Preparing the boot media/installer with the ISO file:

Downloaded and extract the ISO file with your favorite uncompressing/extracting software (for example: 7zip or WinZip® programs) to an empty USB Flash Drive.

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).
- Continue to 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 the JovianDSS instead of running the software installer. To make this default change, run the "config.exe" from boot directory and select "r" to remove the default boot of the software installer.**

Booting the Open-E JovianDSS:

General Hardware requirements
- The minimum size for the JovianDSS boot medium is 16GB. A recommended JovianDSS boot medium use a HDD or SSD device. USB Flash Drive can be used as JovianDSS boot media for testing purposes or non-mission critical applications.
- It is necessary to use ECC RAM modules in the system.
- SATA hard disk drives are supported, but SAS disks are recommended for performance.
- Minimum of 8GB RAM plus 1GB per 1TB zPool space.
- Mirrored "Write Log" is required for production.
- Uninterruptable 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 enter or it will skip and continue automatically within 5 seconds.

The second menu allows you to select the 64-bit architecture to boot the Open-E JovianDSS or to install the software on a writable recommended boot media in your system using the interactive installer utility. Select "Run software installer" to install the Open-E JovianDSS on a writable boot media in your system.

- Launch system
- Launch software installer

Please follow the instructions while running the installer. Finally, reboot your storage server from the new boot media (set your BIOS boot options back from USB to the media 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 will be provided by your Open-E sales representative or from Reseller. 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, the 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 product key and logging into Open-E JovianDSS

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

- https://192.168.0.220 or
- https://dss

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 using the standard password: "*admin*". Now you will be able to set all server parameters to get started.

NOTE: **Be aware the Password is case-sensitive.**

Step 4. Create zpools

- To create a new zpool, please go to the "Storage" menu. 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.
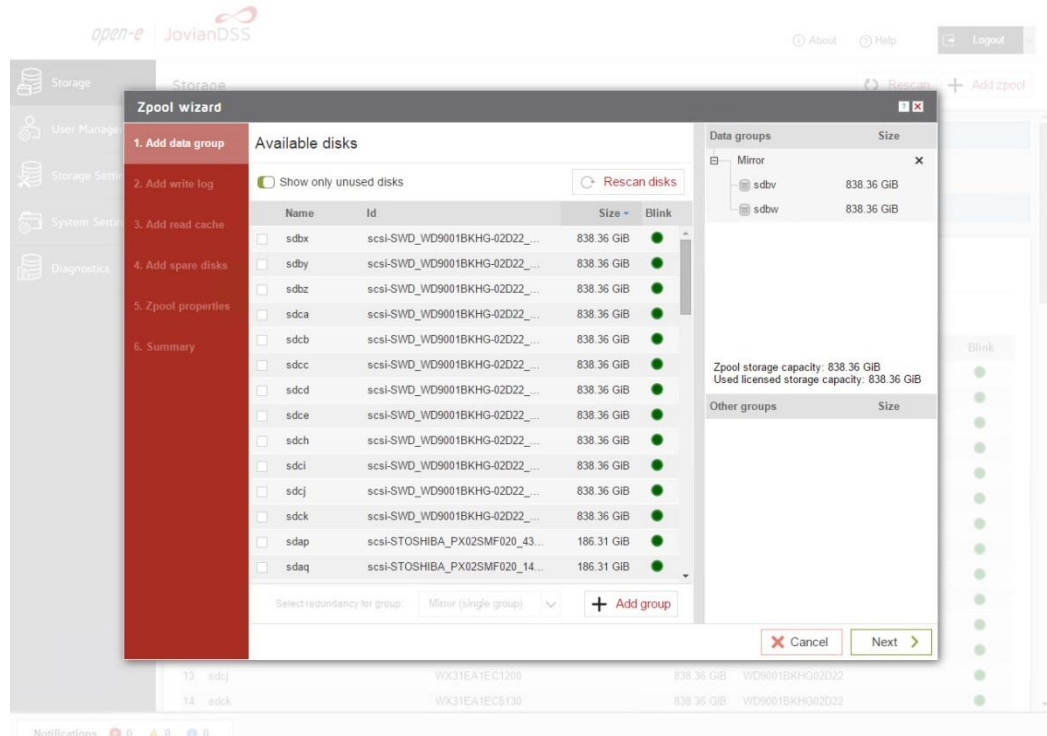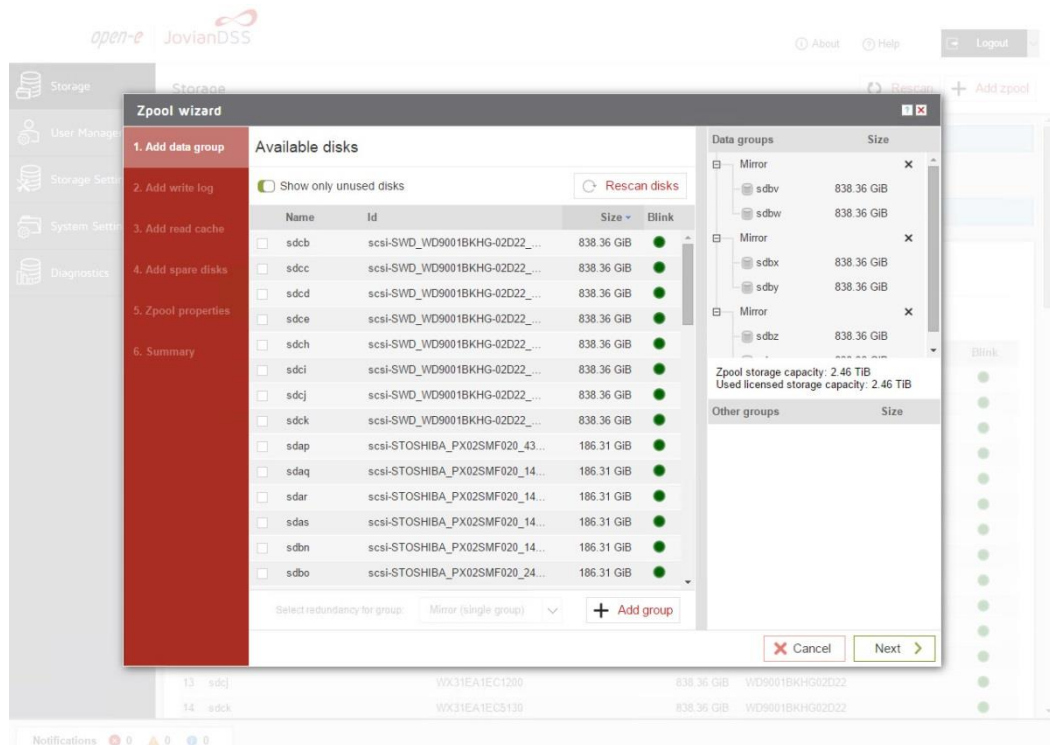
- Next, select the disks and redundancy level and click on the "Add group" button.
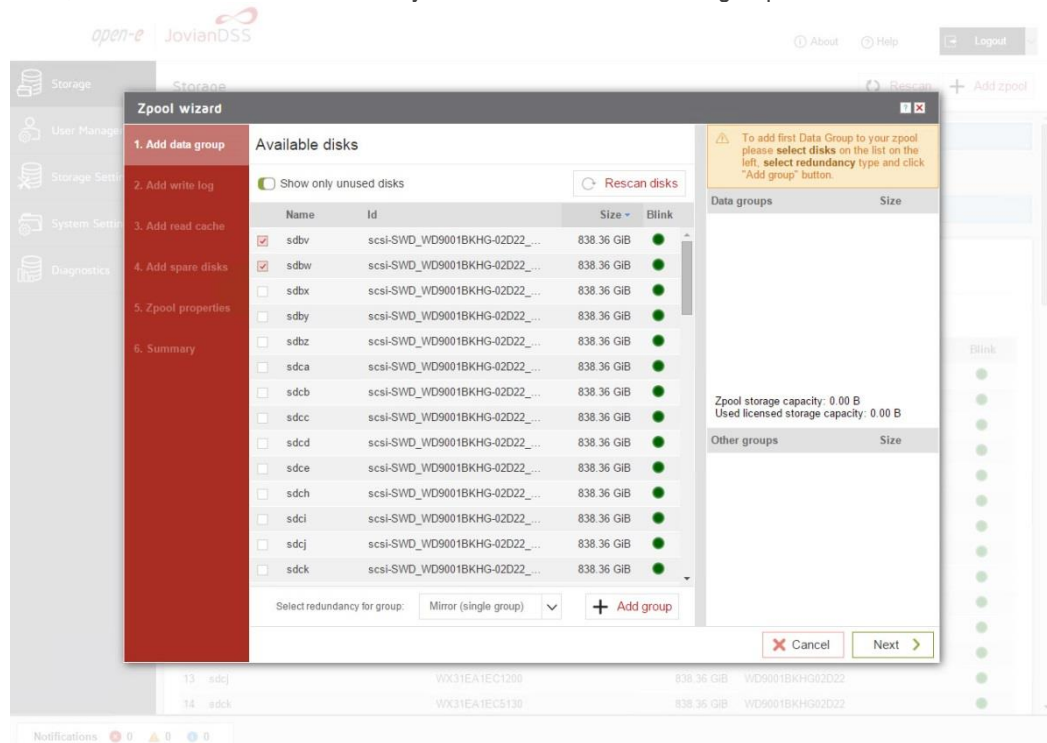
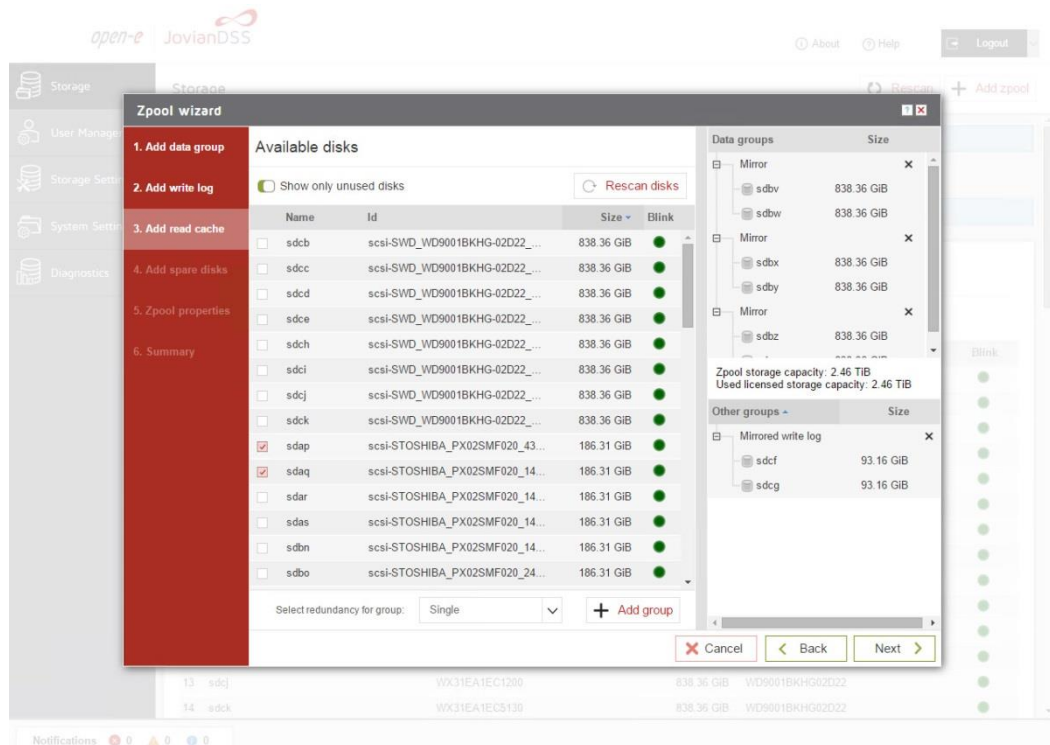- The created group will be displayed in the "Configuration preview" window on the right side.

- In this example we have 3 mirror groups added.
- The created 3 mirror groups will be displayed in the "Configuration preview" on the right side. After adding all groups click the "Next" button.

- In next step you can create a write log (ZIL on SLOG).
- NOTE: Mirrored and fast SDD 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.
- NOTE: The mirrored redundancy level is strongly recommended for data integrity.

- The created "write log" will be displayed in the "Configuration preview" on the right side.
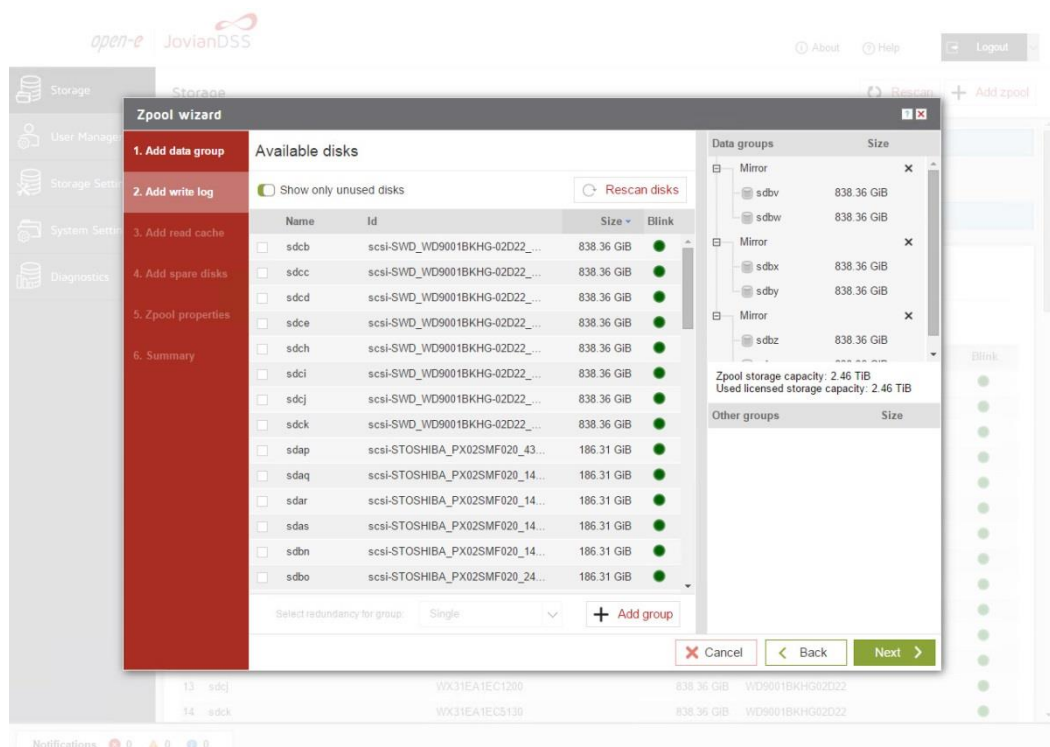
- In the next step you can create the read cache. Select the disks from the list on the left and select redundancy "Read Cache", type and click "Add group", and then the "Next" button.
- NOTE: For fast random read IOPS it is recommended to use SDD disks.

- The created "read cache" will be displayed in the "Configuration preview" on the right side.
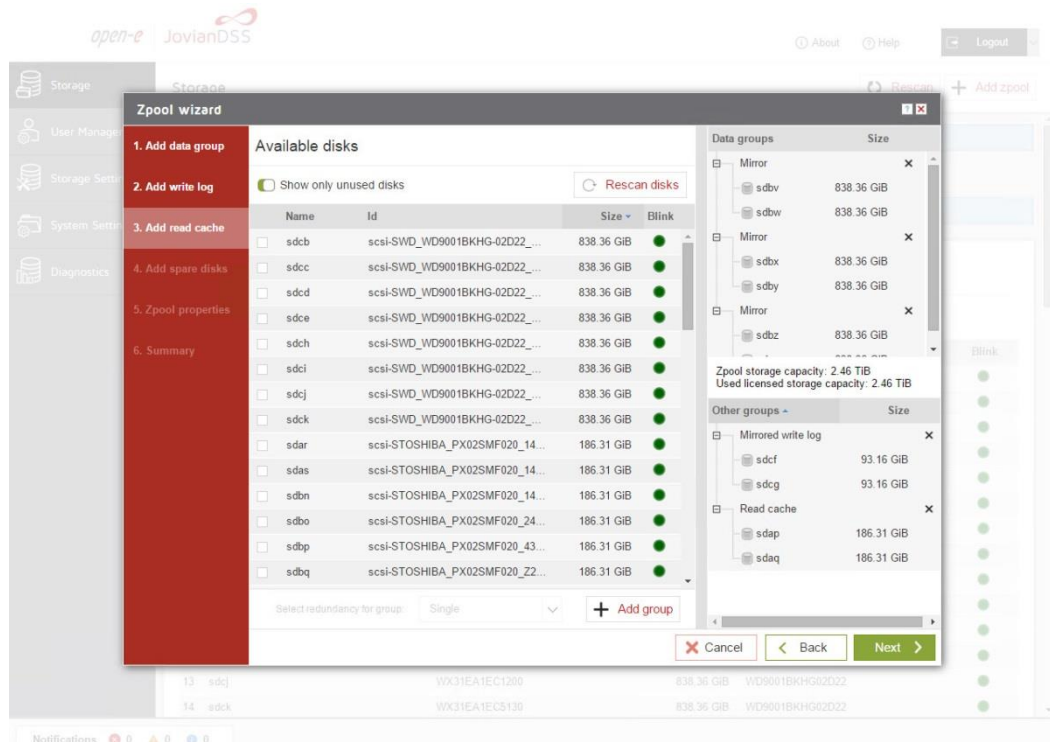
- In the "Add spare disks" please select the disk from the available disks" list, click "Add group", and the "Next" button.
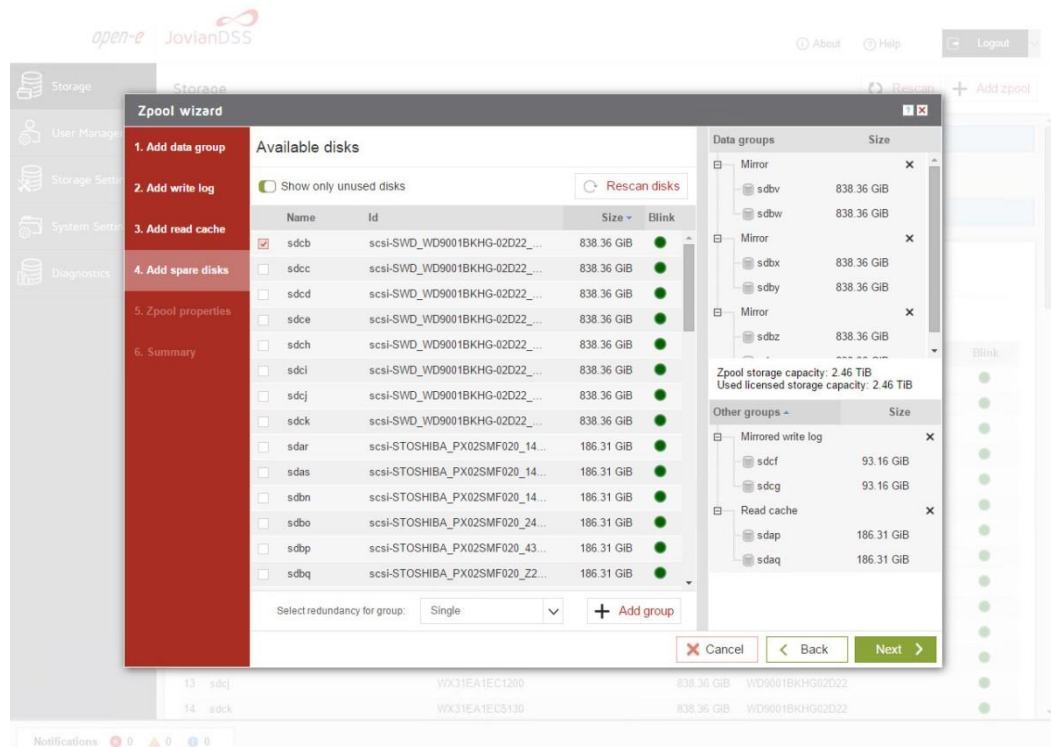
- The created "spare disks" will be displayed in the "Configuration preview" on the right side. Now click the "Next" button.
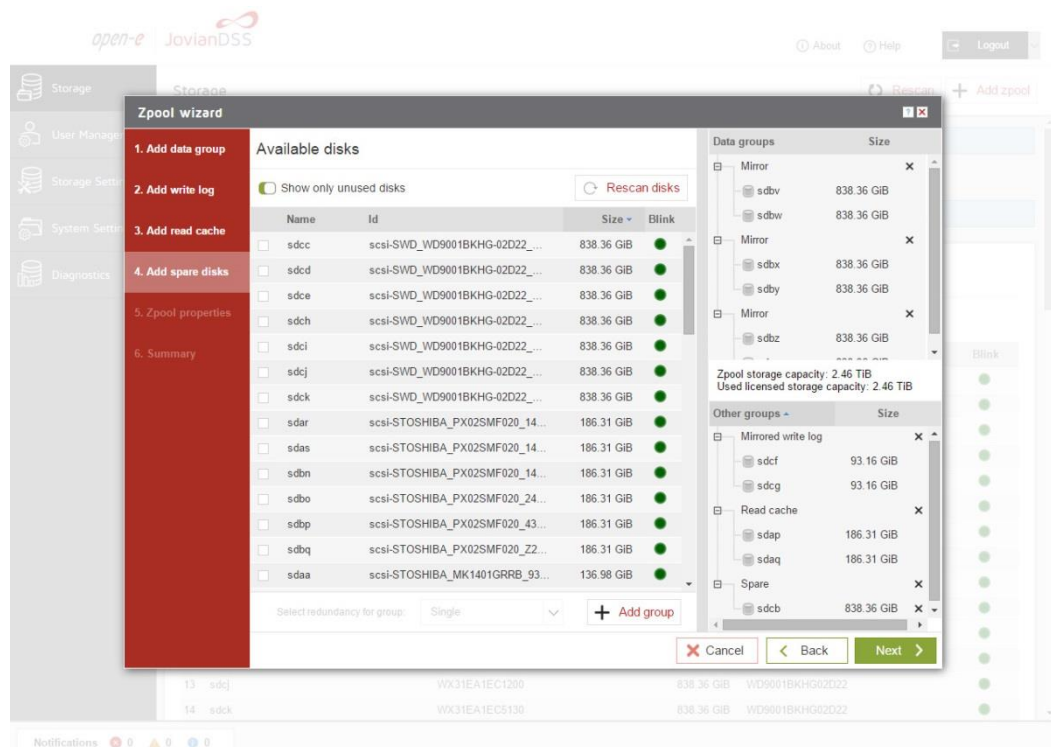
- In the next step, enter the zpool name and click the "Next" button.
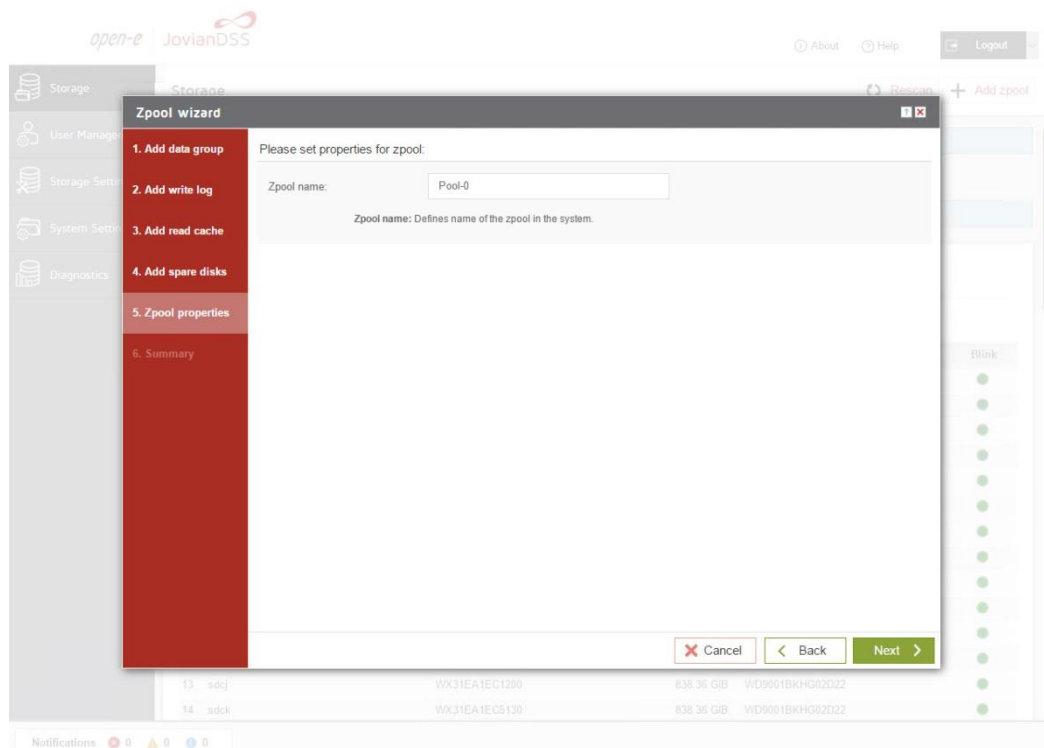
- In "Summary" you are able to see an overview of the Zpool configuration. If the settings need to be modified, click the "Back" button and make the required changes. If it is correct, please click "Add zpool".
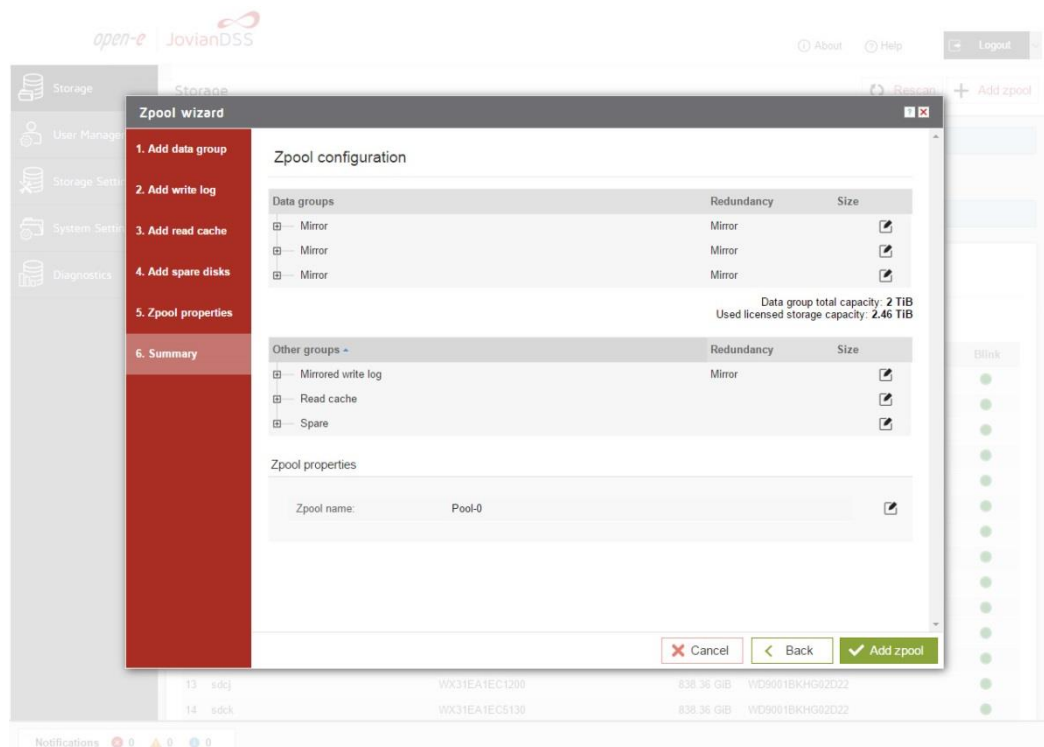
- At this point you have configured a new zpool (you can add more zpools if required).

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 arrow down 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.
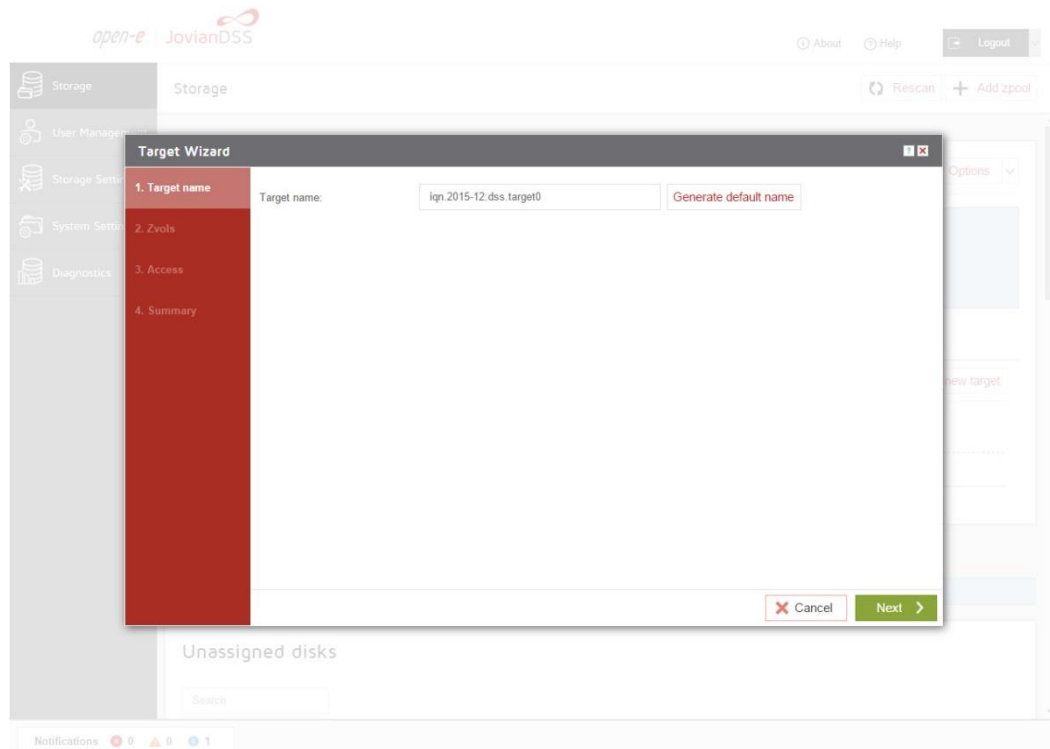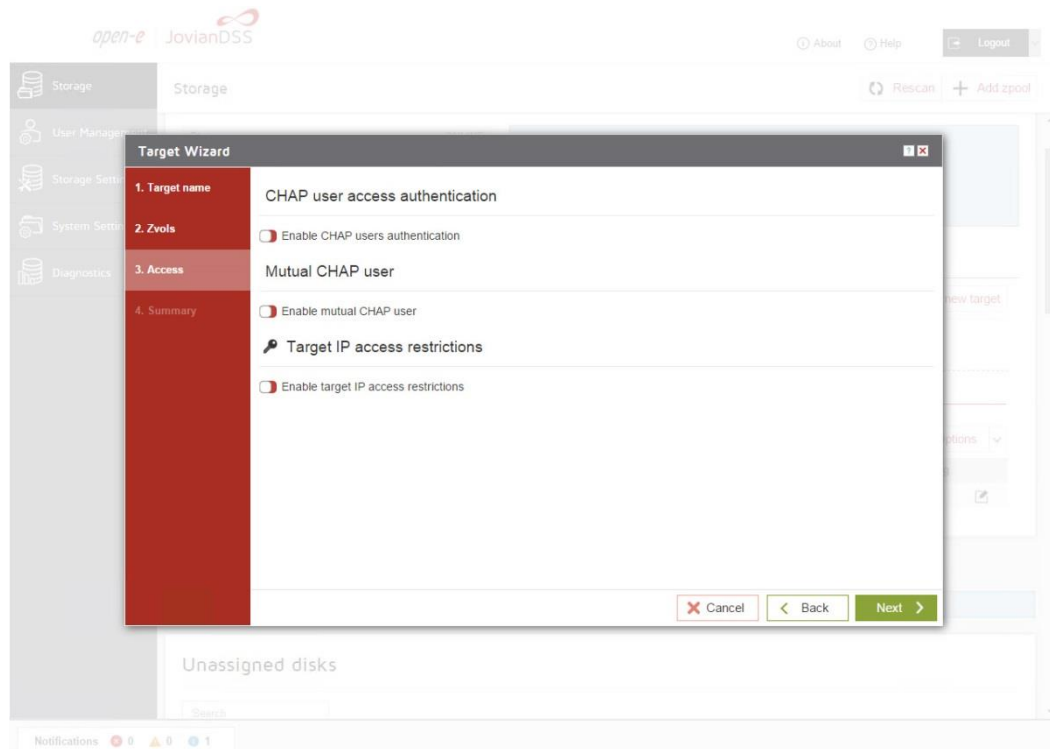

- In the Zvols step, click "Add new Zvol".
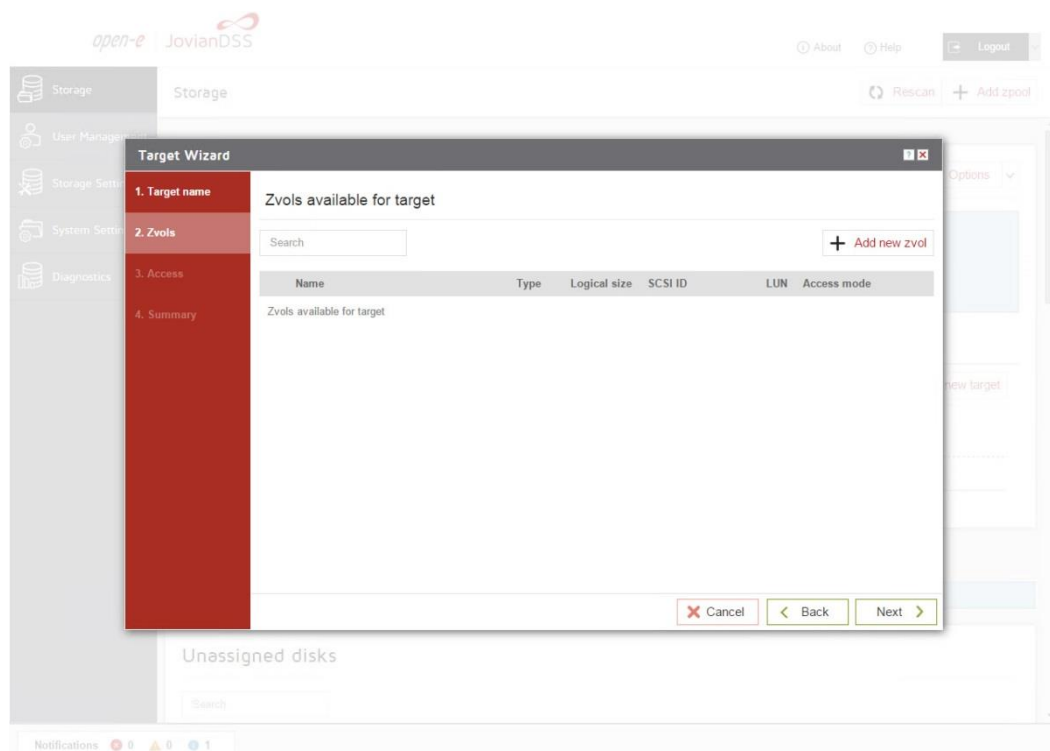
- In "Zvol properties" enter the name of a new zvol and the appropriate size and click "Add" button.
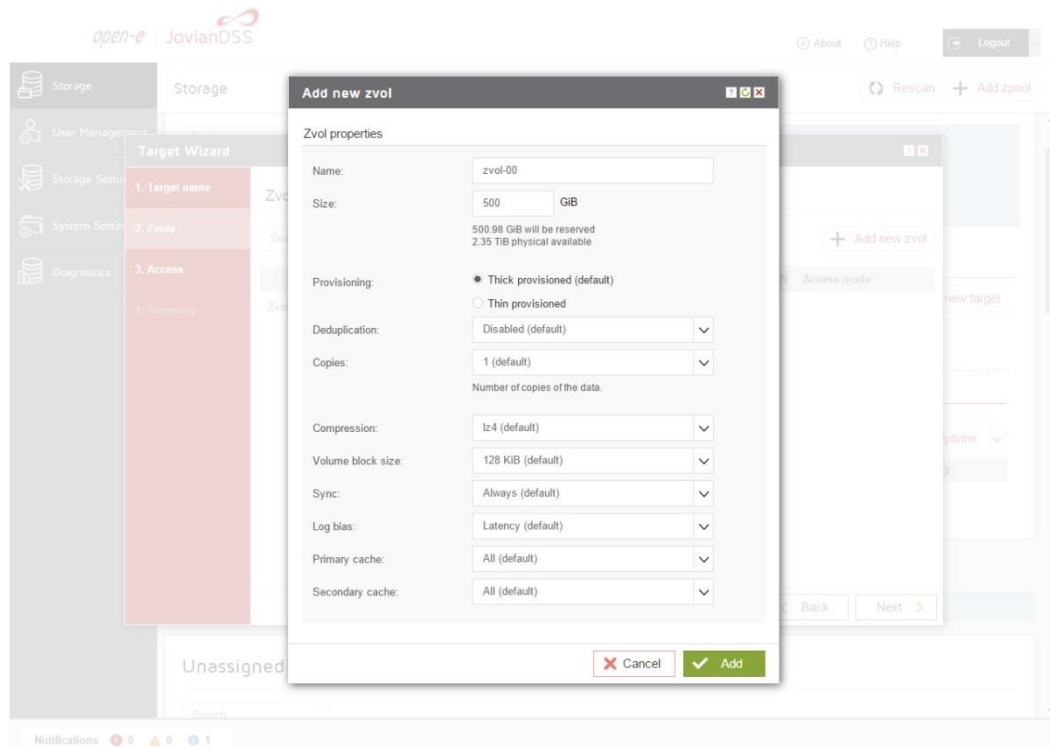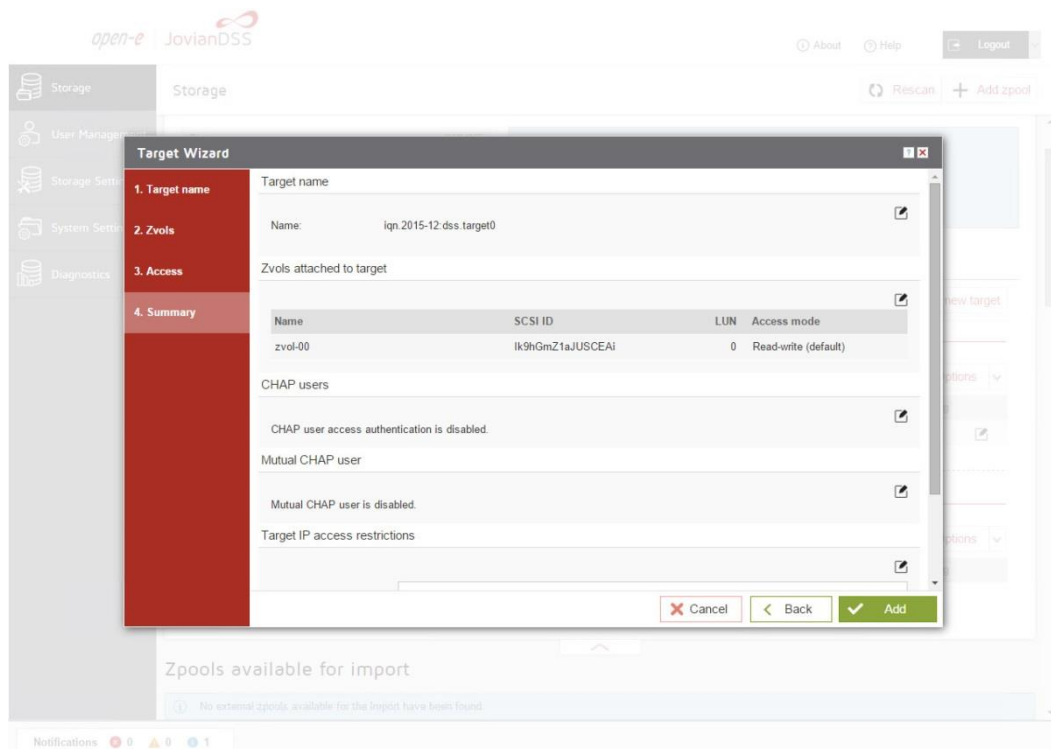

- After creating the new zvols, click the "Next" button.
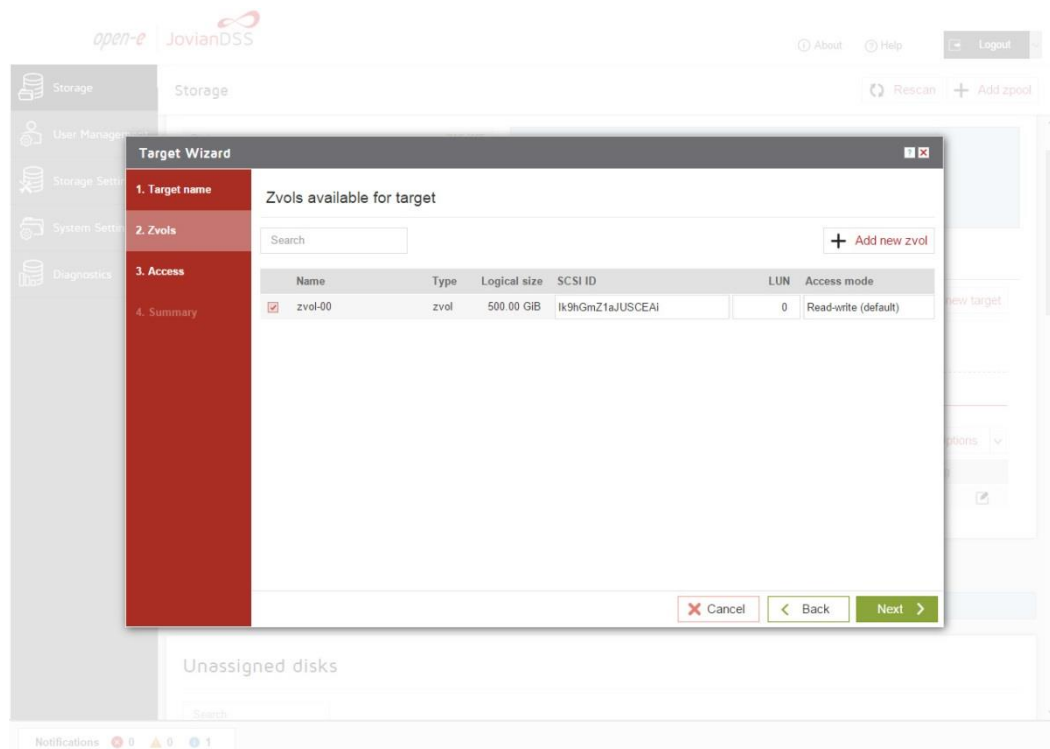
- In the "Access" step, you can change the security options of the targets. After making these changes click the "Next" button.

- 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

Now it is possible 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 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.
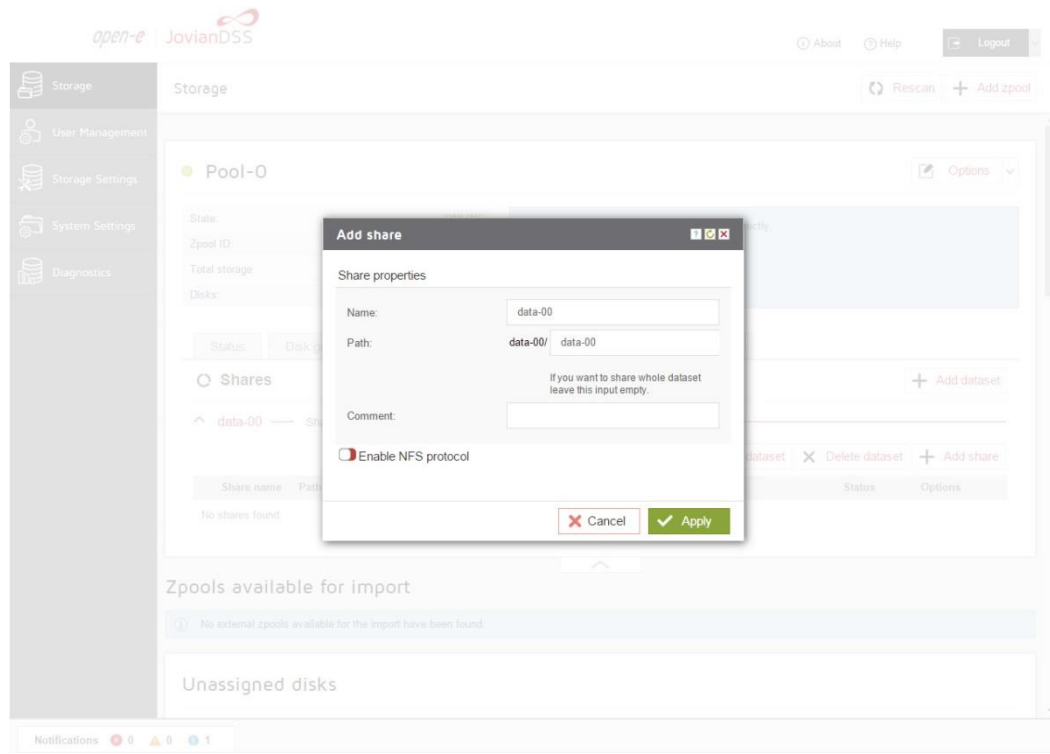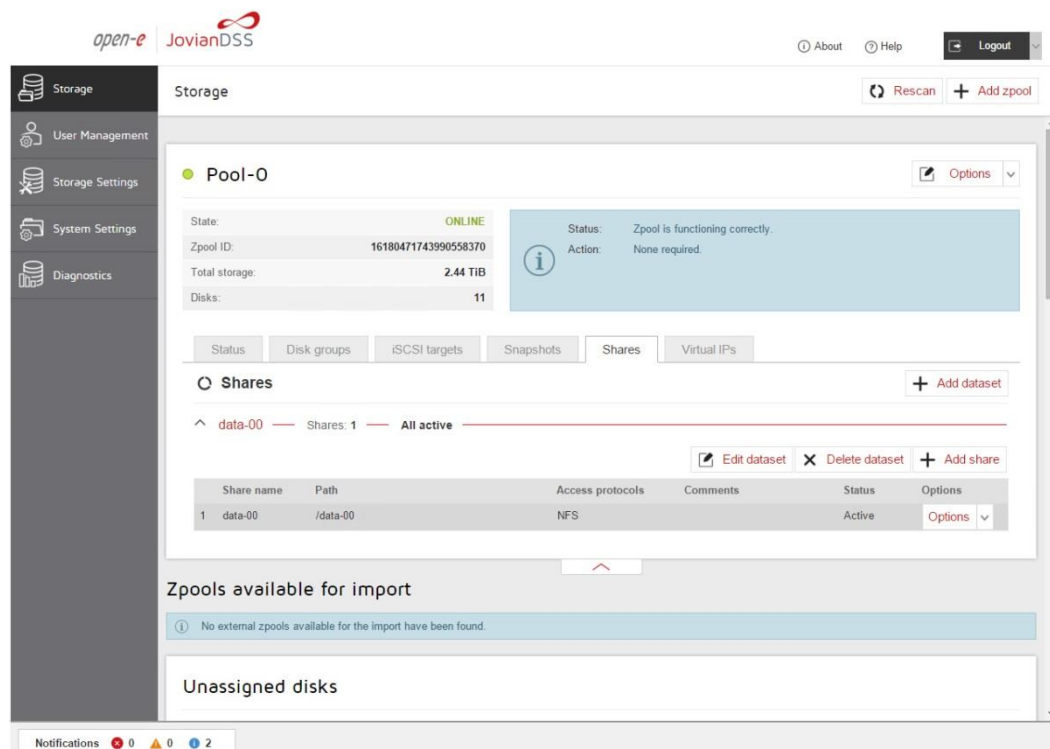

- Next click on "Enable NFS protocol" and "Yes" button.
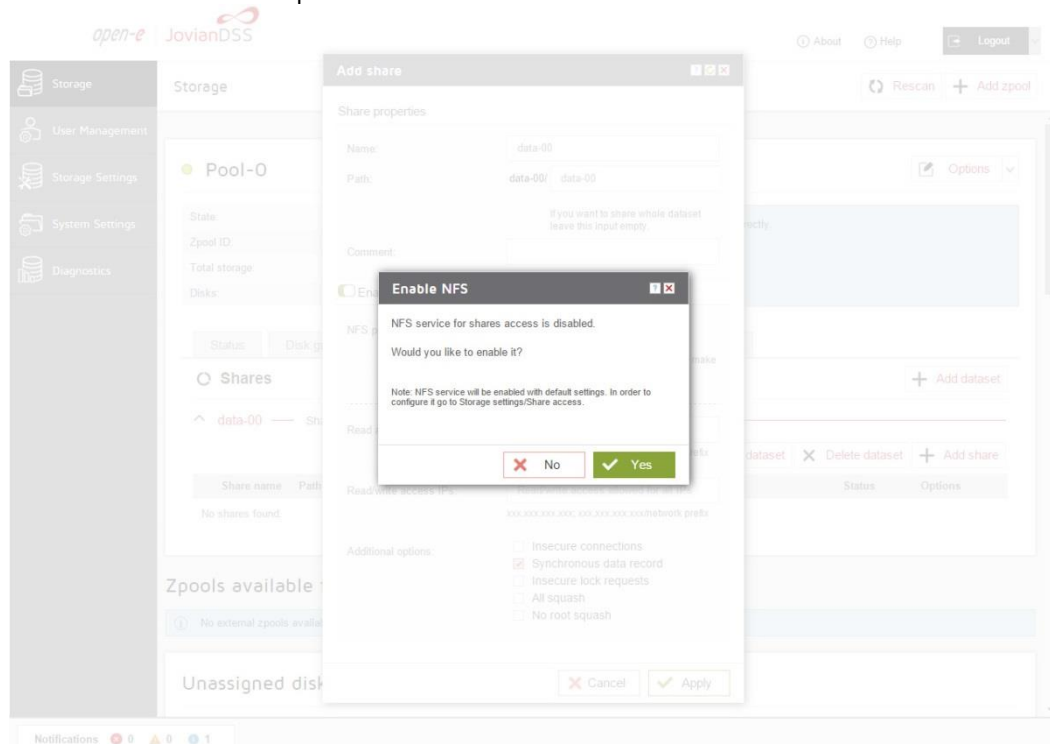
- Then to complete click the "Apply" button. Now the NFS share is ready to mount.
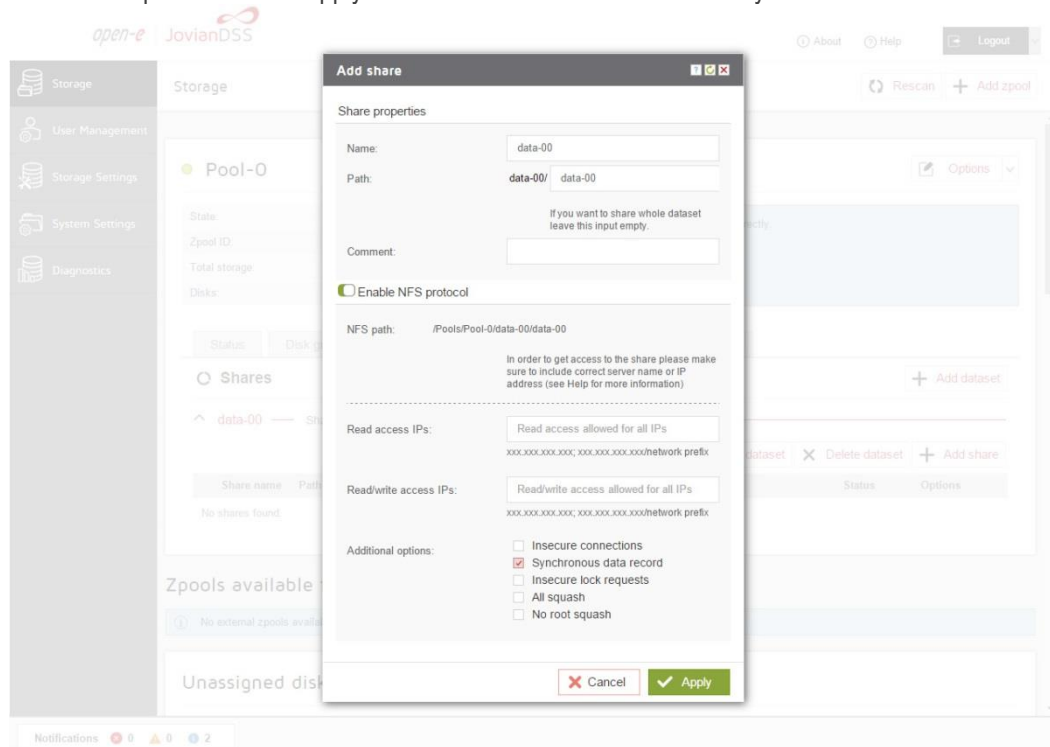
- In order to change the NFS share settings, click on the "Options" drop-down menu and select "Edit". In order to change the dataset setting click on the "Edit dataset" button.

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