

DVR/NVR RAID Function

Introduction and Configuration Guide

RAID, an array stores data over multiple HDDs to provide enough redundancy so that data can be recovered if one disk fails. If the video recorder supports RAID, when enable the RAID function, and ensure each HDD capacity is not less than 4 TB. Two ways are available for creating an array: one-touch configuration and manual configuration.

It's better to create RAID via One-touch Configuration, RAID 5 will be created by default.

One-touch Configuration

Please use the enterprise-class HDDs in HDD Compatible List for RAID function.

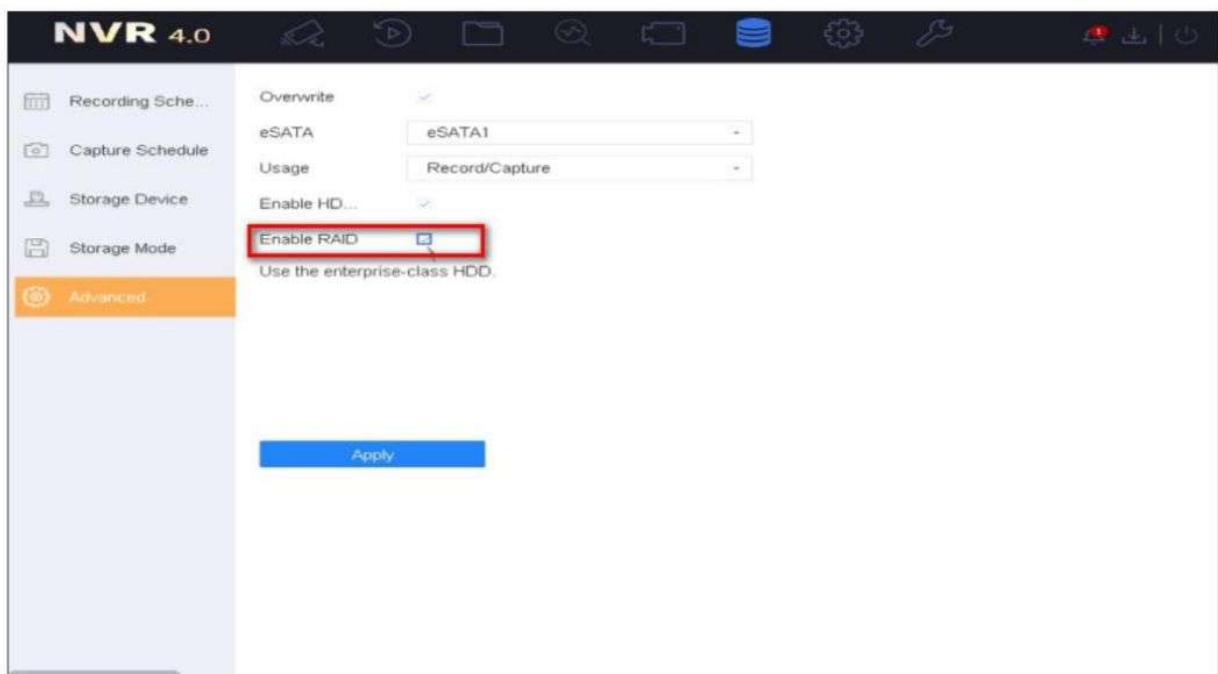
You can find Compatible List from below link:

<https://www.hikvision.com/en/support/notice/>

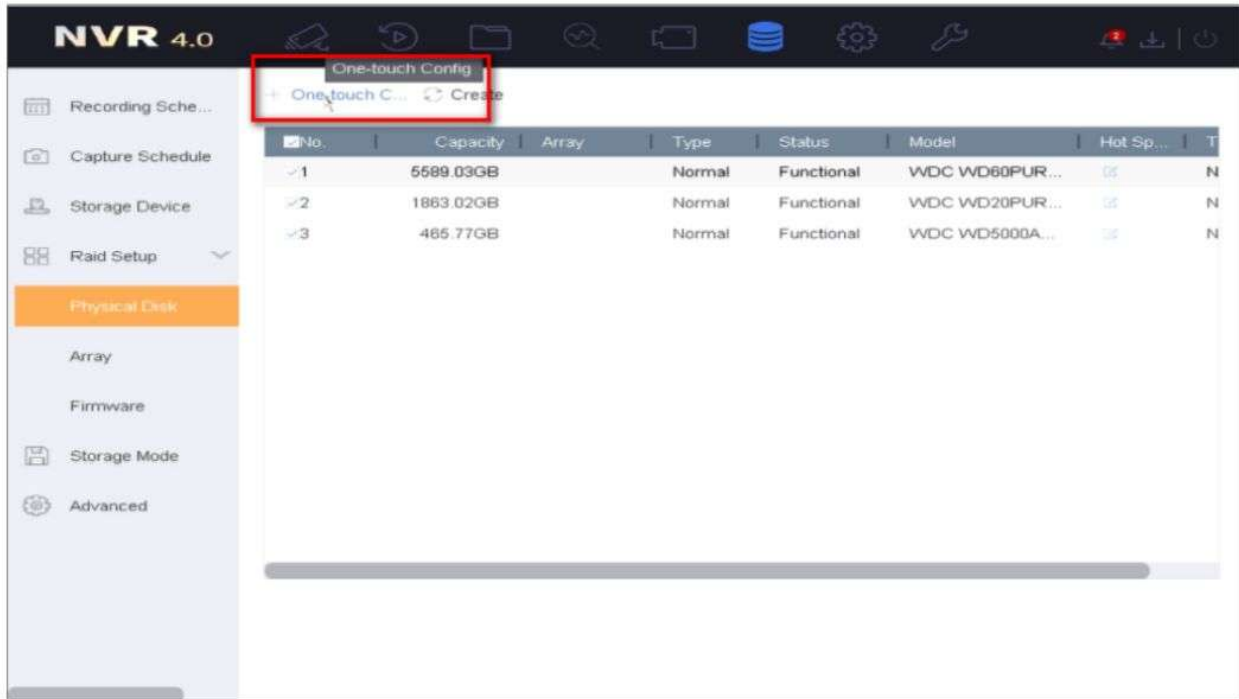
Steps:

1. Enable RAID function in device Menu- Storage- Advanced.

Device will reboot to take configuration effect.

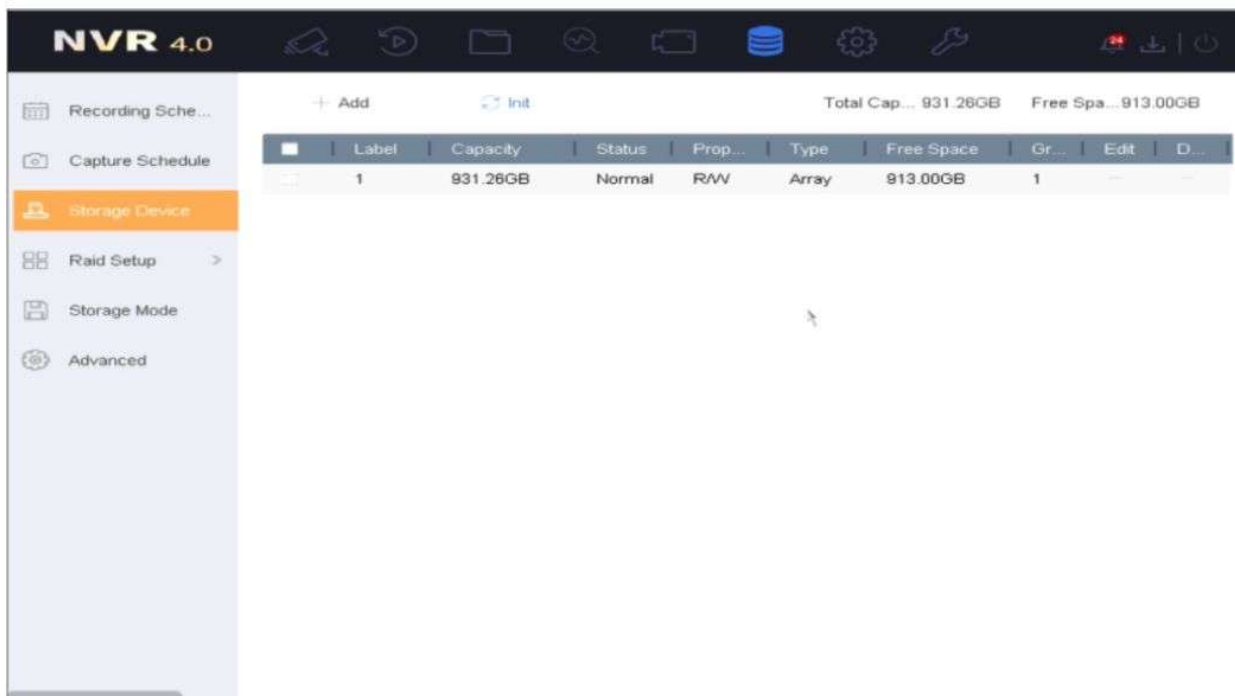


2. After device reboots, create RAID in Menu- Storage- Raid Setup- Physical Disk- Click One-touch Config.



Note: If the number of HDD is 3, there will be 0 HDD for hot spare; if the number of HDD is more than 3, there will be 1 HDD for hot spare by default when you choose One-touch Configuration.

3. After creating the RAID, it will be initialized in Storage- Raid Setup- Array. After the initialization, you will find the RAID in Storage- Storage Device, which means the RAID can be used.



Troubleshooting

Check the status of Array in storage- Raid Setup-Array, the array status includes Functional, Degraded, and Offline.


Functional: No disk loss in the array.

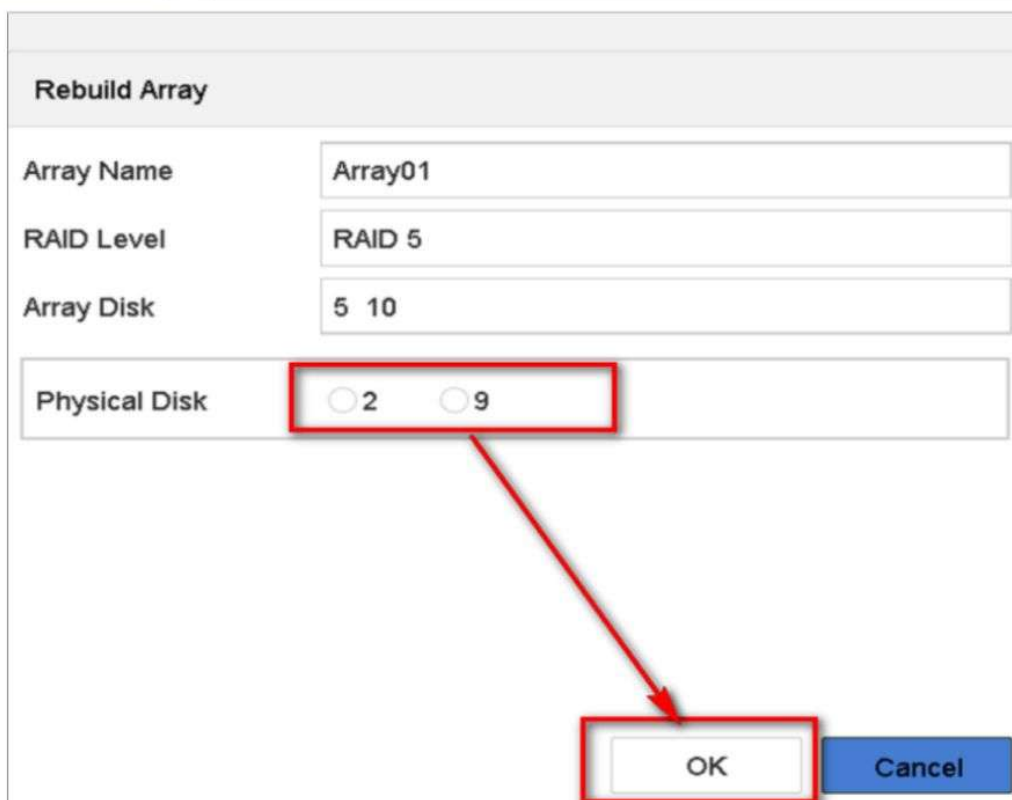
Degraded: If any HDD fails in the array, the array degrades.

We can restore it to Functional status by rebuilding the array.

1. The video recorder can automatically rebuild degraded arrays with the hot spare disks.
2. If the hot spare HDD can't work when the array is degraded, check the status of the HDD via SMART Test. Replace the abnormal HDD and rebuild array manually.

Steps :

- a. Go to Storage- RAID Setup- Array.
- b. Click  of the degraded array, select the available physical disk, click OK to manually rebuild array.



Offline: The number of lost disks has exceeded the limit.

In this case, do not configure the RAID function again which can avoid overwriting the recording data. You can try to power off and power on the device. If the array status recovery to degraded, then rebuilt array. If the array status still in offline status, please contact Hikvision technical support team for help.