

Basic troubleshooting note

2025

StarWind Documents



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About StarWind

StarWind is a pioneer in virtualization and a company that participated in the development of this technology from its earliest days. Now the company is among the leading vendors of software and hardware hyper-converged solutions. The company's core product is the years-proven StarWind Virtual SAN, which allows SMB and ROBO to benefit from cost-efficient hyperconverged IT infrastructure. Having earned a reputation of reliability, StarWind created a hardware product line and is actively tapping into hyperconverged and storage appliances market. In 2016, Gartner named StarWind “Cool Vendor for Compute Platforms” following the success and popularity of StarWind HyperConverged Appliance. StarWind partners with world-known companies: Microsoft, VMware, Veeam, Intel, Dell, Mellanox, Citrix, Western Digital, etc.

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These log files can be found here: C:\Program Files\StarWind Software\StarWind\logs
They can also be checked in StarWind management console. Navigate to Server -> Server Log. Most of StarWind logs are duplicating in Windows Application logs.

Logs observation	E
1) notifications about synchronization status changeMain node sync status change:Event: Device changed own sync status to %u from %u. (TargetName = '%s')Example:Event: Device changed own sync status to 3 from 1. (TargetName = 'iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3')Partner node sync status change:Event: Device changed own sync status to %u from %u. (TargetName = '%s')Example:Event: Partner device changed sync status to 3 from 1. (partner: 'iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3')Status codes:1 - synchronized2 - synchronizing3 - not synchronized	T e r r
2) notifications about establishing/losing connection to ip/device/initiator/targetEstablishing connection from main node to partner node:Event: Established - Device(0x%p), IP(%s), InitiatorName(%s), Target(%s)!Example:Event: Established connection - Device(0x00000001059F40B8), IP(192.168.125.1), InitiatorName(iqn.2008-08.com.starwindsoftware:hvc3-ha-storage2), Target(iqn.2008-08.com.starwindsoftware:hvc1-ha-storage2)!Losing connection from main node to partner node:Event: Failed connection(C2P) - Device(0x%p), IP(%s), InitiatorName(%s), Target(%s)!Example:Event: Failed connection(C2P) - Device(0x00000001059E7138), IP(192.168.125.1), InitiatorName(iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3), Target(iqn.2008-08.com.starwindsoftware:hvc1-ha-storage3)!Losing connection from partner node to main node:Event: Failed connection(P2C) - Device(0x%p), IP(%s), InitiatorName(%s), Target(%s)!Example:Event: Failed connection(P2C) - Device(0x00000001059F01C8), IP(192.168.125.1), InitiatorName(iqn.2008-08.com.starwindsoftware:hvc3-ha-witness), Target(iqn.2008-08.com.starwindsoftware:hvc1-ha-witness)!Parameters:InitiatorName - main node target nameTarget - partner node target name	T e r r

<p>3) notifications about establishing/losing channel connections</p> <p>Establishing the first connection (sync or heartbeat channel) to the partner:</p> <p>Event: HA_NN_FIRST_VALID_CONNECTION_ESTABLISHED, Partner node: '%s', ulChannelManagerId = %u, ulChannelId = %u.</p> <p>Example: Event: HA_NN_FIRST_VALID_CONNECTION_ESTABLISHED, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc2-ha-test', ulChannelManagerId = 1, ulChannelId = 1.</p> <p>Establishing connection (sync or heartbeat channel) to the partner:</p> <p>Event: HA_NN_CHANNEL_BECOME_VALID, Partner node: '%s', ulChannelManagerId = %u, ulChannelId = %u.</p> <p>Example: Event: HA_NN_CHANNEL_BECOME_VALID, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc2-ha-test', ulChannelManagerId = 1, ulChannelId = 1.</p> <p>Losing connection (sync or heartbeat channel) to the partner:</p> <p>Event: HA_NN_CHANNEL_BECOME_NOT_VALID, Partner node: '%s', ulChannelManagerId = %u, ulChannelId = %u.</p> <p>Example: HA_NN_CHANNEL_BECOME_NOT_VALID, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc2-ha-storage3', ulChannelManagerId = 1, ulChannelId = 1.</p> <p>Establishing all connections (sync and heartbeat channel) to the partner:</p> <p>Event: HA_NN_ALL_CHANNELS_BECOME_VALID, Partner node: '%s', ulChannelManagerId = %u.</p> <p>Example: Event: HA_NN_ALL_CHANNELS_BECOME_VALID, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc1-ha-storage2', ulChannelManagerId = 2.</p> <p>Losing all connections (sync and heartbeat channel) to the partner:</p> <p>Event: HA_NN_ALL_CHANNELS_BECOME_NOT_VALID, Partner node: '%s', ulChannelManagerId = %u.</p> <p>Example: Event: HA_NN_ALL_CHANNELS_BECOME_NOT_VALID, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc1-ha-storage2', ulChannelManagerId = 2.</p> <p>Parameters: ulChannelManagerId - manager type, 1 - sync channels, 2 - heartbeat channels. ulChannelId - manager channel index</p>	<p>T e n r</p>
<p>4) notifications about synchronization start/completion</p> <p>Synchronization request from console (after device creation):</p> <p>Event: Received initial synchronization command from console "(Type: %d, Synchronizer: '%s')"</p> <p>Example: Event: Received initial synchronization command from console "(Type: 4, Synchronizer: 'iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3')"</p> <p>Parameters: Type - synchronization type: 1 - full, 2 - fast</p> <p>Synchronizer - name of the synchronizer node. If this parameter is empty, synchronizer node will be chosen automatically</p> <p>Partner node synchronization start:</p> <p>Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_STARTED, Partner node: '%s', Synchronization type: '%s'</p> <p>Example: Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_STARTED, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3', Synchronization type: 'Fast'</p> <p>Partner node synchronization cancellation/abort:</p> <p>Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_CANCELED, Partner node: '%s'</p> <p>Example: Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_CANCELED, Partner node: 'iqn.2008-08.com.starwindsoftware:hvc3-ha-storage3'</p> <p>Partner node synchronization completion:</p> <p>Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_COMPLETE_SUCCESSFULLY, Partner node: '%s'</p> <p>Example: Event: HA_NN_PARTNER_NODE_SYNCHRONIZATION_COMPLETE_SUCCESSFULLY, Partner node.</p>	<p>T e n r</p>

5) determining synchronization type: This parameter can be set to 1 and 2, 1 for full synchronization, 2 for fast synchronization. Example: 2/24 21:38:34.821 c48 HA: CHADevice::SynchronizeCurrentNode: Params(p_pszPartnerNodeName = 0x0000000004288800, p_pszPartnerNodeTargetName = '(null)', p_SyncType = 1, p_IgnoreOwnSyncState = 0) ENTERedp_SyncType - synchronization type

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6) service initialization errors: 7/10 16:15:46.287 dd0 Srv: bind() to 10.10.20.3:3260 failed: Only one usage of each socket address (protocol/network address/port) is normally permitted. (code: 10048) In this case it is likely that the other application (DataCore, MS iSCSI target, etc) is using iSCSI port (3260).

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7) cache drop issues: These errors can appear as a result of inability to drop cache and are accompanied by opcode 0x35. These messages are often accompanied by "storage performance degradation" warnings with read/write execution time in app logs. Example: HA: Warning: SscRequestTask(00000015A6E59A70) OpCode(0x35) DiffTimeCompleteINIT = 12765 ms

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8) VAAI compare and write: This can lead to synchronization freezing or looping, though not proved yet, still under investigation. This event is accompanied by opcode 0x89 in the log. Example: HA: Warning: SscRequestTask(0000000002CD3F20) OpCode(0x89) DiffTimeCompleteINIT = 15956735 ms, DiffTimeCompleteEXEC = 0 ms!

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9) XCOPY: Example: 3/10 17:31:21.249 c54 SCSI: XCOPY: DeviceLun not found for CSCD[0]!0000 e4 00 00 00 01 02 00 08 3f 25 db b1 b3 a4 f3 4b
ä.....?%Û±³æóK0010 00 00 00 00 00 00 00 00 00 00 00 00 00 02 00
..... This is happening when a device is migrated from non-StarWind datastore to StarWind datastore (ESX vmotion). Though it is not a big problem in terms of speed and performance

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10) task abort sequence: This sequence is followed by complete freezing of either one StarWind node or the whole environment. Reproduced on ESX environments only
Example: 1/29 8:27:27.283 113c T[146c,5cfcf8d]: Management command: abort task (CmdSN 97504741, ITT 0x5dcfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf8e]: Management command: abort task (CmdSN 97504742, ITT 0x5ecfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf8f]: Management command: abort task (CmdSN 97504743, ITT 0x5fcfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf90]: Management command: abort task (CmdSN 97504744, ITT 0x60cfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf93]: Management command: abort task (CmdSN 97504745, ITT 0x61cfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf95]: Management command: abort task (CmdSN 97504746, ITT 0x62cfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf98]: Management command: abort task (CmdSN 97504747, ITT 0x63cfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf9d]: Management command: abort task (CmdSN 97504748, ITT 0x64cfcf05) not found.1/29 8:27:27.283 113c T[146c,5cfcf9f]: Management command: abort task (CmdSN 97504749, ITT 0x65cfcf05) not found.

11) license errors Usually, StarWind prompts that license has been overused in the logs. Here is an example: 12/10 15:00:22.100 bdc SCSI: LICENSE: MaxTotalStorage = 4194304 MB. Disk 'HAIImage14' (512000 MB) is out of the allowed storage size (current total: 4120576 MB). In such cases device can acquire non-active state in SW management console

12) loads of errors when one of the node was down This is normal since the nodes did not accept external connections. Examples:
CNIXInitiator\SCSITransport::MountTarget: EXITing with failure, MountTargetDll failed with error code 1627!11/28 0:54:56.643 1928 Sw: *** ConnectPortal: An attempt to connect timed out without establishing a connection or connect was forcefully rejected

13) trim/unmap errors These errors can lead to hanging StarWind service. Examples:
12/29 3:07:20.655 f14 IMG: *** ImageFile_Dispatch_Unmap: ImageFile_ExecuteFileLevelTrim(1524958720, 128) failed, status == 0xC0000001!
12/29 3:07:20.655 a2c IMG: *** ImageFile_ExecuteFileLevelTrim: ExecuteFileLevelTrim: GetOverlappedResult() after FSCTL_FILE_LEVEL_TRIM failed (err 50). If you have a build higher than 7354 - you will not have such problems

14) prefetch warnings These are mostly informational messages, so do not panic. Releases after 7354 have prefetch optimizations. Examples: CACHE: ***
CacheBase::read: Prefetch advised out of disk: PrefetchStart + PrefetchLength = 412115584 + 256, Disk size = 2097152








15) access denied errors: Reject iSCSI connection from 172.17.51.171:52210 to 172.17.51.172:3260 These messages (and alike) indicate that initiator has been rejected a connection to the target. In most cases HA devices acquire non-active state

16) write-back L2 cache: this is a known bug which results in service crash. Logs: 3/25 T 8:47:48.270 250c CACHE: CacheChain::getSettings: Returning settings for the first t cache in chain only.3/25 8:47:48.270 250c CACHE: CacheChain::getSettings: Returning settings for the first cache in chain only.3/25 8:47:48.270 250c CACHE: CacheChain::getSettings: Returning settings for the first cache in chain only.3/25 8:47:52.711 250c CACHE: CacheChain::getSettings: Returning settings for the first cache in chain only.3/25 8:47:52.732 2ab4 debug: The program encountered a serious error and may be closed. Crash dump will be created.Please, save the log file and the crash dump and report the problem to support@starwindsoftware.com3/25 8:48:01.756 2ab4 debug: Minidump 'C:\Program Files\StarWind Software\StarWind\starwind.20150325.084752.mdmp' created successfully.

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