# StarWind V8R6 — Virtual SAN®

## New features and improvements

### New Log-Structured File System engine

- LFSF engine has been reworked. Performance improved, initialization after shutdown is faster.

- LSFS now has the ability to keep metadata on flash drives instead of RAM.

- LSFS requires disk space overprovisioning up to 2-3 times in the worst case, and even more if snapshots are used

### Node Majority failover strategy. Witness node

- The Node Majority failover strategy has been designed and implemented for cases when redundant Heartbeat channel cannot be provided between the nodes.

- A Witness node should be used for an HA device replicated between 2 nodes with Node Majority failover strategy. In this case, the Witness node will be used only for voting but not for storing data. Alternatively, you can replicate the data to the 3d node, so no Witness is required.

- With Node Majority failover strategy, failure of only one node can be tolerated. In case two nodes fail, the third node will also become unavailable to clients' requests.

**Important:** The Witness node requires an additional node in your license.

### Maintenance mode for StarWind HA devices

- The Maintenance mode for devices with synchronous replication has been added. It provides the functionality allowing to avoid the Full synchronization during the scheduled maintenance window for the cases when both nodes should be powered off at the same time. Such cases include planned servicing, planned power outage, etc. Enabling the Maintenance mode in StarWind Management Console before planned production stop saves the time required for data synchronization between the nodes after exiting the Maintenance mode and simplifies the process of making any changes in highly-available production environments.

**Important:** Clients must be disconnected before switching the device to the Maintenance mode.

## Cloud replicator for VTL

- The support for AWS GovCloud (US) Region in the replicator has been added.

- The support for Backblaze B2 Cloud Storage in the replicator has been added.

## High-availability

- General performance improvements. Cache performance in both Write-Back and Write-Through modes has been improved.

## Core

- General VAAI and ODX commands performance optimizations.

- Transport layer improvements. The processing of tasks queues during high load has been improved.

## Additional notes

**Links to technical documentation:**

Maintenance mode ➔

Node Majority failover strategy, the addition of a Witness node ➔

Knowledge Base article on upgrading StarWind VSAN ➔

To learn more, visit **www.starwind.com**