Preparing the boot media/installer with the ISO file:

Download and extract the ISO file with your favorite uncompressing/extracting software (for example: 7zip or WinZip® programs) to an empty USB Flash Drive.
The ISO can be obtained from here:
https://www.open-e.com/download/open-e-jovian-data-storage-software/

After extracting the ISO file on your USB Flash Drive, the root directory must contain ONLY the following directories: bxxxx, boot, and file mmenu_upd.sh where the xxxx is the software build number.

- To make your USB Flash Drive bootable, enter the "boot" directory and run the "bootinst.exe" (For Windows) or "bootinst.sh" (For Linux). Follow the prompt then remove the USB Flash Drive.
- You can now boot your storage server with USB Flash Drive.

NOTE
The prepared USB Flash Drive will run the software installer by default. If you desire to test or for non-mission critical or non-production usage, the USB Flash Drive can boot Open-E JovianDSS instead of running the software installer to install other boot media. To make this default change, run the "config.exe" from the boot directory and select "r" to remove the default boot of the software installer.

Booting Open-E JovianDSS:

General Hardware requirements
- The minimum size for the JovianDSS boot medium is 16GB. A recommended JovianDSS boot medium uses a HDD or SSD device. The USB Flash Drive can be used as a JovianDSS boot medium for testing purposes or non-mission critical applications.
- It is necessary to use ECC RAM modules in the system.
- Single node supports SATA hard disk drives, but SAS disks are recommended for performance.
- HA-Cluster setup require SAS-hard disks.
- Minimum of 8GB RAM plus 1GB per 1TB of pool space.
- Mirrored "Write Log" is recommended.
- Uninterruptible Power Supply (UPS) is strongly recommended.

Plug your installer media (USB Flash Drive) into the storage appliance.

The first boot menu will show the software version. You can press enter or it will skip and continue automatically within 5 seconds.

The second menu allows you to select to boot Open-E JovianDSS or to install the software on a writable boot media in your system using the interactive installer utility. Select "Run software installer" to install Open-E JovianDSS on a writable boot media in your system.

Please follow the instructions while running the installer. The installer optionally can install the system on a single disk or on mirrored disks (RAID1). If single disk is selected, it is still creating degraded RAID1 on the single disk but system will not create error events about degraded RAID1. It will be possible to add a second disk and get redundant RAID1 anytime in the future.
Once the boot media become redundant RAID1 the system will generate errors events if any disk of the mirror is failed.
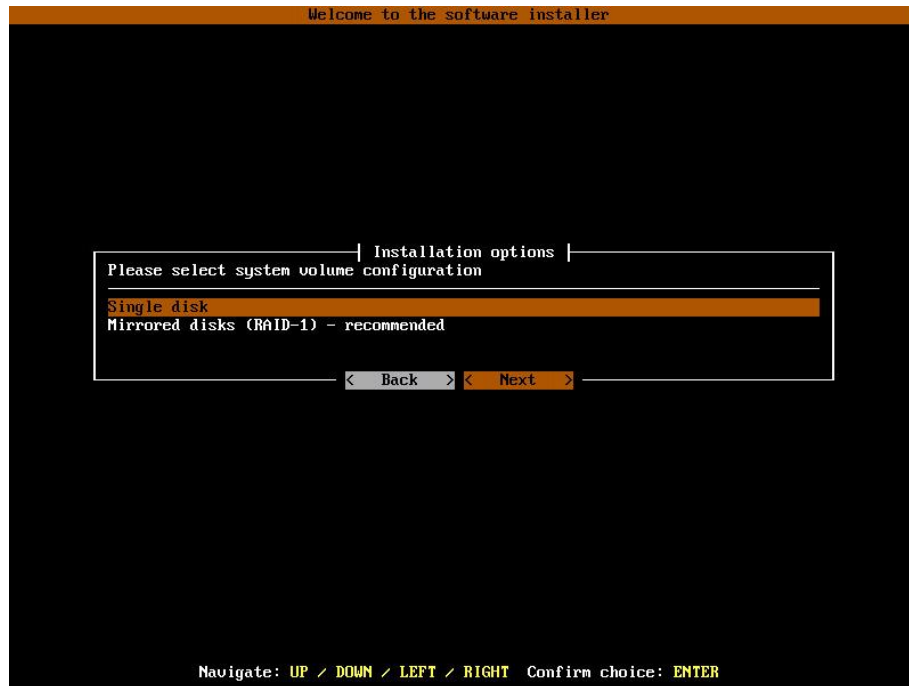
Finally, reboot your storage server from the new boot media (set your BIOS boot options back from USB to the medium where you installed the software).

NOTE
**Open-E JovianDSS can be used for evaluation up to 60 days with the trial product key.
The Trial Key can be downloaded after registration from:**
https://www.open-e.com/partner-portal/partner-area/warehouse/jovian/
**When you decide to purchase the full version, you can continue to use the software and all your data and settings will remain intact.
You will see an option to run a memory test on the system by choosing "Run Memtest utility" in the first menu.**

In order to convert the trial version to the full version, please enter your Open-E JovianDSS product key and storage capacity key in the WebGUI menu "about" section.

Storage Configuration:

Step 1. Initialize hardware

Before using Open-E JovianDSS you should have the hard disk drives connected to the SATA and SAS ports on the motherboard or SAS HBA, and the LAN Card and other NICs already in your server.

Connect the keyboard and monitor (they will be needed for setup only). Later you can run the server in "headless mode" (without keyboard and monitor).

NOTE: Please check the motherboard BIOS if the "headless mode" is enabled. In some cases, systems will not boot if the keyboard is not connected. You'll find more about the headless mode in the motherboard's BIOS manual.

Step 2. Preparing for the WebGUI administration

After the boot process has finished, Open-E JovianDSS will show you information about all its network settings. The standard IP Address setting for Open-E JovianDSS is: IP address 192.168.0.220 and Netmask 255.255.255.0. This setting can be changed manually by entering the following key sequence: left "**Ctrl**" + left "**Alt**" + "**N**".

Step 3. Entering the product key and logging into Open-E JovianDSS

Connect to Open-E JovianDSS via the network using any standard browser, and type the IP address to the URL entry line:

https://192.168.0.220

Next, a window for entering the product key will appear. If you already have one, please enter it and click the apply button. Log into Open-E JovianDSS by using the default password: "***admin***". Now you will be able to set all server parameters to get started.

NOTE: Be aware that the password is case-sensitive.

Step 4. Create zpools

- To create a new zpool, please go to the "Storage" menu then Click the "Add zpool" button in the upper right corner to run the "Zpool wizard".

- After starting the "Zpool wizard" all available disks will be listed.
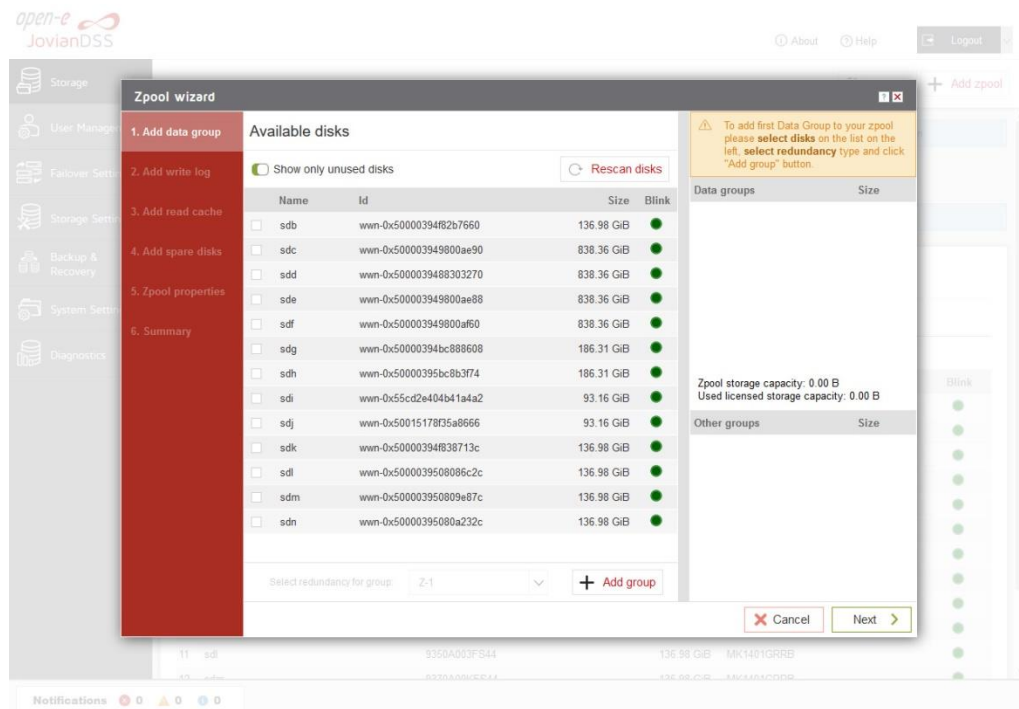
- Next, select the disks and redundancy level and click on the "Add group" button.
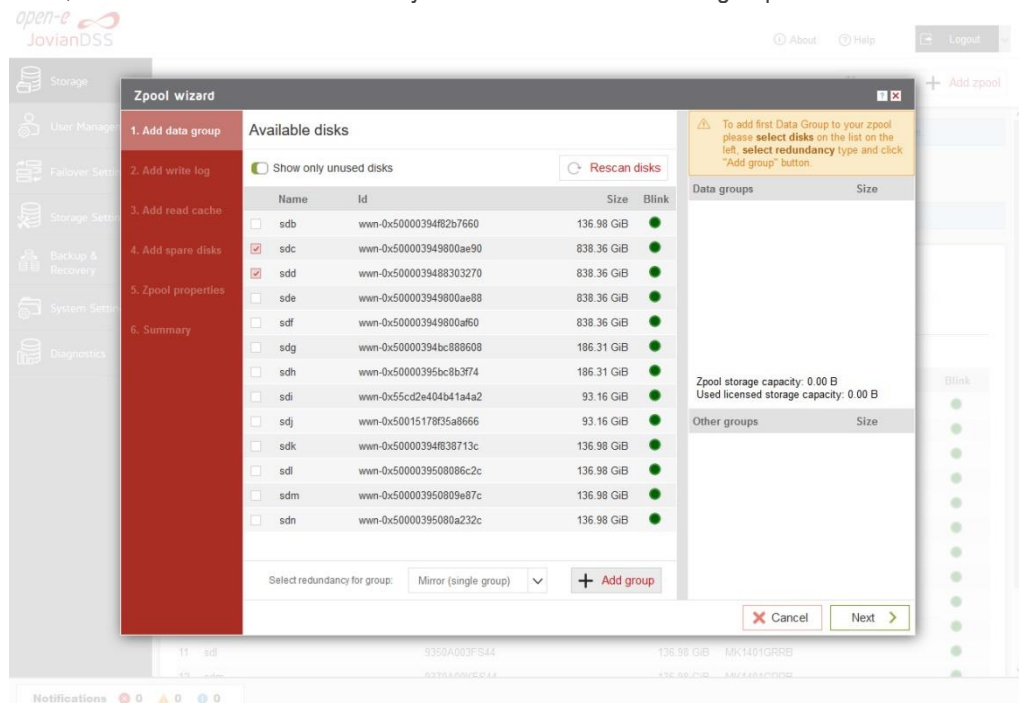
- The created group will be displayed in the "Configuration preview" window on the right side.
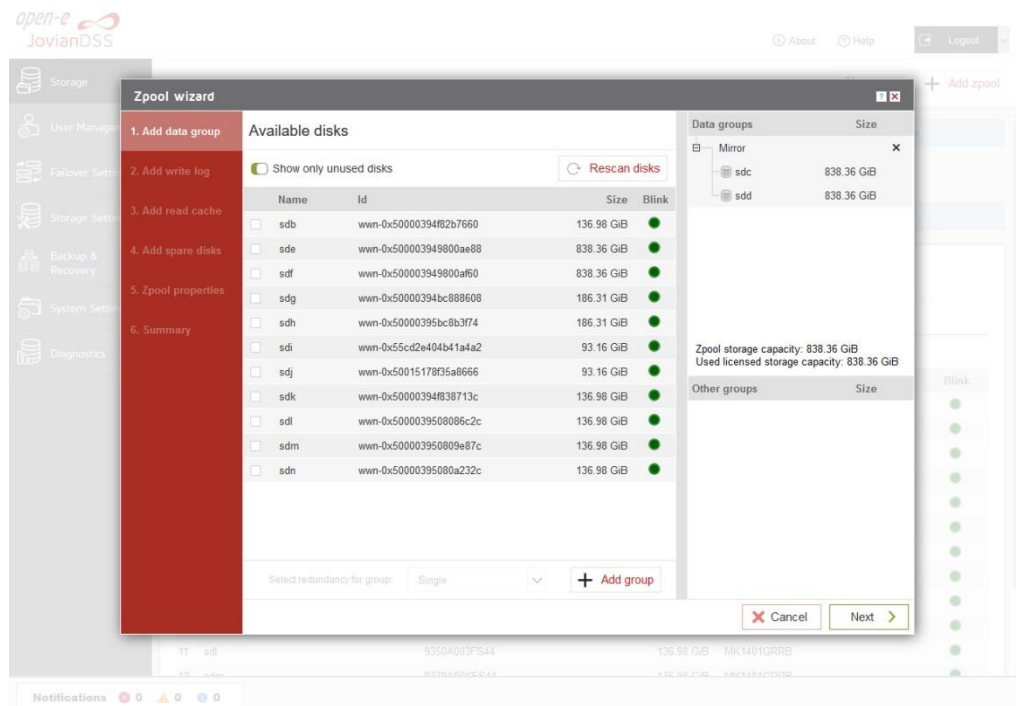
- In this example we have 2 mirror groups added.
- The created 2 mirror groups will be displayed in the "Configuration preview" on the right side. After adding all groups click the "Next" button.
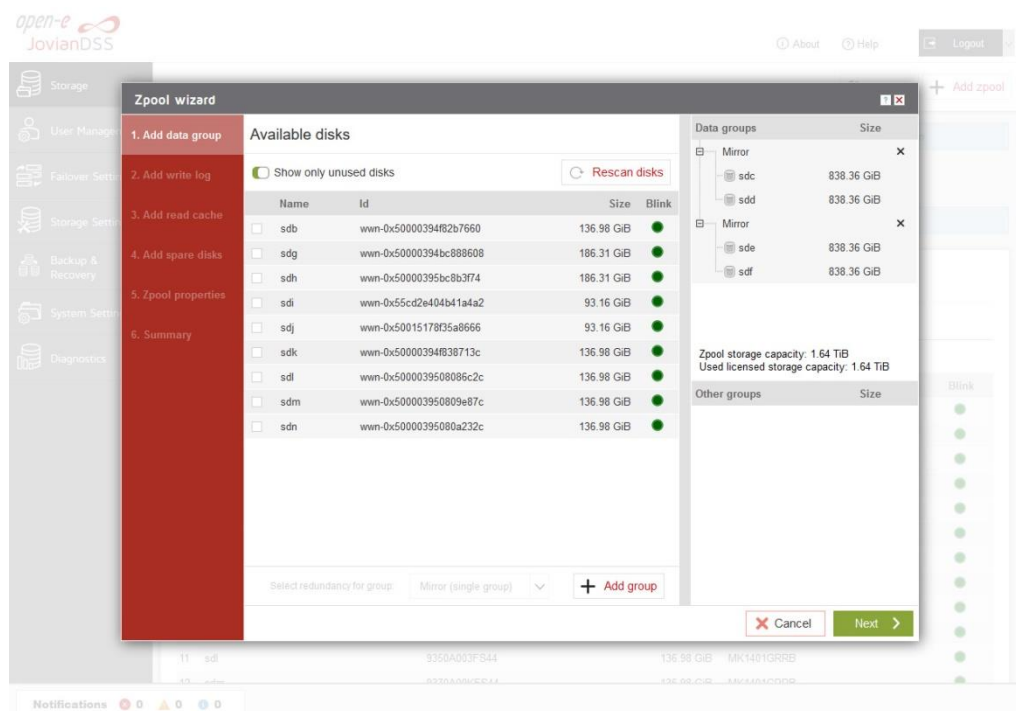
- In the next step you can create a write log (ZIL on SLOG).
  NOTE: Mirrored and fast SSD disks are strongly recommended for the random writes IOPS.
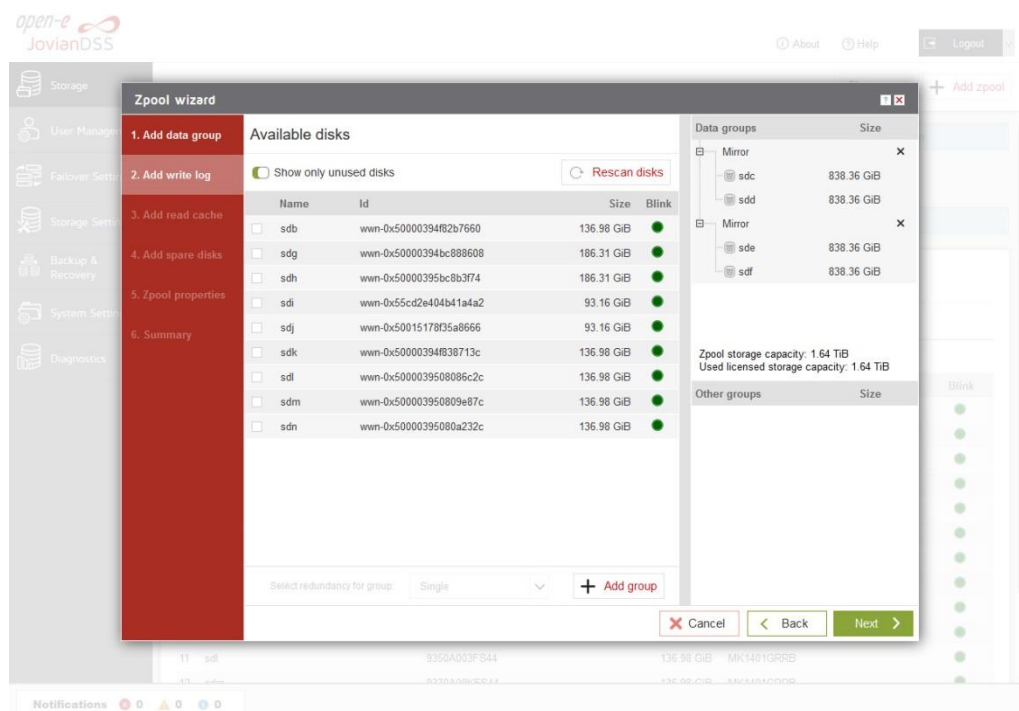
- Select the fastest disks from the list on the left and create a mirror set for the redundancy level, then click the "Add group", and then the "Next" button.
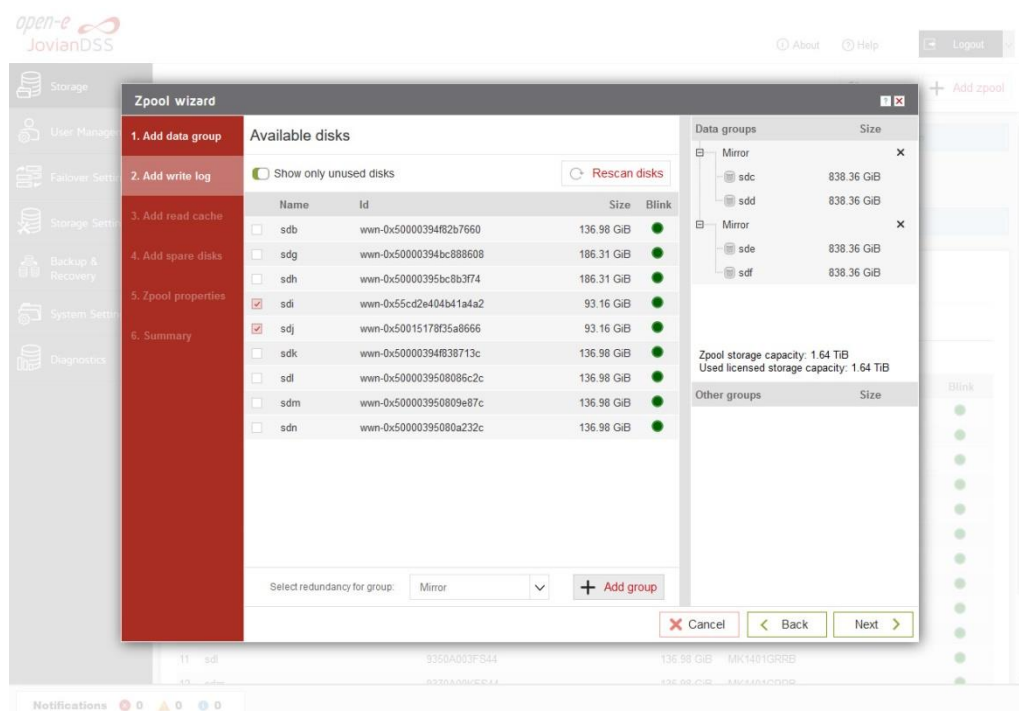
- The created "write log" will be displayed in the "Configuration preview" on the right side.
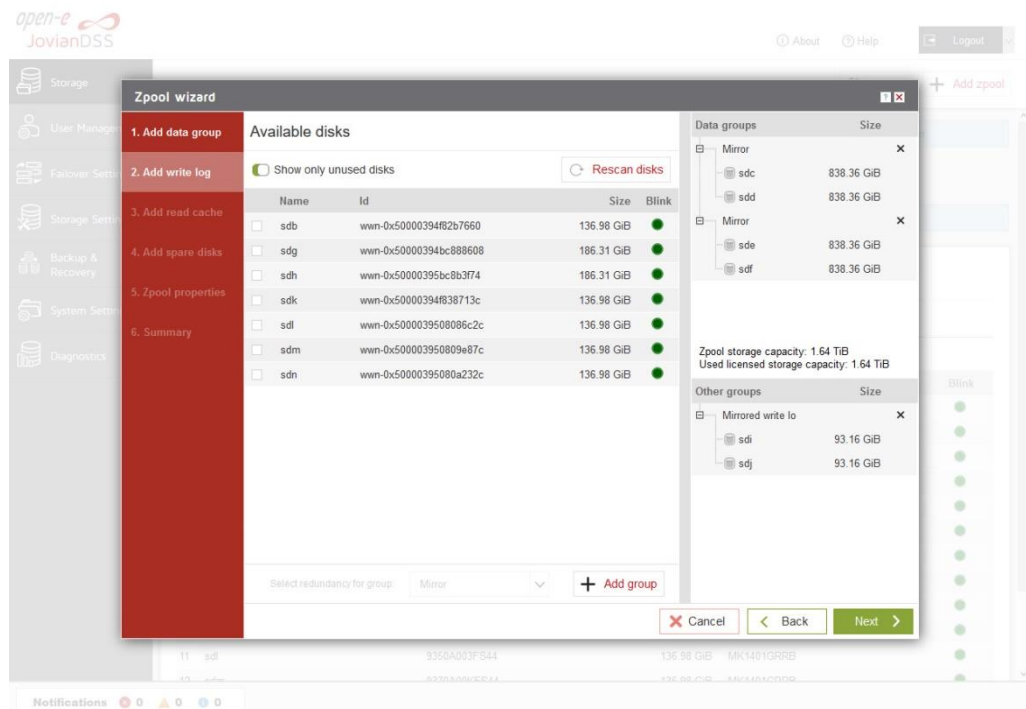
- In the next step you will want to create the read cache. Select the disks from the list on the left and select redundancy "Read Cache", type and click "Add group", and then the "Next" button.
  NOTE: For fast random read IOPS it is recommended to use SSD disks.
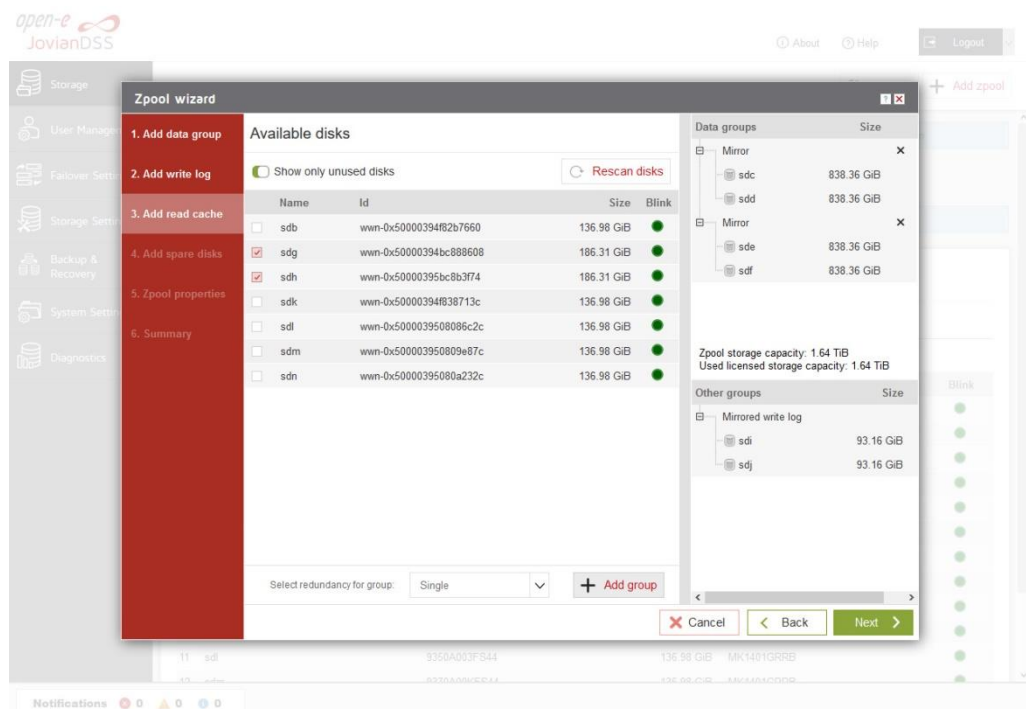
- The created "read cache" will be displayed in the "Configuration preview" on the right side.
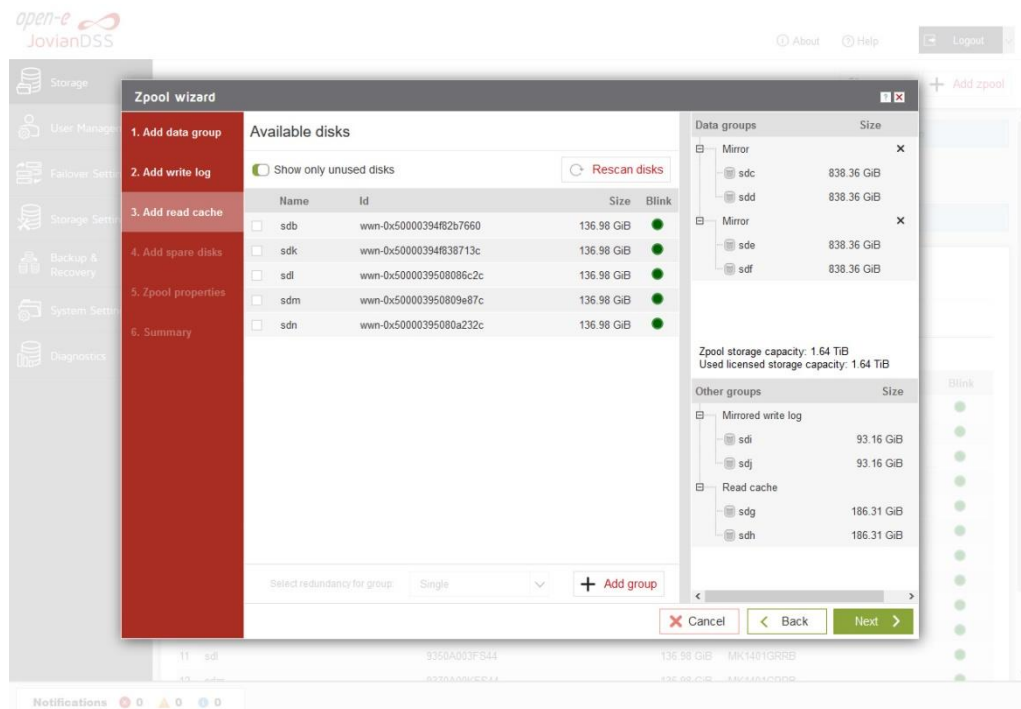
- In the "Add spare disks" please select the disk from the available disks" list, click "Add group", and the "Next" button.
  NOTE: "Spare disks" are optional. If no disks are tagged as spare disk, it is still possible to replace a faulty disk with any unassigned disk. You can skip this step clicking "Next".
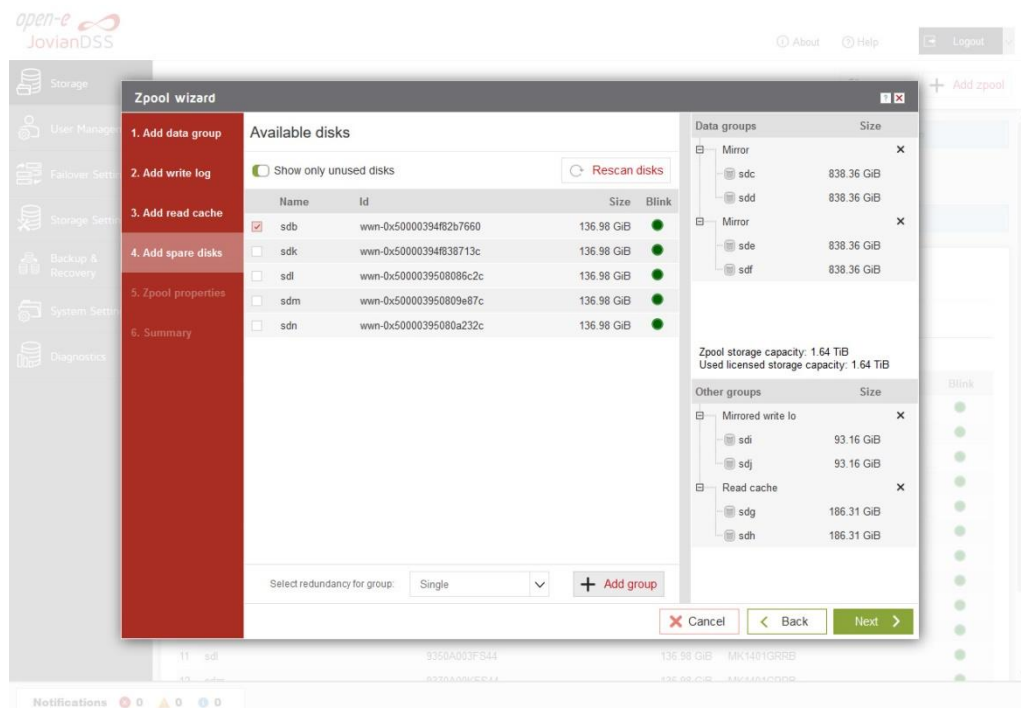
- The created "spare disks" will be displayed in the "Configuration preview" on the right side. Now click the "Next" button.
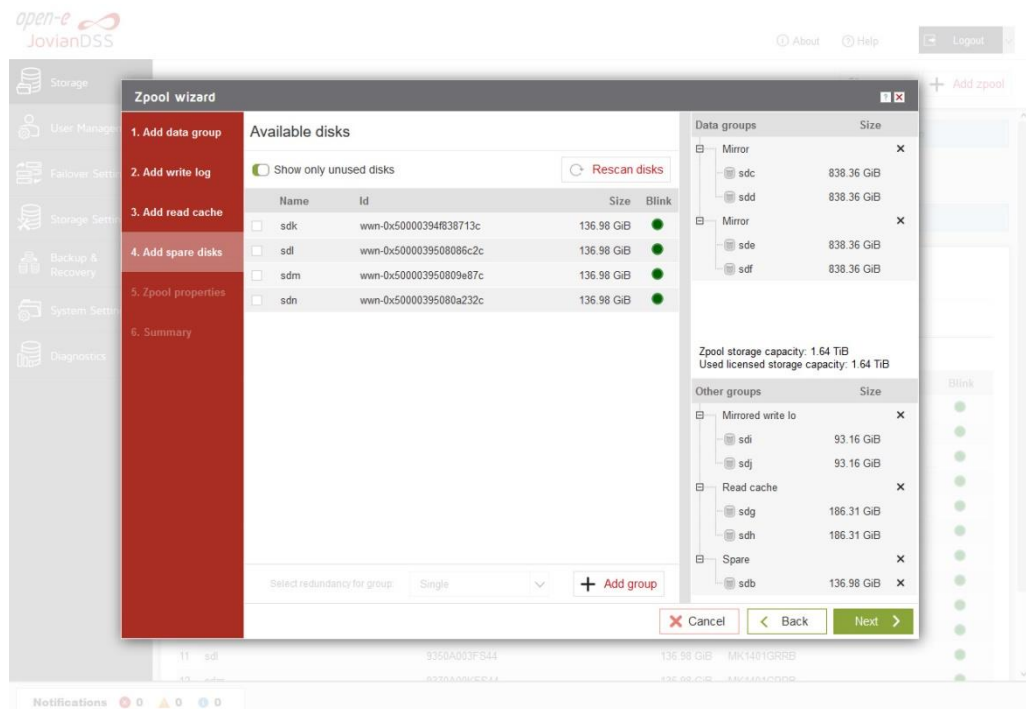
- In the next step, enter the zpool name and click the "Next" button.
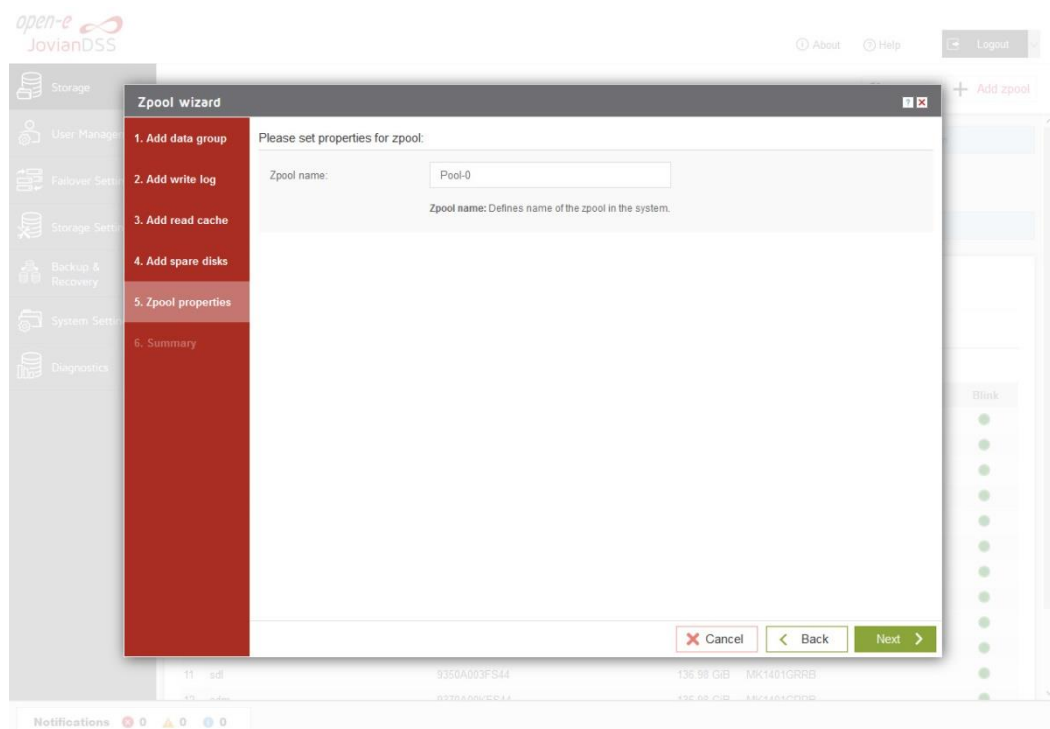
- In "Summary" you are able to see an overview of the zpool configuration. If the settings need to be modified, click the "Back" button and make the required changes. If it is correct click the "Add zpool".
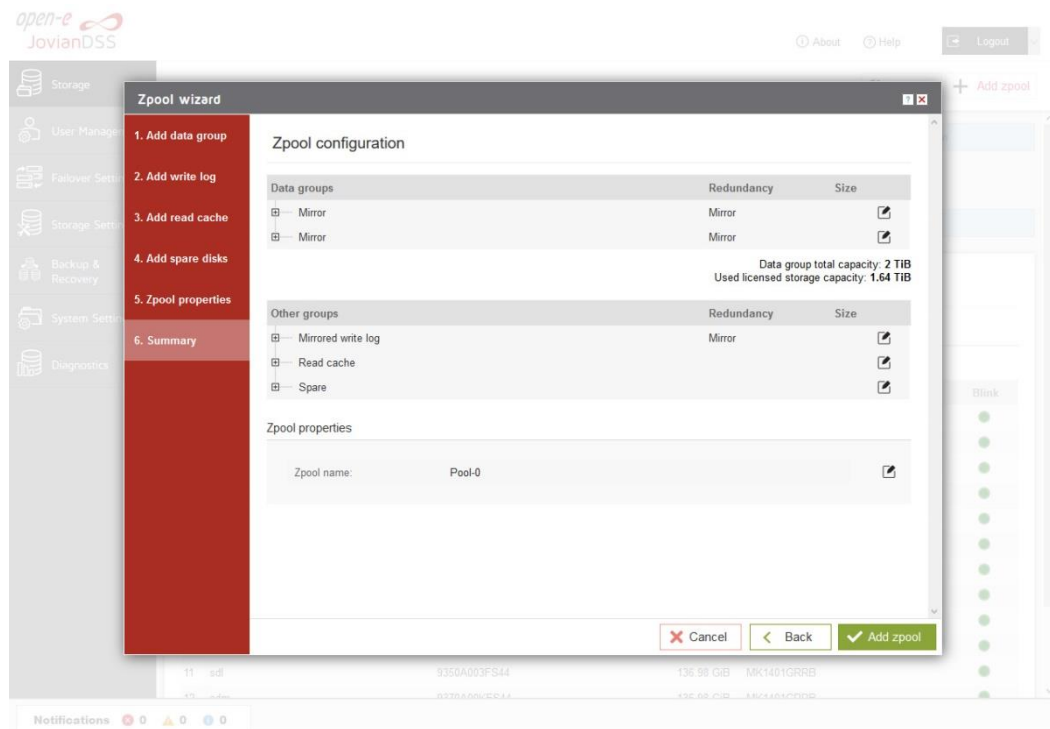
- At this point you have configured a new zpool (you can add more zpools if required).
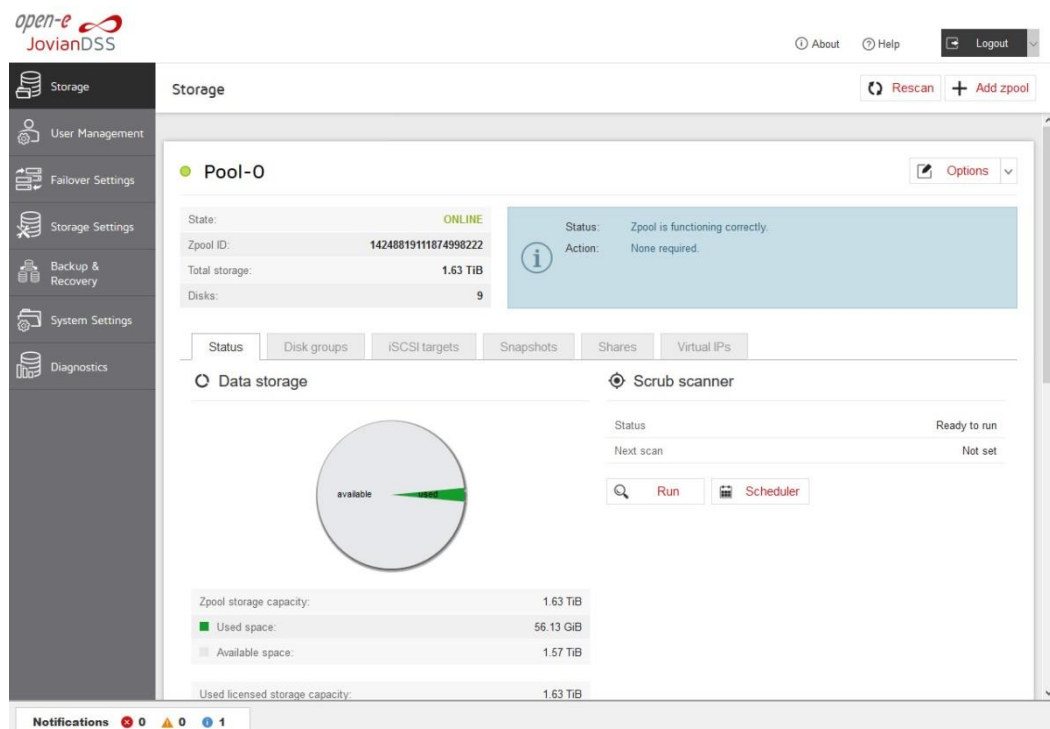
Step 5. Creating iSCSI targets

- After creating a zpool, the GUI shows pool status of just created zpool. In order to access pool **setup menu** click on down arrow button in the middle bottom of the pool status section.
- Next, select "iSCSI targets" and click the "Add new target" button.
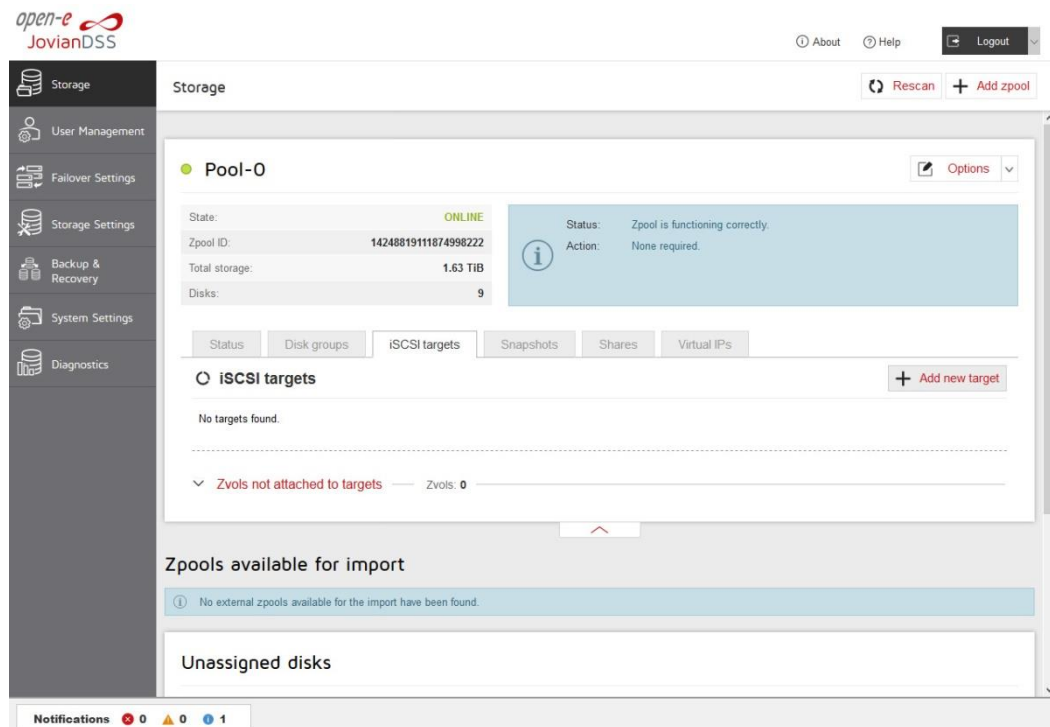
- In the "Target Wizard", you can enter a new "Target name". If the default target name is OK, click the "Next" button only.
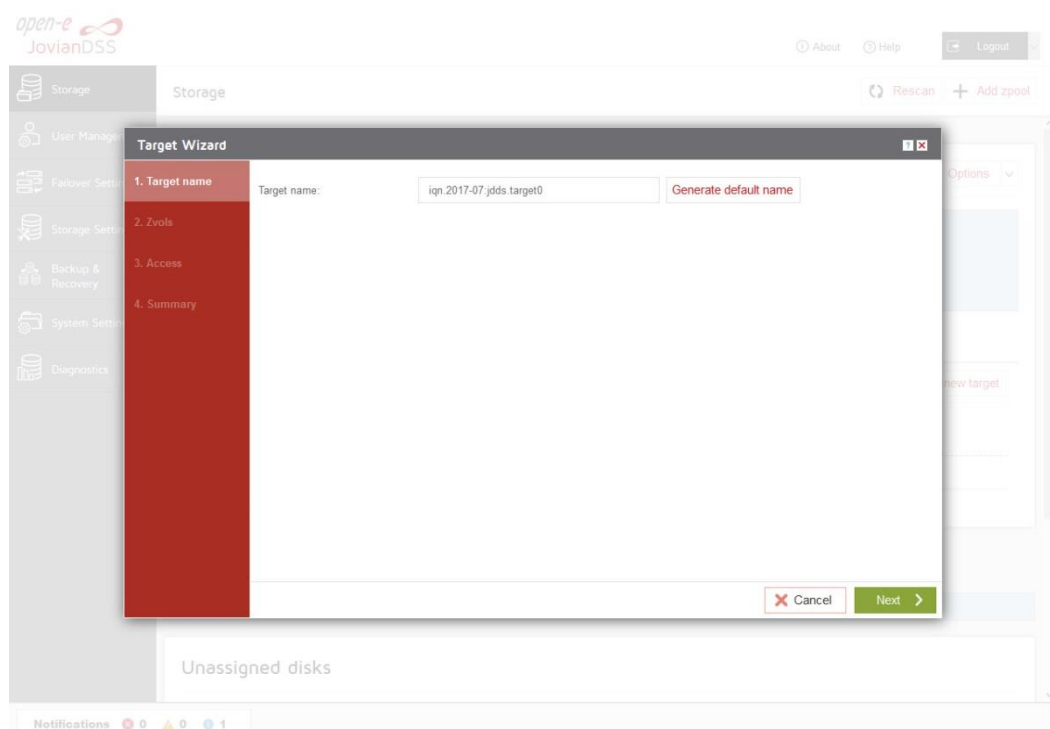
- In the Zvols step, click "Add new zvol". iSCSI Volumes are called zvols.
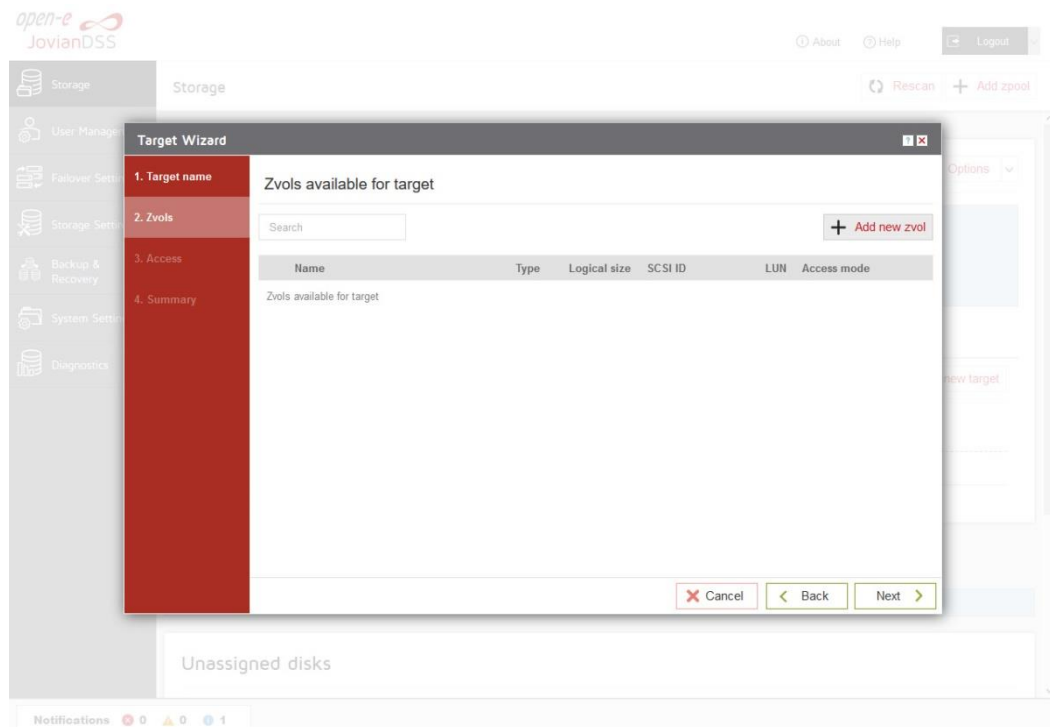
- In "Zvol properties" enter the name of a new Zvol and the appropriate size and click "Add" button.
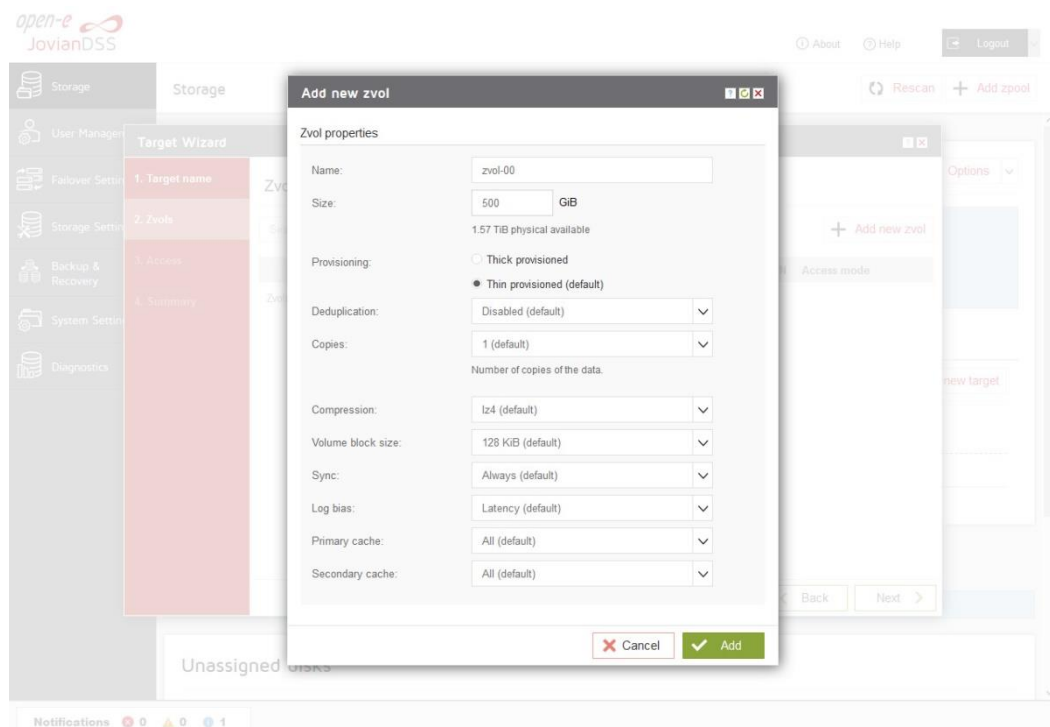
- After creating the new Zvols, click the "Next" button.
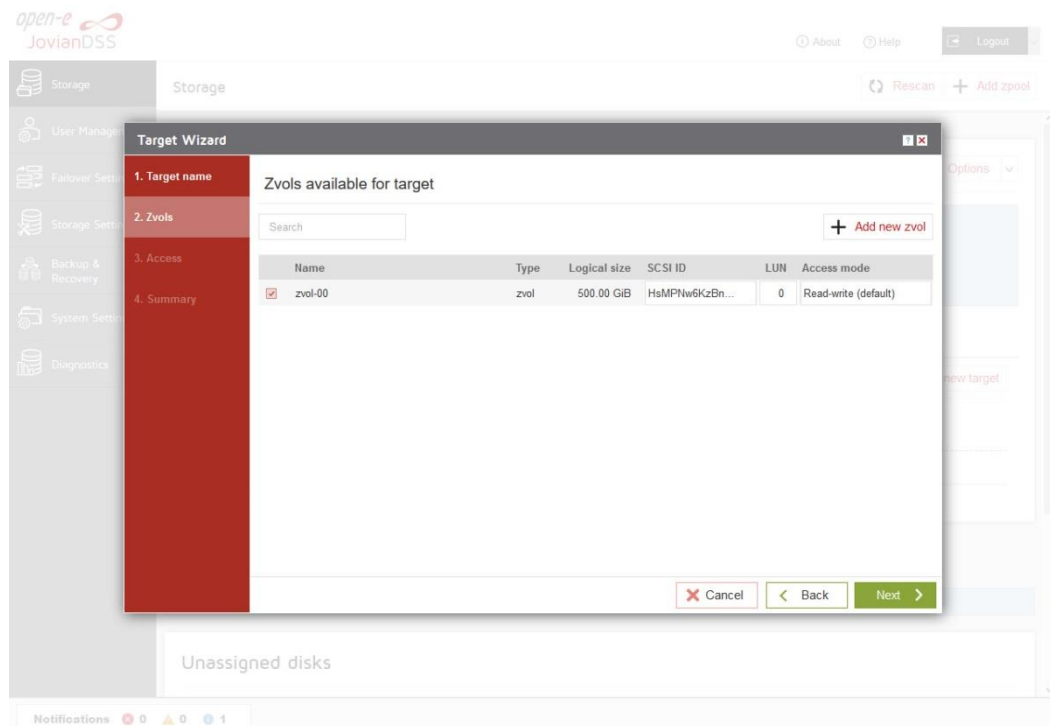
- In the "Access" step, you can change the security options of the targets. After making these changes click the "Next" button.
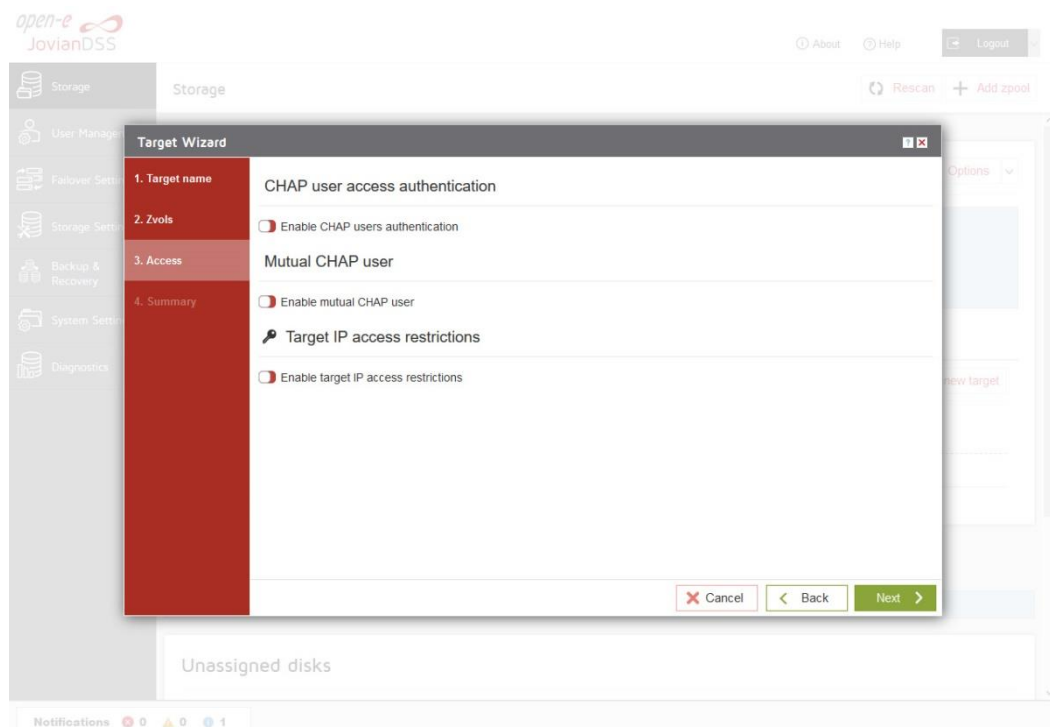
- In "Summary" you are able to see an overview of the configuration of the target. If the settings need to be modified, click the "Back" button and make the required changes. If it is correct, click "Add".
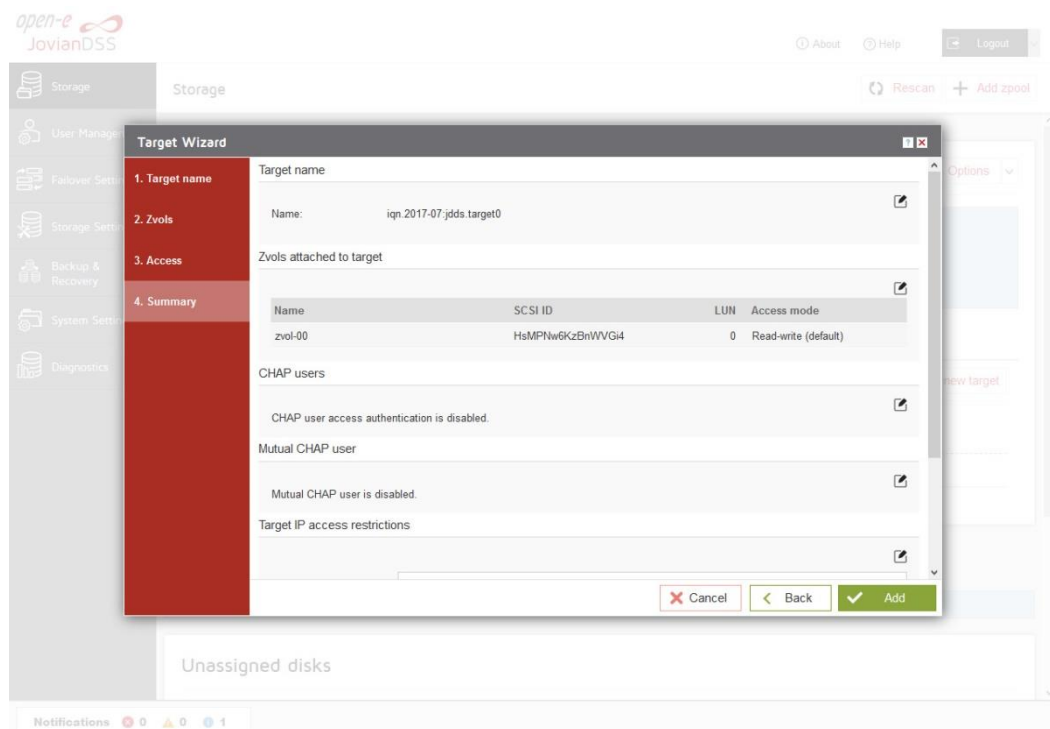
- After completion of the "Target wizard" return to the "Storage". Below you will see the "iSCSI targets" you are able to see and overview of the configuration targets.
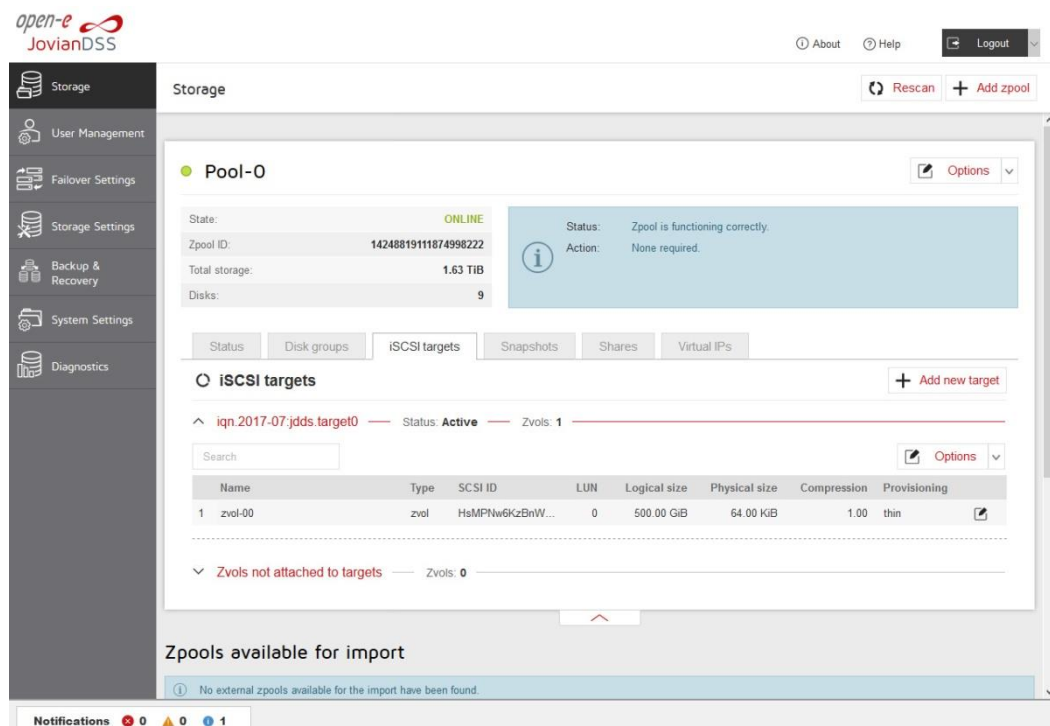
Step 6. Exploring targets

It is now time for you to connect with your iSCSI initiator and use your targets.

Example (Microsoft Windows environment).

Run the Microsoft iSCSI Initiator and follow the instructions:

- Start the software, add the targets in the "Discovery" menu and enter the IP Address of Open-E JovianDSS and Port (default 3260).
- From the "Targets" menu "Log on" to a target.
- Now access the Windows "Computer Management" feature and start the Disk Manager function, where you will be able to partition and format the new iSCSI drives for your operating system.

Step 7. **Creating SMB shares**

- In the Pool menu select the "Shares" tab. Click on the "Add dataset" button in order to create a new NAS-volume. NAS-volumes are called "datasets".
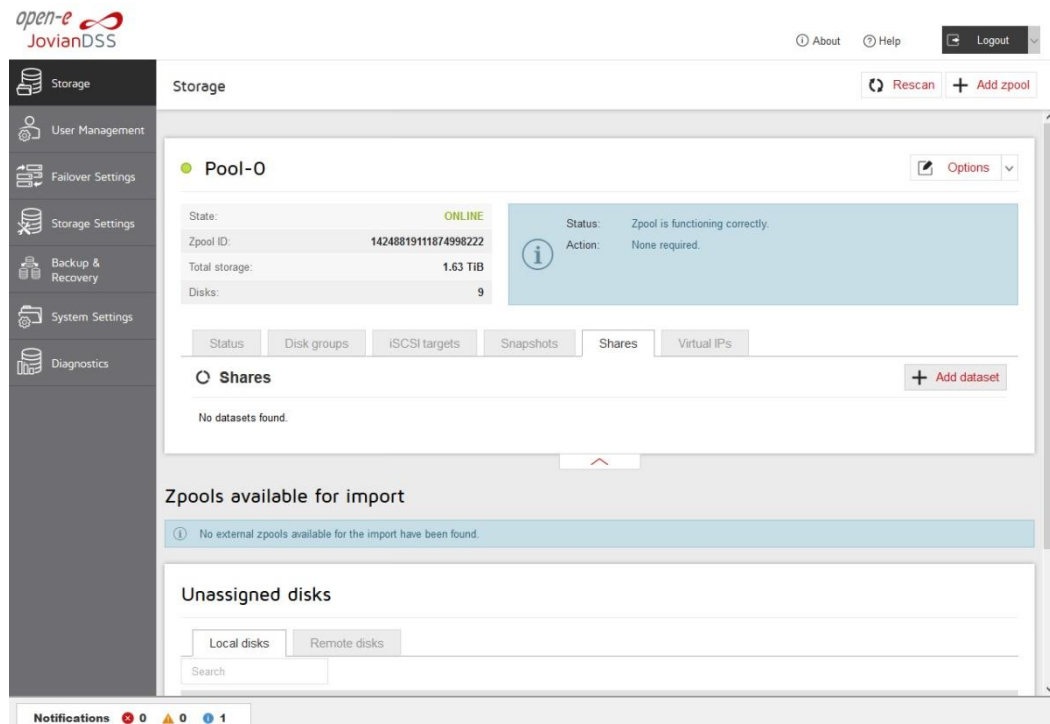
- In the "Add new dataset" window, enter the dataset (volume) name and click on "Apply" button.
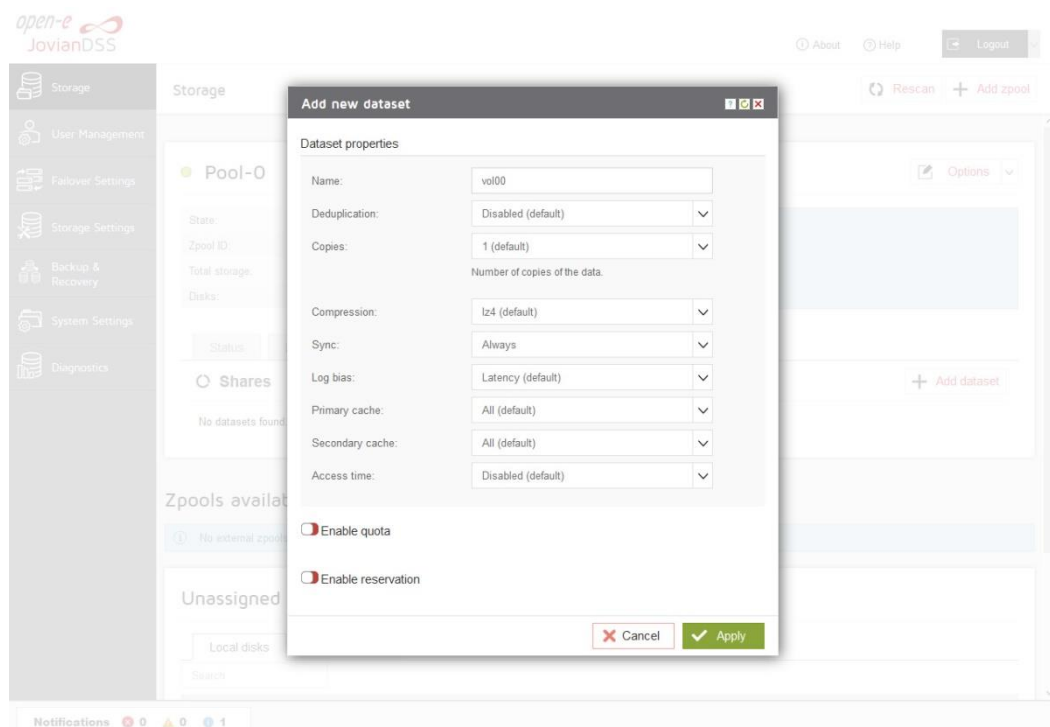
- Next select the created dataset. Next click on "Option" button and from drop-down menu click on the "Add share" button.
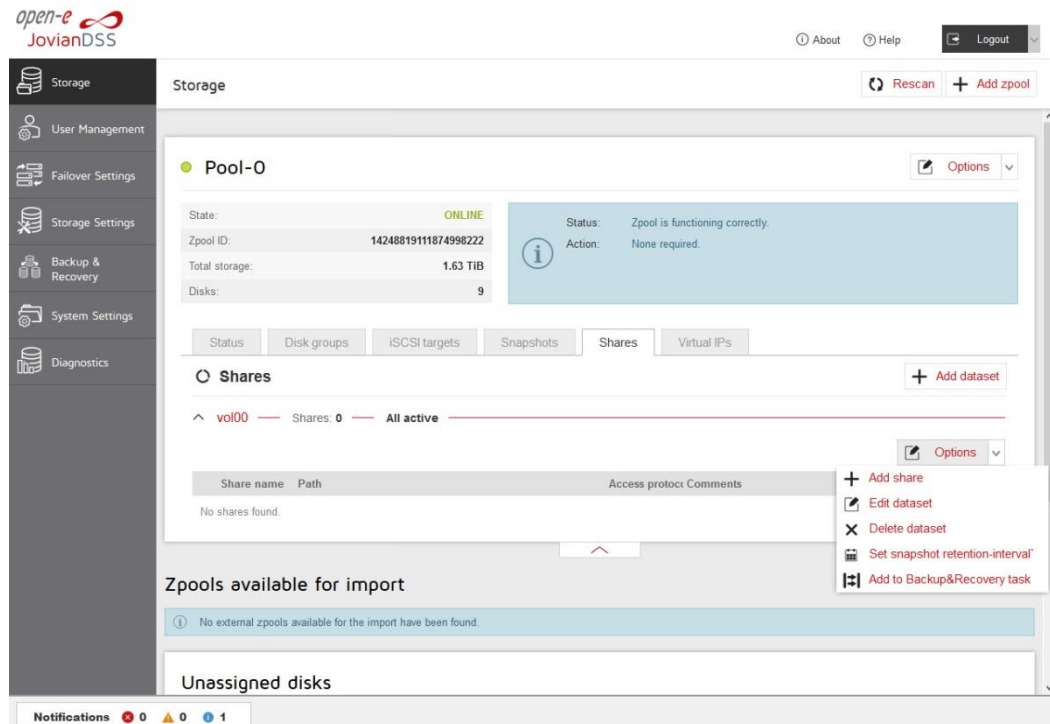
- In the "Share wizard" as a first step, enter the share name. Optionally you can enter the subdirectory name in the dataset. If the subdirectory is not entered, the share will be pointed directly to the dataset. The comment field is also optional. Continue with "Next".
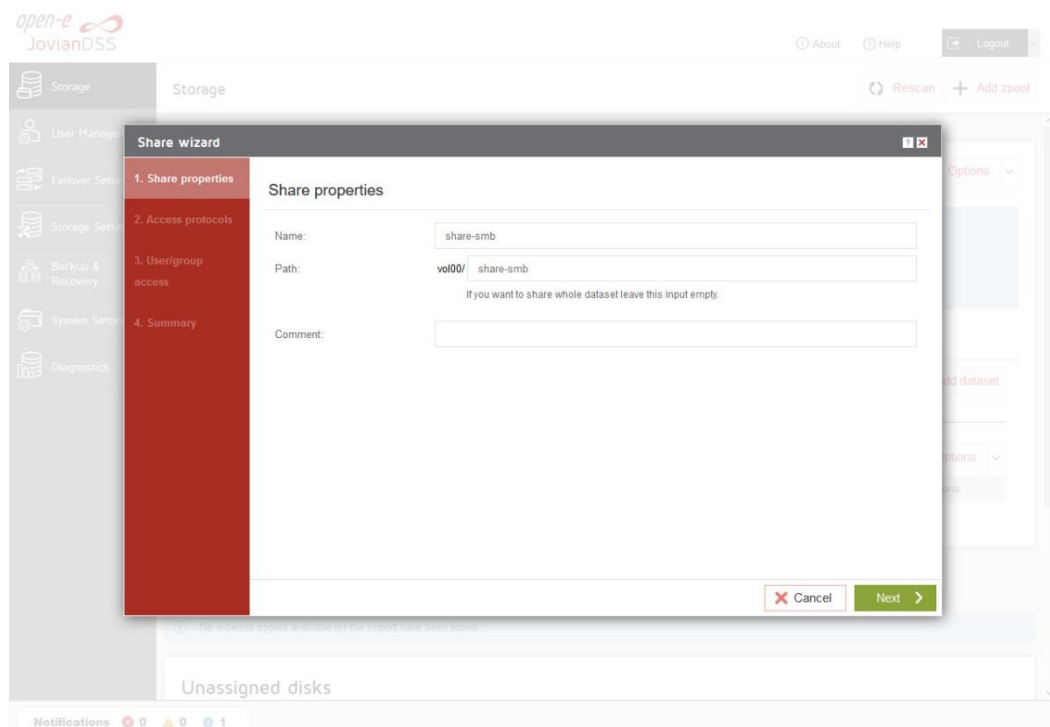
- In order to create the share confirm with "Yes".
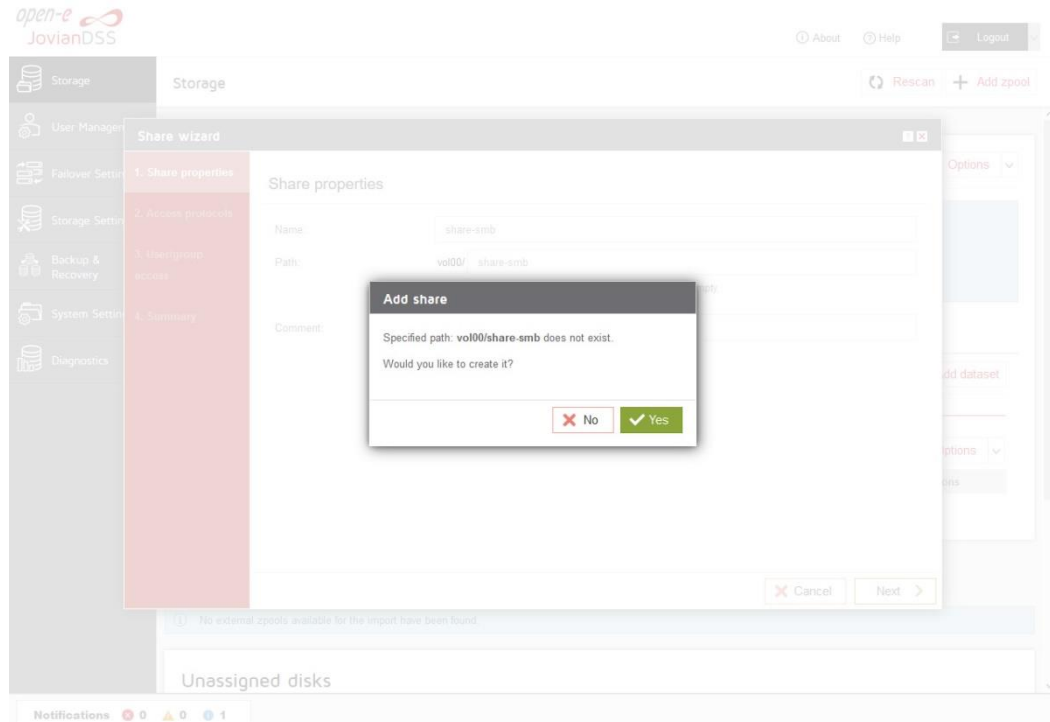
- In "Access protocols" step, check the "Enable SMB service".
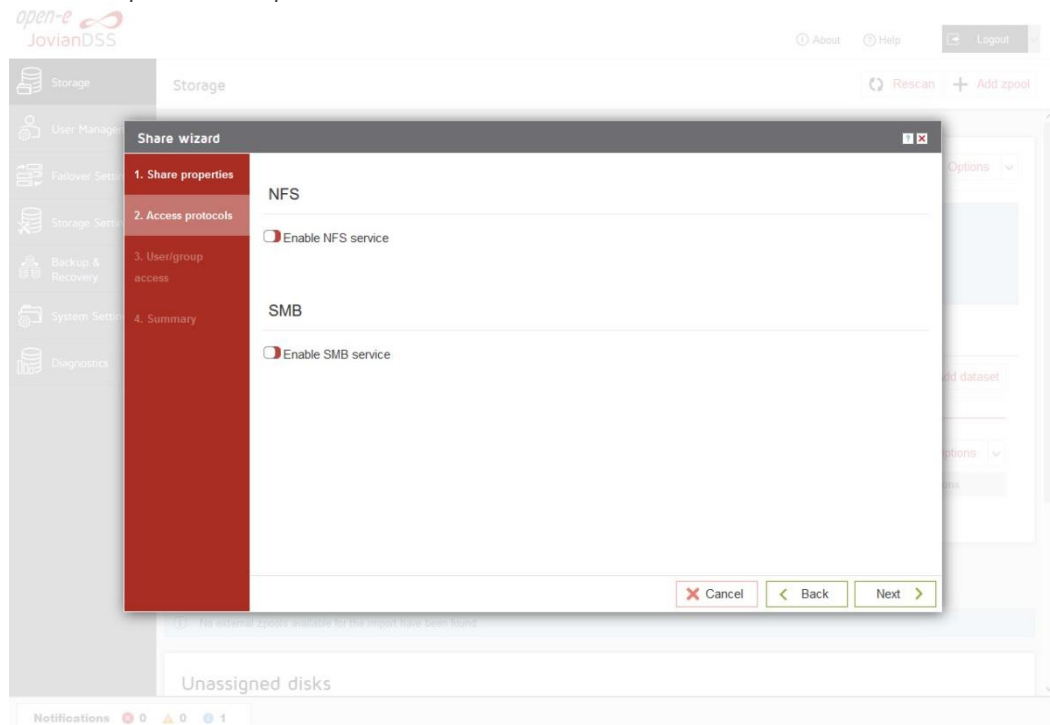
- Confirm with the "Yes" button and continue with "Next".
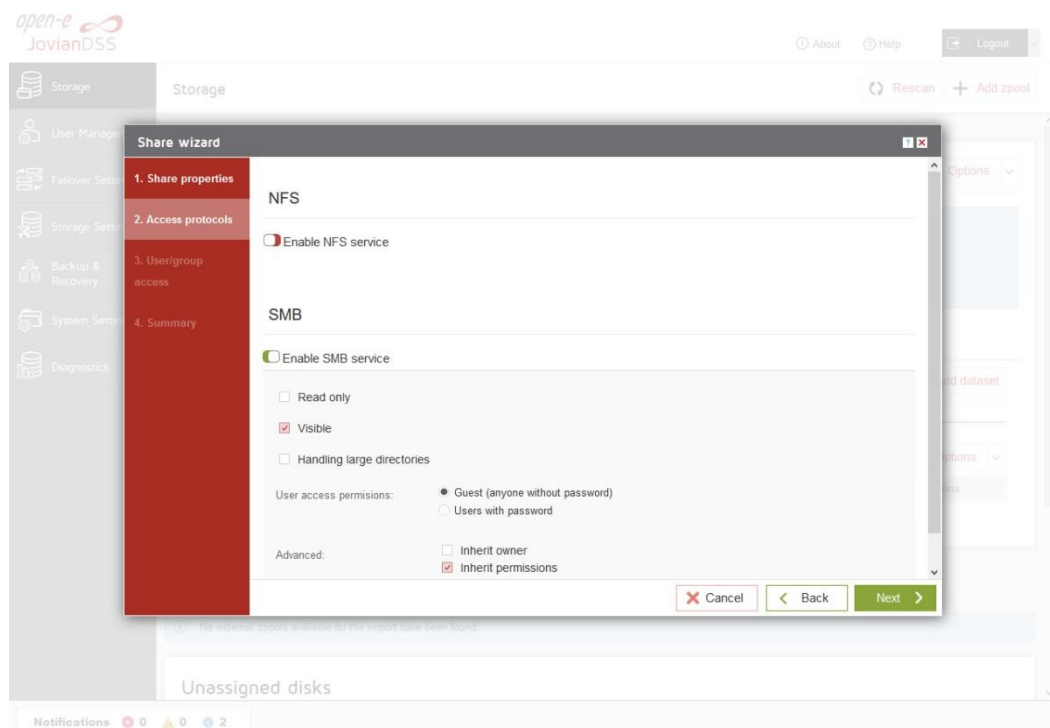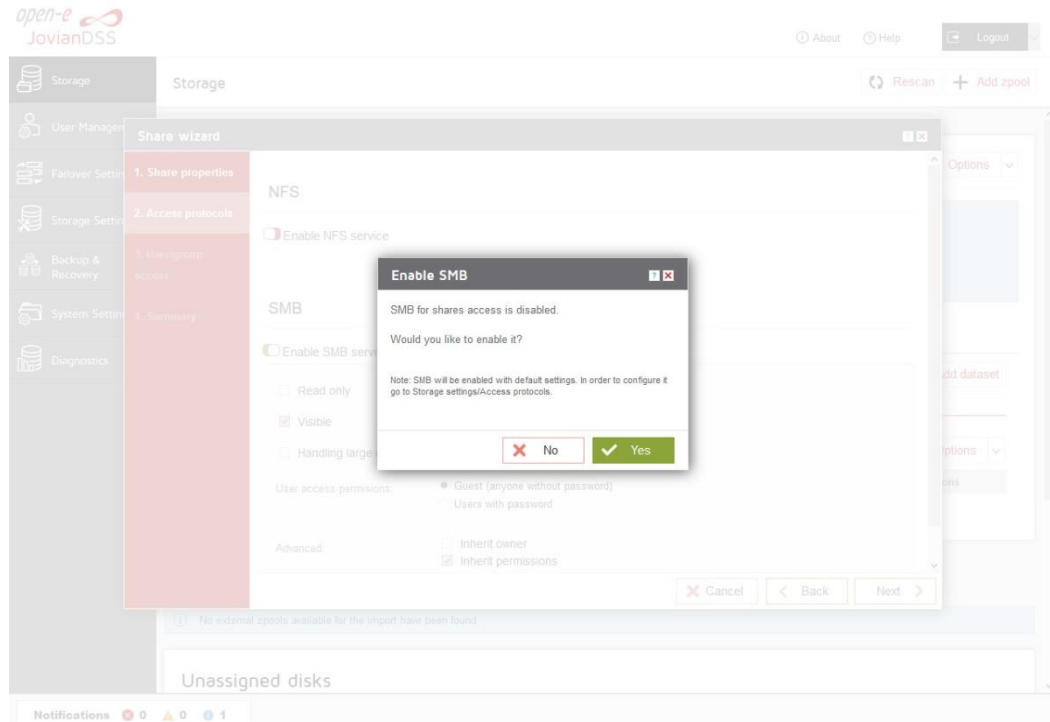
- In the "Users/groups access" step continue with the "Next" button.
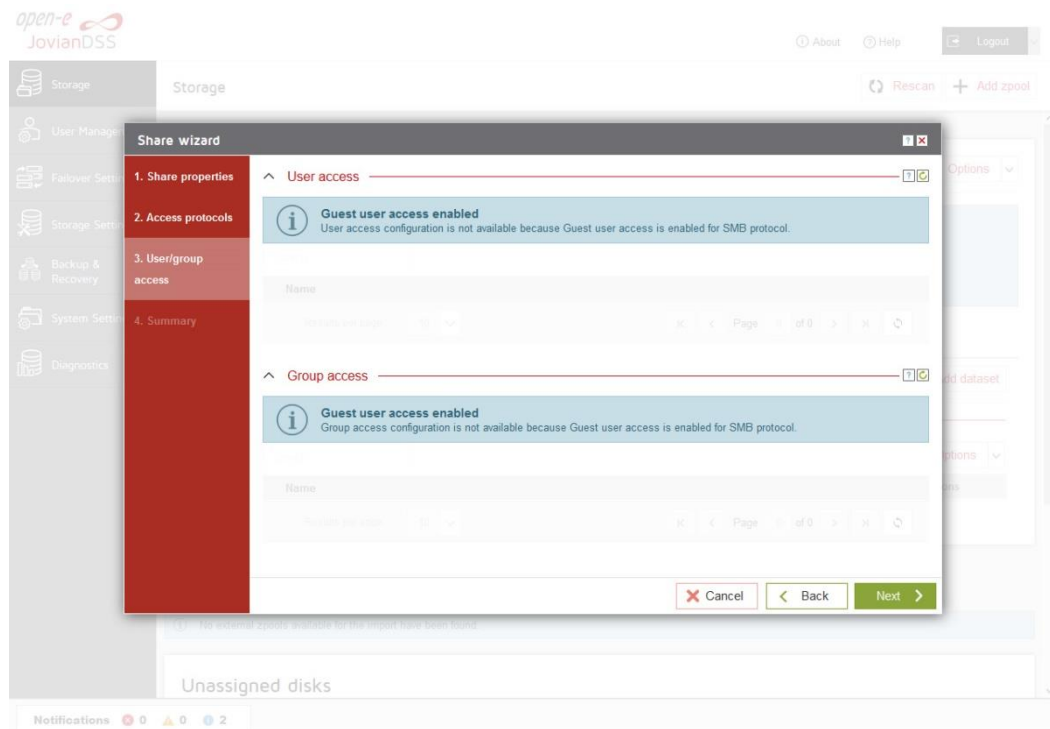
- In the "Summary" step click the "Add" button. Now the SMB share is ready to use.
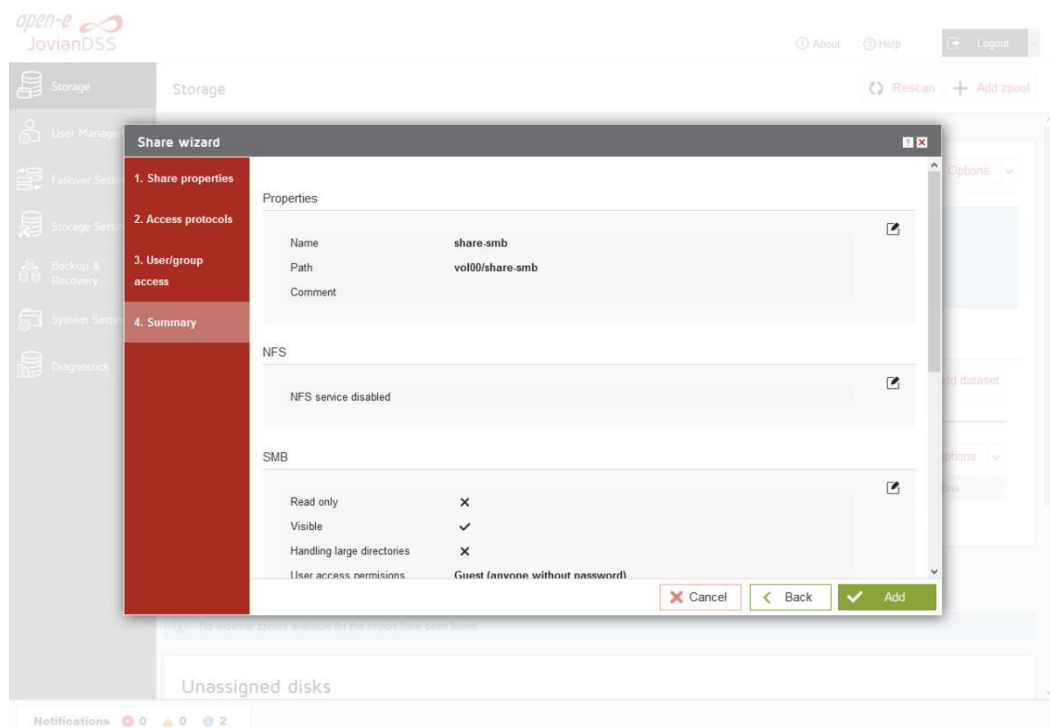
- In order to change the SMB share settings, click on the "Options" drop-down menu and select "Edit dataset".

Step 8. Auto-Snapshots and Access to Previous versions

Use Windows Previous Versions to go back in time and access or restore previous versions of files and folders. Windows allows restoring previous versions of a file that was modified or even deleted. Anyone who has ever changed a file and realizes that the previous content was better as it was before, will appreciate the value of being able to retrieve a previous version of a file. Previous versions need auto-snapshot. The auto-snapshot can be set via the GUI.

- To create new auto-snapshots plan, please go to the "Backup & Recovery" menu then Click the "Add replication task" button in the bottom right corner to run the "Backup task wizard".
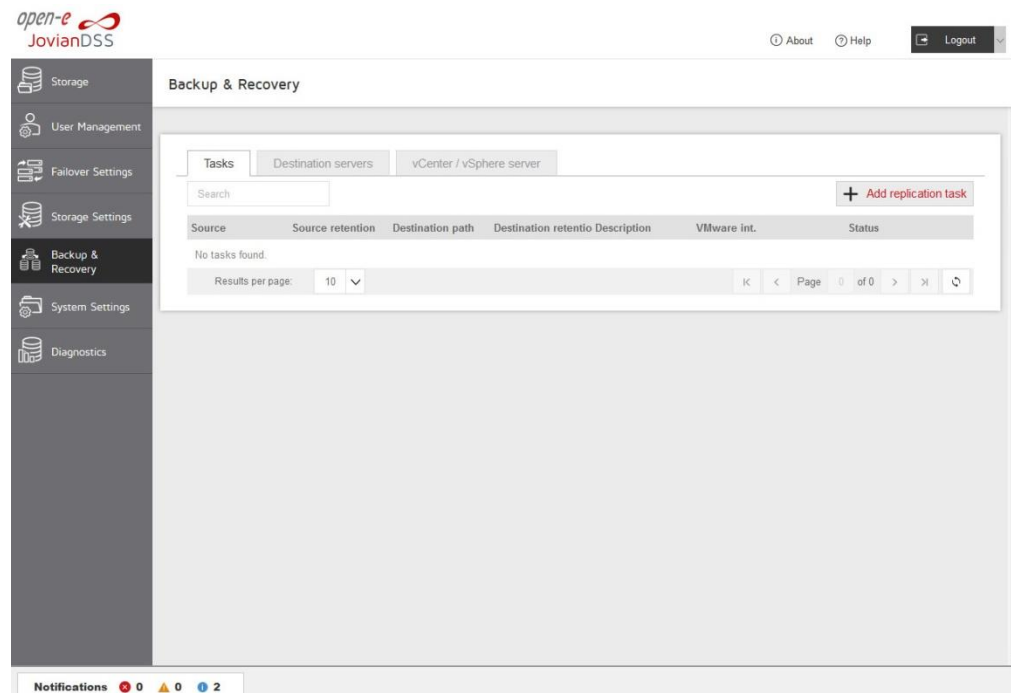
- After starting the "Backup task wizard" will be listed default "Retention-Interval plan for source".
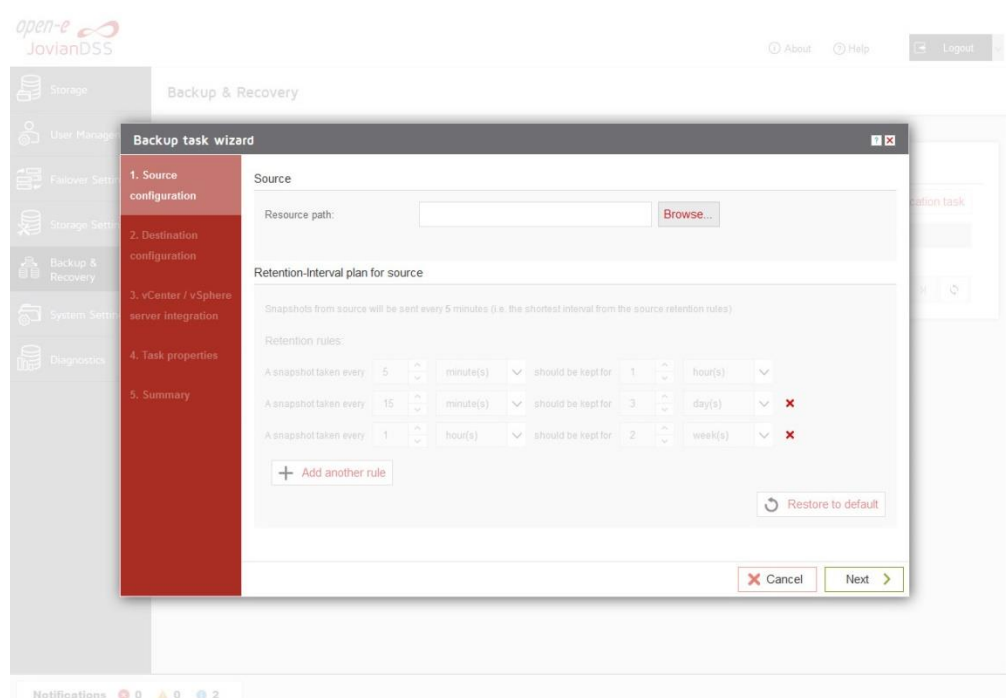
- In the "Source configuration" click "Browse".
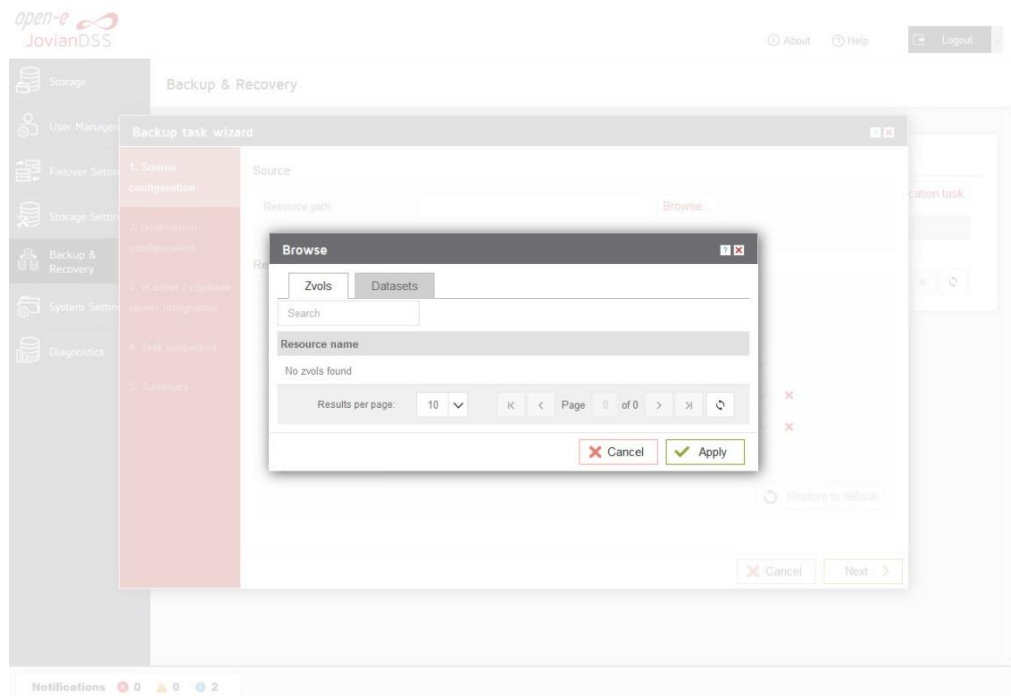
- In the "Browse" please select "Datasets" tab, and choose a resource name. Next click on "Apply" button.
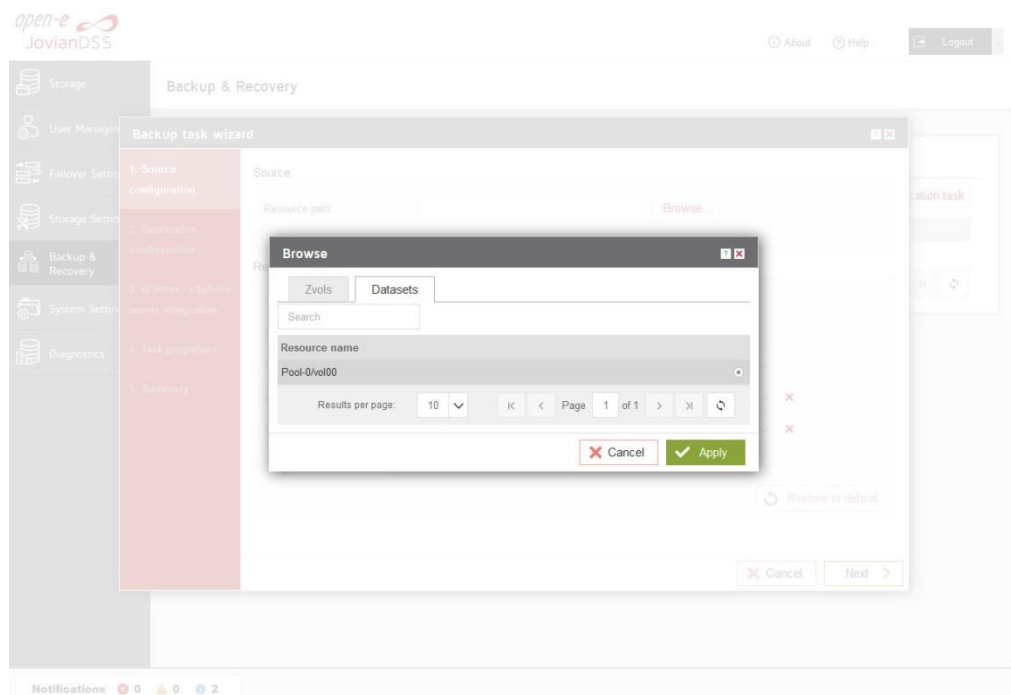
- After the end selecting "Resource path" please click on "Next" button.

- In "Destination configuration" please disable "Set remote destination for backup task" option.
  NOTE: If backup need to be configured, you can just continue with the wizard and provide destination volume accordingly.

- Next, please click on "Next" button.
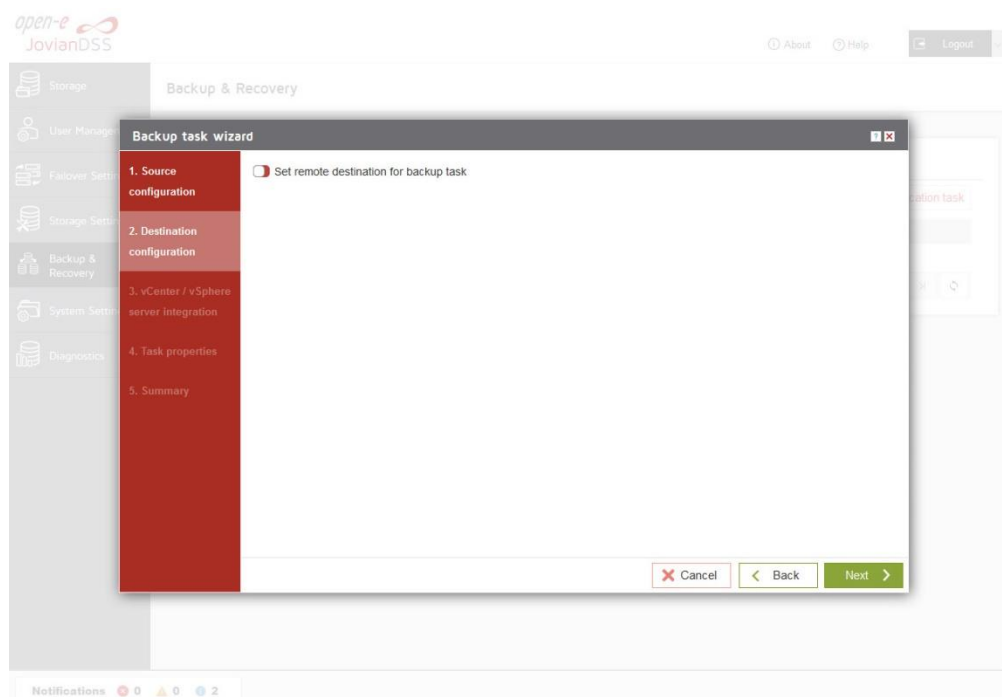
- In "vCenter / vSphere server integration" please click on "Next" button
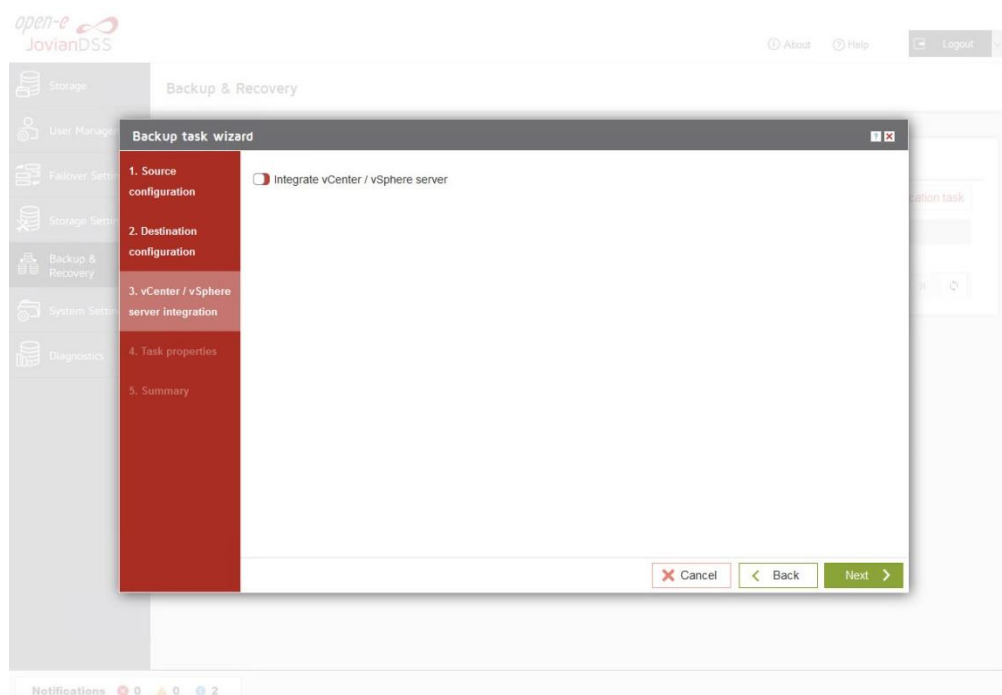
- In "Task properties" please enter task description, and click on "Next" button.
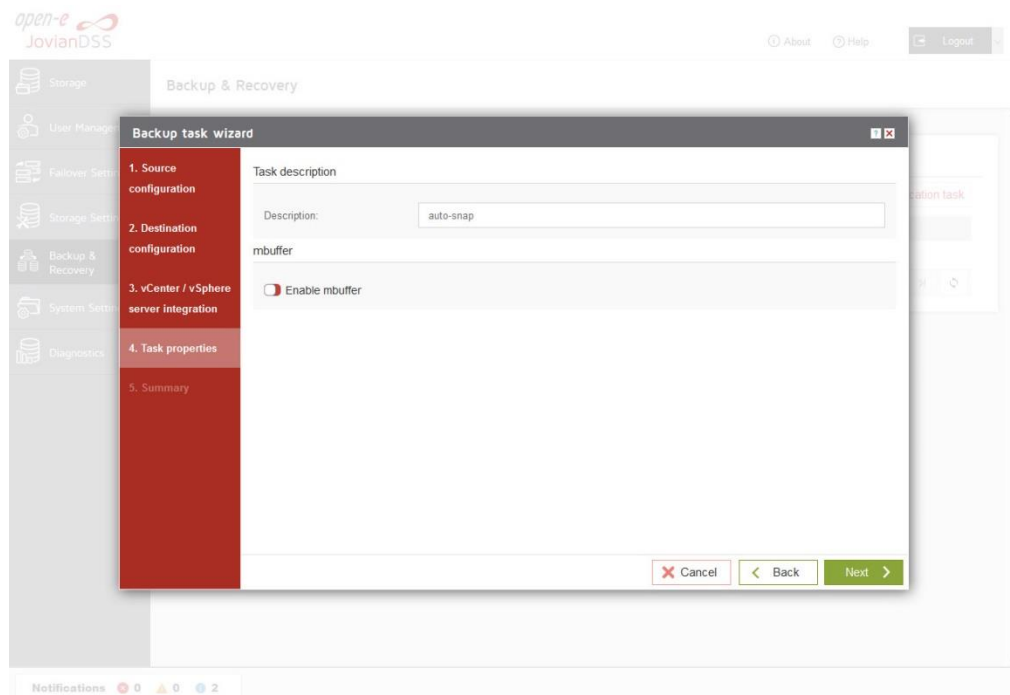
- Next, in "Summary" please click on the "Add" button
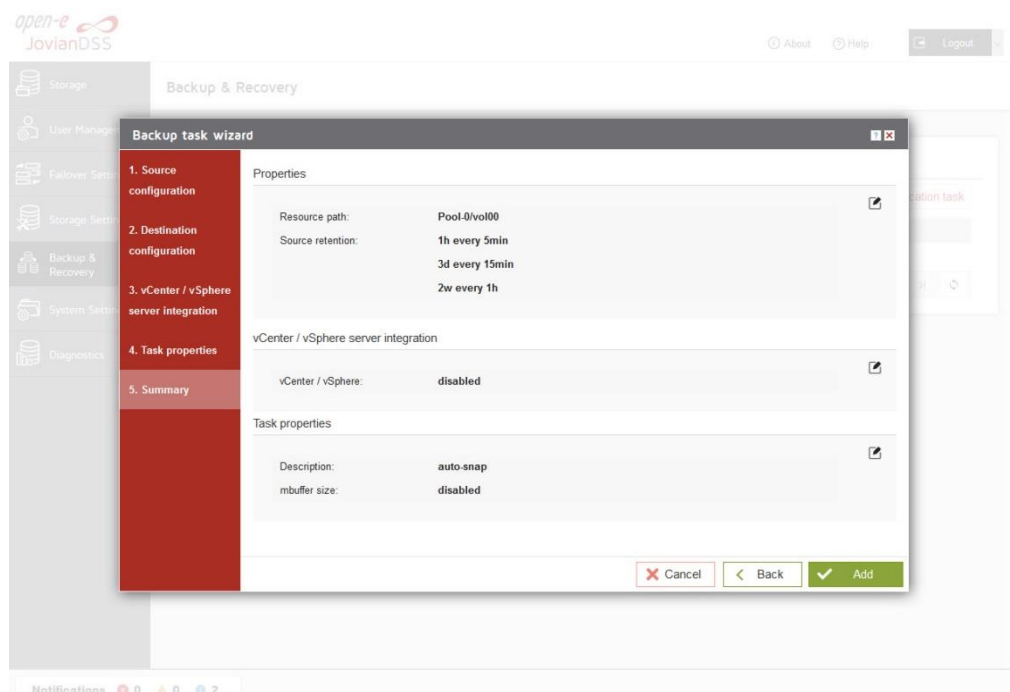
- After completion of the "Backup task wizard" return to the "Backup & Recovery". Below you will see the "Task" you are able to see that is "Enabled".

- Next, go to the "Storage" menu. Now auto-snapshots are created accordingly to a provided retention-interval plan and can be viewed in pool-menu in "Snapshots" tab.

- In the event of a file being renamed or deleted, you can view the previous version of the containing folder. Just right-click on some white space in the folder and select the "Properties" option. You can also right-click on the folder itself and select the "Properties" option as shown on the screenshot below.
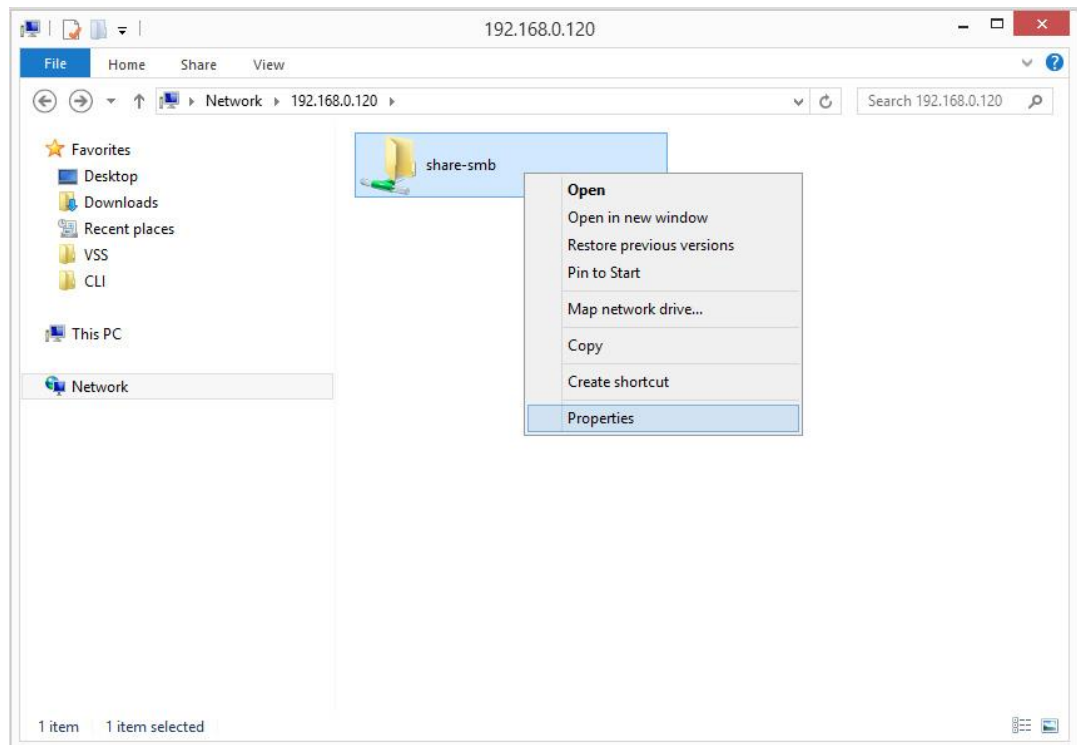
- In the "Previous Versions" tab, all auto-snapshots are listed.
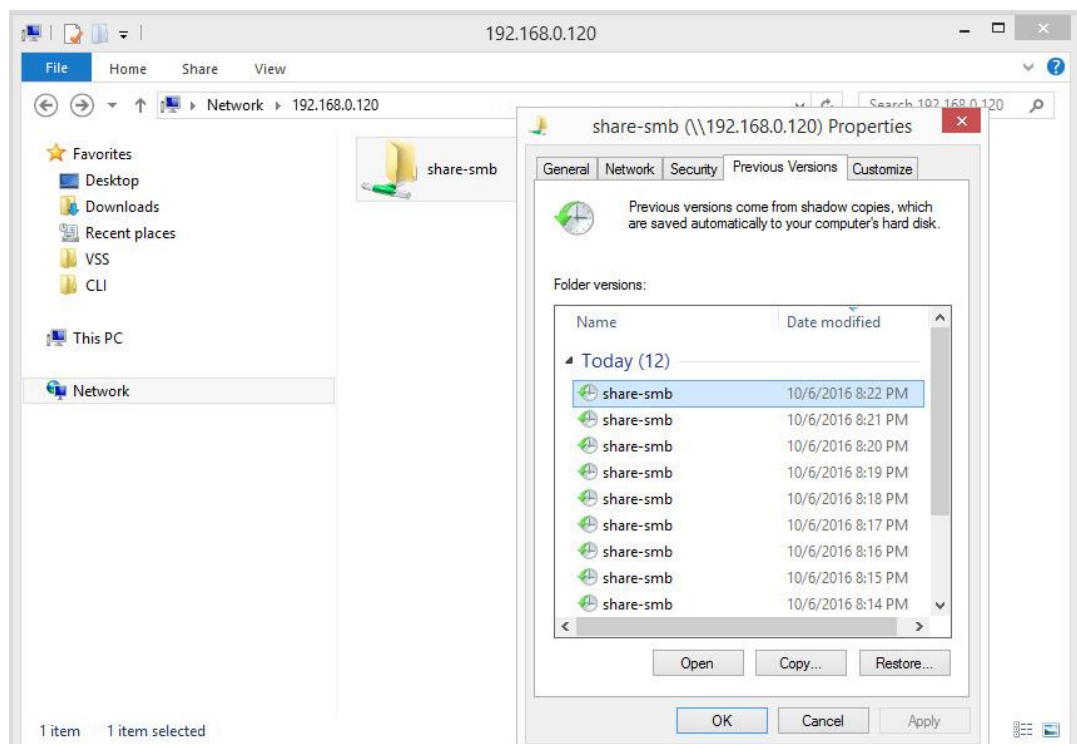
- By double-clicking on a folder in the list, it will show the contents of the folder at the time the snapshot was made.
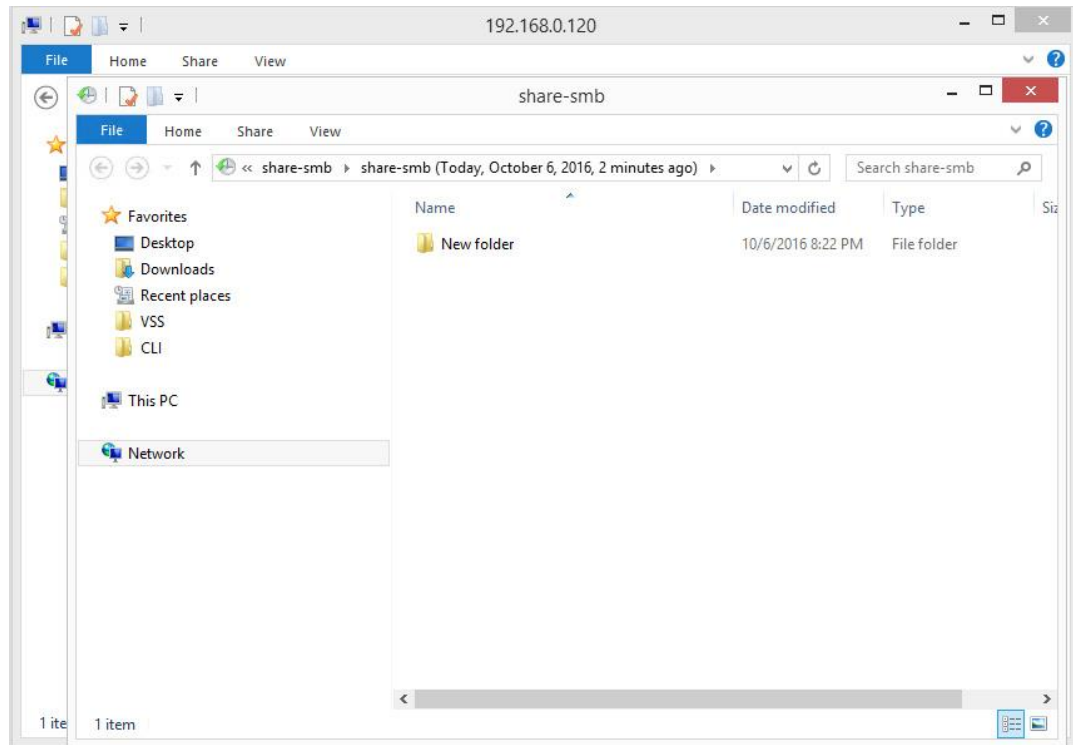
Step 9. Creating NFS shares

- In the Pool menu select "Shares" tab. Click on the "Add dataset" button in order to create new NAS-volume.

- In the "Add new dataset" window enter the dataset name and click on "Apply" button.

- Next, select the created dataset and click on the "Add share" button. Enter the share name. Optionally you can enter the subdirectory name in the dataset. If the subdirectory is not entered the share will be pointed directly to the dataset. In order create share click "Next" and confirm this action by clicking the "Yes" button.
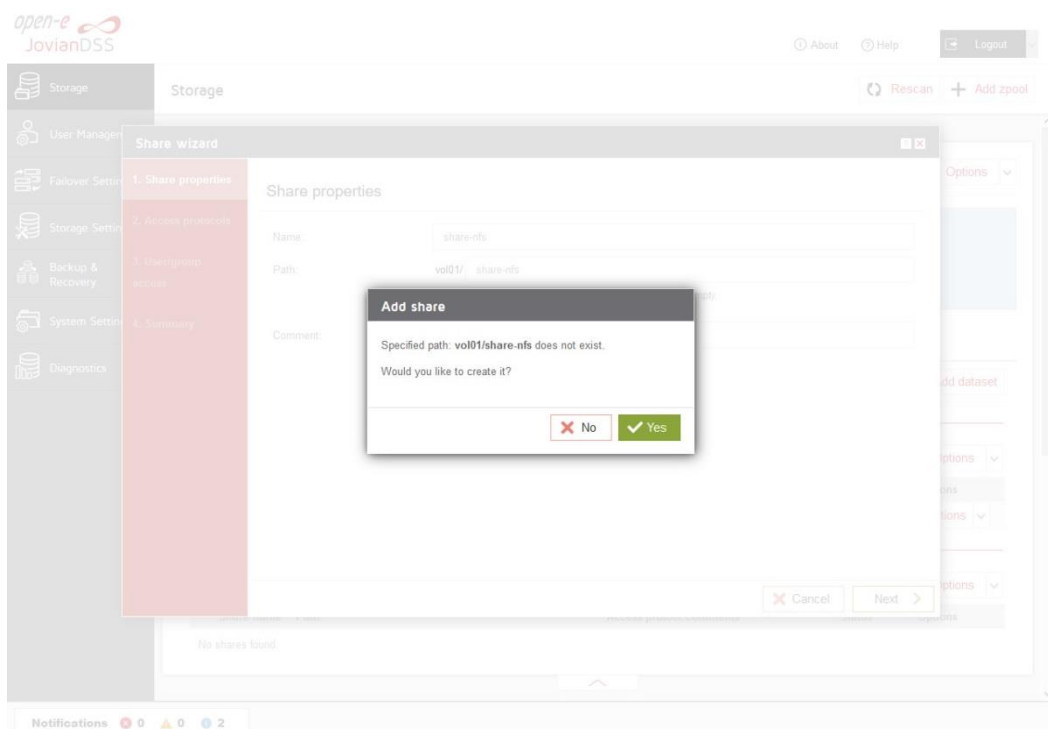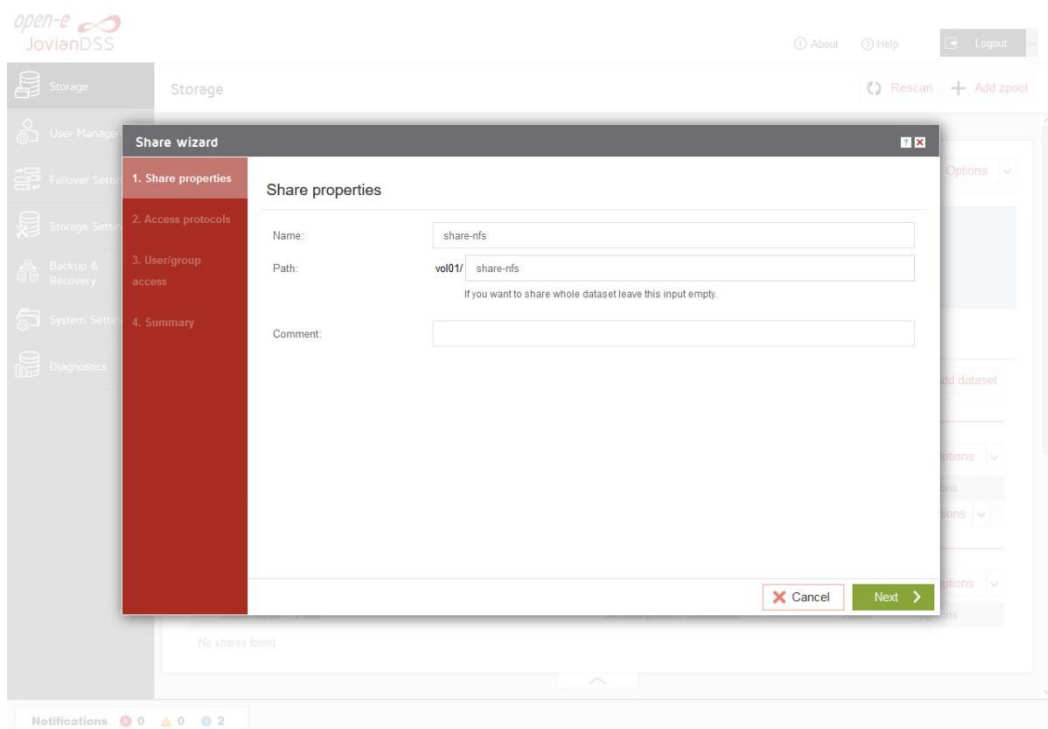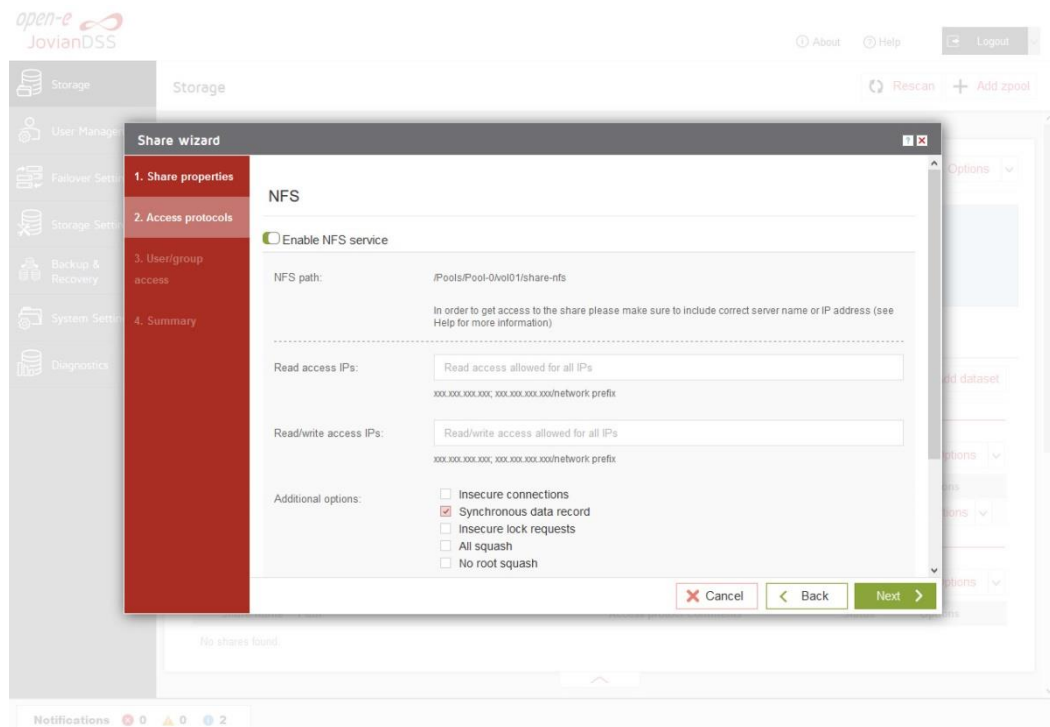
- In the "Access protocols" step, click on "Enable NFS service" confirm this action by clicking the "Yes" button and continue with "Next" button.
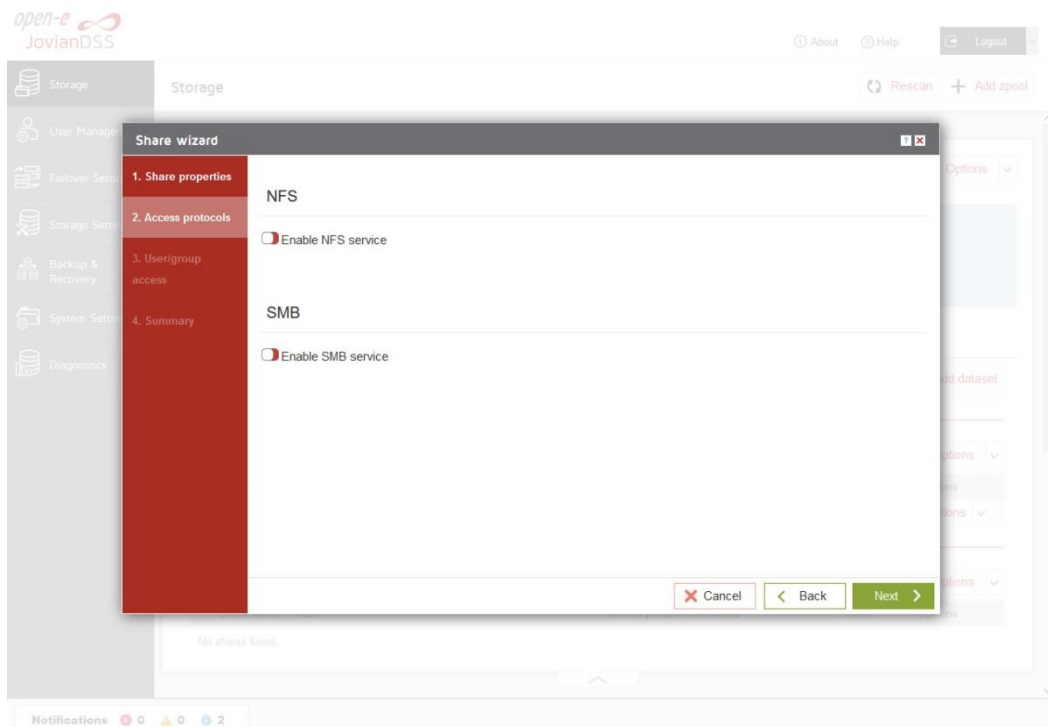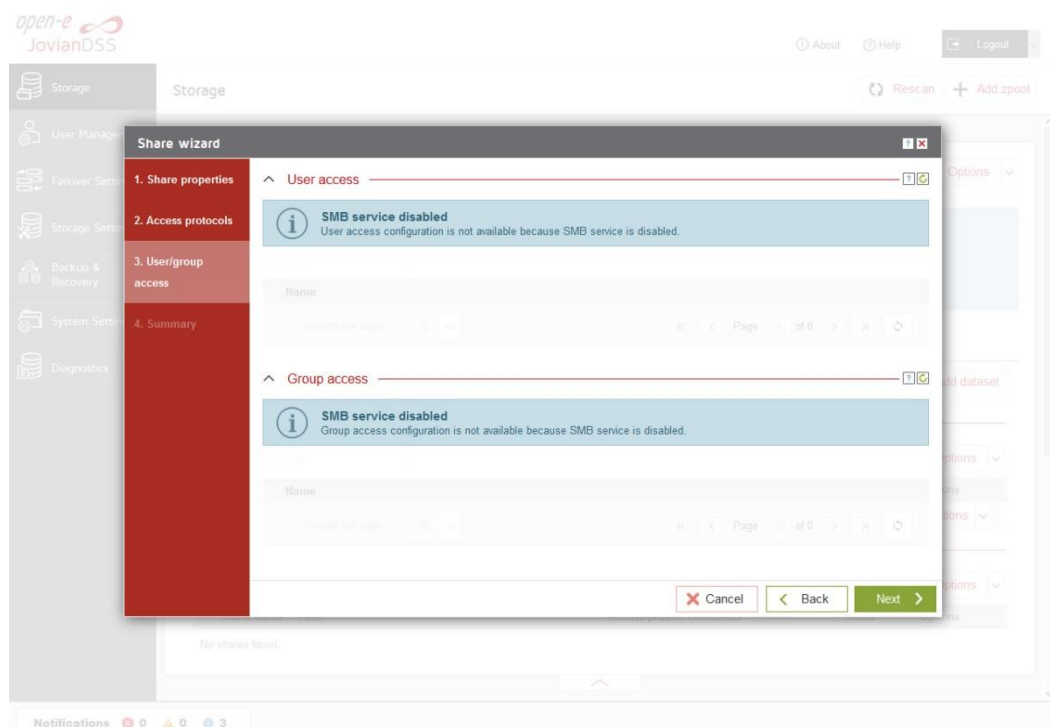

- Confirm this action by clicking the "Yes" button and continue with "Next" button.
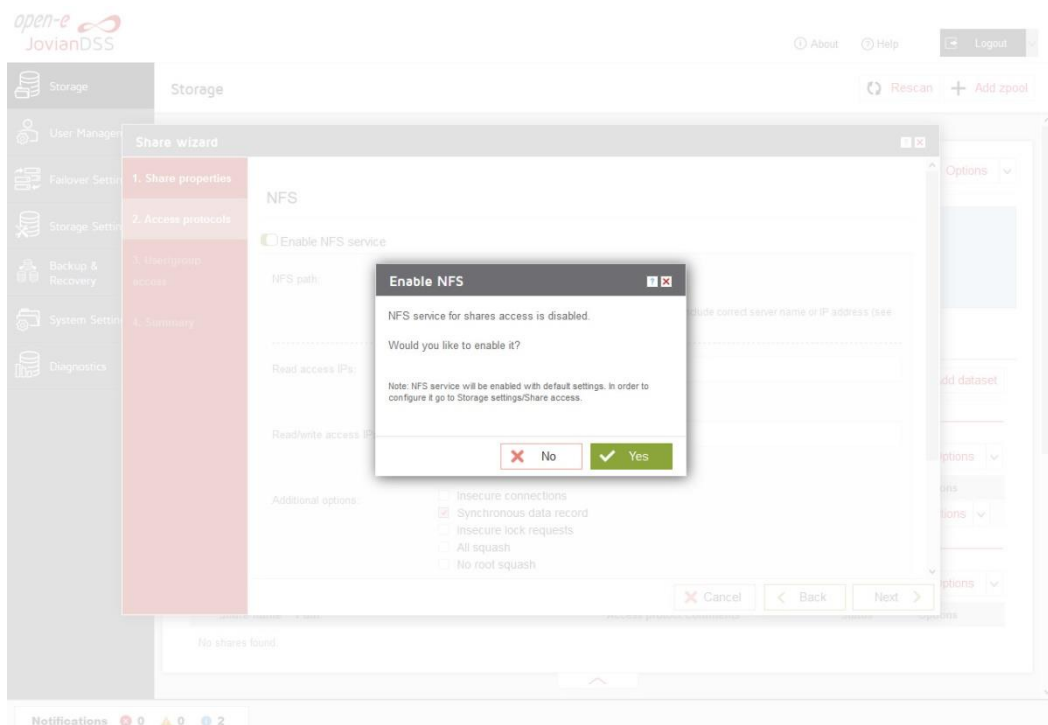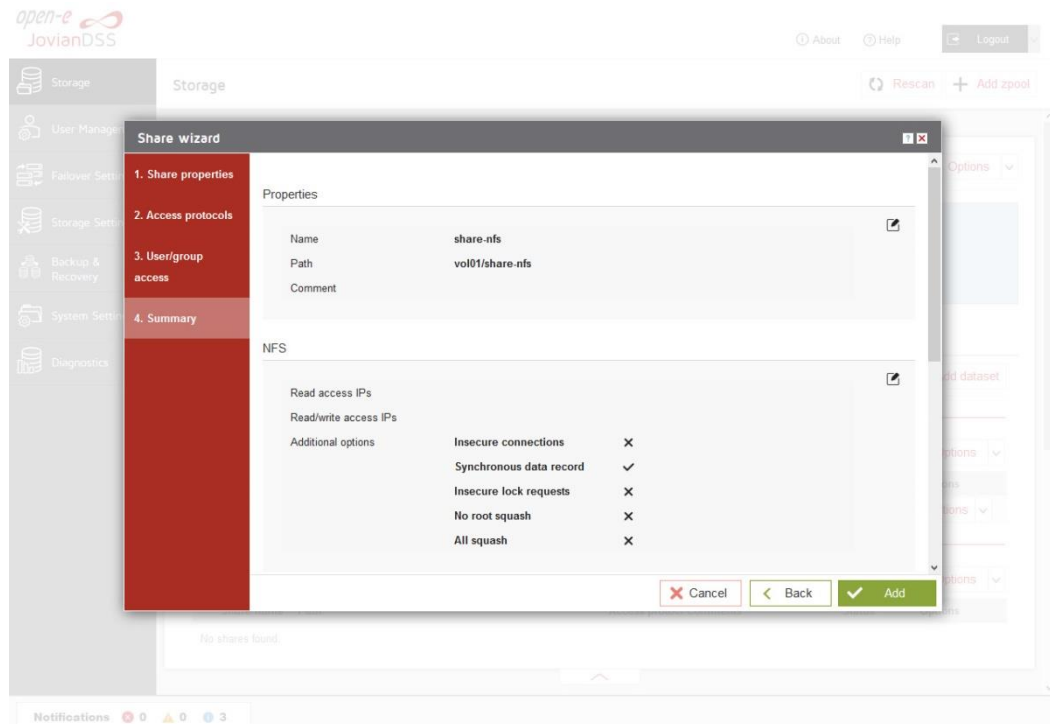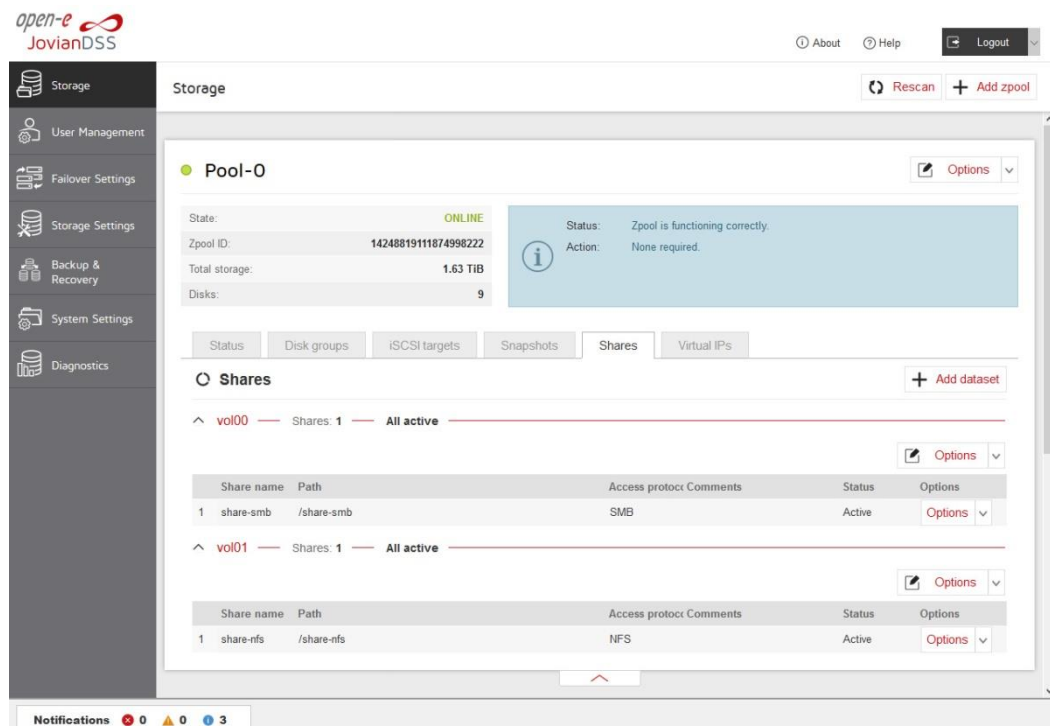
- In the "Users/groups access" step, continue with "Next" button.

- In the "Summary" step, to complete click the "Add" button. Now the NFS share is ready to mount.

- In order to change the NFS share settings, click on the share "Options" drop-down menu. In order to change the dataset setting click on the "Edit dataset" in dataset "Options" drop-down menu.

Open-E JovianDSS   JUMP-START

Please register your Open-E JovianDSS license: **http://www.open-e.com/register/**