions displayed to solve the issue.
Related Notifications	• Volume X on My_Active_Hostname (My_SHA_Hostname) has become read-only
Possible Logs	• [error] Volume [X] has become read-only.

2.1.5 Critical: A storage space on the active server is in abnormal status. The data consistencies between the active server and the passive server have not been checked

Critical A storage space on My_Active_Hostname (active server) is in abnormal status. The data consistency between My_Active_Hostname (active server) and My_Passive_Hostname (passive server) has not been checked. **Suggestion**: Make sure the drives are all properly installed on My_Active_Hostname (active server). Go to **Storage Manager** to perform **Online Assemble** to assemble the storage pool and then access the data on the drive. If your drives are damaged, you will not be able to perform Online Assemble. You can click **Force Failover** to prompt the passive server to become the new active server and take over services.	

LED Indicator	Active server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The storage pool cannot be assembled correctly when the device is being powered on, so the active server data is currently unavailable. • Because the servers' data may be inconsistent, the system will not perform auto-failover. We recommend you to first reassemble the storage pool on the active server.
Cause	The drives were not properly installed as the device was being powered on. Thus, the storage pool cannot be assembled.
Resolution	1. Make sure that the original hard drive on the active server is properly installed. Then, try to assemble the storage pool in **Storage Manager**. 2. If the drive is damaged or the storage pool cannot be assembled, you can go to **SHA** > **Cluster** and select **Force Failover**. Clicking **Force Failove**r will failover services to the passive server. Since the active server's storage space has been lost, any data on the active server that has yet to be synced will be lost. Therefore, <u>we strongly recommend you to first assemble the storage pool on the active server</u>. You may see the following errors if **Force Failover** cannot be performed: • **Some data are not available on My_Passive_Hostname (passive server).** This occurs when a cluster is shut down while you are syncing on the passive server, making the data on the passive server inconsistent and unusable. This condition cannot be fixed manually. Refer to the **Chapter 3: Contact Customer Service** section to contact Synology Technical Support for further assistance. • **Syncing data from My_Active_Hostname (active server) to My_Passive_Hostname (passive server) ({0}). Please wait until the synchronization is finished and try again.** There is still data to be synchronized, wait for all data to be synchronized and further instructions will be displayed. • **The system or storage is busy. Please try again later.** The system is collecting cluster status information to analyze if the failover can be performed properly, usually when a boot has just finished or when there are other storage operations in progress. This error will be updated in a few minutes, please try again later. • Other issues may be displayed. You can refer to the suggestions provided to deal with the passive server status.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Storage pool is missing] • One or more missing drives have been detected in Storage Pool X. Please go to Storage Manager > Storage for more information
Possible Logs	• [warning] Auto failover is temporarily unavailable: Storage pool is missing. • [error] Storage Pool X has an insufficient number of drives. / Storage Pool X has been lost all drives.

2.1.6 Critical: A storage space on the active server is missing

Critical	
A storage space on My_Active_Hostname (active server) is missing.	
Suggestion: Make sure that the drives are all installed properly on My_Active_Hostname (active server) and then go to **Storage** to reassemble the volume/LUN.	

LED Indicator	Active server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The storage pool could not be assembled correctly and the active server data is currently unavailable. • Because the servers' data may be inconsistent, the system will not perform auto-failover.
Cause	When the storage pool was assembled, there was an error with the drive or it was not installed correctly.
Resolution	On the active server, reinstall the original drive and then go to **Storage Manager** to reassemble the volume/LUN.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Storage pool is missing] • [My_Active_Hostname (My_SHA_Hostname)] One or more missing drives have been detected in Storage Pool X. Please go to Storage Manager > Storage for more information
Possible Logs	• Storage Pool X has an insufficient number of drives. / Storage Pool X has been lost all drives. • [warning] Auto failover is temporarily unavailable: Storage pool is missing.

2.1.7 Critical: A storage space on the active server crashed

Critical A storage space on active server My_Active_Hostname crashed. **Suggestion**: Replace the failed hard-drive on the active server My_Active_Hostname and repair the volume/LUN in **Storage**.	

LED Indicator	Active server
	• Models without ALERT LED:
	  • STATUS: Static orange
	  • DRIVE Status: Static orange or off
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	  • DRIVE Status: Static orange or off
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The storage space on the active server is crashed and the active server data may be corrupted. • When the storage space of the active server is crashed and the passive server is operating normally, the system will perform auto-failover to maintain high availability. This status may be a temporary status before the failover. • If the passive server has any errors that have not been resolved before this status occurs, the system will not be able to perform auto-failover and will remain in this state.
Cause	A storage pool on the active server crashed due to drive errors, and errors on the passive server prevent it from taking over services.
Resolution	Check if there are any errors on the passive server. If there are, make sure to solve the errors according to the appropriate solution provided in this guide. After the error on the passive server is resolved, the system will perform an auto-failover and the passive server will take over services.
Related Notifications	• Storage Pool X on My_Active_Hostname (My_SHA_Hostname) has crashed
Possible Logs	• [warning] Crashed volume/LUN detected on My_Active_Hostname (active server).

2.1.8 Critical: Abnormal network connection

Critical	
Abnormal network connection.	
Detail: The following network interfaces on the active server My_Active_Hostname failed to connect: LAN X.	
Suggestion: Make sure the Ethernet cable between the switch and cluster interface LAN X on the active server My_Active_Hostname is properly connected. If the problem persists, please use another Ethernet cable.	

LED Indicator	Active server • Models with LED indicators on the LAN ports: Off
Description	• The LAN X connection on the active server is abnormal. Services using LAN X may be affected. • When the network interface connection is abnormal, the system will automatically fail over to maintain high availability. This may be a temporary status before failover. • If there were any unresolved issues on the passive server before this error occurred, the system will not be able to perform auto-failover and will remain in this state.
Cause	This issue is often due to a hardware issue, such as the Ethernet cable malfunctioning or not being properly connected, the NAS network port or switch malfunctioning, and so on.
Resolution	Make sure that LAN X-related hardware on the active server are all functioning properly: 1. Confirm the connection between LAN X and the switch. 2. Replace the Ethernet network cable. 3. Try another network port on the switch, or use another switch. 4. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Possible Logs	• [info] [LAN X] link down.

2.1.9 Critical: Assemble failed on the active server

Critical	
Assemble failed on My_Active_Hostname (active server).	
Suggestion: Go to **Storage Manager** for more details.	

LED Indicator	Active server • Models without ALERT LED: • STATUS: Static orange • Models with ALERT LED: • STATUS: Static green • ALERT: Blinking orange or red The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• Active server storage assemble failed and its data is currently unavailable.
	• Because the servers' data may be inconsistent, the system will not perform auto-failover. We recommend you to first assemble the storage pool on the active server.
Cause	The drive itself or the data inside the drive is abnormal, causing the storage space to be assembled incorrectly.
Resolution	Go to **Storage Manager** > **Storage** for instructions on how to proceed. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• [My_Active_Hostname (My_SHA_Hostname)] Unable to assemble Storage Pool X. Please go to Storage Manager > Storage for more information
Possible Logs	• Failed to assemble Storage Pool X (RAID Type is [XXX]).

2.1.10 Critical: Errors detected in certain services

Critical Errors detected in certain services. **Detail**: The system detected some errors in the following services on active server My_Active_Hostname: Service A. **Suggestion**: Restart active server My_Active_Hostname. If the problem persists, please contact **Synology Technical Support** for further assistance.	
Description	• An error occurred on one of the **monitored services**.
	• While in this state, the active server may not be able to provide services.
	• If the passive server is **available**, the system will automatically fail over to maintain high availability when this error occurs. In this case, this is a transitional status before the failover occurs.
	• If the passive server is **unavailable**, the system will not perform an auto-failover and will remain in this state.
Cause	A monitored service on the active server is functioning abnormally.
Resolution	1. Try to restart the active server. The active server will stop providing services once it shuts down.
	2. If the status remains after restarting the active server or you cannot restart it at all, refer to the notifications and logs for the passive server to try solving the issue there.
	3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.1.11 Critical: SSD cache on the active server crashed

Critical SSD cache on active server My_Active_Hostname crashed. **Suggestion**: Replace the failed SSD on active server My_Active_Hostname with a new one and repair the SSD cache in **Storage**.	

LED Indicator	Active server (if the data is corrupted)
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The SSD cache on the active server may be corrupted. • When a cache is corrupted and the passive server is functioning properly, the system will automatically fail over to maintain high availability. This may be a temporary status before failover. • If there were any unresolved issues on the passive server before this error occurred, the system will not be able to perform auto-failover and will remain in this status.
Cause	The SSD cache on the active server is corrupted due to drive errors, and some errors on the passive server prevent it from taking over services.
Resolution	1. Check if there are any previous error statuses and notifications on the passive server. If there are, address the issues on the passive server first so it can take over services. 2. If you are unable to resolve the problem on the passive server or if you do not find any problems on the passive server, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• SSD Cache X on My_Active_Hostname (My_SHA_Hostname) has crashed
Possible Logs	• [error] SSD Cache [X] was crashed. • [warning] Crashed volume/LUN detected on My_Active_Hostname (active server).

2.1.12 Critical: Unable to detect the other server

Critical Unable to detect the other server. **Detail**: The cluster encountered a split-brain error, and the data on the hosts are inconsistent. Another_Node_Hostname is currently offline. **Suggestion**: Make sure the other server Another_Node_Hostname is powered-on and all network connections are properly set.	
Description	When a cluster enters split-brain mode, it can no longer provide services and it will not be able to identify the other server in the cluster.
Cause	The active server and passive server failed to communicate with each other, which caused each server to write data while functioning as the active server. This resulted in inconsistent data after the communication was recovered. To protect the data integrity, the cluster went into split-brain mode, allowing the user to choose which data they want to keep. There are two possible causes: • The two servers were disconnected again after the split-brain error occurred. • The other server is turned off.
Resolution	1. Make sure that both servers are functioning properly. 2. Make sure that the Heartbeat and cluster connection on both servers are functioning properly. 3. Once the other server is detectable, refer to **2.1.3 Critical: A split-brain error occurred** to compare the servers' data. If the other server is still undetectable even after you tried the methods above, do the following: 1. Go to **Synology High Availability** > **Cluster** and click **Manage** > **Resolve split-brain errors**. 2. Select **Keep data from only one of the servers**. 3. You can only select the currently logged-in server as the new active server. 4. After the split-brain error is resolved, there will no longer be a passive server in the cluster. We recommend you to add a passive server to the cluster to maintain high availability. For more information on how to **Add a passive server to an existing cluster**, refer to **Chapter 3.2: Create a cluster** in the **Synology High Availability (SHA) User Guide**.
Related Notifications	• High-availability cluster My_SHA_Hostname stopped functioning [Detail: Split-brain error]
Possible Logs	• [err] A split-brain error occurred and services are suspended. • [info] Split-brain error manually resolved. My_Active_Hostname is now the active server and My_Passive_Hostname was removed from the cluster.

2.1.13 Critical: Unable to load cluster status

Critical	
Unable to load cluster status.	
Detail: The status of Synology High Availability is currently unavailable.	
Suggestion: If the problem persists, please contact Synology Technical Support for further assistance.	
Description	Synology High Availability cluster status information cannot be displayed.
Cause	This is often due to a software issue. Users cannot see the cluster status in the Synology High Availability package due to missing data or system issues.
Resolution	Make sure that the servers are functioning and follow the steps below to refresh the cluster status: 1. Restart your web browser. 2. Go to **Synology High Availability** > **Cluster** and restart the cluster. 3. If the issue persists, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.1.14 Critical: Unexpected errors detected on the active server

Critical	
Unexpected errors detected on active server My_Active_Hostname.	
Suggestion: Restart active server My_Active_Hostname. If the problem persists, please contact Synology Technical Support for further assistance.	
Description	• The active server cannot distinguish its status or role. • The system will not perform an auto-failover in order to prevent any further errors from occurring.
Cause	This is often caused by a software issue. This usually occurs when the system is unstable, such as when powering on the cluster.
Resolution	Check the cluster status again once the system is stable. If the issue persists, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2 Warning

2.2.1 Warning: An SSD cache on the passive server is missing

Warning An SSD cache on My_Passive_Hostname (passive server) is missing. **Suggestion**: Make sure the drives are all installed properly on My_Passive_Hostname (passive server) and then go to **Storage** to repair the volume/LUN.	
LED Indicator	Passive server (if data is corrupted) • Models without ALERT LED: 　• STATUS: Static orange • Models with ALERT LED: 　• STATUS: Static green 　• ALERT: Blinking orange or red The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.
Description	Cache space on the passive server is missing. The system cannot perform auto-failover while in this state. After the storage space is repaired, switchover or failover functions will be unavailable until the passive server has re-synced with the active server.
Cause	The SSD cache on the passive server was not properly installed when the system powered on, so the data may have been corrupted.
Resolution	Refer to the **Missing storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: SSD cache is missing]
Possible Logs	• [warning] Auto failover is temporarily unavailable: SSD cache is missing.

2.2.2 Warning: A storage space on the active server is degraded

Warning A storage space on active server My_Active_Hostname is degraded. **Suggestion**: Replace the failed hard-drive with a new one on active server My_Active_Hostname and repair the volume/LUN in **Storage**.	
LED Indicator	Active server • The LED of the damaged drive: Static orange or off
Description	The active server's storage space is degraded, but some of the drives are still functioning. The active server data is still accessible and its services are running normally.
Cause	The active server's storage space downgraded. Go to **Storage Manager** > **Storage** for further details and instructions.
Resolution	Remove the damaged drive and install a new, healthy drive in the same slot. Refer to the **Missing storage space or SSD cache** section in **2.3.2 Repair volumes on the active server** to repair the storage space.

Related Notifications	• Storage Pool X on My_Active_Hostname (My_SHA_Hostname) has degraded (Y/Z)
Possible Logs	• [error] Storage Pool [X] degrade [Y/Z], please repair it.

2.2.3 Warning: A storage space on the passive server became read-only

Warning	
A storage space on My_Passive_Hostname (passive server) became read-only.	
Suggestion: Go to **Storage** to repair the volume/LUN.	

LED Indicator	Passive server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	The storage space on the passive server became read-only. The system cannot perform auto-failover while in this state. After the storage space is repaired, switchover or failover functions will be unavailable until the passive server has re-synced with the active server.
Cause	Hard disk errors occurred in the passive server's storage space, causing it to become read-only in order to protect the data.
Resolution	On the passive server, reinstall the original drive and refer to the **Missing storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.

2.2.4 Warning: A storage space on the passive server crashed

Warning	
A storage space on passive server My_Passive_Hostname crashed.	
Suggestion: Replace the failed hard-drive on passive server My_Passive_Hostname with a new one and repair the volume/LUN in **Storage**.	

LED Indicator	Passive server
	• The LED of the damaged drive: Static orange or off
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	The storage space on the passive server crashed and the passive server data might be corrupted. The system cannot perform auto-failover while in this state. After the storage space is repaired, switchover or failover functions will be unavailable until the passive server has re-synced with the active server.

Cause	The passive server's storage space crashed. This is usually caused by a hard disk error.
Resolution	Refer to the **Crashed storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: One or more crashed volume/LUN detected on My_Passive_Hostname (passive server)] • [My_Passive_Hostname (My_SHA_Hostname)] Storage Pool X on My_Passive_Hostname (My_SHA_Hostname) has crashed
Possible Logs	• [warning] Auto failover is temporarily unavailable: One or more crashed volume/LUN detected on My_Passive_Hostname (passive server).

2.2.5 Warning: A storage space on the passive server is degraded

Warning	
A storage space on passive server My_Passive_Hostname is degraded.	
Suggestion: Replace the failed hard-drive with a new one on the passive server My_Passive_Hostname and repair the volume/LUN in Storage.	
LED Indicator	Passive server • The LED of the damaged drive: Static orange or off
Description	The passive server's storage space is degraded, but some of the drives are still functioning. The passive server data is still accessible and its services are running normally.
Cause	The passive server's storage space downgraded due to a hard disk error.
Resolution	Remove the damaged drive and install a new, healthy drive in the same slot. Refer to the **Degraded storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• Storage Pool X on My_Passive_Hostname (My_SHA_Hostname) has degraded (Y/Z)

2.2.6 Warning: A storage space on the passive server is missing

Warning	
A storage space on My_Passive_Hostname (passive server) is missing.	
Suggestion: Make sure the drives are all installed properly on My_Passive_Hostname (passive server) and then go to **Storage** to reassemble the volume/LUN.	

LED Indicator	Passive server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	The passive server data is unavailable because its storage space is missing. The system cannot perform auto-failover while in this state.

Cause	The SSD cache was not properly installed when the system powered on, so the data may have been corrupted.
Resolution	Make sure that the drive to which the SSD cache belongs is installed into the correct slot. Then, refer to the **Missing storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Storage pool is missing]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Storage pool is missing.

2.2.7 Warning: Abnormal Heartbeat connection [Detail: None]

Warning Abnormal Heartbeat connection. **Suggestion**: Make sure the Heartbeat connection is properly set. If the issue still persists, please replace the Ethernet cable with another one.	
Description	The two servers cannot communicate with each other via the Heartbeat connection.
Cause	The Heartbeat connection is not properly connected.

Resolution	1. Make sure that the Ethernet cable for the Heartbeat connection is attached properly or replace it with another Ethernet cable.
	2. If there is a switch between your servers, make sure of the following:
	
	  • There are no hardware issues, such as loose cables, broken cables, or switch malfunctions.
	  • Make sure that the routing rules on all hosts, switches, and routers are configured correctly.
	  • Make sure that the Heartbeat connection is not blocked by any network rules.
	  • The Synology High Availability service (Ports: 874, 5405, 5406, 7400-7499) and the network interface of the Heartbeat connection (169.254.1.0/30) are not blocked by the switch's firewall settings.
	3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2.8 Warning: Abnormal Heartbeat connection [Detail: The data synchronization between the hosts is interrupted.]

Warning Abnormal Heartbeat connection. **Detail**: The data synchronization between the hosts is interrupted. **Suggestion**: Make sure the Heartbeat connections between the hosts are properly connected. If the problem persists, please use another Ethernet cable.	
LED Indicator	Active server • LED on the LAN port: Off
Description	The two servers cannot communicate with each other via the Heartbeat connection. Data cannot be synced between the servers.

Cause	This error usually occurs when there are hardware issues, such as loose cables, broken cables, or LAN port malfunctions.
Resolution	1. Make sure that the Ethernet cable for the Heartbeat connection is attached properly or replace it with another Ethernet cable. 2. If there is a switch between your servers, try the following: • Make sure that the Heartbeat interfaces and the switch are properly connected. • Use another LAN port on the switch. • Replace the switch. 3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Heartbeat connection failure]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Heartbeat connection failure. • [info] [LAN X] link down.

2.2.9 Warning: Abnormal SSD cache configurations [Detail: SSD cache may be unable to function after a switchover due to different memory sizes installed on the host servers. The switchover service of the high-availability cluster is temporarily suspended.]

Warning Abnormal SSD cache configurations.
Detail: SSD cache may be unable to function after a switchover due to different memory sizes installed on the host servers. The switchover service of the high-availability cluster is temporarily suspended.
Suggestion: Add memory to My_Passive_Hostname (passive server) to make sure the servers have the same memory size.

Description	SSD caching consumes system memory. If different memory sizes are installed on the host servers, SSD cache may not be able to function on the server with the smaller memory size.
Cause	The memory size on the passive server is smaller than the one on the active server.
Resolution	1. Sign in to your high-availability cluster and go to **Synology High Availability** > **Host**. 2. On the passive server, click the power button and select **Shut Down**. 3. Refer to the information in your device's **Hardware Installation Guide** to install the memory module on the passive server. 4. Power on the passive server by pressing its power button. For more information, refer to **Chapter 5.5: Memory expansion** in the **Synology High Availability (SHA) User Guide**.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: The memory size is different on High-availability cluster My_SHA_Hostname]
Possible Logs	• [warning] Auto failover is temporarily unavailable: The memory size is different on High-availability cluster My_SHA_Hostname.

2.2.10 Warning: Abnormal SSD cache configurations [Detail: SSD cache may be unable to function due to different memory sizes installed on the host servers.]

Warning	
Abnormal SSD cache configurations.	
Detail: SSD cache may be unable to function due to different memory sizes installed on the host servers.	
Suggestion: Add memory to My_Active_Hostname (active server) to make sure the servers have the same memory size.	
Description	SSD caches consume system memory. If each server has a different memory size, SSD cache may not be able to function on the server with the smaller memory.
Cause	The memory size on the active server is smaller than the one on the passive server.
Resolution	1. Sign in to your high-availability cluster and go to **Synology High Availability** > **Cluster**. 2. Click on the power button and select **Shut down cluster**. 3. Refer to the information in your device's **Hardware Installation Guide** to install memory modules on both servers. 4. Power on each device in the cluster by pressing their individual power buttons. For more information, refer to **Chapter 5.5: Memory expansion** in the **Synology High Availability (SHA) User Guide**.

2.2.11 Warning: Abnormal cluster connection

Warning	
Abnormal cluster connection.	
Suggestion: Please check network interface LAN X on both My_Active_Hostname (active server) and My_Passive_Hostname (passive server). Make sure the connection between the hosts and the switch is set up properly. If the problem persists, please use another Ethernet cable.	
Description	The connection for the cluster interface LAN X is abnormal. The active and passive servers cannot communicate via LAN X.
Cause	The local network connection X between the two servers is abnormal or blocked.
Resolution	1. Confirm the following items to make sure your servers can communicate via LAN X: • There are no hardware issues, such as loose cables, broken cables, or switch malfunctions. • Make sure that the cluster connection is not blocked by any network rules. • Synology High Availability services (Ports: 874, 5405, 5406, 7400-7499) are not blocked by your network's firewall settings. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2.12 Warning: Abnormal network connection [Detail: Detected a conflict on the following high-availability cluster IP addresses: 10.17.X.X (LAN X).]

Warning Abnormal network connection. **Detail**: Detected a conflict on the following high-availability cluster IP addresses: 10.17.X.X (LAN X). **Suggestion**: Make sure high-availability cluster IP addresses 10.17.X.X (LAN X) are static, and each IP address is unique on the same network.	
Description	The high-availability cluster IP address (LAN X) is being used by another host. Therefore, services using LAN X for connection are affected.
Cause	**Cause 1**: The high-availability cluster IP address may be incorrectly set to an address in the DHCP range. If other hosts happen to be assigned to the same IP address, there will be an IP conflict. **Cause 2**: If the two servers cannot communicate or detect each other, the passive server will automatically become the active server. In this case, there will be two active servers providing services and using the same high-availability cluster IP address, resulting in IP conflict.
Resolution	**For cause 1:** 1. Go to **Synology High Availability** > **Network**. 2. Select the cluster interface and click **Manage Network Interface**. 3. Select **Configure Server Network** and modify the network settings to assign a static IP address for the cluster interface on each server. **For cause 2:** 1. Make sure that the Ethernet cables for the Heartbeat and primary cluster connection are attached properly, or replace them with new ones. 2. Make sure that there are no hardware issues, such as loose cables, broken cables, or switch malfunctions. 3. Make sure that the primary cluster connection is not blocked by any network rules. 4. The Synology High Availability service (Ports: 874, 5405, 5406, 7400-7499) and the network interface of the Heartbeat connection (169.254.1.0/30) are not blocked by your network's firewall settings. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Detected a conflict on the following high-availability cluster IP addresses: 10.17.X.X]
Possible Logs	• [warning] Detected a conflict on the following high-availability cluster IP addresses: 10.17.X.X.

2.2.13 Warning: Abnormal network connection [Detail: Failed to connect to the default gateway interface LAN X on the active server.]

Warning Abnormal network connection. **Detail**: Failed to connect to the default gateway interface LAN X on My_Active_Hostname (active server). **Suggestion**: Make sure the Ethernet cable of default gateway interface LAN X on My_Active_Hostname (active server) is properly connected. If the problem persists, please use another cable.	
LED Indicator	Active server • LED on the LAN port: Off
Description	The default gateway interface LAN X on the active server cannot be accessed.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.
Resolution	1. Do the following on the active server: • Make sure that the Ethernet cable between LAN X and the switch is attached properly, or replace it with another Ethernet cable. • Try another network port on the switch, or use another switch. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Possible Logs	• [info] [LAN X] link down.

2.2.14 Warning: Abnormal network connection [Detail: Failed to connect to the default gateway interface LAN X on both the active server and the passive server.]

Warning Abnormal network connection. **Detail**: Failed to connect to the default gateway interface LAN X on both My_Active_Hostname (active server) and My_Passive_Hostname (passive server). **Suggestion**: Make sure the Ethernet cables of default gateway interface LAN X on both My_Active_Hostname (active server) and My_Passive_Hostname (passive server) are properly connected. If the problem persists, please use another cable.	
LED Indicator	Active server • LED on the LAN port: Off Passive server • LED on the LAN port: Off
Description	The default gateway interface LAN X on the active and passive servers cannot be accessed.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.

Resolution	1. Do the following on both the active and passive servers: • Make sure that the Ethernet cable between LAN X and the switch is attached properly, or replace it with another Ethernet cable. • Try another network port on the switch, or use another switch. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Possible Logs	• [info] [LAN X] link down.

2.2.15 Warning: Abnormal network connection [Detail: Failed to connect to the default gateway interface LAN X on passive server.]

Warning Abnormal network connection. **Detail**: Failed to connect to the default gateway interface LAN X on My_Passive_Hostname (passive server). **Suggestion**: Make sure the Ethernet cables of default gateway interface LAN X on both My_Active_Hostname (active server) and My_Passive_Hostname (passive server) are properly connected. If the problem persists, please use another cable.	
LED Indicator	Passive server • LED on the LAN port: Off
Description	The default gateway interface LAN X on the passive server cannot be accessed.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.
Resolution	1. Do the following for the passive server: • Make sure that the Ethernet cable between the LAN X and the switch is attached properly, or replace it with another Ethernet cable. • Try another network port on the switch, or use another switch. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2.16 Warning: Abnormal network connection [Detail: The following network interfaces on the passive server failed to connect: Bond Z:[LAN Y].]

Warning Abnormal network connection.	
Detail: The following network interfaces on passive server My_Passive_Hostname failed to connect: Bond Z:[LAN Y].	
Suggestion: Make sure the Ethernet cable between the switch and interface Bond Z:[LAN Y] on passive server My_Passive_Hostname is properly connected. If the problem persists, please change the Ethernet cable.	
LED Indicator	Passive server • LED on the LAN port: Off
Description	On the passive server, the LAN Y connection belonging to bond Z is abnormal. As a result, the transmission speed and fault tolerance of bond Z will be reduced.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.

Resolution	1. Do the following on the passive server:
	  • Make sure that the Ethernet cable between LAN Y and the switch is attached properly, or replace it with another Ethernet cable.
	  • Try another network port on the switch, or use another switch.
	2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unable to detect the connection of the following network interface on My_Passive_Hostname (passive server): Bond Z:[LAN Y]]
Possible Logs	• [warning] Unable to detect the connection of the following network interface on My_Passive_Hostname (passive server): Bond Z:[LAN Y].

2.2.17 Warning: Abnormal network connection [Detail: The following network interfaces on passive server failed to connect: LAN X.]

Warning Abnormal network connection.	
Detail: The following network interfaces on passive server My_Passive_Hostname failed to connect: LAN X.	
Suggestion: Make sure the Ethernet cable between the switch and cluster interface LAN X on passive server My_Passive_Hostname is properly connected. If the problem persists, please use another Ethernet cable.	
LED Indicator	Passive server • LED on the LAN port: Off
Description	On the passive server, the connection of the network interface LAN X is abnormal. If the system performs an auto-failover or switchover, the services using LAN X for connection may be affected.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.

Resolution	1. Do the following on the passive server: • Make sure that the Ethernet cable between LAN X and the switch is attached properly, or replace it with another Ethernet cable. • Try another network port on the switch, or use another switch. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unable to detect cluster connection on My_Passive_Hostname (passive server) of the following network interfaces: LAN X]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Unable to detect cluster connection on My_Passive_Hostname (passive server) of the following network interfaces: LAN X.

2.2.18 Warning: Abnormal network connection [Detail: The following network interfaces on the active server failed to connect: Bond Z:[LAN Y].]

Warning	
Abnormal network connection.	
Detail: The following network interfaces on the active server My_Active_Hostname failed to connect: Bond Z:[LAN Y].	
Suggestion: Make sure the Ethernet cable between the switch and interface Bond Z:[LAN Y] on active server My_Active_Hostname is properly connected. If the problem persists, please change the Ethernet cable.	
LED Indicator	Active server • LED on the LAN port: Off
Description	On the active server, the LAN Y connection belonging to bond Z is abnormal. As a result, the transmission speed and fault tolerance of bond Z is reduced.
Cause	This error is usually caused by hardware issues, such as loose cables, broken cables, or switch malfunctions.
Resolution	1. Do the following on the passive server: • Make sure that the Ethernet cable between LAN Y and the switch is attached properly, or replace it with another Ethernet cable. • Try another network port on the switch, or use another switch. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unable to detect the connection of the following network interface on My_Active_Hostname (active server): Bond Z:[LAN Y]]
Possible Logs	• [warning] Unable to detect the connection of the following network interface on My_Active_Hostname (active server): Bond X:[LAN Y]. • [info] [LAN Y] link down.

2.2.19 Warning: Abnormal quorum server connection [Detail: Active server cannot detect the quorum server.]

Warning	
Abnormal quorum server connection.	
Detail: Active server My_Active_Hostname cannot detect the quorum server.	
Suggestion: Make sure the connection between active server My_Active_Hostname and the quorum server is properly connected and the quorum server is running.	
Description	• The active server cannot detect the quorum server via PING. • As long as the connection between the active and passive servers is normal, the cluster will not perform auto-failover.
Cause	The connection between the active server and the quorum server is abnormal.

Resolution	1. Do the following to make sure the quorum server can accept and respond to PING messages from the active server:
	
	  • Make sure that there are no hardware issues, such as loose cables, broken cables, or switch malfunctions.
	  • Make sure the routing rules on the host, switch, and router are configured correctly.
	  • Make sure that the connection between the active server and the quorum server is not blocked by any network rules.
	2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: My_Active_Hostname (active server) cannot detect the quorum server]
Possible Logs	• [warning] My_Active_Hostname (active server) cannot detect the quorum server.

2.2.20 Warning: Abnormal quorum server connection [Detail: Both the active server and the passive server cannot detect the quorum server.]

Warning	
Abnormal quorum server connection.	
Detail: Both active server My_Active_Hostname and passive server My_Passive_Hostname cannot detect the quorum server.	
Suggestion: Please make sure the quorum server is running. Check to make sure that the active server My_Active_Hostname, passive server My_Passive_Hostname, and the quorum server are all connected properly.	
Description	The active server and the passive server cannot detect the quorum server via PING.
Cause	The connection between the active/passive servers and the quorum server is abnormal.

Resolution	1. Do the following to make sure the quorum server can accept and respond to PING messages from the active and passive servers: • Make sure that there are no hardware issues, such as loose cables, broken cables, or switch malfunctions. • Make sure that the connections between the hosts (active and passive servers) and the quorum server are not blocked by any network rules. • Make sure that the routing rules on all hosts, switches, and routers are configured correctly. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: My_Active_Hostname (active server) cannot detect the quorum server] • Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: My_Passive_Hostname (passive server) cannot detect the quorum server]
Possible Logs	• [warning] My_Active_Hostname (active server) cannot detect the quorum server. • [warning] Auto failover is temporarily unavailable: My_Passive_Hostname (passive server) cannot detect the quorum server.

2.2.21 Warning: Abnormal quorum server connection [Detail: None]

Warning Abnormal quorum server connection. **Suggestion**: Make sure that the passive server My_Passive_Hostname and the quorum server are properly connected.	
Description	The passive server cannot detect the quorum server via PING.
Cause	The connection between the passive server and the quorum server is abnormal.
Resolution	1. Do the following to make sure the quorum server can accept and respond to PING messages from the passive server: • Make sure that there are no hardware issues, such as loose cables, broken cables, or switch malfunctions. • Make sure that the connection between the passive server and the quorum server is not blocked by any network rules. • Make sure that the routing rules on all hosts, switches, and routers are configured correctly. 2. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: My_Passive_Hostname (passive server) cannot detect the quorum server]
Possible Logs	• [warning] Auto failover is temporarily unavailable: My_Passive_Hostname (passive server) cannot detect the quorum server.

2.2.22 Warning: An SSD cache on the passive server crashed

Warning An SSD cache on passive server My_Passive_Hostname crashed. **Suggestion**: Replace the failed SSD on passive server My_Passive_Hostname with a new one and repair the SSD cache in **Storage**.	

LED Indicator	Passive server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• The SSD cache and its data on the passive server may be corrupted. • The system is unable to perform auto-failover while in this state.
Cause	A hard disk error may have occurred on the passive server.
Resolution	Refer to the **Crashed storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: One or more crashed volume/LUN detected on My_Passive_Hostname (passive server)] • SSD Cache X on My_Passive_Hostname (My_SHA_Hostname) has crashed
Possible Logs	• [warning] Auto failover is temporarily unavailable: One or more crashed volume/LUN detected on My_Passive_Hostname (passive server).

2.2.23 Warning: An SSD cache on the passive server is degraded

Warning An SSD cache on passive server My_Passive_Hostname is degraded. **Suggestion**: Replace the failed SSD with a new one on the passive server My_Passive_Hostname and repair the SSD cache in Storage.	
LED Indicator	Passive server • The LED of the damaged drive: Static orange or off
Description	The SSD cache on the passive server is degraded, but your data is still available.
Cause	A hard disk error may have occurred on the passive server.
Resolution	Replace the damaged drive with a healthy drive. Refer to the **Degraded storage space or SSD cache** section in **2.3.1 Repair volumes on the passive server** to repair the storage space.
Related Notifications	• SSD cache X on My_Passive_Hostname (My_SHA_Hostname) has degraded

2.2.24 Warning: Assemble failed on passive server

Warning Assemble failed on My_Passive_Hostname (passive server). **Suggestion**: Make sure the drives are all installed properly on My_Passive_Hostname (passive server) and then go to **Storage** to repair the volume/LUN.	

LED Indicator	Passive server
	• Models without ALERT LED:
	  • STATUS: Static orange
	• Models with ALERT LED:
	  • STATUS: Static green
	  • ALERT: Blinking orange or red
	The ALERT and STATUS LEDs are located on the front of your device. Refer to your device's **Hardware Installation Guide** for more details.

Description	• Storage assemble failed on the passive server and its data is currently unavailable. • The system is unable to perform auto-failover while in this state.
Cause	The drive itself or the data on the drive is abnormal, causing the storage space to be assembled incorrectly.
Resolution	1. Replace the damaged drive with a healthy drive and install it in the original slot. 2. Go to **Storage Manager** > **Storage** for instructions on how to proceed. 3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Unable to assemble Storage Pool X. Please go to Storage Manager > Storage for more information

2.2.25 Warning: The DSM versions on the hosts are inconsistent

Warning The DSM versions on the hosts are inconsistent. **Detail**: The switchover service of the high-availability cluster is temporarily suspended. My_Active_Hostname (active server): 7.0-41890 My_Passive_Hostname (passive server): 6.2.4-25556 **Suggestion**: Contact **Synology Technical Support** for further assistance.	
Description	The DSM versions on the active and passive servers are different .
Cause	This warning is usually caused by an error that occurs during a Synology High Availability package update, which resulted in only one of the servers being upgraded.

Resolution	If the version on the active server is higher: 1. Go to **Cluster** and click **Manage** > **Remove passive server**. 2. The active server will continue to provide services and the passive server will become return to standalone status. 3. Update the passive server to the same DSM version as the active server. 4. Refer to **Chapter 3.2: Create a cluster** of the **Synology High Availability (SHA) User Guide** for instructions on how to add the passive server back to the cluster. If the version on the active server is lower: 1. Go to **Cluster** and click **Manage** > **Remove passive server**. 2. On the active server, go to **Cluster** and click **Manage** > **Update DSM**. The cluster will stop providing services for a short period of time. 3. Refer to **Chapter 3.2: Create a cluster** of the **Synology High Availability (SHA) User Guide** for instructions on how to add the passive server back to the cluster.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: DSM version mismatch]
Possible Logs	• [warning] Auto failover is temporarily unavailable: DSM version mismatch.

2.2.26 Warning: Detected mismatch of Fibre Channel adapters

Warning Detected mismatch of Fibre Channel adapters. **Detail**: Detected that the Fibre Channel adapters on My_Active_Hostname (active server) and My_Passive_Hostname (passive server) do not match in terms of their models or the slots where they are installed. **Suggestion**: Shut down My_Passive_Hostname (passive server) and replace the Fibre Channel adapter.	
Description	The system detected that the Fibre Channel adapters are different on the active and passive servers.
Cause	There are two possible causes: • Different models of the Fibre Channel adapters are being used. • The Fibre Channel adapters are installed in the different slots.
Resolution	Replace the Fibre Channel adapter or change the installation slot on the passive server to make them identical with the ones on the active server.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Detected an abnormal Fibre Channel adapter on My_Passive_Hostname (passive server)]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Detected an abnormal Fibre Channel adapter on My_Passive_Hostname (passive server).

2.2.27 Warning: Drive error detected on active server

Warning	
Drive error detected on My_Active_Hostname (active server).	
Detail: One or more drives on My_Active_Hostname (active server) degraded: Drive B.	
Suggestion: Replace the failed drives with new ones on My_Active_Hostname (active server).	
LED Indicator	Active server • The LED of the damaged drive: Static orange or off
Description	There are one or more unhealthy drives on the active server, but your data is still available.
Cause	A hard disk error may have occurred on the active server.
Resolution	1. Go to **Synology High Availability** > **Storage** > **HDD/SSD**. 2. Check on which drive the error occurred. 3. Replace the damaged drive with a healthy drive. Refer to the **Degraded storage space or SSD cache** section in **2.3.2 Repair volumes on the active server** to repair the storage space.

2.2.28 Warning: Drive error detected on the passive server

Warning	
Drive error detected on My_Passive_Hostname (passive server).	
Detail: One or more drives on My_Passive_Hostname (passive server) degraded: Drive B.	
Suggestion: Replace the failed drives with new ones on My_Passive_Hostname (passive server).	
LED Indicator	Passive server • The LED of the damaged drive: Static orange or off
Description	There are one or more unhealthy drives on the passive server, but your data is still available.
Cause	A hard disk error may have occurred on the passive server.
Resolution	1. Go to **Synology High Availability** > **Storage** > **HDD/SSD**. 2. Check on which drive the error occurred. 3. Replace the damaged drive with a healthy drive. Refer to the **Missing storage space or SSD cache** section in **2.3.2 Repair volumes on the active server** to repair the storage space.

2.2.29 Warning: Errors detected in certain services

Warning Errors detected in certain services. **Detail**: The system detected some errors in the following services on passive server My_Passive_Hostname: Service A. **Suggestion**: Restart passive server My_Passive_Hostname. If the problem persists, please contact **Synology Technical Support** for further assistance.	
Description	• The system detected an error on one of the **monitored services**. • The active server will perform auto-failover whenever it detects an error in the monitored service (as long as the passive server is functioning normally). Once the failover is completed, the cluster will enter this state. • The system will continue to provide services normally. However, since there are still errors on the new passive server, failover and switchover functions will be unavailable.
Cause	• The monitored service was abnormal on the original active server, so the system failed over to the passive server. • After auto-failover, the active server where the problem occurred will become the passive server and this warning will occur.
Resolution	1. Restart the passive server where the problem occurred. 2. If the issue persists, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Service failure detected on My_Passive_Hostname (passive server)]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Service failure detected on My_Passive_Hostname (passive server).

2.2.30 Warning: Failed to sync data from the active server to the passive server

Warning Failed to sync data from active server My_Active_Hostname to passive server My_Passive_Hostname. **Suggestion**: Make sure passive server My_Passive_Hostname is powered on, its network connections are properly attached, and any storage-related issues are resolved in **Storage**.	
Description	The active server cannot be synced to the passive server. The data on the active server can be accessed normally, but the data on the passive server may be inconsistent.
Cause	The data cannot be correctly synchronized because either the network connection or the passive server's storage space are abnormal.
Resolution	1. Make sure that the Ethernet cable for the Heartbeat connection is attached properly or replace it with another one. 2. Make sure that the passive server is powered on. 3. Go to **Synology High Availability** > **Storage**. 4. Make sure that there are not any other errors on the cluster. 5. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Data synchronization failed]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Data synchronization failed.

2.2.31 Warning: Hybrid high-availability cluster does not support Hybrid Share

Warning	
Hybrid high-availability cluster does not support Hybrid Share.	
Detail: The switchover service of the high-availability cluster is temporarily suspended.	
Suggestion: Please refer to **this article** for more information.	
Description	A hybrid high-availability cluster cannot fully support Hybrid Share due to differences in the two models. You will not be able to perform switchover or failover.
Cause	Hybrid Share is not supported on clusters that consist of two different models (hybrid high-availability cluster).
Resolution	If you want to use Hybrid Share, you must migrate your drives to servers of the same model and create a new high-availability cluster.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Hybrid high-availability cluster does not support Hybrid Share]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Hybrid high-availability cluster does not support Hybrid Share Service.

2.2.32 Warning: Incorrect network configuration

Warning	
The Heartbeat interface LAN X should not be set as the default gateway.	
Suggestion: Go to **Network** to set a non-Heartbeat network interface as the default gateway.	
Description	Heartbeat interface LAN X is set as the default gateway, but Heartbeat interfaces cannot connect to the internet.
Cause	Heartbeat interface LAN X is set as the default gateway before the high availability cluster was created.
Resolution	Go to **Synology High Availability** > **Network** and set a network interface other than the Heartbeat network interface as the default gateway.

2.2.33 Warning: Incorrect network configurations [Detail: Open vSwitch configurations on the active server and the passive server are not identical.]

Warning	
Incorrect network configurations.	
Detail: Open vSwitch configurations on My_Active_Hostname (active server) and My_Passive_Hostname (passive server) are not identical.	
Suggestion: Please contact Synology Technical Support for further assistance.	
Description	The Open vSwitch settings on the active server and the passive server are inconsistent, affecting the network connection.
Cause	When you enabled or disabled Open vSwitch, an unexpected error occurred that caused the two hosts' Open vSwitch settings to be inconsistent.
Resolution	Refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2.34 Warning: Incorrect network configurations [Detail: The IP addresses of active server and passive server in the high-availability cluster of the following network interfaces are not in the same subnet: LAN X]

Warning	
Incorrect network configurations.	
Detail: The IP addresses of My_Active_Hostname (active server) and My_Passive_Hostname (passive server) in the high-availability cluster of the following network interfaces are not in the same subnet: LAN X	
Suggestion: Go to **Network** to modify network settings.	
Description	The IP addresses of the cluster interface LAN X on the active and passive servers are not in the same subnet. Once the service is switched over, services using LAN X may be affected.
Cause	The network cables of the active and passive servers are mistakenly connected to different subnets. Thus, each server obtains DHCP IP addresses from different network segments.
Resolution	• If LAN X is using **DHCP IP**, make sure that the network cables for LAN X on the active and passive servers are connected to ports belonging to the same subnet. Otherwise, you can edit the network settings on the DHCP server so that the IP addresses belong to the same subnet. • If LAN X is using a **static IP**, go to **Synology High Availability** > **Network**, select LAN X, and click **Manage Network Interface**. Then, click **Configure Server Network** and select **Use manual configuration**. You can then modify the network settings so that the IP addresses are in the same subnet.

2.2.35 Warning: Incorrect network configurations [Detail: The gateway address of default gateway interface LAN X on the active server is not set.]

Warning	
Incorrect network configurations.	
Details: The gateway address of default gateway interface LAN X on My_Active_Hostname (active server) is not set.	
Suggestion: Go to **Network** and set the gateway address for the default gateway interface LAN X on My_Active_Hostname (active server).	
Description	The gateway address of default gateway interface LAN X on the active server is not set.
Cause	LAN X is set as the default gateway but the gateway address is not set.
Resolution	Go to **Synology High Availability** > **Network**, click **Configure Server Network**, and then fill in the gateway IP address for the active server.

2.2.36 Warning: Incorrect network configurations [Detail: The gateway address of default gateway interface LAN X on the passive server is not set.]

Warning	
Incorrect network configurations.	
Detail: The gateway address of default gateway interface LAN X on My_Passive_Hostname (passive server) is not set.	
Suggestion: Go to **Network** and set the gateway address for the default gateway interface LAN X on My_Passive_Hostname (passive server).	
Description	The gateway address of default gateway interface LAN X on the passive server is not set.
Cause	LAN X is set as the default gateway but the gateway address is not set.
Resolution	Go to **Synology High Availability** > **Network**, click **Configure Server Network**, and then fill in the gateway IP address for the passive server.

2.2.37 Warning: Incorrect network configurations [Detail: The gateway addresses of default gateway interface LAN X on the active and passive servers are not set.]

Warning	
Incorrect network configurations.	
Detail: The gateway addresses of default gateway interface LAN X on My_Active_Hostname (active server) and My_Passive_Hostname (passive server) are not set.	
Suggestion: Go to **Network** and set the gateway address for the default gateway interface LAN X on both My_Active_Hostname (active server) and My_Passive_Hostname (passive server).	
Description	The gateway addresses of default gateway interface LAN X on the active and passive servers are not set.
Cause	LAN X is set as the default gateway but the gateway address is not set.
Resolution	Go to **Synology High Availability** > Network, click Configure Server Network, and then fill in the gateway IP address for the active and passive servers.

2.2.38 Warning: Incorrect network configurations [Details: The network settings—including DHCP, Gateway, and DNS Server—of the following interfaces on the active and passive servers are not identical: LAN X.]

Warning	
Incorrect network configurations.	
Detail: The network settings—including DHCP, Gateway, and DNS Server—of the following interfaces on My_Active_Hostname (active server) and My_Passive_Hostname (passive server) are not identical: LAN X.	
Suggestion: Go to **Network** to modify network settings.	
Description	The network settings (DHCP, gateway, and DNS server) of the cluster interface LAN X on the active and the passive servers are inconsistent. Once the service is switched over, services using LAN X may be affected.
Cause	The active and passive servers are each connected to different DHCP servers, resulting in different network settings (gateway address or DNS server address) on each server.
Resolution	• If LAN X is using **DHCP IP**, edit the network settings on the DHCP server so that the gateway addresses or DNS server addresses that the active and passive servers obtain from the DHCP server are the same. • If LAN X is using a **static IP**, go to **Network** > **Manage Network Interface** > **Configure Server Network**, and select **Use manual configuration**. Then, modify the network settings so that the gateway addresses and DNS server addresses are the same for both the active and passive servers.

2.2.39 Warning: Incorrect network configurations [Detail: The primary cluster interface LAN X on the active server and the passive server must be assigned a static IP address.]

Warning	
Incorrect network configurations.	
Detail: The primary cluster interface LAN X on My_Active_Hostname (active server) and My_Passive_Hostname (passive server) must be assigned a static IP address.	
Suggestion: Go to **Network** and assign static IP address for primary cluster interface LAN X on My_Active_Hostname (active server) and My_Passive_Hostname (passive server).	
Description	The IP addresses set on primary cluster interface LAN X for the active and passive servers are not static IP addresses. Therefore, the two servers will not be able to communicate via the primary cluster interface.
Cause	This error usually occurs after the two servers' hard disks have been migrated. When this is done, LAN 1 will be automatically set to DHCP, where LAN 1 is the primary cluster interface.
Resolution	Go to **Network** > **Manage Network Interface** > **Configure Server Network**, select **Use manual configuration** and modify the network settings to assign a static IP address for the primary cluster interface on each server.

2.2.40 Warning: Incorrect network configurations [Detail: The primary cluster interface LAN X on the active server must be assigned a static IP address.]

Warning	
Incorrect network configurations.	
Detail: The primary cluster interface LAN X on My_Active_Hostname (active server) must be assigned a static IP address.	
Suggestion: Go to **Network** and assign a static IP address for primary cluster interface LAN X on My_Active_Hostname (active server).	
Description	The IP address set on the primary cluster interface LAN X for the active server is not a static IP address. Therefore, the two servers will not be able to communicate via the primary cluster interface.
Cause	This error usually occurs after the active server's hard disks have been migrated. When this is done, LAN 1 will be automatically set to DHCP, where LAN 1 is the primary cluster interface.
Resolution	Go to **Network** > **Manage Network Interface** > **Configure Server Network**, select **Use manual configuration** and modify the network settings to assign a static IP address for the primary cluster interface on the active server.

2.2.41 Warning: Incorrect network configurations [Detail: The primary cluster interface LAN X on the passive server must be assigned a static IP address.]

Warning	
Incorrect network configurations.	
Detail: The primary cluster interface LAN X on My_Passive_Hostname (passive server) must be assigned a static IP address.	
Suggestion: Go to **Network** and assign a static IP address for primary cluster interface LAN X on My_Passive_Hostname (passive server).	
Description	The IP address set on the primary cluster interface LAN X for the passive server is not a static IP address. Therefore, the two servers will not be able to communicate through the primary cluster interface.
Cause	This error usually occurs after the passive server's hard disks have been migrated. When this happens, LAN 1 will be automatically set to DHCP, where LAN 1 is the primary cluster interface.
Resolution	Go to **Network** > **Manage Network Interface** > **Configure Server Network**, select **Use manual configuration** and modify the network settings to assign a static IP address for the primary cluster interface on the passive server.

2.2.42 Warning: No passive server in the high-availability cluster

Warning	
No passive server in the high-availability cluster.	
Suggestion: Click **Manage** to **add a passive server**.	
Description	Only the active server remains in the cluster and services are still running as normal. However, your cluster is not protected by the passive server.

Cause	• Manually triggered by users:
	  • From replacing the passive server
	  • From resolving a split-brain error and choosing to keep all server data
	• Automatically triggered by DSM or package update errors: If one of the servers has any unresolved errors an update, Synology High Availability may remove it from the cluster to prevent service interference.

Resolution	Add the passive server back to the cluster as soon as possible, so that the system can continue to provide high-availability. 1. Make sure the removed server is powered on and you can sign in to it. If you cannot sign in, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance. 2. Refer to **Chapter 3.2: Create a cluster** of the **Synology High Availability (SHA) User Guide** for instructions on how to add a passive server to an existing cluster.
Related Notifications	• The system is removing host [My_Passive_Hostname] from the high-availability cluster [My_SHA_Hostname]

Possible Logs	• [info] Started to remove My_Passive_Hostname (passive server) from the cluster (My_SHA_Hostname).
	• [info] My_Passive_Hostname (passive server) was removed from the cluster (My_SHA_Hostname).
	• [info] Split-brain error manually resolved. My_Active_Hostname is now the active server and My_Passive_Hostname was removed from the cluster.
	• [warning] Failed to add My_Passive_Hostname (passive server) to the cluster (My_SHA_Hostname).
	• [warning] Host My_Passive_Hostname was removed from the cluster (My_SHA_Hostname): Update failure.

2.2.43 Warning: SSD cache on the active server is degraded

Warning	
SSD cache on active server My_Active_Hostname is degraded.	
Suggestion: Replace the failed SSD with a new one on active server My_Active_Hostname and repair the SSD cache in **Storage**.	
LED Indicator	Active server • The LED of the damaged drive: Static orange or off
Description	The SSD cache on the active server is degraded, but your data is still available.
Cause	A hard disk error may have occurred on the active server.
Resolution	Replace the damaged drive with a healthy drive. Refer to the **Degraded storage space or SSD cache** section in **2.3.2 Repair volumes on the active server to repair** the storage space.
Related Notifications	• SSD cache X on My_Active_Hostname (My_SHA_Hostname) has degraded
Possible Logs	• SSD Cache [X] has degraded [1/2], please repair it.

2.2.44 Warning: The Synology High Availability package version on the hosts is inconsistent

Warning	
The Synology High Availability package version on the hosts is inconsistent.	
Detail: The switchover service of the high-availability cluster is temporarily suspended.	
My_Active_Hostname (active server): 2.0.8-0579	
My_Passive_Hostname (passive server): 2.0.6-0575	
Suggestion: Contact Synology Technical Support for further assistance.	
Description	The Synology High Availability package version is different on the active and passive servers.
Cause	This warning is usually caused by an error that occurs during a Synology High Availability package update, which resulted in only one of the servers being upgraded.

Resolution	If the version on the active server is **higher**: 1. Go to **Cluster** and click **Manage** > **Remove passive server**. 2. The active server will continue to provide services and the passive server will return to standalone status. 3. Update the passive server to the same package version as the active server. 4. Refer to **Chapter 3.2: Create a cluster** of the **Synology High Availability (SHA) User Guide** for instructions on how to add the passive server back to the cluster. If the version on the active server is **lower**: 1. Go to **Cluster** and click **Manage** > **Remove passive server**. 2. On the active server, go to **Cluster** and click **Manage** > **Update package**. The cluster will stop providing services for a short period of time. 3. Refer to **Chapter 3.2: Create a cluster** of the **Synology High Availability (SHA) User Guide** for instructions on how to add the passive server back to the cluster.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Synology High Availability version mismatch]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Synology High Availability version mismatch.

2.2.45 Warning: Unable to detect passive server

Warning Unable to detect passive server My_Passive_Hostname. **Suggestion**: Make sure passive server My_Passive_Hostname is powered-on and all network connections are properly made.	
Description	The system cannot detect the passive server, but services are still running as normal. Your cluster is not protected by the passive server.
Cause	• Manually triggered by users: Passive server was powered off. • Automatically triggered by internal errors: Passive server hard drive errors or software crashes
Resolution	Do the following on the passive server: 1. Confirm that the passive server is powered on and the LED indicators light up normally. 2. Check the LAN LED indicators on the passive server and make sure that it is properly connected to the external network. 3. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unable to detect My_Passive_Hostname (passive server)]
Possible Logs	• [info] My_Passive_Hostname (passive server) was shut down. • [warning] Auto failover is temporarily unavailable: Unable to detect My_Passive_Hostname (passive server).

2.2.46 Warning: Unable to synchronize system configurations from the active server to the passive server

Warning	
Unable to synchronize system configurations from My_Active_Hostname (active server) to My_Passive_Hostname (passive server).	
Detail: The switchover service of the high-availability cluster is temporarily suspended.	
Suggestion: Contact Synology Technical Support for further assistance.	
Description	The active server cannot synchronize its system configurations to the passive server. The system cannot perform a switchover or an auto-failover while in this state.
Cause	Synology High Availability cannot fully monitor and synchronize the system configurations due to unexpected errors, such as insufficient system resources.
Resolution	Refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unable to synchronize system configurations]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Unable to synchronize system configurations.

2.2.47 Warning: Unexpected errors detected on the passive server

Warning	
Unexpected errors detected on passive server My_Passive_Hostname.	
Suggestion: Restart passive server My_Passive_Hostname. If the problem persists, please contact Synology Technical Support for further assistance.	
Description	The passive server is unable to determine its status or role in the cluster.
Cause	This is often caused by a software issue. This usually occurs when the system is unstable, such as when powering on the cluster.
Resolution	Check the cluster status again once the system is stable. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.
Related Notifications	• Status of high-availability cluster My_SHA_Hostname is abnormal [Detail: Unknown error in high-availability cluster My_SHA_Hostname]
Possible Logs	• [warning] Auto failover is temporarily unavailable: Unknown error in high-availability cluster My_SHA_Hostname.

2.2.48 Warning: Unrecognized system status

Warning	
Unrecognized system status	
Detail: The status of Synology High Availability is currently unavailable.	
Suggestion: If the problem persists, please contact Synology Technical Support for further assistance.	
Description	The system is unable to determine the cluster status.
Cause	The system was unable to properly display the cluster status for more than ten minutes.
Resolution	Restart the cluster and check the cluster status again. If you are still unable to resolve the issue, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.2.49 Warning: Unstable Heartbeat connection

Warning	
Unstable Heartbeat connection.	
Suggestion: If the problem persists, please contact Synology Technical Support for further assistance.	
Description	The system is unable to obtain the details of the Heartbeat connection, such as the **Transfer Speed** and **Latency**. This information will not be displayed on the **Cluster** page.
Cause	Because the system is overloaded, there are insufficient resources for the system to obtain the details of the Heartbeat connection.
Resolution	1. Wait for a while and then check the status again. This status may only appear temporarily whenever the system is busy. 2. If the problem persists, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

2.3 Repair abnormal volumes

2.3.1 Repair volumes on the passive server

Missing storage space or SSD cache

Missing storage spaces or SSD caches are caused by drives being installed incorrectly or drives being moved to different slots. In this case, the passive server's storage space may be unavailable.[1]

Reassemble the volume

1. On the active server, go to **Storage Manager** and click on the storage pools to check which drive is missing.

2. Install the drive into the correct slot on the passive server.

3. Go to **Synology High Availability** > **Storage**. Select the volume with the "Missing" status and click **Repair**.

4. A message will pop-up confirming that the system will reassemble the volume.

Recreate the volume

If your volume cannot be repaired via the method above, you can try to remove and recreate the volume instead. Doing this will erase the passive server data. Once the volume is repaired, the system will need to synchronize all of the active server data to the passive server. Please note that switchover and auto-failover will not be available during synchronization.

1. On the active server, go to **Storage Manager** and check which drive is missing.

2. Install the drive into the correct slot on the passive server.

3. Go to **Synology High Availability** > **Storage**. Select the volume and click **Repair**.

4. A message will pop-up confirming that the system will repair the volume and erase all of the data on the drive.

Notes:

1. If only the read-only cache is missing, the data on the passive server will still be available.

Crashed storage space or SSD cache

Crashed storage spaces or SSD caches are usually caused by drive errors. You will need to replace the drive with a healthy one and recreate the volume. In the case of a crashed volume, the passive server data may be unavailable.[1]

1. On the active server, go to **Storage Manager** or **Synology High Availability** > **Storage** to find out which storage pool the crashed volume belongs to.

2. Go to **Synology High Availability** > **Storage** > **HDD/SSD** to find out which drive crashed and replace it with a healthy drive.

3. Go to **Synology High Availability** > **Storage**. Select the crashed volume and click **Repair**.

> **Notes:**
> 1. The passive server data will still be available:
>   -   If the read-only cache is crashed.
>   -   If the data is written to a read-write cache.

Degraded storage space or SSD cache

Volume degradation is usually caused by drive errors. If your RAID type can sustain the drive failures when volume degradation occurs, then the data on the drive is temporarily safe. However, we recommend you to repair it as soon as possible to avoid future errors on other drives.

1. On the active server, go to **Storage Manager** or **Synology High Availability** > **Storage** to find out which storage pool the degrade volume belongs to.

2. Go to **Synology High Availability** > **Storage** > **HDD/SSD** to find out which drive is degraded and replace it with a healthy drive.

3. Go to **Synology High Availability** > **Storage**. Select the crashed volume and click **Repair**. The time needed for repair depends on the size of the storage pool, and the system performance may be impacted.

Read-only storage space or SSD cache

Storage spaces or SSD caches become "read-only" when the storage pool has previously had an error, causing the system to designate the storage pool as read-only to safeguard data.

1. On the active server, go to **Storage Manager** or **Synology High Availability** > **Storage** > **Volume** to find out which storage pool is read-only.

2. Go to **Synology High Availability** > **Storage** > **HDD/SSD** to find out which drive is read-only and replace it with a healthy drive.

3. Go to **Synology High Availability** > **Storage**. Select the crashed volume and click **Repair**. After the volume is repaired, the system will need to synchronize all of the data from the active server to the passive server. Switchover and auto-failover are not available during synchronization.

2.3.2 Repair volumes on the active server

Missing storage space or SSD cache

Missing storage spaces or SSD caches are caused by drives being installed incorrectly or drives being moved to different slots. In this case, the active server's storage space may be unavailable.[1]

Reassemble the volume

1. On the active server, go to **Storage Manager** > **Storage** to see which slot is missing a drive.

2. Install the drive into the correct slot on the active server. If the read/write cache is also lost, make sure that the drive that the read/write cache is on is also installed correctly.

3. Go back to **Storage Manager** > **Storage**, and click on the storage pool to expand its information.

4. Click the upper-right icon ••• and select **Online Assemble**.[2]

Re-create the volume

If the volume cannot be repaired using the methods above, you can perform a force failover to make the passive server take over services.

1. Go to **Synology High Availability** > **Cluster** and click **force failover** in the suggestion.

2. Because the volume on the active server is missing, the data on the two servers may be inconsistent. So, the passive server will be shown as **damaged** in Synology High Availability.

3. Follow the steps in the **Missing storage space or SSD cache** section of **2.3.1 Repair volumes on the passive server**.

Crashed storage space or SSD cache

Crashed storage spaces or SSD caches are usually caused by drive errors. In this case, the active server data may be unavailable.[1] As long as the system is operating normally, the passive server will take over to provide services. However, the passive server cannot take over if it has any other errors on it.

Follow the steps below to check or fix any errors on the passive server before the system performs auto-failover. Once the the devices have switched over, refer to the **Crashed storage space or SSD cache** section of **2.3.1 Repair volumes on the passive server** to continue the repair.

1. Check your logs, notifications, or emails for any errors that may have occurred on the passive server.

2. Make sure that the passive server is powered on and its Ethernet cable is connected properly.

3. If the devices are still unable to fail over, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

> **Notes:**
> 1. If only the read-only cache is missing, the data on the active server will still be available.
> 2. **Online Assemble** cannot be used for missing read-only caches. Instead, remove the missing read-only cache and then re-create it.

Degraded storage space or SSD cache

Volume degradation is usually caused by drive errors. However, the RAID type of the storage pool can sustain the drive failures when volume degradation occurs. The data on the drive is temporarily safe, but we recommend you to repair it as soon as possible to avoid future errors on other drives.

1. On the active server, go to **Storage Manager** or **Synology High Availability** > **Storage** > **Volume** to find out which storage pool is degraded.

2. Go to **Synology High Availability** > **Storage** > **HDD/SSD** or **Storage Manager** > **HDD/SSD** to find out which drive is degraded and replace it with a healthy drive.

3. Go to **Synology High Availability** > **Storage**. Select the crashed volume and click **Repair**. The time needed for repair depends on the size of the storage pool, and the system performance may be impacted.

Read-only storage space or SSD cache

Storage spaces or SSD caches become "read-only" when the storage pool has previously had an error, causing the system to designate the storage pool as read-only to safeguard data. If the volume on the active server is read-only, the volume on the passive server will also become read-only.

On the active server, go to **Storage Manager** > **Storage** and follow the instructions displayed to repair the volume.

2.3.3 Repair volumes on both servers

If the same storage space or SSD cache on both servers is abnormal

If both of the storage spaces or SSD caches on the active and passive servers are abnormal, go to **Synology High Availability** > **Storage** to check the issue. Follow the instructions below according to the respective status.

Storage space or SSD cache missing on the active server:

Follow the instructions in the **Missing storage space or SSD cache** section of **2.3.2 Repair volumes on the active server**. After reassembling the volume, refer to the **Missing storage space or SSD cache** section of **2.3.1 Repair volumes on the passive server** to fix the issue on the passive server. If the storage space of the active server cannot be reassembled and the forced failover cannot be performed, make sure that the drive on the passive server is properly installed, and then restart the Synology High Availability cluster.

Storage space or SSD cache crashed on the active server:

Follow the instructions in the **Crashed storage space or SSD cache** section of **2.3.2 Repair volumes on the active server**.

Storage space or SSD cache became read-only on the active server:

On the active server, go to **Storage Manager** > **Storage** and follow the instructions displayed to repair the volume.

Other errors on both servers:

On the active server, go to **Synology High Availability** > **Storage**. Select the volume where the error occurred and click **Repair**. Replace the damaged drive according to the instructions displayed.

If a different storage space or SSD cache on each server is abnormal

If different errors occurred on different volumes on each server, follow the steps below:

1. **Reassemble the missing volume on the active server** and then **reassemble the missing volume on the passive server**.

2. **Repair the read-only volume on the active server**.

3. **Repair the crashed volume** or **repair the read-only volume** on the passive server.

4. Check if there is still a missing or crashed volume on the active server. If so, follow the instructions below:

    a. If the read-only cache is missing or crashed, remove the cache and re-create it.

    b. Go to **Synology High Availability** > **Cluster**, and check if the force-failover option is available. If it is available, follow the instructions in the **Missing storage space or SSD cache** section of **2.3.2 Repair volumes on the active server**.

Troubleshoot other errors on the passive server.

1. Check your logs, notifications, or emails for any errors that may have occurred on the passive server.

2. Make sure that the passive server is powered on and its Ethernet cable is connected properly.

3. If none of the above methods worked, refer to **Chapter 3: Contact Customer Service** to contact Synology Technical Support for further assistance.

4. **Repair the degraded volume on the active server** and then **repair the degraded volume on the passive server**.

2.3.4 Repair an abnormal SSD cache

1. On the active server, go to **Storage Manager** and **Synology High Availability** > **Storage** > **Volume** to find out which SSD cache is abnormal.

2. Go to **Synology High Availability** > **Storage** > **HDD/SSD** to find out which drive abnormal and replace it with a healthy drive.

3. Go to **Synology High Availability** > **Storage**. Select the abnormal SSD cache and click **Repair**.

Chapter 3: Contact Customer Service

Support Center in DSM

1. Sign in to **DSM** and launch **Support Center**.

2. On the **Support Services** page, go to the **Log Generation** section.

3. Tick **Synology High Availability** and click **Generate Logs** to download the log file.

4. Go to the **Contact Support** page, fill in the ticket, and upload the **debug.dat** file you just downloaded.

Synology Account

1. Go to **Contact Us** > **Technical Support** > **Technical Support**.

2. Sign in to your **Synology Account**.

3. Create a support ticket.

Replacement services and migration

In the event of malfunction, you can use Synology's warranty service to replace your device. Go to the **Synology Replacement Service (SRS)** website to check if your model is SRS-supported in your location. If your model is SRS-supported in your location, you may be able to receive a replacement device after submitting an SRS application.

If needed, your existing data can be transferred to the replacement device. For detailed instructions on how to do this for your high-availability cluster, refer to **Chapter 5.8: Data migration** in the **Synology High Availability (SHA) User Guide**.

Learn more

User Guide

Refer to the **SHA User Guide** for more information about Synology High Availability, including its requirements, instructions for setup, simulations, navigation, storage expansion, migration, and more.

Software specs

Refer to the Synology High Availability software specifications for **DSM 7.0** and **DSM 6.2** to learn more about the package's features, components, and limitations.

Other resources

For more step-by-step tutorials and visual information, feel free to also check out **Synology's YouTube channel**. There, you can find related videos by searching for "Synology High Availability".

You can also find more FAQs, tutorials, admin guides, brochures, technical specifications, user guides, whitepapers, and more for Synology High Availability in **Synology Knowledge Center**.

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