User Guide for eterio NAS Premium Plus Operating System

High Performance Storage Software

Rev. 2020-06-26

Version 062020_1002

Contents

Congratulations on choosing eterio NAS products made by Epsylon Sp. z o.o. Sp. K.

Epsylon Sp. z o.o. Sp.K [Epsylon] is a leading provider of server and storage which are equipped with advanced NAS and iSCSI operating systems. Our specialists have been providing IT solutions to the largest corporations, public institutions as well as individual clients for over 20 years

Our environment are new technologies … and the mission is quality, affordability, flexibility, professionalism in work with companies and public institutions. We advise and implement solutions to help you quickly develop and ensure the security of your companies and public institutions.

CONNECTING TO THE ETERIO NAS SERVER FOR THE FIRST TIME

eterio NAS Premium Plus is preset to acquire an IP address from a DHCP server. If you connect the monitor to the server – the IP address will be shown. If no DHCP server is found on the network, eterio NAS Premium Plus will default to an IP address of 10.10.10.10 (first NIC) and 10.10.10.11 (second NIC).

For accessing the administration interface enter the following URL into your internet browser:

http://IP Address of the Server:3733

Connect Using the Server Name:

You can also connect to the server by using its default name. This procedure requires that name resolution services (WINS or DNS) are installed in your network.
Alternatively, you can connect keyboard and monitor on to your server and configure the IP address manually.

1. Default name of the server is “eterionas”.
   Enter the following URL into your internet browser: http://eterio:3733

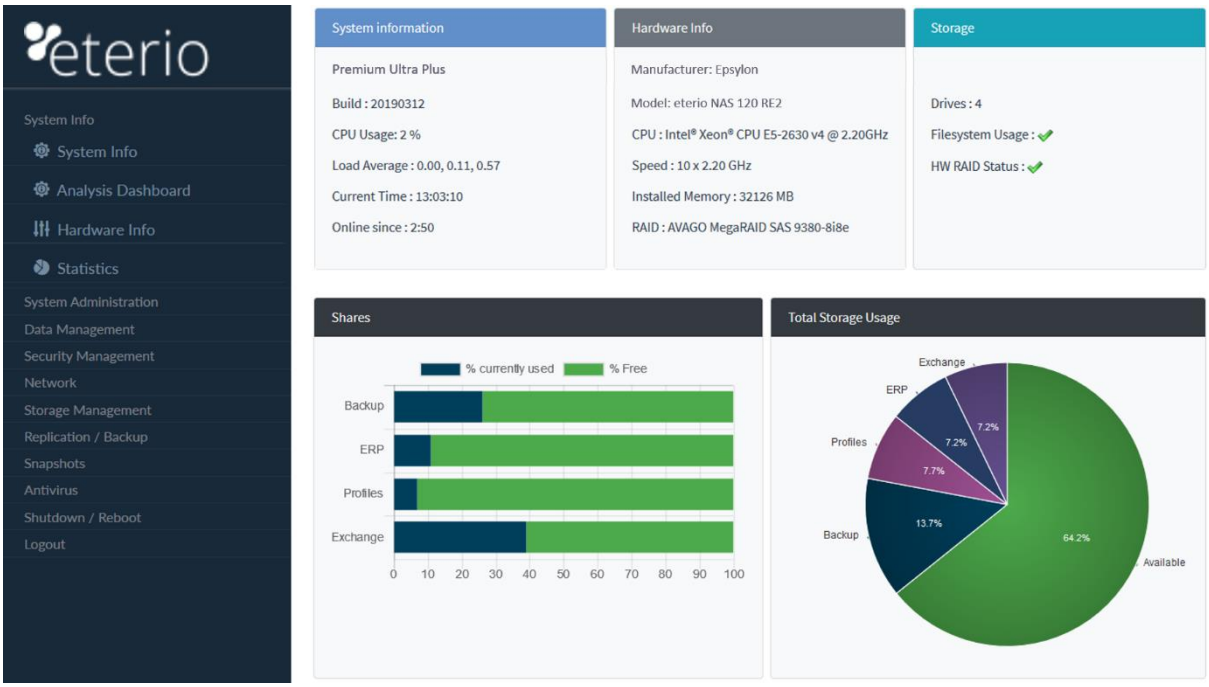
2. Administration Interface will be opened.
   Connect using the username “admin” and default password “euronas”.

3. Configure the eterio NAS Premium Plus Server

It is important to note that eterio NAS Premium Plus uses default port 3733.

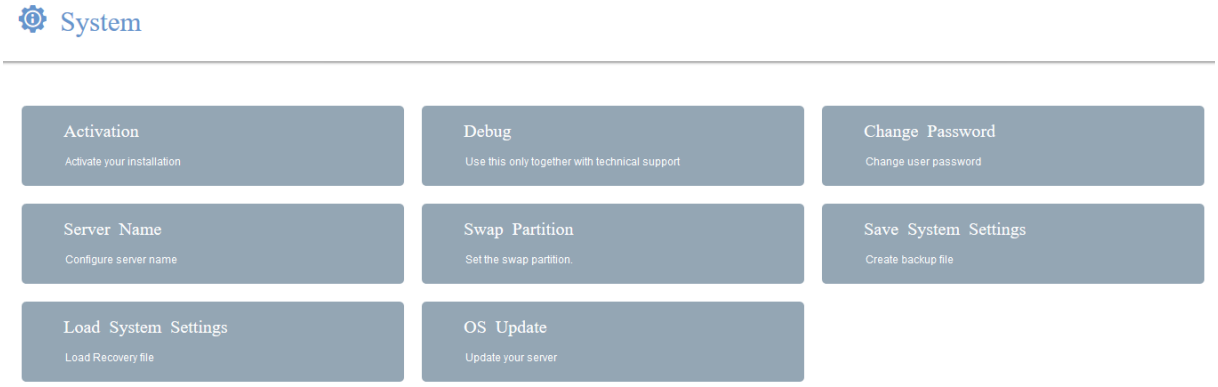
SYSTEM INFO DASHBOARD

Under System Information you find the most important information about the server.



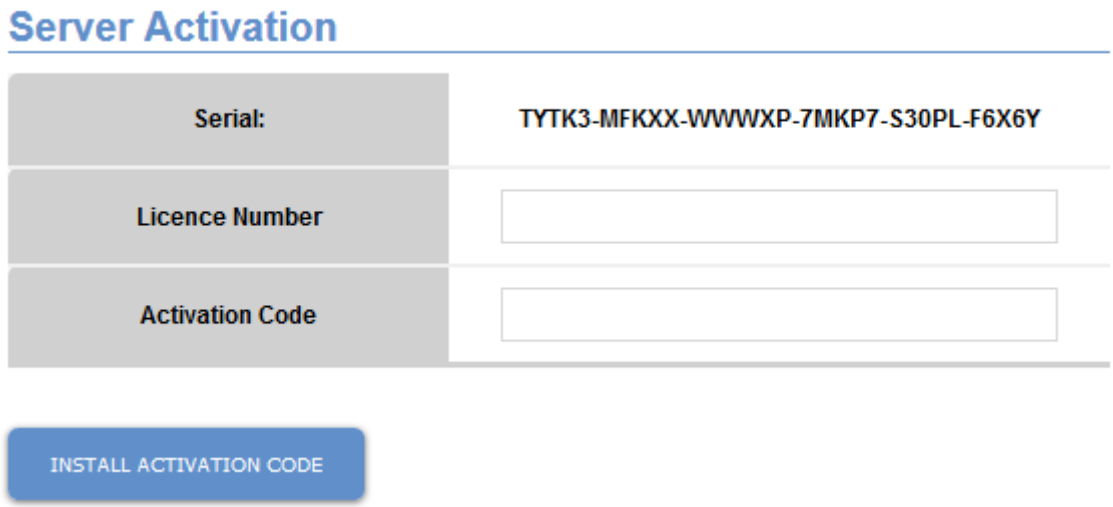
SYSTEM ADMINISTRATION

System Administration



Activation

eterio NAS Premium Plus needs to be activated before trial version expires. Serial number is generated out of Hardware and is unique to this system. Please keep in mind that on certain hardware changes this number will change and that a new activation code will be required. Grace period is 7 days after which all services will be terminated on reboot. You can request a new code by contacting sales@eterio.eu or support@eterio.eu and providing the license number and a new serial number. If your system is delivered as a complete appliance, your license is already activated – you will see this on your invoice.



Debug

Debug should be used only if advised by technical support or as a CLI console - recommended only for experienced users!

SYSTEM ADMINISTRATION

Codepage

Codepage setting defines which codepage is used when accessing the shares. Since version 2012 UTF-8 is used – this value should not be changed. In case you are using previous version, you can convert characters that are in legacy format.

Swap Partition

On higher server load it can happen that system RAM is not enough for running processes. Swap partition can help in such configurations. For most configurations value of 2 GB is enough.

Save system settings

All server settings (user, TCP/IP setting etc.) can be backed up in case of system failure.
NOTE: Even without these settings, new eterio NAS Premium Plus installation will automatically import disks, RAID, shares, iSCSI and FC targets

SYSTEM ADMINISTRATION

Load system settings

All server settings (user, TCP/IP setting etc.) can be recovered from the backup file. You can select settings that you wish to recover individually
NOTE: Even without these settings, new eterio NAS Premium Plus installation will automatically import disks, RAID, shares, iSCSI and FC targets

Hardware information

The following information will be shown:

- Server name
- OS version
- Build
- Installed CPU
- CPU speed in MHz
- Installed disks
- Installed network/RAID/FC controllers

SYSTEM ADMINISTRATION

IPMI Status

When clicking on more IPMI info within Hardware Information you can see all IPMI related info.

Lan Info

IP Address Source	Static Address
IP Address	192.168.178.72
Subnet Mask	255.255.255.0
SNMP Community String	AMI
Default Gateway IP	192.168.178.1
Backup Gateway IP	0.0.0.0
802.1q VLAN ID	Disabled
802.1q VLAN Priority	0

Temperature

System Temp	ok	31 degrees C

PSU Status

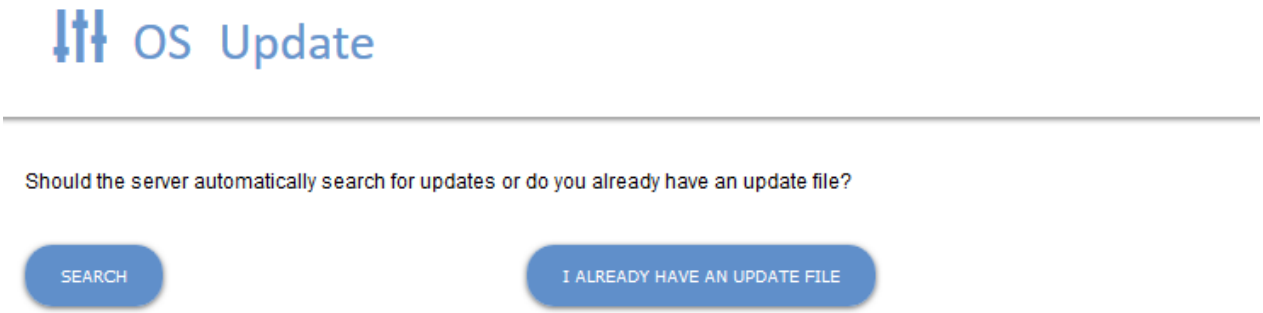
PS Status	ok	Presence detected

Fan Status

Fan6	ok	2295 RPM
Fan7	ok	1755 RPM

SYSTEM ADMINISTRATION

System update



eterio NAS Premium Plus can be updated in 3 different ways.

Online Update

Click on search – eterio NAS Premium Plus will automatically look for an update file and perform update

Manual Update

Click on "I already have an update file" and upload the file using wizard

Update via Installation-CD

Download the latest ISO and boot of it – your existing installation will be recognized, and update will be offered.

SYSTEM ADMINISTRATION

Time

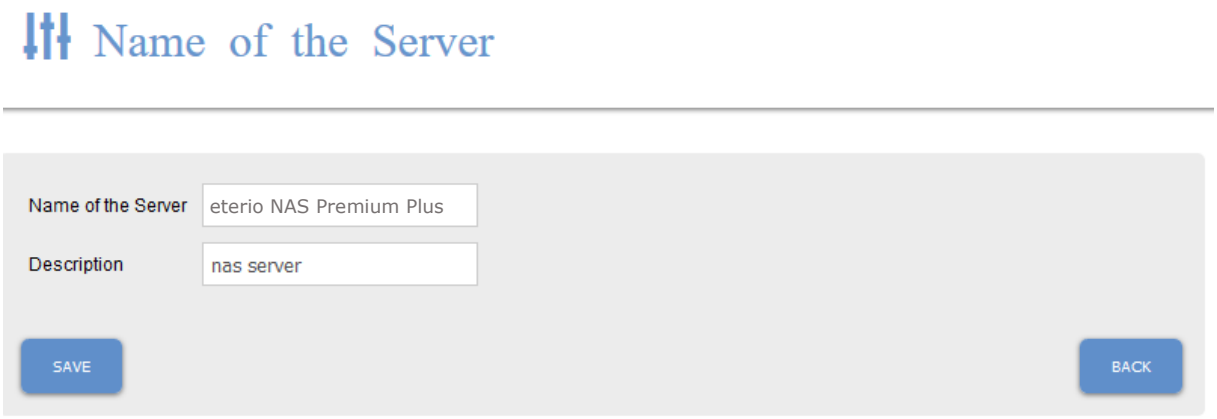
Date / Time
Time Zone
Time sync via Network Time Protocol (NTP)

In an Active Directory environment this functionality should not be used because the server should sync the time with the domain server.

Server Name and Description

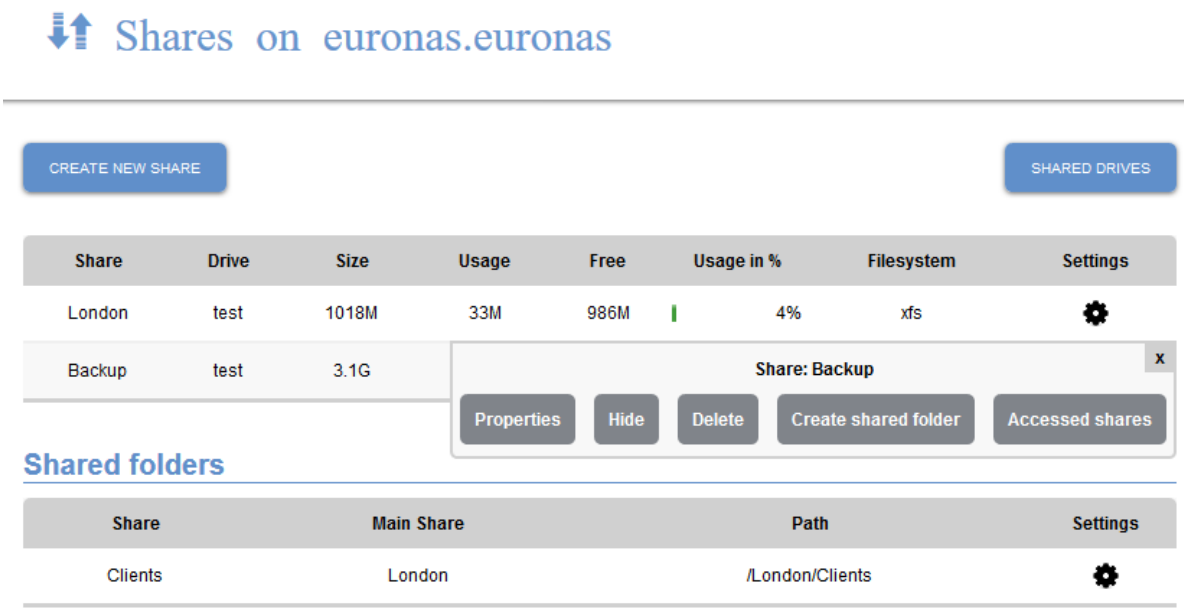
Server Name is used for identifying the server over the network.

Server Description is shown when listing server in network neighborhood – it helps identifying the server when browsing the network.



DATA MANAGEMENT – SHARE MANAGEMENT

Share Management



Each share represents physical volume (partition) on that disk. If wished it is also possible to share certain folders within that main share. Please beware that restricting access to subfolder share does not mean that the user cannot access it through the main share. User must be restricted within main share as well. Shares can be resized (made larger) or renamed any time.

Shared Drives

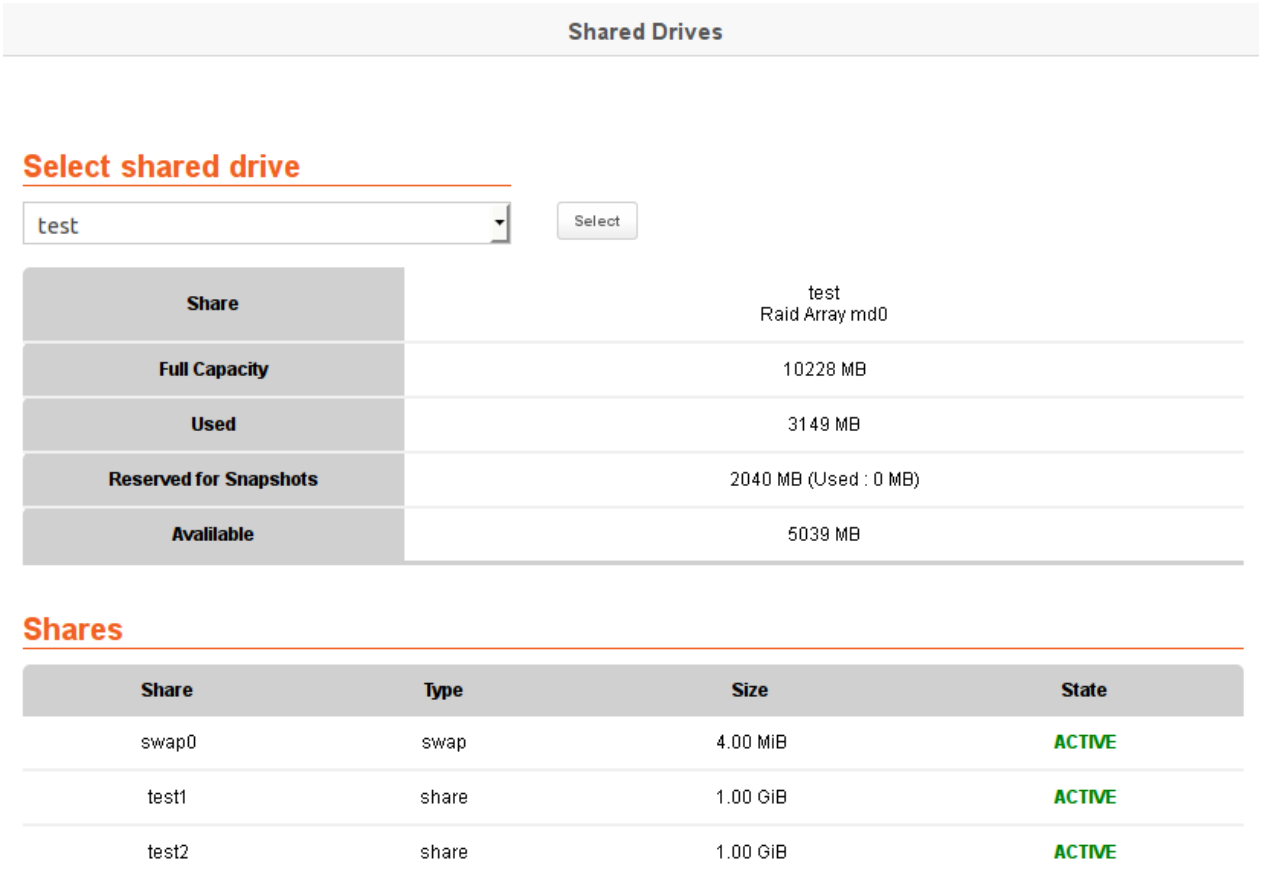
Shared drives are initialized drives or Raid arrays on which the shares and iSCSI Targets can be created.

If the drive is not listed – check first under “Disk Management” – “Disk Info” if the drive is listed there.

The following information is shown:

- Full capacity
- Available space for new shares
- Created shares with their size

DATA MANAGEMENT – SHARE MANAGEMENT



Share Properties

Under Share Properties you can see and modify the current settings of the share. The following properties can be changed:

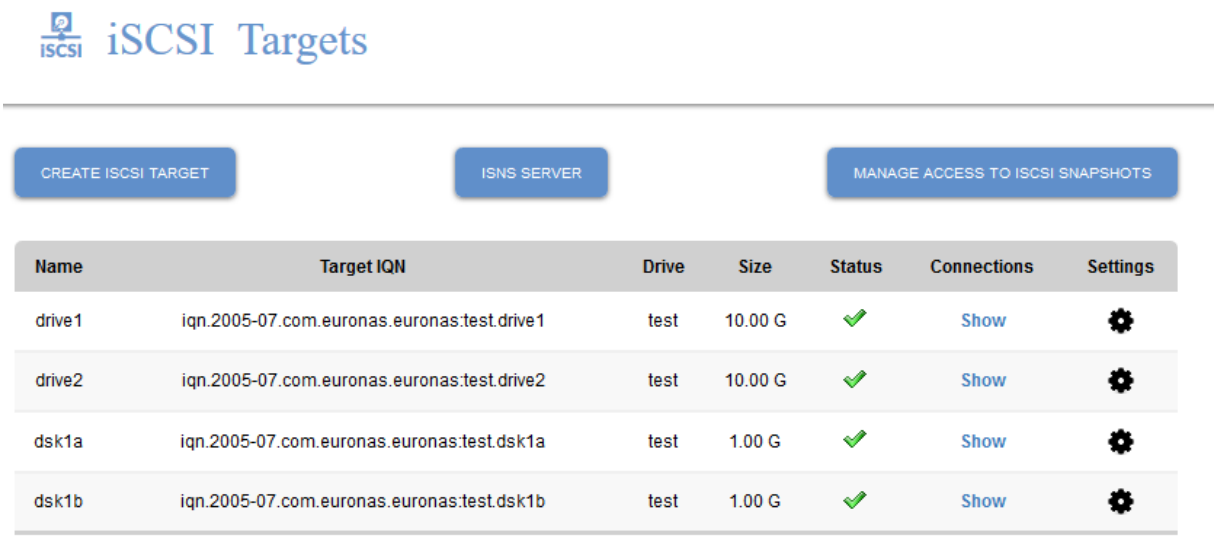
- Share name
- Share description
- Size (Share can only be made larger)
- Access protocols (NFS, AppleTalk, FTP – Windows File Sharing is always enabled).

Share Folders

Per default eterio NAS Premium Plus will create a share with certain size. If you wish you can share folders that are on this share.

DATA MANAGEMENT – ISCSI TARGET MANAGEMENT

iSCSI Target Management



iSCSI stands for "Internet SCSI". iSCSI allows a SCSI-protocol to be transported in Ethernet packages via an IP network. This allows enterprises to set up inexpensive SANSs using their already existing standardized Ethernet network infrastructure. iSCSI runs on widely used and trusted IP networks which makes it possible to use the advantages of a SAN without creating a new network infrastructure.

The iSCSI initiator can be software based or a iSCSI-host-bus-adapter-card. The connection between the eterio NAS Premium Plus server and the iSCSI initiator is set via the normal Ethernet infrastructure (Network switch). The client then detects the storage of the eterio NAS Premium Plus server as an own local hard disk drive.
It is important to note that iSCSI has many advantages, but it is no substitute for NAS systems. There might be problems when more than one user wants to access the same target at the same time since iSCSI works on a block level. Nevertheless, thanks to a very slim protocol it allows a much more effective usage of the bandwidth – iSCSI is the first choice especially if for example you are planning a data base or data securing via the network.
eterio NAS Premium Plus combines both worlds – in parallel you can use the usual network shares and create the iSCSI targets for special tasks like for example creating a data base.
You can then decide which function you like to use via which protocol.

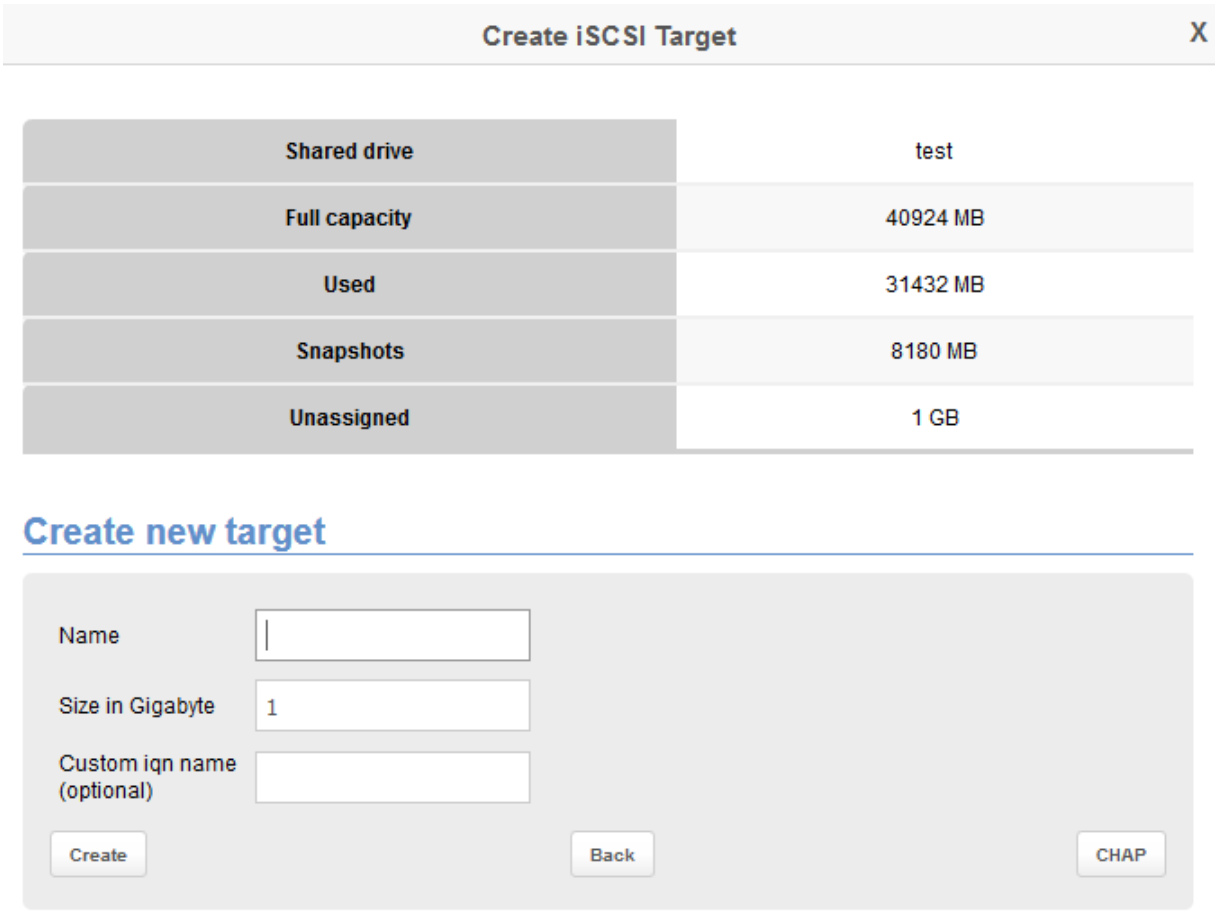
The following functions are supported by eterio NAS Premium Plus:

- iSCSI target
- iSCSI snapshots
- Chap authentication
- Connection to an iSNS server
- Access via a defined IP address
- iSCSI target visible only for a predefined IP address
- iSCSI multipath
- Persistent reservation (SCSI-3 PR)

DATA MANAGEMENT – ISCSI TARGET MANAGEMENT

Create iSCSI Target

In iSCSI target menu click on create iSCSI target in order to create a new iSCSI target.



You can select on which drive iSCSI Target should be created, name and size. Also, you can upon creation already configure CHAP Authentication for this iSCSI Target

Configured iSCSI targets

Under configured iSCSI targets you can see all existing targets on the server and their corresponding status.

iSNS server

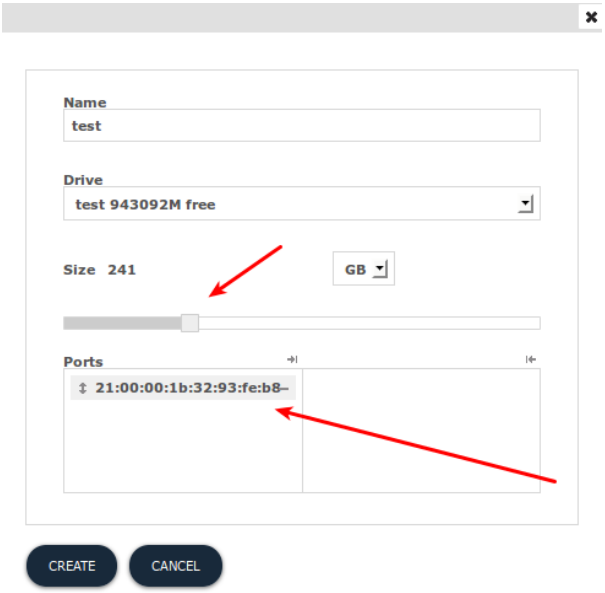
iSNS-protocol (Internet Storage Name Service) is used for the communication between iSNS-servers. iSNS facilitates the automatic recognition, management and configuration of iSCSI-devices in TCP/IP-networks. If you have such a server in your network, you can enter it here.

DATA MANAGEMENT- FIBRE CHANNEL TARGET MANAGEMENT

Fibre Channel Target Management

eterio NAS Premium Plus product enables you to use your server as a full fibre channel appliance. All you need is additional FC Add-on license and QLogic Fibre Channel controller. You can create FC Target by following these steps:

1. Click on "Data Management" - "Fibre Channel Target" - "Create Target"
2. Enter the name for the target, select the drive, size and assign ports for use with this target.



After creation you can see the target status and connected fibre channel initiators

Fibre Channel Target Administration - Status

Target	Drive	Size	Assigned Ports	Active Sessions
test	test	241.00g	21:00:00:1b:32:93:fe:b8	21:00:00:e0:8b:17:7d:03

USERS AND GROUPS

User and Group Management

The eterio NAS Premium Plus server can check the identity of users by using its internal user / password list. These settings are only for accessing the web interface and SMB/CIFS cluster resource.

Default setting for new shares: everyone can access the shares. If you wish to limit this - define at least one user under access management.

The eterio NAS Premium Plus server has already some predefined user / group accounts.

admin - Administrator (default password „euronas“)
guest - guest account (no password)
users - all local users
admins - all admin users

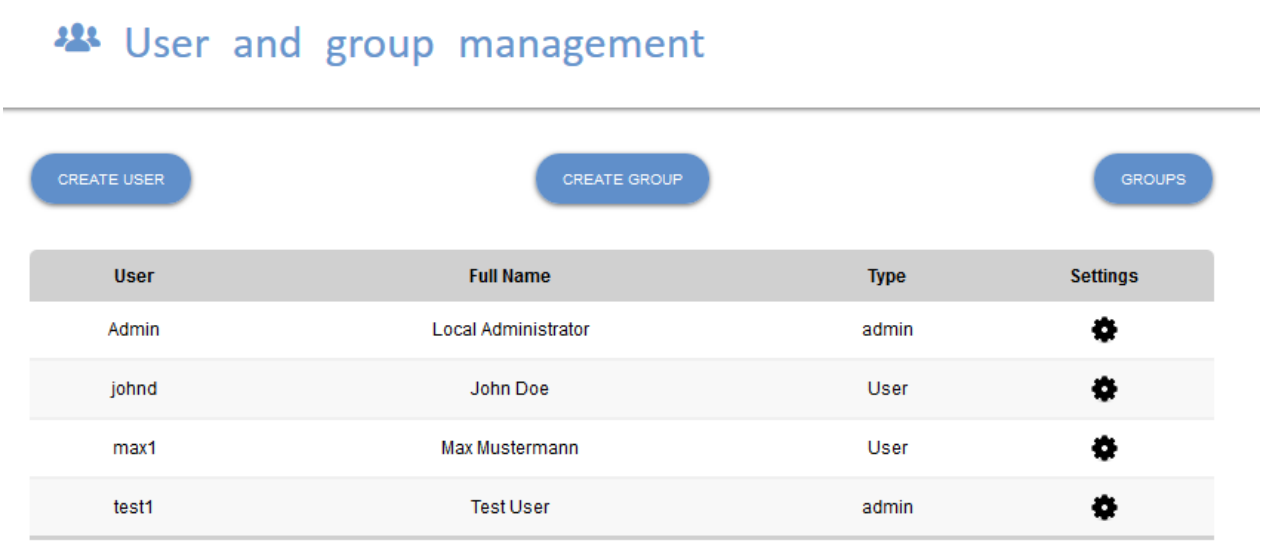
Group membership can be changed for every user. Select option “Groups” in users list

Guidelines for creating users

Special characters are not allowed in usernames
Duplicating Log-in Credentials for eterio NAS Premium Plus and Windows or Macintosh Clients

You can simplify user access for Windows or Macintosh clients, by duplicating their log-in credentials on the eterio NAS Premium Plus server. This will help to bypass the log-in procedure when accessing the server.
This is only valid for local users - not domain users

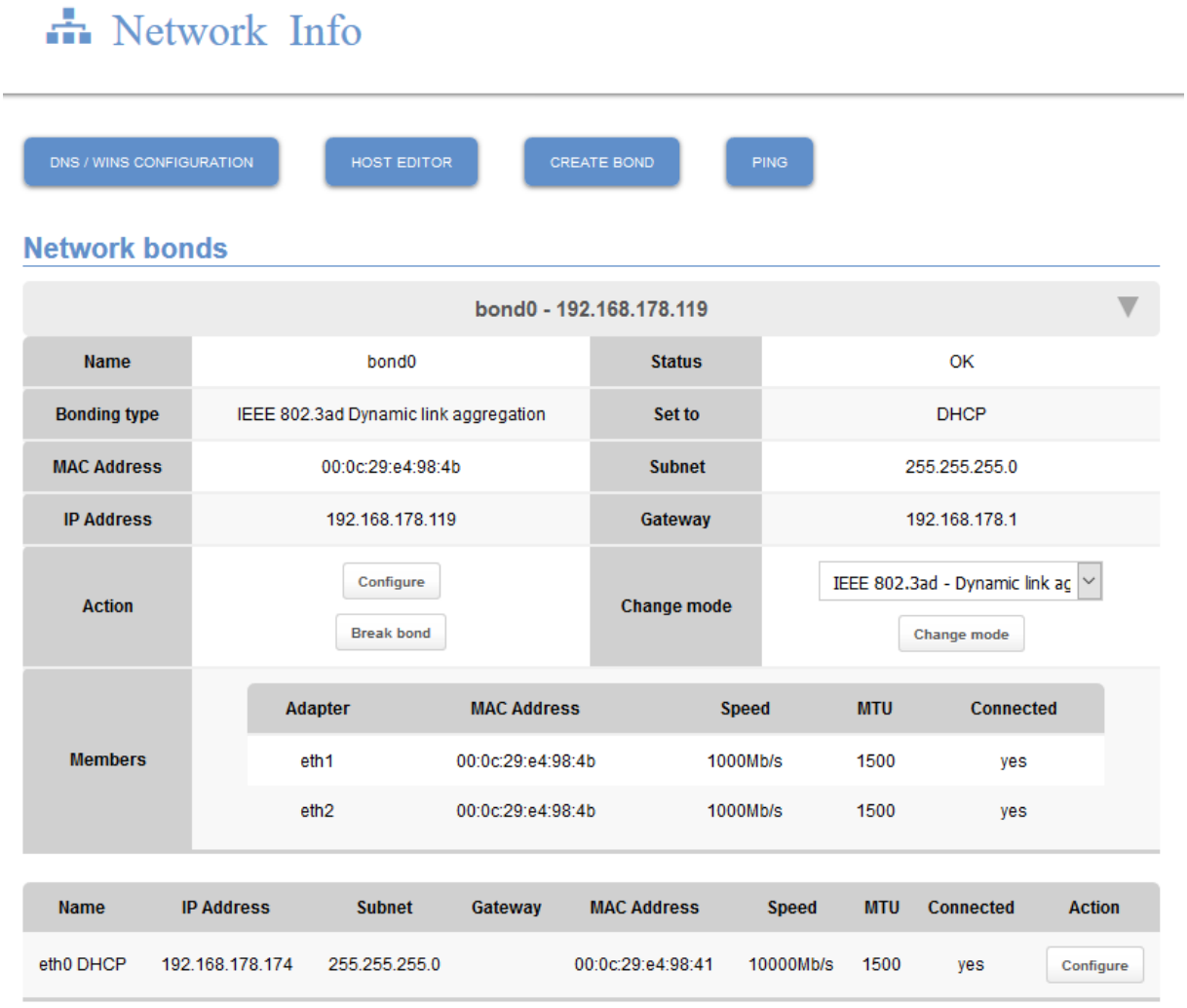
It is important to note that default users and groups cannot be modified or deleted.



NETWORK SETTINGS

Network Information

Here you can see all the information about your network ports. If you click on configure you can configure its TCP/IP settings.



Domain and Workgroup

Additionally, to the local user / group authentication eterio NAS Premium Plus can also authenticate users using Windows Active Directory or Windows NT Domain services.

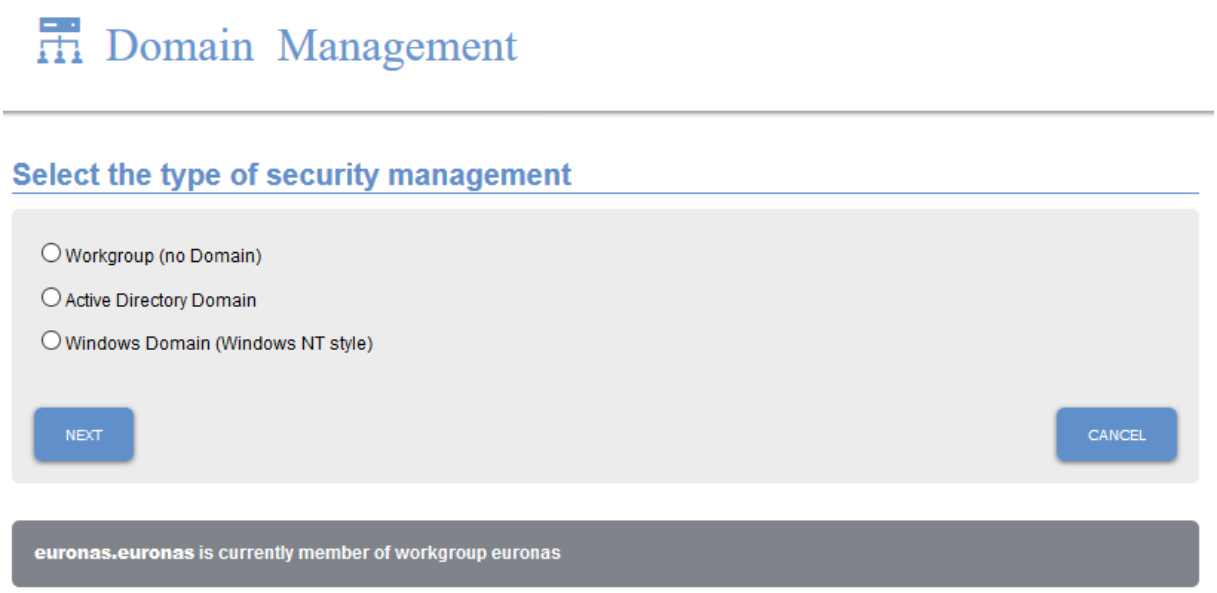
The following methods are supported:

- Workgroup (local user / group authentication)
- Active Directory Domain

In order to join the domain, you must have an administrator account for this domain.

NETWORK SETTINGS

It is important to note that additionally you can also enable a guest account. This enables users without local or domain account to access the shares. Before they can access any share user "guest" must be allowed under access settings for this share.



TCP/IP Settings

IP address and subnet mask are necessary for the computer to communicate with other computers.
If a data packet is to be sent to a computer outside of the local network, then this happens via the gateway which also possesses a unique IP address.
The following settings can be configured via network card:

Manually (static)

The following settings can be configured manually:

- IP address
- Subnet mask
- Gateway

DHCP

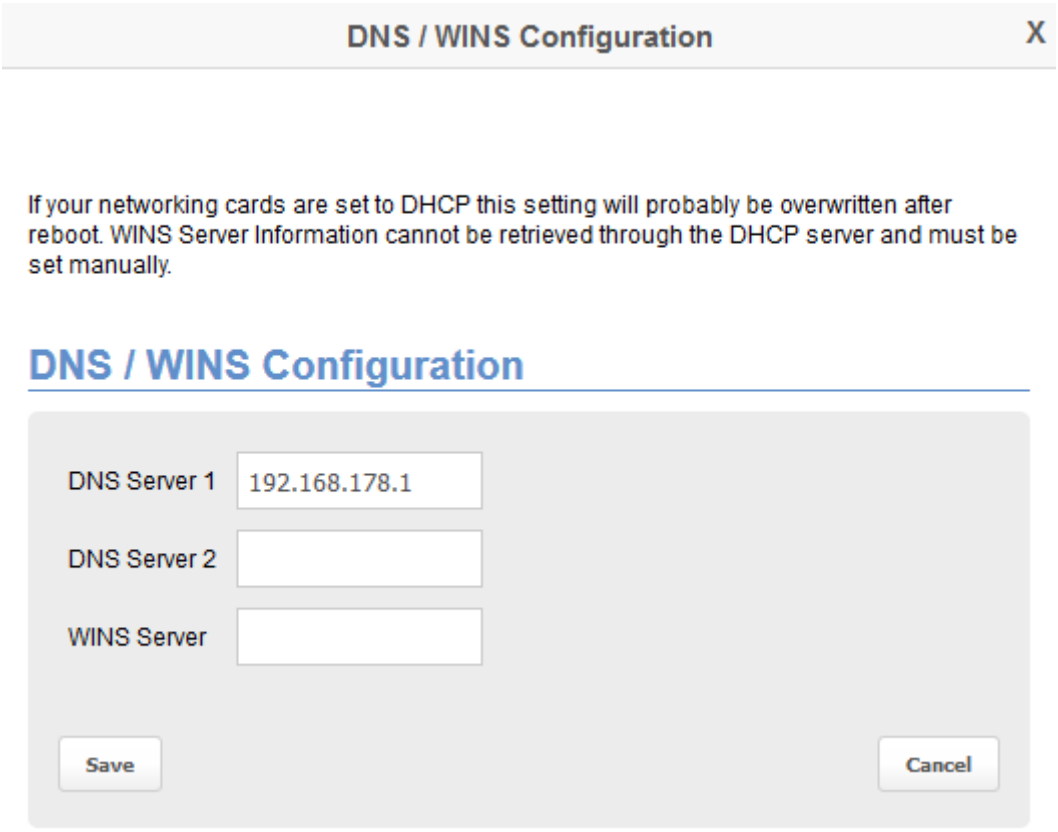
The network settings are getting provided by the DHCP server.

It is important to note that with DHCP the IP address of the server might change at a restart – If you should be facing problems to access the server via network, try to use the name of the server instead of the IP address. If this fails, you might install a monitor to the server and read the correct IP address under network information (on the server).

NETWORK SETTINGS

DNS / WINS configuration

DNS (Domain Name Service) converts an IP address into a computer name. You must enter the IP address of the server under which the service runs.
WINS convert specific Microsoft computer names into an IP address. You must enter the IP address of the server under which the service runs.
If no settings of DNS via DHCP are transmitted to the server or if the TCP/IP was configured manually the DNS and/or WINS server can be entered here.
The WINS information cannot be fetched from the DHCP Server. If necessary, this information should always be set manually.



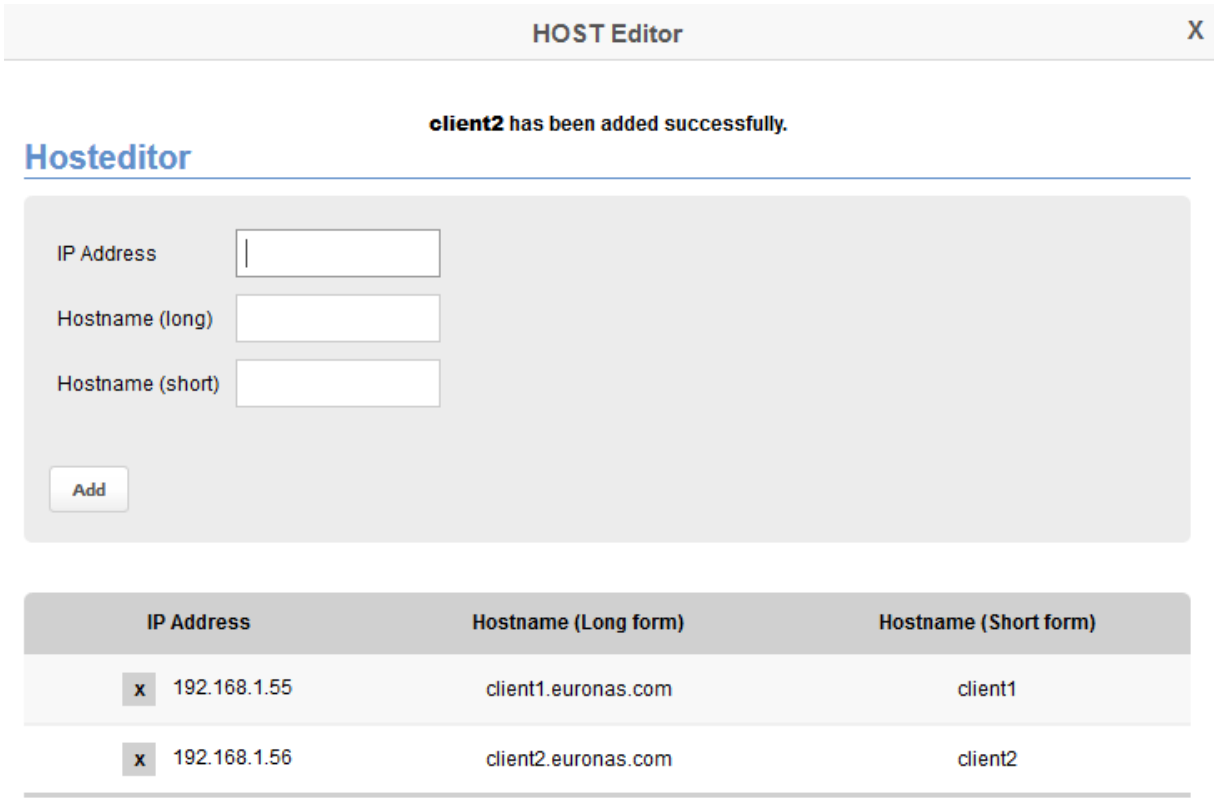
NETWORK SETTINGS

Host Editor

If there should be problems converting the names and/or if it is not possible to reach a certain computer via its name, the IP address and the name can be entered manually.

The following information can be registered:

- IP address of the computer
- Host name (long) i.e. computer1.mydomain.local
- Host name (short) i.e. computer1 (without domain)

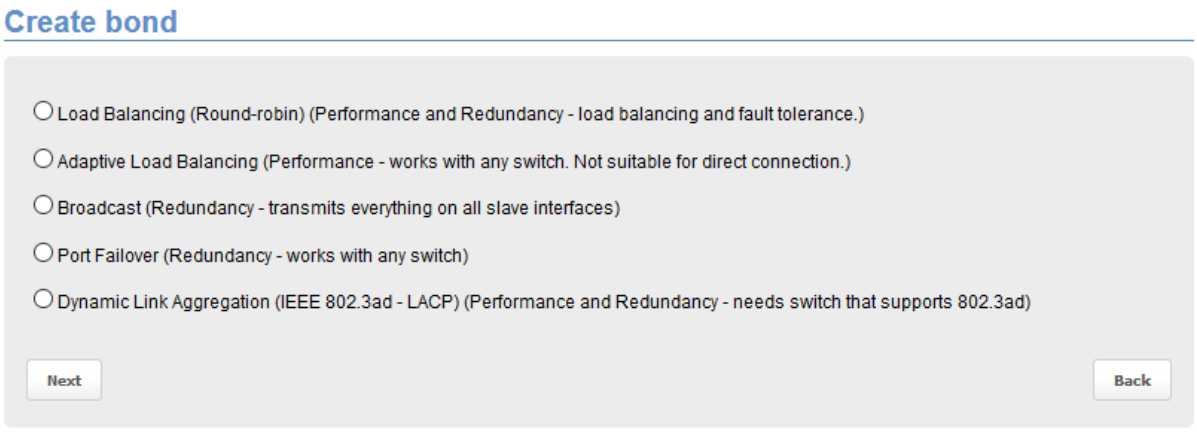


NETWORK SETTINGS

Bundle network cards

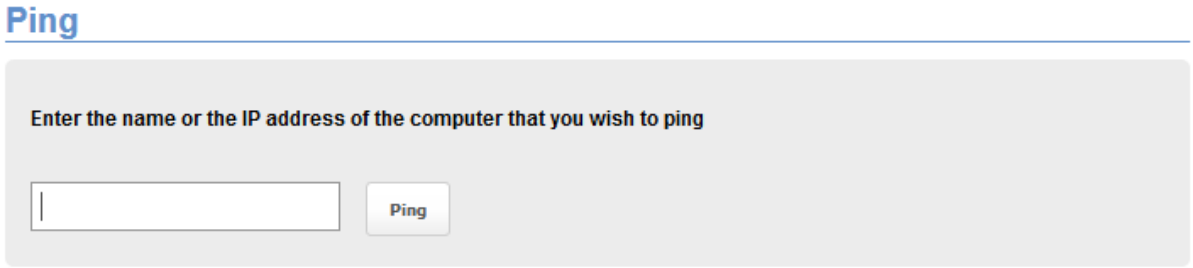
This option allows you to bundle several network cards in order to increase bandwidth and/or redundancy (reliability). eterio NAS Premium Plus supports the following possibilities:

- **Adaptive load balancing**
  The network bandwidth increases by an equivalent of the factor two since several network cards are sending data in a load balancing way.
- **IEEE802.3ad Link aggregation (LACP) ***
  The network bandwidth increases by the factor two since several network cards are sending and receiving data in a load balancing way (switch support needed).
- **Port failover (security)**
  If one network card disconnects then the other network card takes over automatically, and connected users continue to have access to the server without any problems.



Ping

Ping is a computer network administration utility used to test the reachability of a host on an Internet Protocol (IP) network. If a computer can be reached via its IP address only, then in "Host Editor" you can link the IP address with the name.



DRIVE MANAGEMENT

Hard disk drive information

Drive	Model	Serial	Capacity	Raid Member	Initialized	S.M.A.R.T	Temp	S.M.A.R.T.
sda	ATA WDC WD1600YS-01S	WD-WCAP03046045	153 GB	OS	OS	OK	19°C	S.M.A.R.T.
sdb	ATA WDC WD80PUZX-64N	VLGTN09Y	7452 GB	md0	yes	OK	23°C	S.M.A.R.T.
sdc	ATA WDC WD80PUZX-64N	VLH0XTAY	7452 GB	md0	yes	OK	23°C	S.M.A.R.T.
sdd (ssd)	ATA Samsung SSD	S1D5NSBF454362H	111 GB	no	yes	OK	19°C	S.M.A.R.T.

The following information can be seen:

- Name of the drive
- Manufacturer and model
- Capacity in Megabyte
- Membership in Raid
- Initialization status
- S.M.A.R.T. Status
- Temperature

eterio NAS Premium Plus system is compatible with all hard disks supporting ATA, S-SATA, SAS and Fibre Channel.

S.M.A.R.T.

S.M.A.R.T. allows you to access the status information of your hard disk – this also helps to prevent hard disk failures.

DRIVE MANAGEMENT

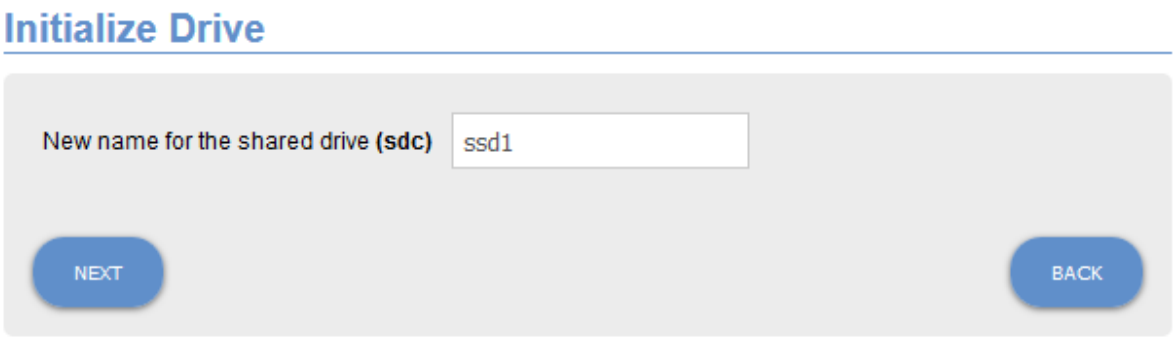
Initialize drives (create share drive)

In order to create a share on a drive, it needs to be initialized.
It is important to note that after initialization any data - already on the drive - will be deleted irrevocably.
With the start of the initialization a name will be assigned to the share drive. Now you can create shares for this drive in the share management.
The actual status of the share can be also seen in the share management.

Select the drive

	Disk	Model	Capacity
○	sdb	Adaptec test1	899 G
○	sdc	LSI SLP-300	279 G

Enter the name of the share disk and decide how much space you wish to reserve for snapshots (if you do not wish to use snapshots enter 0%)



Now you can create shares and iSCSI targets on the drive.

HARDWARE RAID MANAGER

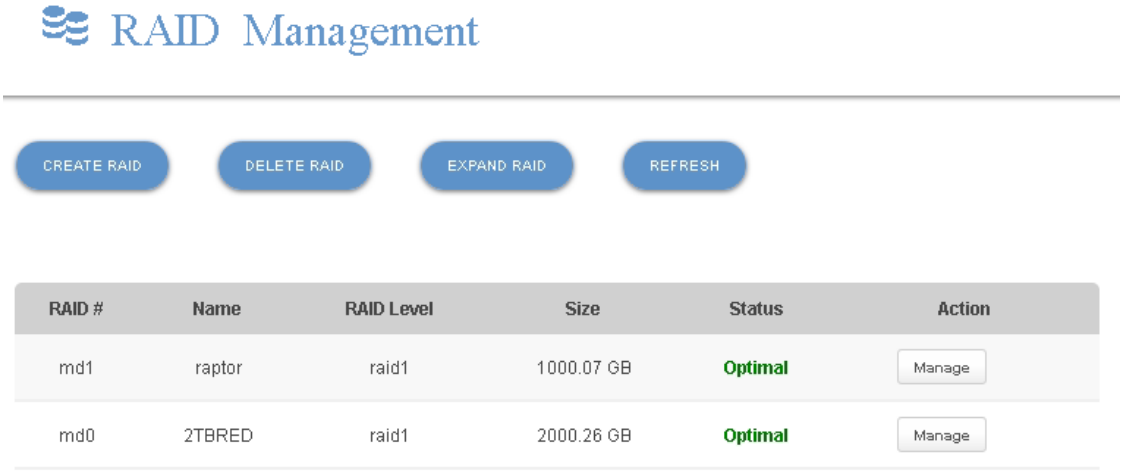
In addition to the software RAID eterio NAS Premium Plus also supports many hardware Raid controllers.

Depending on controller model - hardware RAID manager can read the status, create RAID and notify you via E-Mail in case of drive failure.

All supported hardware RAID controllers are recognized automatically, and the RAID manager adjusts features depending of the controller.

An updated list of all currently supported controllers can be found on our website under [www.eterio.eu.](http://www.eterio.eu)

SOFTWARE RAID MANAGER



RAID connects several hard disks while being addressed like a single disk. The advantages are the speed (RAID 0) and data security since the data is still readable if one hard disk fails (RAID 1, 5 and 6). eterio NAS Premium Plus supports the hardware RAID controller but also includes powerful integrated software RAID functionality.

Advantage of the software RAID solution:

- **Lower costs**
  Hardware RAID controllers (specially RAID 5/6 controller) are expensive. Inexpensive RAID controllers often are only driver-based RAID controllers – that are not much different than a software RAID, consuming the CPU the same way. Built-in software RAID helps reducing the total costs for the system and still provides more than acceptable performance for many scenarios.
- **High reliability**
  RAID-code is based on Linux RAID which is proven in millions of servers running in many critical environments.

Features (Software RAID)

- **Monitoring**
  RAID monitoring service will inform you if one of the drives fails. All RAID related events are logged.
- **Flexible on system change**
  Hard disks can be put into another system - another eterio NAS Premium Plus installation will still recognize them and address them correctly even if the disks are not put in the same order as in original system.
- **Supported RAID configurations**
  Software Raid supports the following configurations: RAID 0, RAID 1, RAID 10, RAID 5, RAID 6, RAID 50, RAID 60.
- **RAID capacity expansion**
  Software RAID can be expanded with additional drives.

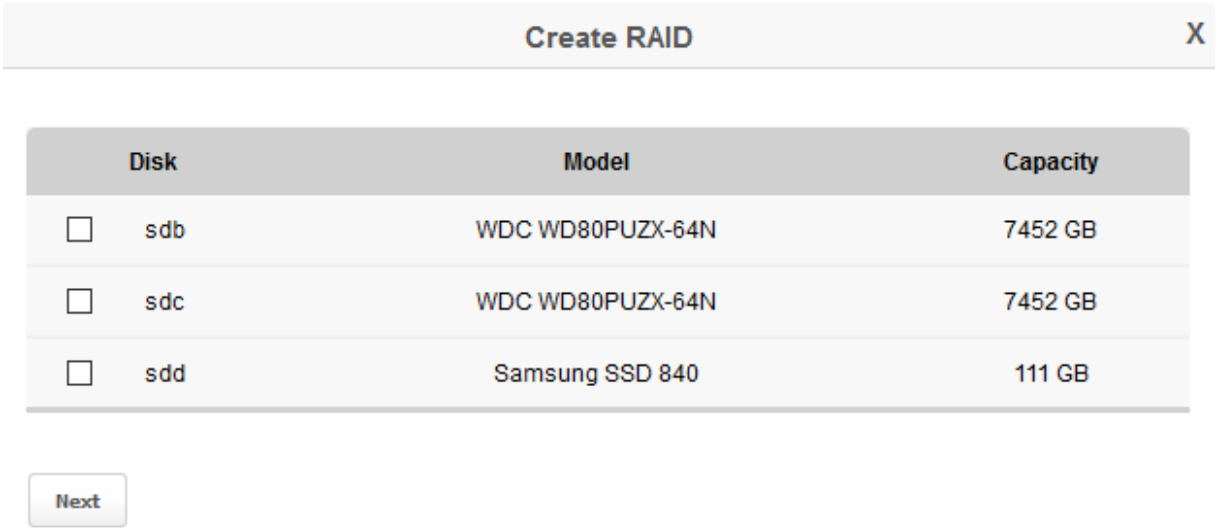
During the capacity expansion RAID array is in “non redundant” condition. It is highly recommended to backup all data before expanding the RAID array.

SOFTWARE RAID MANAGER

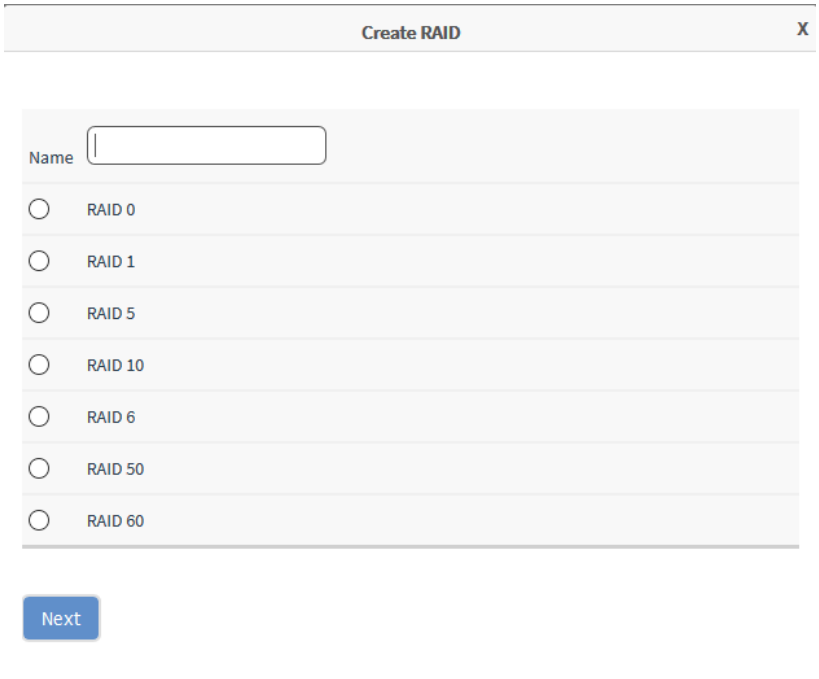
Raid creation

The Raid array is easy to create:

- Select the hard disks you wish to use.



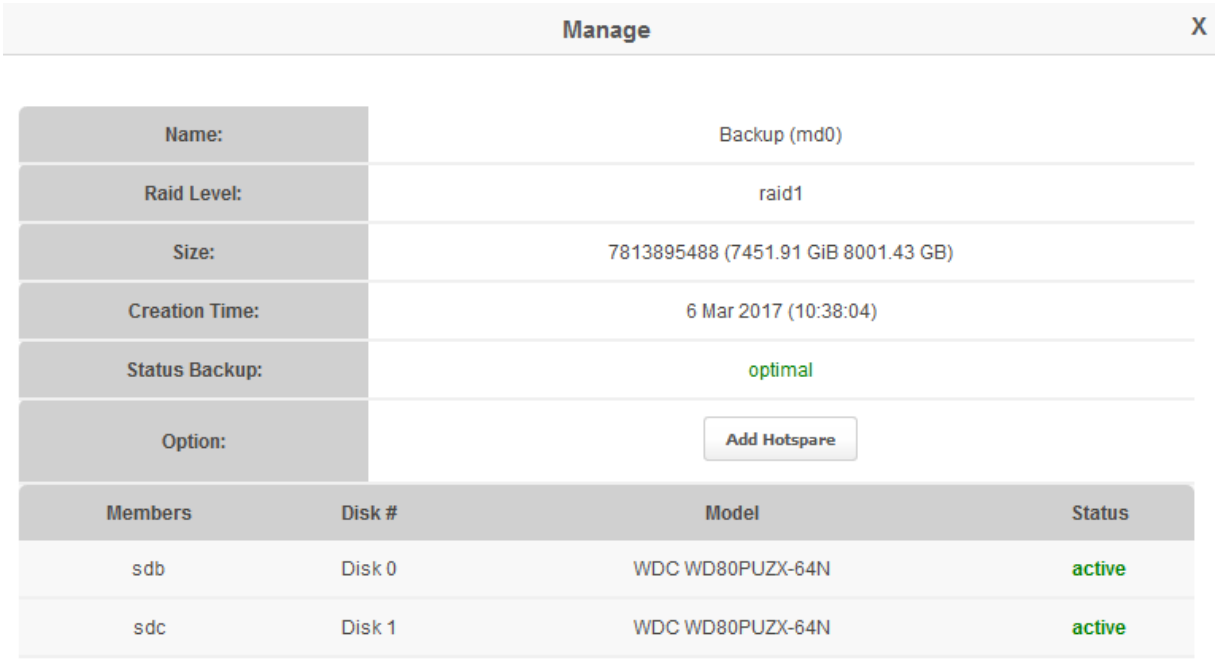
- Enter the name and type of the Raid array. Given name helps you to differentiate disks and raid arrays in your system. **NOTE**: please use only numbers and letters and any special characters or spaces



When RAID creation is finished you can use the new RAID disk as a normal disk and create shares, iSCSI or Fibre Channel targets on the RAID drive.

RAID information allows you to see the status of the new RAID. This page automatically refreshes the RAID state every 30 seconds.

SOFTWARE RAID MANAGER



Software RAID supports the following options:

RAID 0

Advantage: speed and capacity
Disadvantage: no data security – if one disk fails all data is lost

Data gets shared between several hard disks. This enhances the data in- and output rate. But is also increases the risk of losing all data if one disk fails. This option is only recommended if data is not important and you need maximal performance

RAID 1 (Mirroring)

Advantage: Data security
Disadvantage: 50% capacity loss

Data gets mirrored on two hard disks – both hard disks contain identical data. If one disk fails, data remains intact on the other disk.
It is possible to define a dedicated hot spare drive. If one hard disk fails in a RAID 1 array, the spare drive will automatically take over and the RAID array will rebuild automatically.

RAID 10 (Mirroring)

Advantage: Data security / speed
Disadvantage: 50% capacity loss

Combination of RAID 0 and RAID 1. Data gets mirrored on two hard disks and then striped via RAID 0. If one of the mirrored disks fails, data remains intact on the other disk.
It is possible to define a dedicated hotspare drive. If one hard disk fails in a RAID 10 array, the spare drive will automatically take over and the RAID array will rebuild automatically.

RAID 5

Advantage: Data security, capacity and speed (reading). Any disk can fail
Disadvantage: Slower at writing

Data with parity information is spread over all hard disks.
If one hard disk fails, the system can continue work normally and will automatically missing information from failed drive out of the parity information.
The advantage is this security and capacity – at the costs of a lower write speed, since parity calculation is computing intensive. This RAID still represents the best compromise between cost, redundancy and access speed.

RAID 50

Advantage: most secured, better performance than RAID5
Disadvantage: Capacity of 4 hard disks gets lost

Combination of RAID 5 and RAID 0 – provides best of both worlds – speed and redundancy. Data gets shared between at least 8 hard disks, and you obtain a failure security of up to 4 hard disks. The system continues working even if up to two hard disks fail. Therefore, the advantage is high failure security and capacity – at the disadvantage of a lower access rate, since sharing is very computing intense.
But an additional advantage compared to Raid 5 is that even in rebuild mode the Raid compound is redundant and one more hard disk failure could be met.

RAID 6

Advantage: Data security, capacity and speed (reading). 2 disks can fail
Disadvantage: Slower at writing

Data together with parity information is spread over all hard disks.
If one or 2 hard disks fail, the system can continue work normally and will automatically missing information from failed drive out of the parity information.
The advantage is this security and capacity – at the costs of a lower write speed, since parity calculation is computing intensive. This RAID still represents the best compromise between cost, redundancy and access speed.

RAID 60

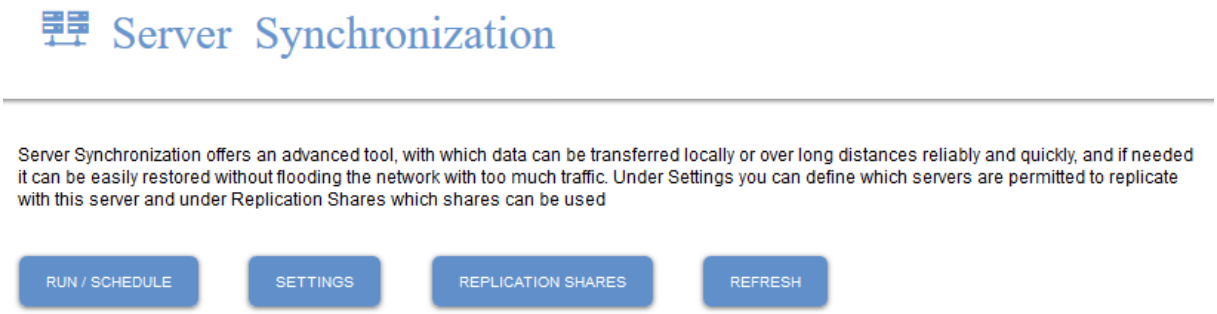
Advantage: most secured, better performance than RAID6
Disadvantage: Capacity of 4 hard disks gets lost

Combination of RAID 6 and RAID 0 – provides best of both worlds – speed and redundancy. Data gets shared between at least 8 hard disks, and you obtain a failure security of up to 4 hard disks. The system continues working even if up to two hard disks fail. Therefore, the advantage is high failure security and capacity – at the disadvantage of a lower access rate, since sharing is very computing intense.
But an additional advantage compared to Raid 5 or 6 is that even in rebuild mode the Raid compound is redundant and one more hard disk failure could be met.

SERVER SYNCHRONIZATION

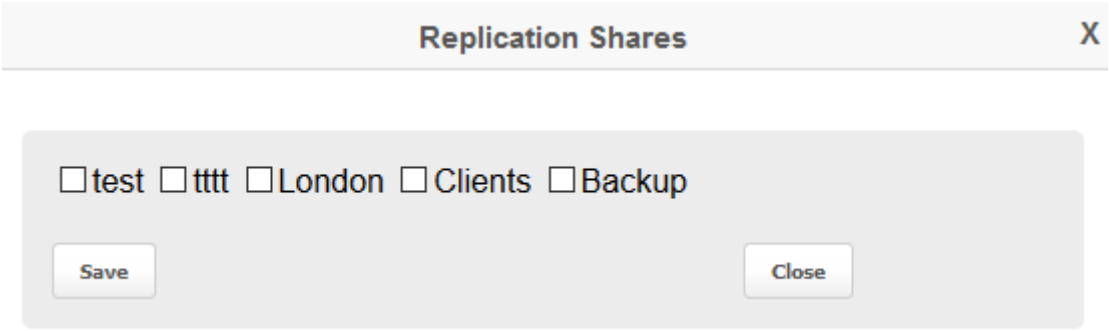
The Server Synchronization is part of eterio NAS Premium Plus and offers an advanced tool, which can transfer data in local network or over long distances reliably and quickly. If needed it can be easily restored without flooding the network with too much traffic. To meet the business requirements and keep interruptions in production flow as low as possible, the backups are performed reliably and quickly.
Server synchronization service is ideal for local backup of the data (eg on a usb drive), data replication to another eterio backup server, or data distribution between different sites. Synchronization server uses its own algorithm to synchronize the data locally or over a network (replicate). During the data synchronization, when copying large files, only changed bytes within this file are being transferred. This feature increases the performance significantly and saves the bandwidth for the production environment.

Configuration is simple and it has only 3 steps. In the example below we will make a scheduled synchronization between two servers. The task is to replicate the share “work” as a Snapshot from the current server, to the share “backup” on the target server (which was previously created) every Friday at 19:00.



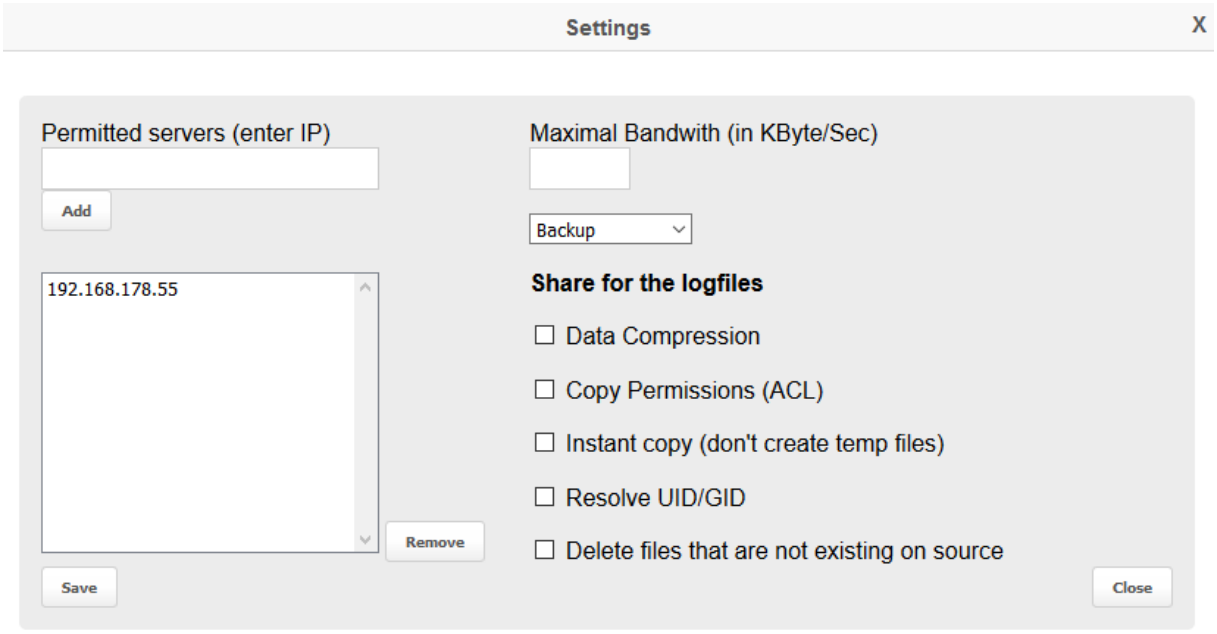
First step is to define which share you wish to replicate. This can be defined under “Replication shares”.

A window will pop up with all the shares available on the server. In this example we want to replicate the share “work” and therefore we select it and click “Save”.



SERVER SYNCHRONIZATION

Under “Settings” you can add the IP address of the servers that will be used for synchronization and do some fine tuning of your settings.



Share for the log files – logfiles will be written on a “synclog” folder on the share you select

Bandwidth – with this option set the replication will only use bandwidth defined

Data Compression – data will be compressed before it gets send to another server. This option makes sense if data is copied via VPN with lower bandwidth

Copy permission (ACL) – in this case ACLs of the files and folders will also be replicated

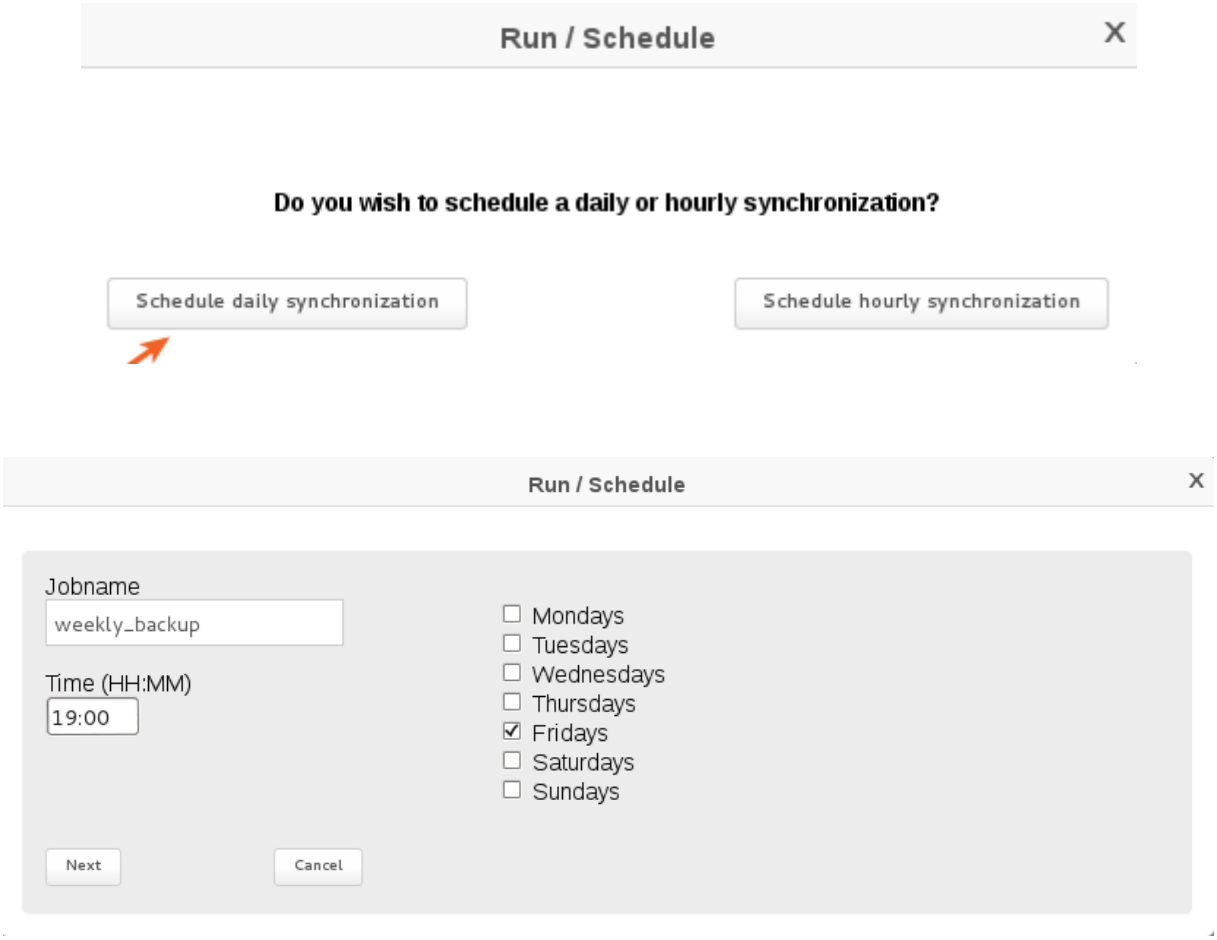
Instant copy (don't create temp files) – in this case file differences will not be first copied on to the target share and then pasted to the file but immediately pasted. This saves space on the target server and speeds up the replication

Resolve UID/GID – with this option eterio NAS Premium Plus will try to resolve User / Group IDs into names when transferred

Delete files that do not exist on source – If selected replication software will always check if the files on the target server exist on the source server. If they don't exist, they will be automatically deleted. If this option is not selected it is possible that over time the target share gets full.

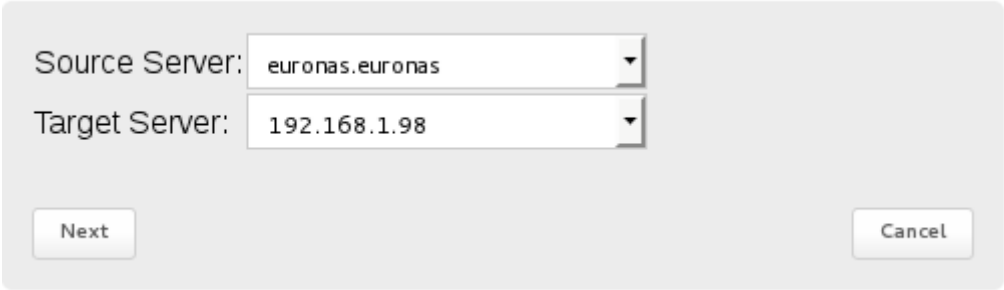
Sync Job Creation

Actual job creation is simple and straight forward. Our wizard will guide you through the settings.
Sync jobs can be scheduled or just started if no scheduled sync is required. They can be scheduled to run daily at certain time or every few hours (for example once per hour or every 4 hours).

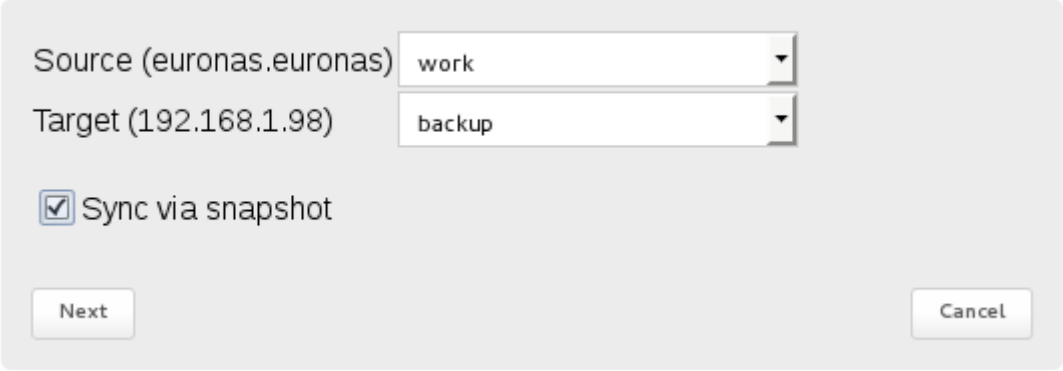


SERVER SYNCHRONIZATION

Next task is to define the source and target server. From the drop-down menu you can select the "Target Server" that you have defined under settings. It is also possible to sync data on another share within the same server, in this case select local server as target server.



As next we need to select source and target share for synchronization. Optionally you can select the option for syncing via snapshot. This enables the data to be synchronized via snapshot (frozen data) that will be automatically created and deleted during the synchronization. This is recommended for virtual machines or databases.



After successful creation you can see the summary of the job in the menu. Button settings enable you to edit the properties for this job. You can change time, delete it or you can start the job immediately.

Jobname	Source server	Target server	Time	Source share	Target share	Option	Status
weekly_backup *	euronas.euronas	192.168.1.98	Fri at 19:00	work	backup	Settings	scheduled

SNAPSHOTS

Snapshots are backups of data at a certain point in time. A backup is taken of data located on shares. The backup is a complete copy of the secured shares, folders and files on a single share on a drive at a certain point in time.

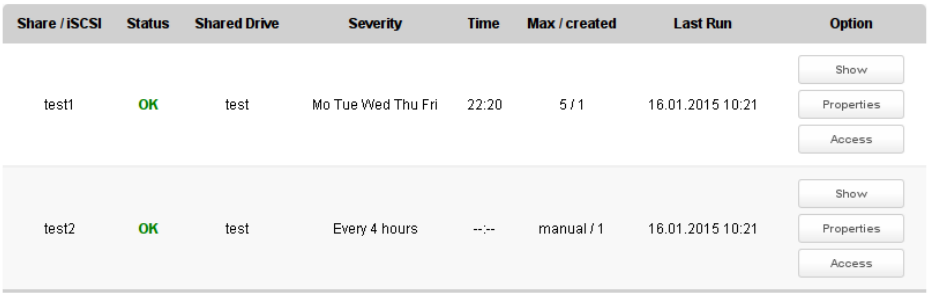
It generally takes a few seconds to take a snapshot. In the case of lost or damaged data, you can refer to the backup in order to restore an earlier version of the data.

Under access rights you can see who is eligible to accessing the snapshots. If for example a snapshot is taken daily or once a week you have access to the data of the last 30 days respectively 30 weeks.

After having defined the access rights for the snapshots, you can find the snapshots via "**Name_of_the_share_snap**".

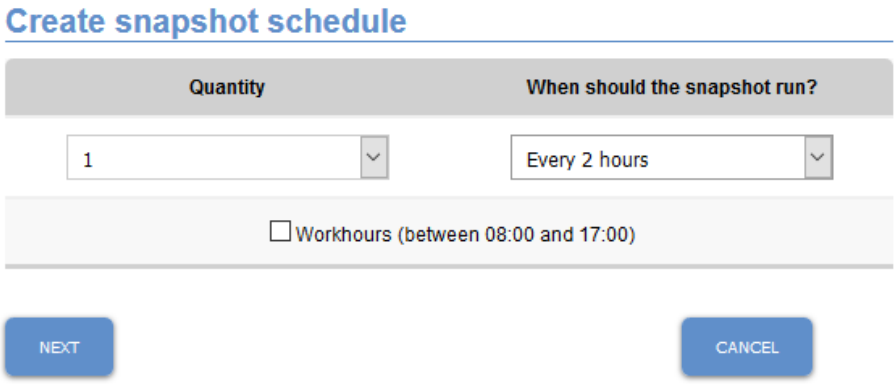
Each snapshots are listed as a single register with date and time of registration. Also, you have the possibility to revert whole snapshot to the volume by using the button revert (reboot after this is necessary).

Snapshots can be timed or executed on demand. If access is permitted, the iSCSI snapshots can be reached via the iSCSI initiator like any normal target.



Generate a snapshot schedule

Snapshots can be set to be taken at an exact time – for example on a selected day or hourly.



SNAPSHOTS

Snapshot memory reservation

Before you can use snapshots there must be a reserved snapshot space on that disk. For taking a snapshot, an already existing data gets accessed while reading, and only the changed blocks get copied into the reserved storage space. The more shares get changed the more storage space is needed for the changes. eterio NAS Premium Plus is calculating the needed storage space for each snapshot by dividing the whole reserved storage space by the number of allowed snapshots on the drive.

Shared drive	test
Currently reserved space:	0 GB
Reserved size for single snapshot	818 MB
Available	9 GB
Reserved for Snapshots:	20%
Maximal number of snapshots	10

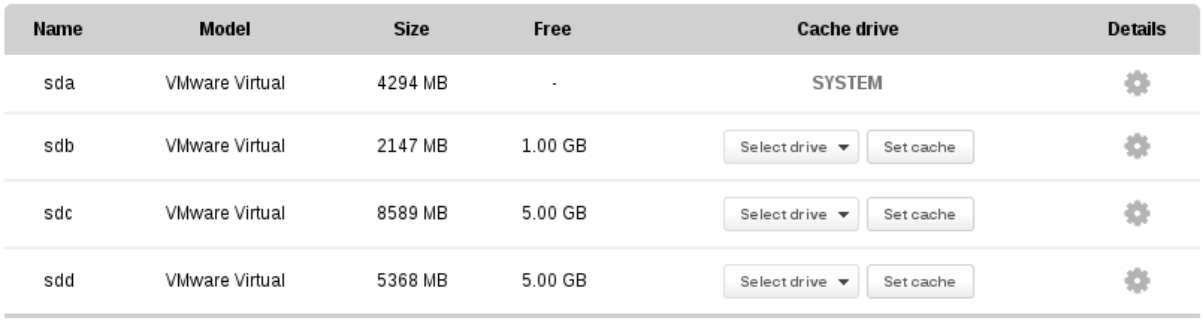
HYBRID CACHE TIERING

Hybrid Storage Cache Tiering improves the performance of your storage server by dynamically moving frequently used data to a faster, smaller device such an SSD. This way you can build a hybrid storage server that will provide you with higher I/O performance and larger capacity at the same time.

eterio NAS Premium Plus analyses automatically incoming data transfer and moves blocks that are used more often to the faster (SSD) disks. The longer the server is in use the more efficient your server will become.

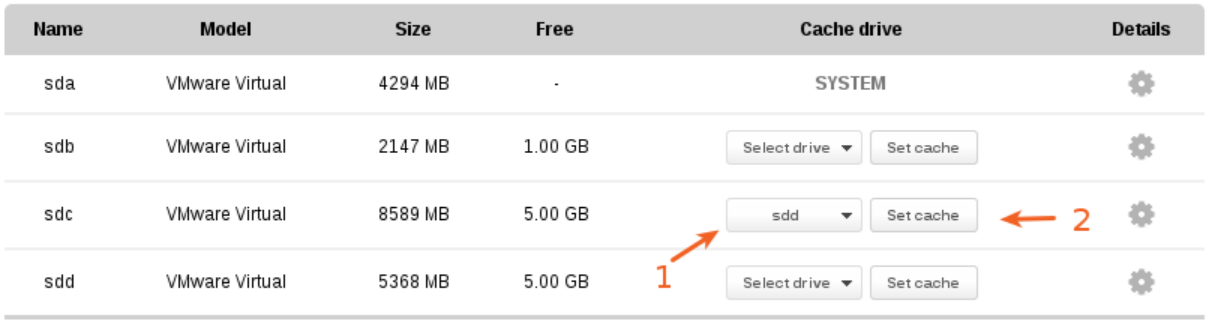
Please note that data blocks will be moved so SSD disks should also be kept redundant (RAID Array).

For setting up a hybrid storage please go to “Storage Management” / “Cache Tiering”. From there you can see the list of all drives.

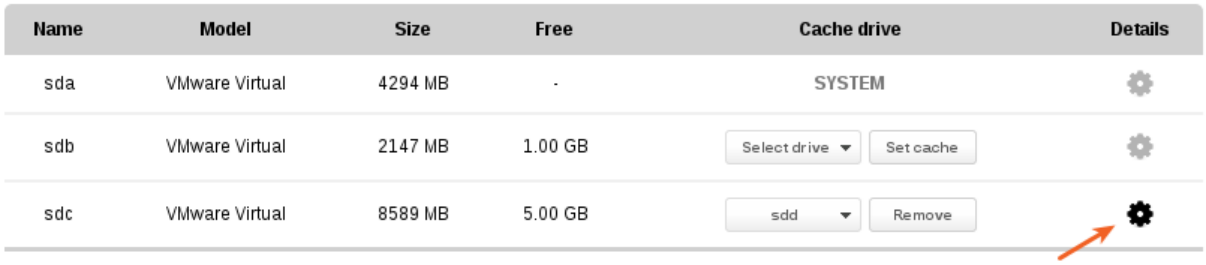


HYBRID CACHE TIERING

Choose a drive, which will be the main drive in the hybrid storage, and then select a drive, which will be the cache drive by selecting the drive and clicking on “Set cache” button. Note that the cache drive shouldn't have any shares or ISCSI/FC targets on it. On the picture below main drive will be “sdc” and cache drive “sdd”.

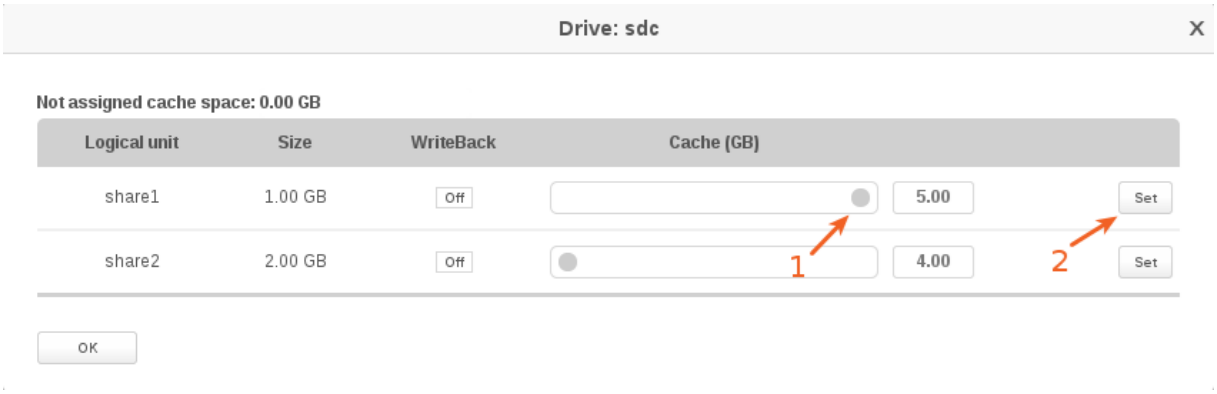


Now go to “Details” for setting further options.

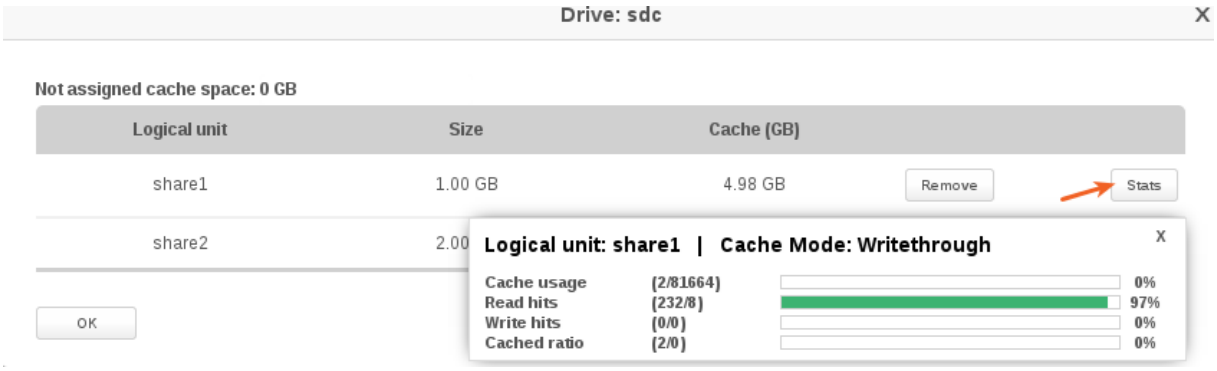


HYBRID CACHE TIERING

Now you can decide how much cache space each individual share or target is allowed to use. The “Write Back” option allows faster speeds but is risky in case of power failure. Per default “Write Back” is disabled.

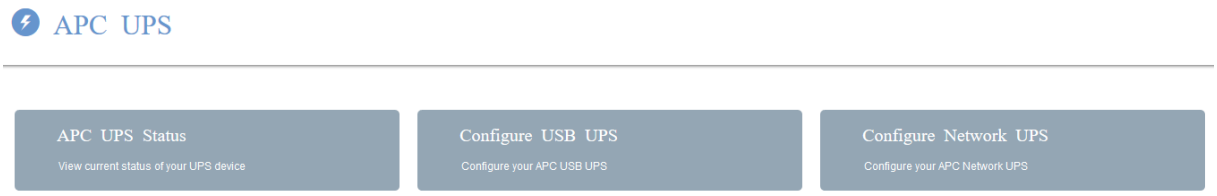


Stats button will show you current cache usage and detailed information.



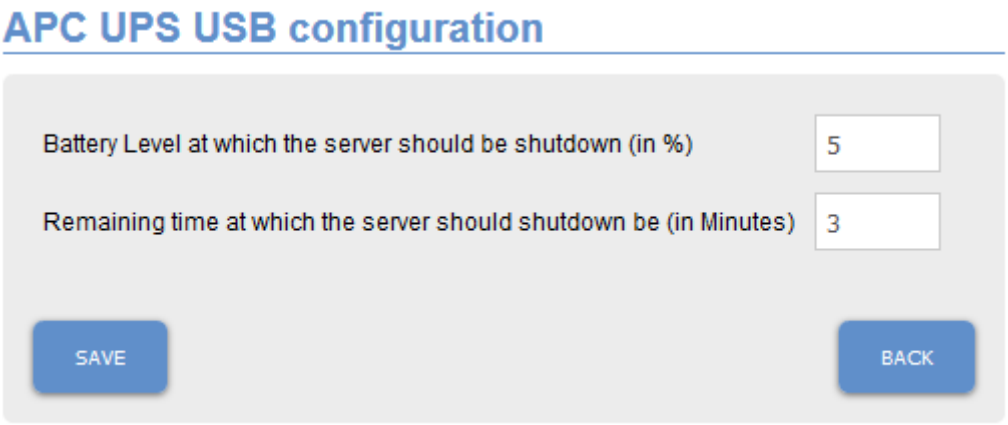
APC-UPS CONFIGURATION

UPS helps the server in case of power failure to shut down the system in a controlled way. UPS service controls the UPS battery and automatically shuts down the system when it reaches a critical status.



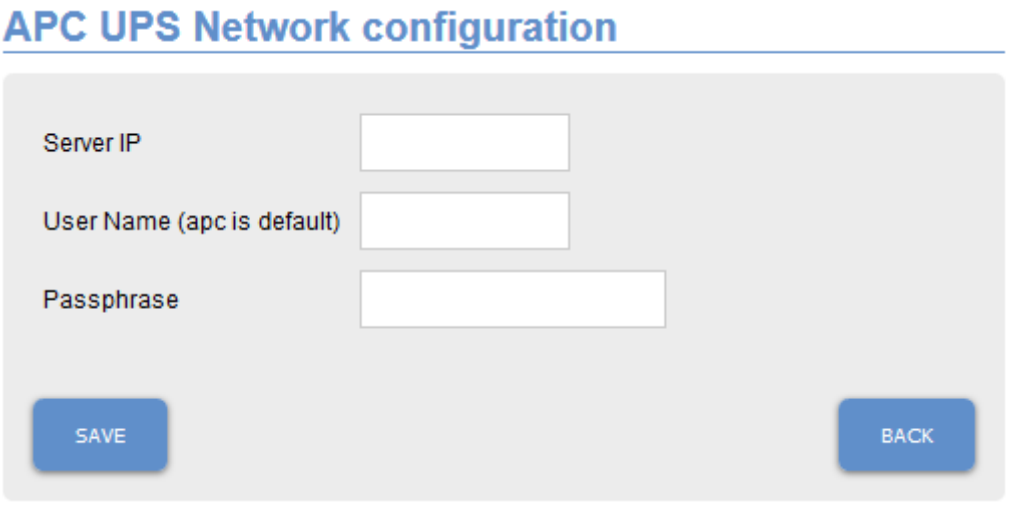
USB UPS configuration

It is important to note that "battery level" and "remaining time" are both valid. The according status that is reached first decides that the system is shut down. After having configured UPS, check the status of the device – if you cannot see the status and/or the website is not responding, the UPS service could not recognize the device.



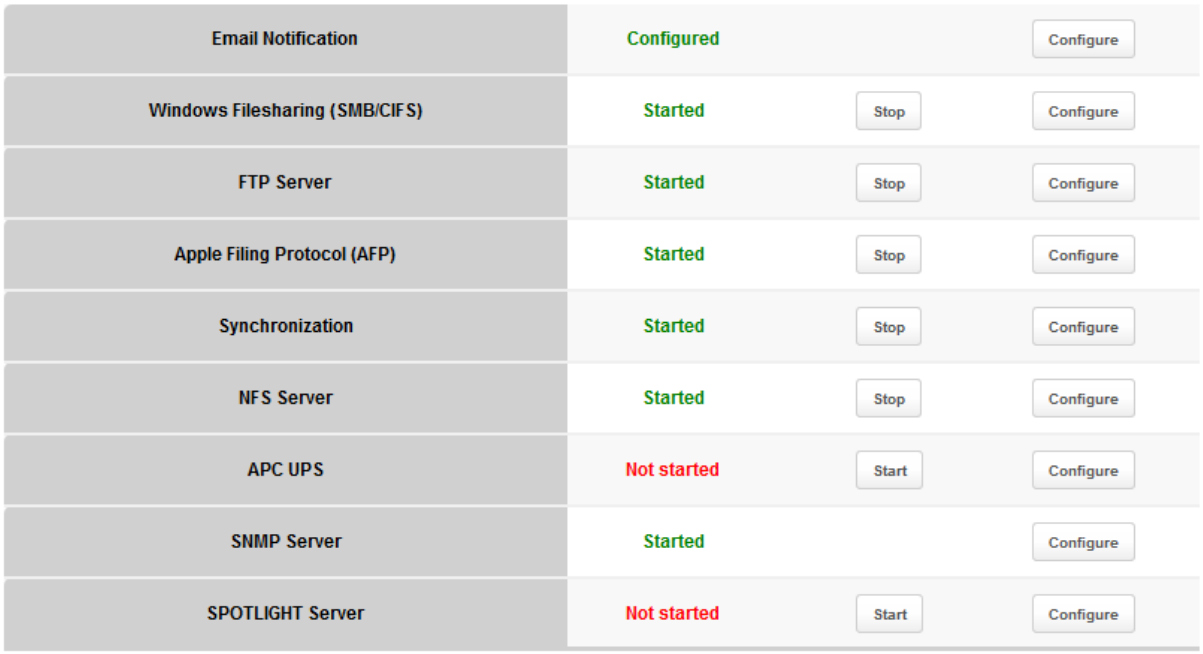
APC-UPS CONFIGURATION

Configuration of a network-based APC UPS



Note: only UPS devices manufactured by APC are supported. APC devices require passphrase to contains at least 12 characters.

SERVICES



E-Mail Notification
If you have set "E-Mail notification" than you will automatically receive an email if there should be any problems whole running the device. The following notifications can be set:

Raid
UPS notification
Server synchronization reports

The following parameters need to be set:

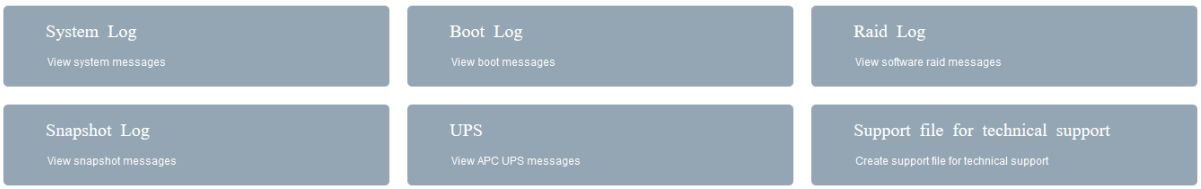
SMTP server
Sender: an email account which is known to the SMTP server and/or which gets accepted by the SMTP server
Receiver: Email address of the recipient to whom the email notification is to be sent
User name (SMTP)
Password (SMTP)

SNMP Server
You can monitor the server using 3rd party SNMP tools

APC UPS
Monitoring service for APC UPS devices (USB / Network).

EVENT LOGS

Event logs help you troubleshooting in case of problems. Especially when contacting technical support, it is very important to create and send support file as well. This file helps us determining the problem and finding the solution much quicker



ANTIVIRUS

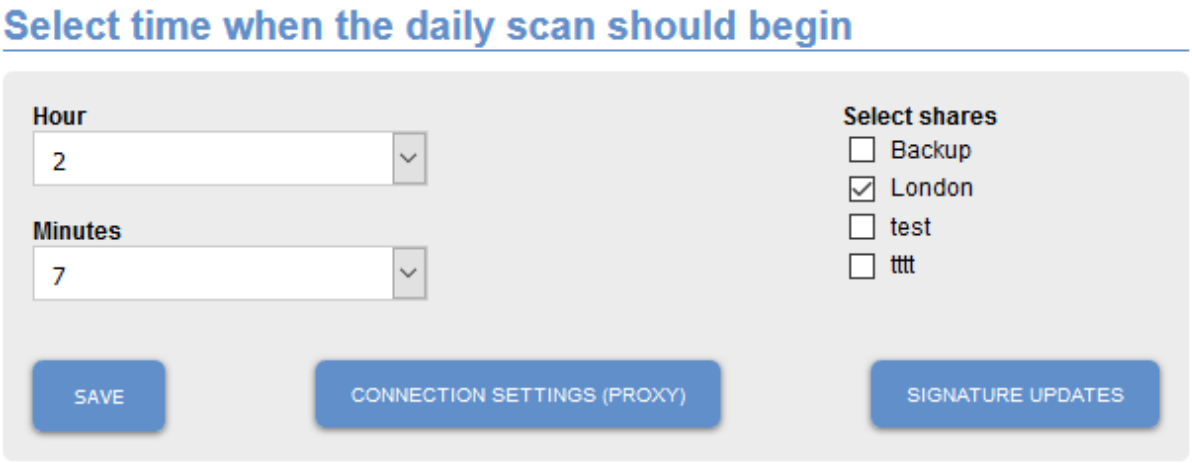
eterio NAS Premium Plus comes with an integrated anti-virus software. This software allows to scan the files on the server for viruses. You can define the shares and the time when the scan should be executed in the configuration.

Under connection configuration the proxy server for the updates of the virus signatures can be set. If your proxy server demands username and password, please note that these will be saved in an unencrypted way on the eterio NAS Premium Plus server. But no user will be able to access this data via the network.

On each share the following folders get created which should not be deleted

- log in antivirus_euronas
- quarantine in antivirus_euronas

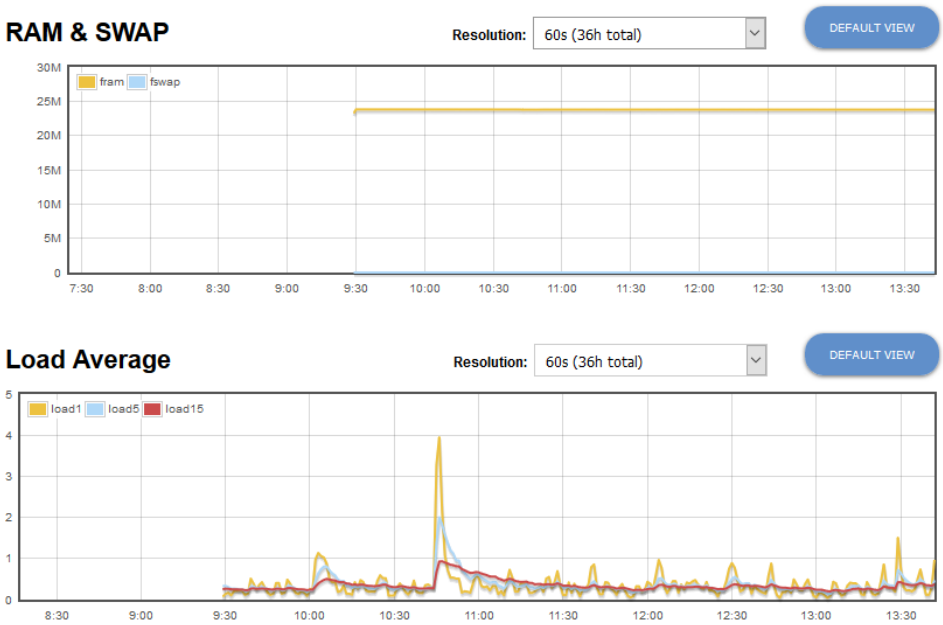
In the log all events for this share get stored – for example suspicious files get logged in found virus quarantine.



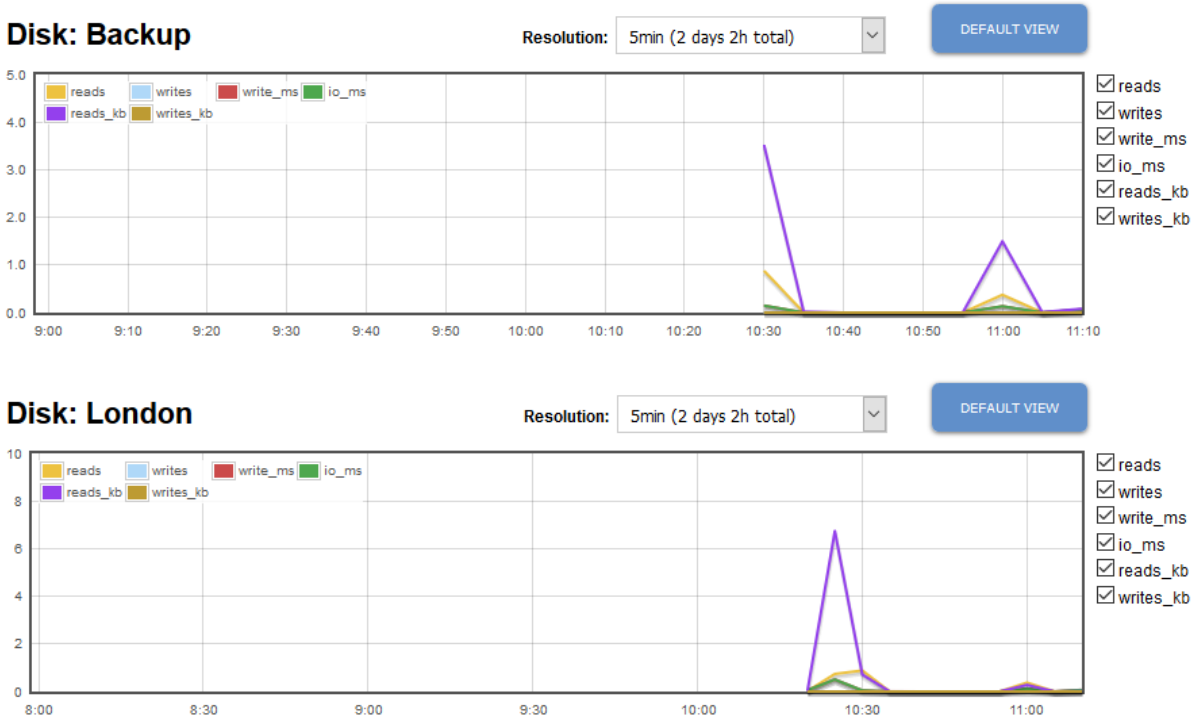
SERVER STATISTICS

Under statistics you can see the server usage and following information:

- RAM and SWAP Partition usage

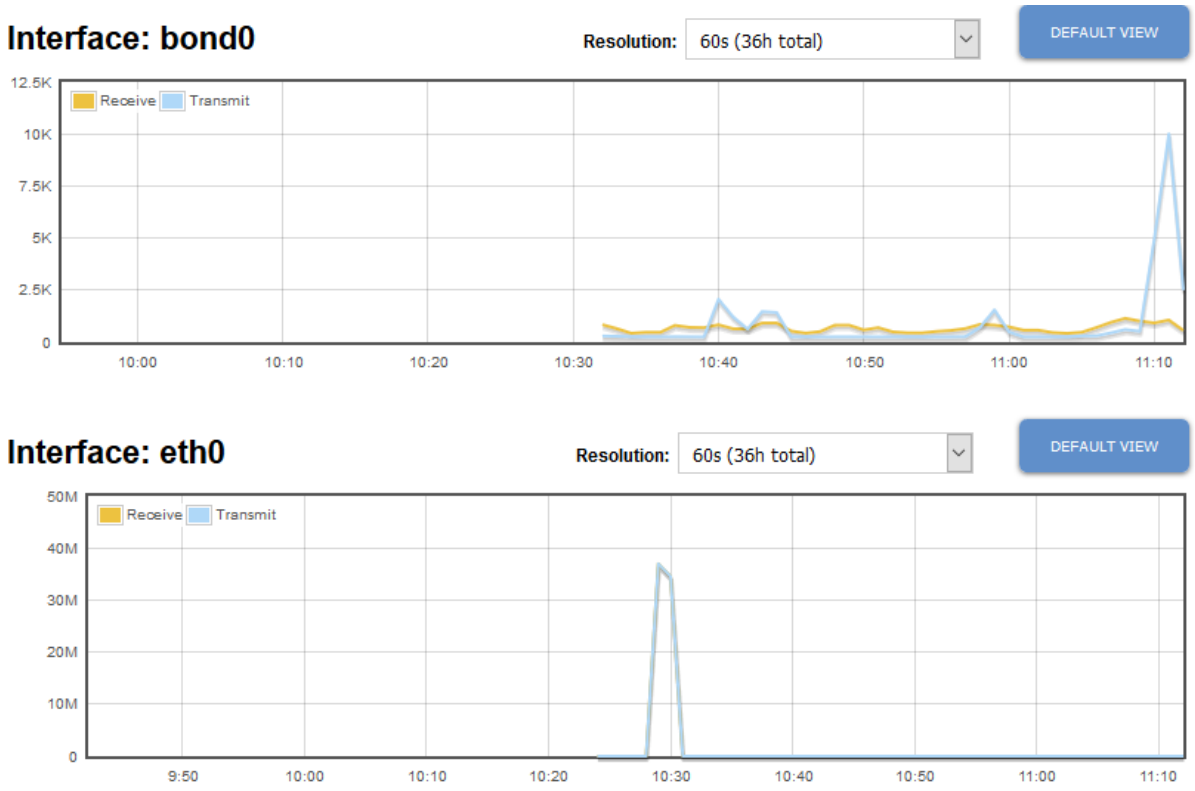


- I/O Statistics for your shares, iSCSI, FC Targets and swap partition



SERVER STATISTICS

- Network statistics for each individual port



COMMAND LINE INTERFACE (CLI)

Command line interface (CLI) is a text-based interface that is used to operate software and operating systems while allowing the user to respond to visual prompts by typing single commands into the interface and receiving a reply in the same way.

CLI is quite different from the graphical user interface (GUI) offered by eterio NAS Premium Plus that is presently being used in the latest operating systems.

The eterio appliance's CLI (Command Line Interface) provides a set of Linux/KVM commands which helps users to manage the system based on special commands.
NOTE: Be sure to make a backup of your system before making any changes using CLI. We accept no responsibility for any damage caused by inexperienced users by CLI.

Starting of CLI:

- log in as an administrator
- go to "System" and then choose "Debug"
- write the command "service ssh start"
- log in as an administrator with the command "sudo su"
- switch to root.
- write your own commands
- to finish write: "exit"