

Tyrone OPSLAG FS2 3.8

Manual

INTRODUCTION

Log in

To log in to the system, first acquire the IP address of the box. The default IP of OPSLAG FS2 is 192.168.0.56 . After Logging, run a browser (preferably Mozilla Firefox) from any machine on the same network and access the IP.

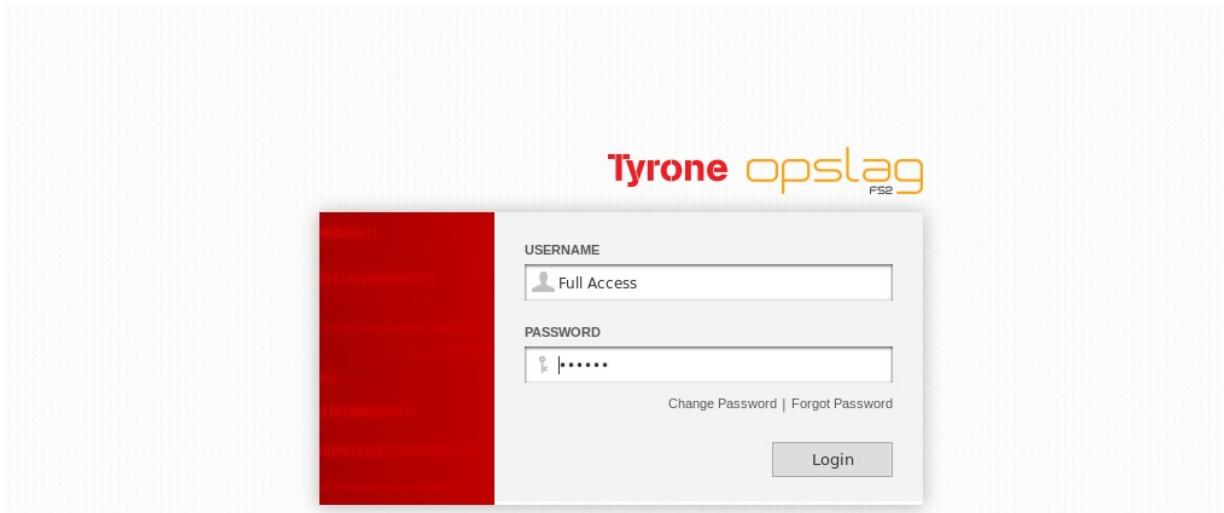


Fig. 1.0

Fig -1.0 here you have to select either you want to login as a user with Full Rights (Full Access) or as a user with restricted rights (Users). Once you have selected, provide the relevant password and click on the Submit button”

OPSLAG FS2
Default IP – 192.168.0.56
User type : Full Access
Default Password – opslug

Resource

Resource Information

OS Information

The default page seen after logging in full access mode is Os Information under Resource Information .This page lists OS Information of the system as well as Host and Remote IP as well.

From this section of the screen you can see, the box has RAM and a single Xeon CPU. The name of the machine is OPSLAG and it is up Time. The IP address of the server is 192.168.0.56 and the client accessing it is 192.168.0.175. The CPU load , memory consumption builds and show you the serial number of the box as well.”

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there's a navigation bar with the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 14:57 | 03 Jul 2014 / 09:58 | Full Access | node1'), and links for 'Change Password' and 'Logout'. On the left, a sidebar menu includes 'RESOURCES' (selected), 'Resources Information', 'OS Information' (selected), 'Sensor Information', 'Volume Information', 'Disk Information', 'Date/Time Settings', 'Network Settings', 'Authentication Settings', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE', and 'FS2 DATA ANALYSIS'. The main content area is titled 'OS Information of Node1' and displays the following details:

OS Information of Node1		Node2
CPU:	Intel(R) Xeon(R) CPU E5-2620 0 @ 2.00GHz	
Server IP:	192.168.0.58	
Remote IP:	192.168.0.175	
HostName:	FS2develnode1	
Uptime:	16 minutes	
Current Login:	Thu Jul 3 09:58:51 , 2014	
Last Login:	Wed Jul 2 18:59:28 , 2014	
Memory(MB):	7958	
Used Memory(MB):	464	
Free Memory(MB):	7494	
Cpu usage:	2.31%	
OS:	OPSLAG	
Version:	4.0.ALPHA	
Build:	1312060001	

Fig .1.0.1

Fig 1.0.1 Shows the options which are present in OS Information.

Sensor Information:

The screenshot shows the Tyrone opslag FS2 web interface. At the top left is the logo "Tyrone® opslag® FS2". At the top right are links for "Session Timer : 14.97 | 07 Aug 2014 / 18:39 | Full Access | Change Pass" and a lock icon. The main menu on the left includes "RESOURCES" (with "Sensor Information" selected), "NAS", "SAN", "VTL", "RAID", and "MAINTAINANCE". The "Sensor Information" page displays two sensor icons. The first icon shows a grey square with a green border and a small red warning symbol, with the text "36°C" next to it. Below this are two rows of fan icons labeled "Fan Speed(RPM)" and "RAID CPU: 58 °C". The second row shows RAID Controller and PS1 presence status. The bottom section shows an "Intrusion: nc" status.

Fig 1.0.2

Fig-1.0.2 this section gives you information and alerts based on the system sensors. So for instance from here you will be able to see if the temperature of the CPU/s, RAID Controller are proper. It also gives you a colour coded warning in case of any threshold is crossed. It also tells you the speed of all the fans installed in the box and gives you warning in case of any power supply failure or if the chassis is open (intrusion)"

Volume Group Information:

The screenshot shows the 'Volume Information of Node1' section. The left sidebar has 'Volume Information' highlighted. The main table lists two volumes: 'netweb' and 'vg1'. Both have a total space of 931.51GB and free space of 931.51GB and 561.39GB respectively.

Volume Name	Total Space	Free Space
netweb	931.51GB	931.51GB
vg1	931.51GB	561.39GB

Fig 1.0.3

Fig-1.0.3 this will quickly give you a status of how many Volume Group is created in the box and what is the total and available space in them.

Disk Information

The screenshot shows the 'Disk Information of Node1' section. The left sidebar has 'Disk Information' highlighted. The main table lists one disk, 'disk1', with 20.00GB total space. It also includes columns for Used(%), SMB, NFS, FTP, AFP, SMB Log Path, and Audit, with 'Used(%)' showing 'Unable to Get Information'.

Disk Name	Total Space	Used(%)	SMB	NFS	FTP	AFP	SMB Log Path	Audit
disk1	20.00GB	Unable to Get Information	✓	✗	✗	✗	✗	✓

Fig-1.0.4

Fig-1.0.4 from here you can get a quick update on how many Logical volumes are created and how much space is used (in %). It also tells over which protocol these logical volumes are shared.

Date and Time Settings

There are three sub options present:

Manual: There is a small calendar icon on the right side. This will pop up a window to select the date and at the bottom to set the time manually. There is a time zone option to be set which is drop down.

Use this PC Time: Opslag FS2 time will be synchronized with the time of the machine you are logged into currently and accessing the interface.

NTP Server: You need to provide a NTP server name with which Opslag FS2 time will synchronize in regular time intervals.

After setting the Date and Time click on Apply to save the changes.

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there is a navigation bar with the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 14.73 | 03 Jul 2014 / 10:08 | Full Access | node1'), and links for 'Change Password' and 'Logout'. Below the navigation bar is a sidebar titled 'RESOURCES' containing links for 'Resources Information', 'Date/Time Settings' (which is highlighted in red), 'Network Settings', and 'Authentication Settings'. The main content area is titled 'Date Time Settings of Node1' and has tabs for 'Manual/PC Time' (selected) and 'NTP Server Time'. Under the 'Set Date/Time' section, it shows the 'Current Date: 03-Jul-14/10:08:35'. A radio button labeled 'Manual:' is selected. Below it is a 'Date:' input field with a calendar icon. At the bottom of this section are 'Select Date' and 'PC Time' buttons. The top right corner of the main content area has a button labeled 'Node2'.

Fig 1.0.5

"Here the first option (Manual) is been selected and calendar button is pressed to show the calendar which lets the user select the date and time easily."

NTP Server Time:

Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched, variable-latency data networks. so Network Time Protocol is a dedicated server through time is synchronize all the time.

The screenshot shows the 'Date Time Settings' page for 'Node1'. On the left, there's a sidebar with icons and labels for 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HFI D'. The main area has a title 'Resources > Date Time Settings' and a sub-section 'Date Time Settings of Node1'. It features two tabs: 'Manual/PC Time' (selected) and 'NTP Server Time'. Below the tabs is a text input field with a cursor, followed by two buttons: 'Synchronize' and 'Configure'. In the top right corner of the main area, there's a small orange box labeled 'Node2'.

Fig 1.0.6

Network Settings:

This option Helps to change all the network related configurations, name of the FS2 Storage, the IP Address gateways , DNS configurations, Bonding of network interfaces.

Host name:

Option to change the name of the FS2 storage Box.

The screenshot shows the 'Resources' menu on the left with 'Network Settings' selected. The main panel displays 'Network Settings of Node1' with tabs for Host Name, Network, DNS, and Aggregation. The 'Host Name' tab is active, showing a 'Change Host Name' form. In the 'HostName' field, 'FS2develnode1' is entered, and in the 'Select Primary IP' dropdown, '128.0.0.1' is selected. An 'Apply' button is visible at the bottom right of the form. The top right of the screen shows session information: Session Timer : 14.93 | 03 Jul 2014 / 10:12 | Full Access | node1, along with links for Change Password and Logout.

Fig 1.0.7

Shows all the sub options which comes under network category and to change the host name Provide the new name at the input box with the present name and then click apply.

Network Information

This section helps to identify the LAN cards and configure the same. By Left Click on the Icon you will get the all Information like Model ,Status,IP Address, Mask,Identity, Edit Network.

The screenshot shows the 'Resources' menu on the left with 'Network Settings' selected. The main panel displays 'Network Settings of Node1' with tabs for Host Name, Network, DNS, and Aggregation. The 'Network' tab is active, showing five network card icons labeled eth0 through eth5. Below each icon is a small blue plug icon. The top right of the screen shows session information: Session Timer : 9.42 | 03 Jul 2014 / 10:12 | Full Access | node1, along with links for Change Password and Logout.

Fig 1.0.8

This section lets you identify and configure the LAN cards. Blink : On clicking the Identify button activates the LED of that particular LAN card and helps to identify it in the box.

EthX: On the click of the Ethernet Card 'ethx' will pop up a window to Edit Network and Gateway for that particular card. Please see the image below."

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (9.25 | 03 Jul 2014 / 10:12), and links for Change Password and Logout. The left sidebar under 'RESOURCES' has options like Resources Information, Date/Time Settings, Network Settings (which is highlighted in red), Authentication Settings, NAS, SAN, VTL, RAID, MAINTAINANCE, and FS2 DATA ANALYSIS. The main content area is titled 'Resources > Network Setting' and shows 'Network Settings of Node1'. It lists five network interfaces: eth2, eth3, eth4, eth5, and eth0. Each interface is represented by a blue plug icon. Below each icon are five buttons: Model, Status, IP Address, Mask, Identify, and Edit Network. A cursor is hovering over the 'Identify' button for eth2.

Fig. 1.0.9

Fig 1.0.9 Enter the desired IP, Net mask and gateway for the particular Eth device. click on the Apply button to save the changes."

DNS Configuration:

Option to provide the IP address of the DNS (Domain Name System) server for the Internet name resolution.

Click on apply to save the changes.

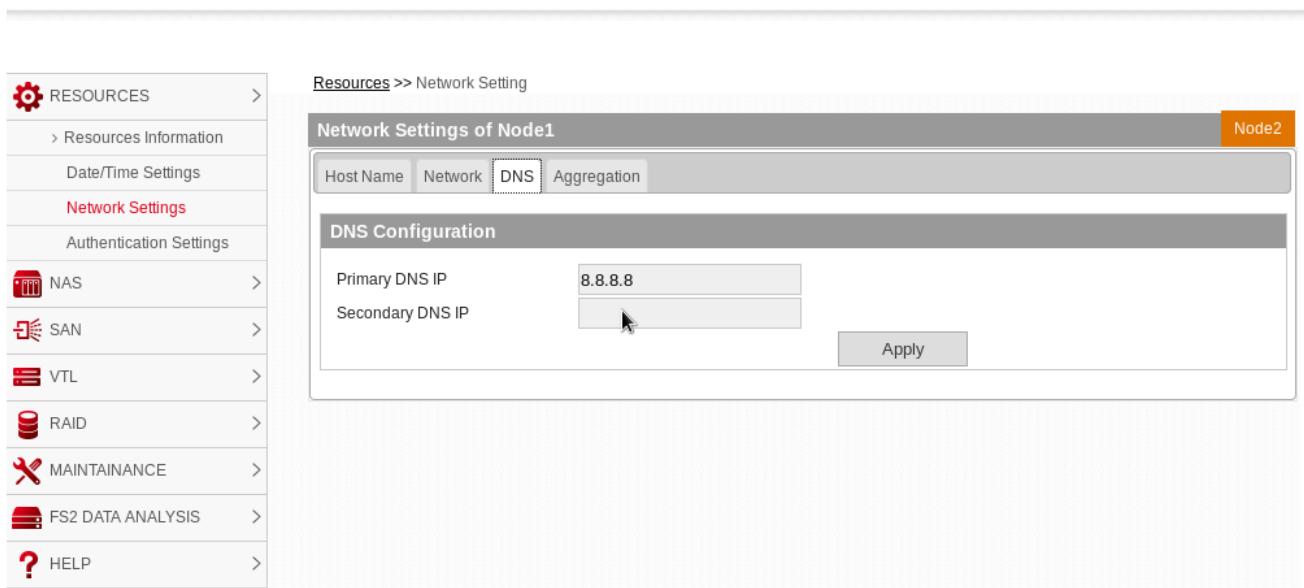


Fig 1.1.0

Here you can see, the DNS address is configured to a local DNS server from the same

Ethernet Teaming/Aggregation

This option helps to provide methods to combine multiple network combinations of

multiple network connections in parallel to increase throughput beyond what a single connection could sustain, and also to provide redundancy in case some of the links fail.

Bond Name : Enter the name which is suitable to you.

Choose Ethernet Devices: Choose the devices which you want to add in the bond if you use the device which is already being used then user connected through that device will get disconnected.

IP Address: Choose the IP address which is not being used before.

Net Mask: According to IP Address select the Netmask.

Gateway : Enter the gateway which you want to use for Communication , you can leave it blank as well or default gateway.

Bond Type:

balance-rr: Round-robin policy: Transmit packets in sequential order from the first available slave through the last. This mode provides load balancing and fault

tolerance.

Active backup: Only one slave in the bond is active. A different slave becomes active if, and only if, the active slave fails. The bond's MAC address is externally visible on only one port (network adapter) to avoid confusing the switch. This mode provides fault tolerance. The primary option affects the behavior of this mode.

Balance Xor: Transmit based on [(source MAC address XOR'd with destination MAC address) modulo slave count]. This selects the same slave for each destination MAC address. This mode provides load balancing and fault tolerance.

Broad Cast: Transmits everything on all slave interfaces. This mode provides fault tolerance.

Balance tlb: Adaptive transmit load balancing: channel bonding that does not require any special switch support. The outgoing traffic is distributed according to the current load (computed relative to the speed) on each slave. Incoming traffic is received by the current slave. If the receiving slave fails, another slave takes over the MAC address of the failed receiving slave.

802.3ad : It is the most complex bonding technique enabled on the storage nodes. It

provides for Link Aggregation. They require switch support and link aggregation is dynamic in both the directions.

Balance alb: Adaptive load balancing: includes balance-tlb plus receive load balancing (rlb) for IPV4 traffic, and does not require any special switch support. The receive load balancing is achieved by ARP negotiation. The bonding driver intercepts the ARP Replies sent by the local system on their way out and overwrites the source hardware address with the unique hardware address of one of the slaves in the bond such that different peers use different hardware addresses for the server.

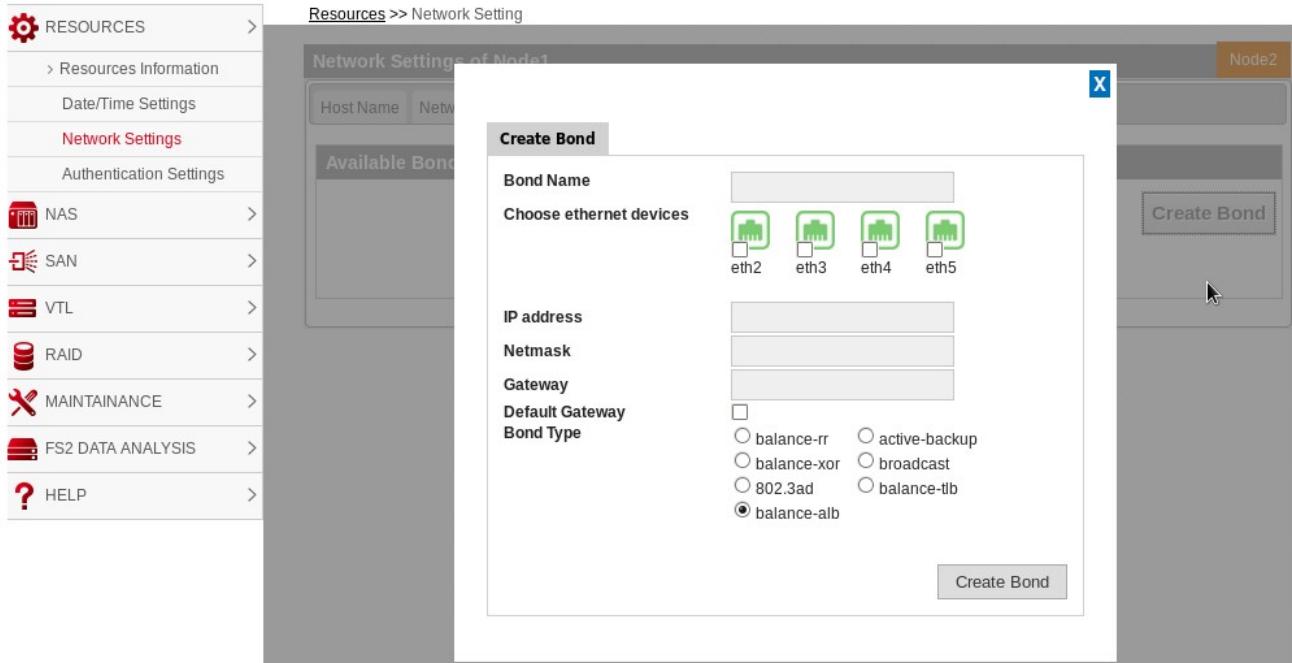


Fig 1.1.1

Here you can Select by default balance alb .

Delete/Modify Bond :

To delete or to modify bond left click on bond and we will get the option modify and Remove option.

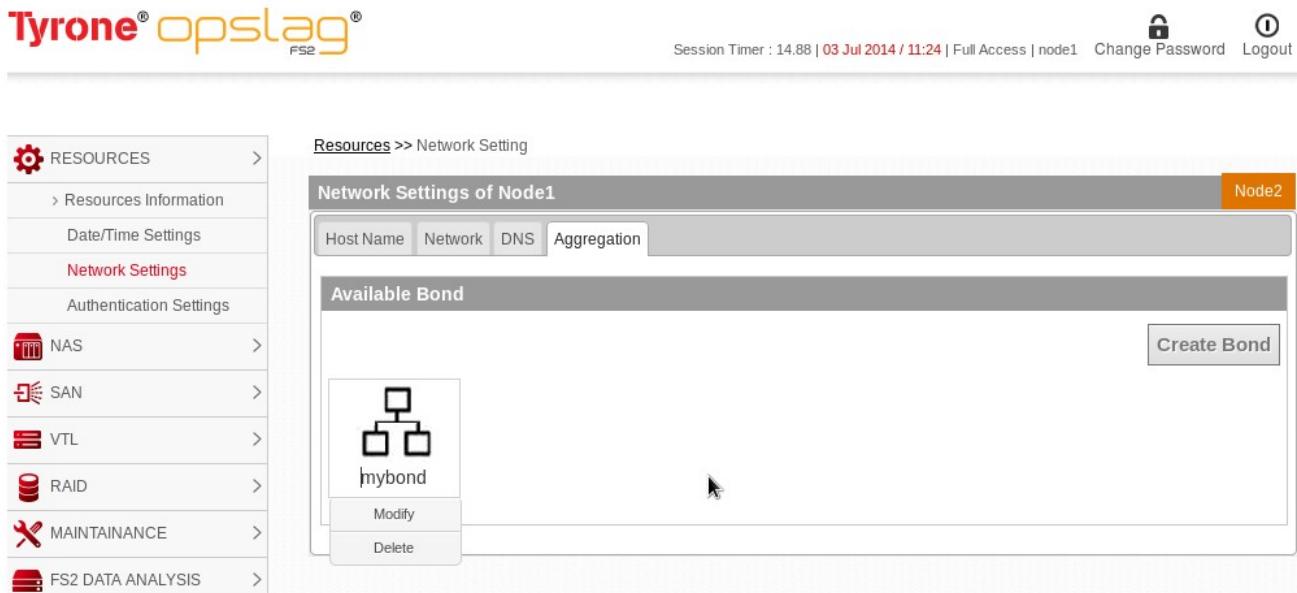


Fig 1.1.2

Authentication Settings:

This option allows you to Choose a server for Authentication. Choose any one of four option and click on “Apply” button.

Local Server : Local server option is use full for taking authentication Locally.

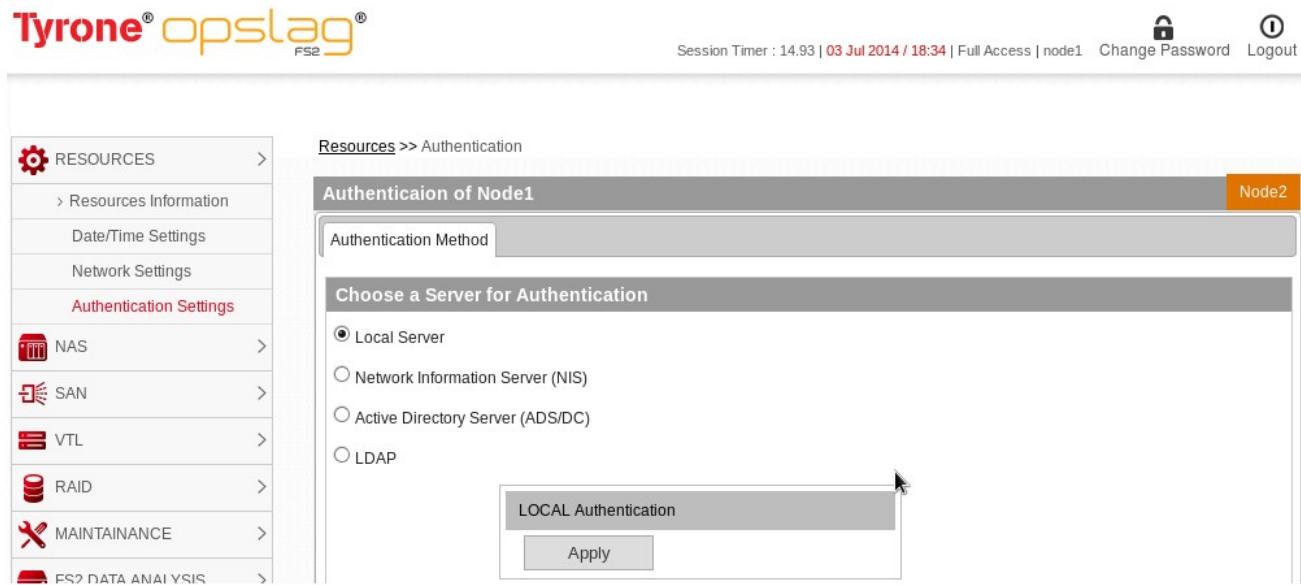


Fig 1.1.3

Network Information Server:

NIS Authentication required IP address and Domain name of NIS server.

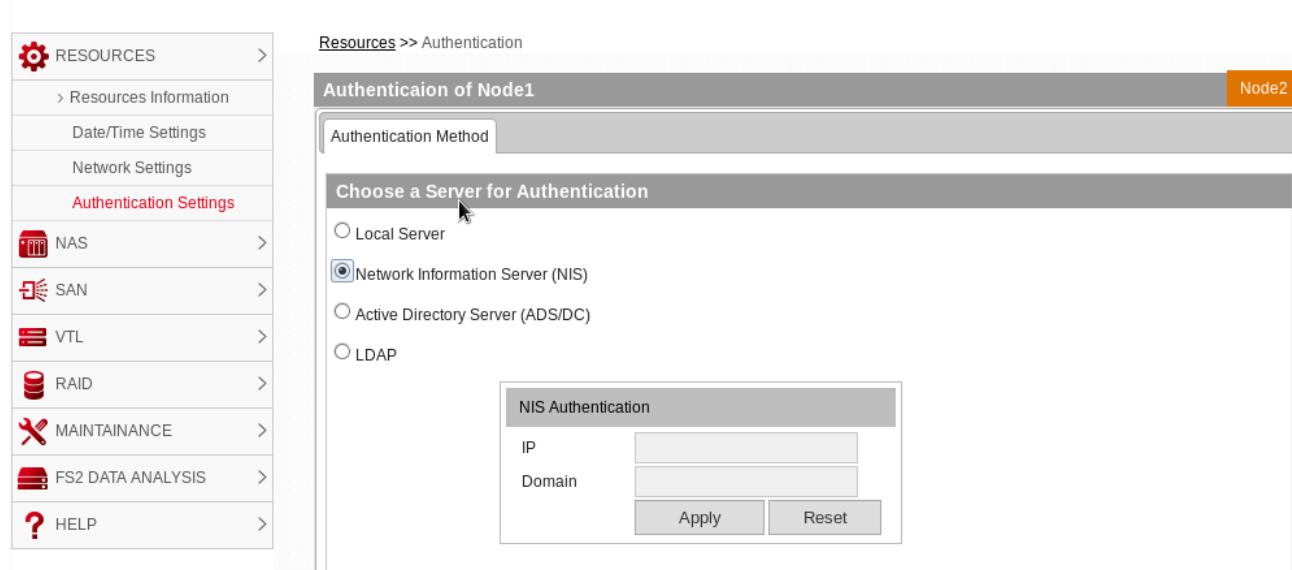


Fig 1.1.4

Active Directory Server:

Active Directory Server required user name , Password , FQDN(fully qualified domain name),DNS .These information you can get for ADS.

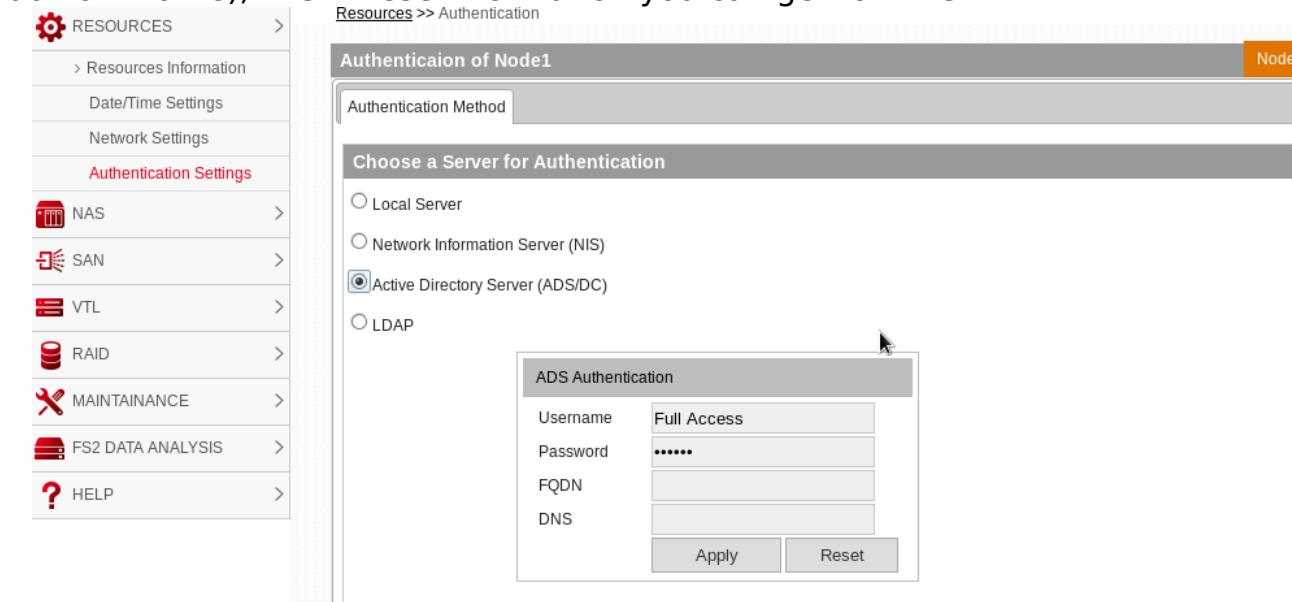


Fig 1.1.5

LDAP: Lightweight Directory Access Protocol (LDAP):

LDAP is an open, vendor-neutral, industry standard application protocol for accessing and maintaining distributed directory information services over an Internet Protocol (IP) network.

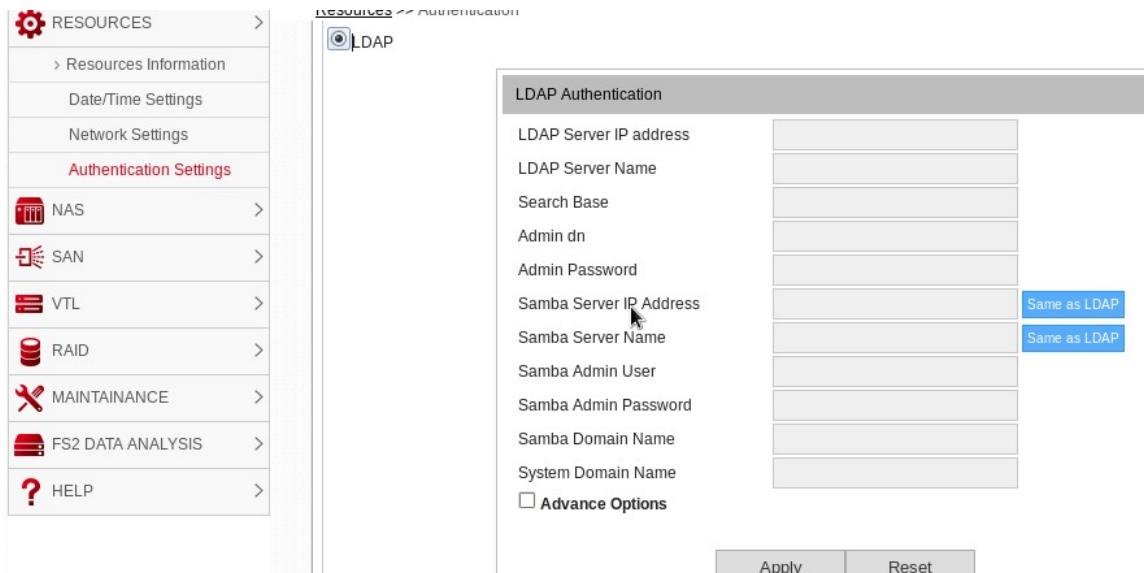


Fig 1.1.6

NAS

Share:

Helps you to attach to the NAS, protocols supported this mode are SMB, NFS and FTP.

This option allows you to create and configure a Share, provide quota to pre-created users or groups.

Here as we can see that Blue Color represent Node1 and Red Color represent Node2 ,so basically this page show all the share which are part of Node1 and Node2.

The screenshot shows the Tyrone opslag FSE2 interface. The top navigation bar includes the logo 'Tyrone® opslag® FSE2', session information ('Session Timer : 6.47 | 05 Jul 2014 / 18:18 | Full Access | node1'), and a 'Change' link. The left sidebar has a 'RESOURCES' section with links for 'Shares' (highlighted in red), 'Quota', 'SAN', 'VTL', 'RAID', and 'MAINTAINANCE'. The main content area is titled 'Nas >> Shares' and contains a legend: 'Node1' (blue line) and 'Node2' (red line). Below the legend are four folder icons, each labeled with its name: 'hode2share' (red), 'rahultest' (blue), 'test2' (red), and 'testN1' (blue).

Fig 2.0.0

Create Share:

For Creating any Share on the Icon indicated below. Then you will get the window like in figure.

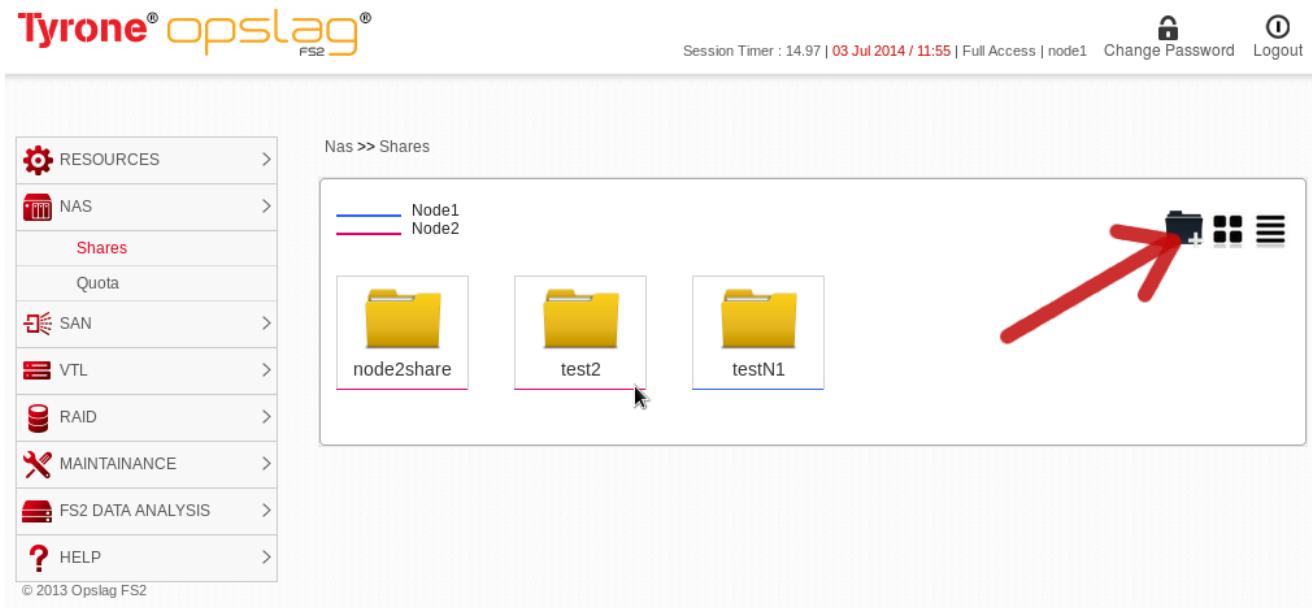


Fig 2.0.1

You can fill the name which you want and default location will come but if you want to change the location you can click on custom location option check box and select the location.

Click on Create its done of creation on share.

Click on this NAS , Share button to go back and check the shares.



Nas >> Shares >> Create Share

Create Share on Node1

Share name:

Share path: disk1

Comment:

Custom Location

Create **Reset**

Node2

Fig 2.0.2

After going into shares left click on the share on which you want to work and you will see the window like figure 2.0.3

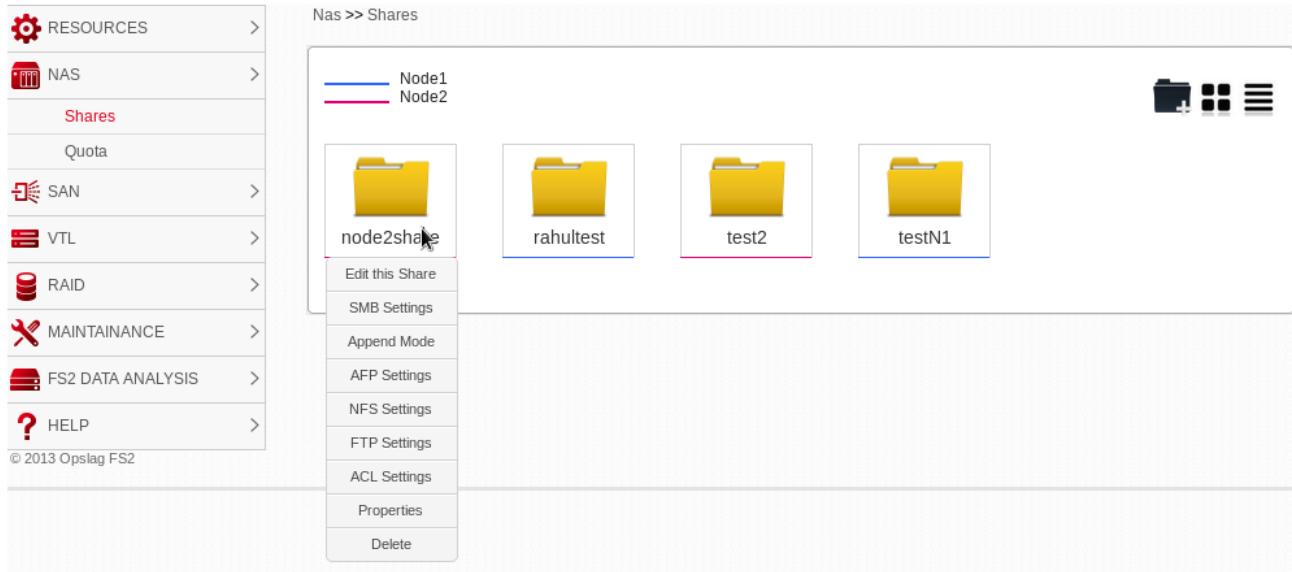


Fig-2.0.3

Edit the Share:

This tab will help you to Edit the Comment on share , you can not edit the name or location of the share.

The screenshot shows a user interface for managing shares. On the left is a sidebar with icons and labels: RESOURCES, NAS, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main area has a header 'Nas >> Shares >> Edit Share'. Below this is a form titled 'Edit Share' with three input fields: 'Share Name' containing 'node2share', 'Comment' containing 'test123', and 'Share Path' containing '/disk/node2share'. A 'Update' button is at the bottom right of the form.

Fig 2.0.4

SMB Settings:

You can enable the SMB sharing for the share by just selecting the “Use SMB” check box. The rest of the options are to set the permissions and visibility. Clicking on the Read only will mark the share as read only and clicking on the Visible will make the share visible. In the “User access permissions” section, you can select Guest if you want to let the windows Guest user access the share. The Public option will enable universal access for the share. The Authenticated User option will set the share to be accessible by either the internal users of FS4 or through an ADS or LDAP users.

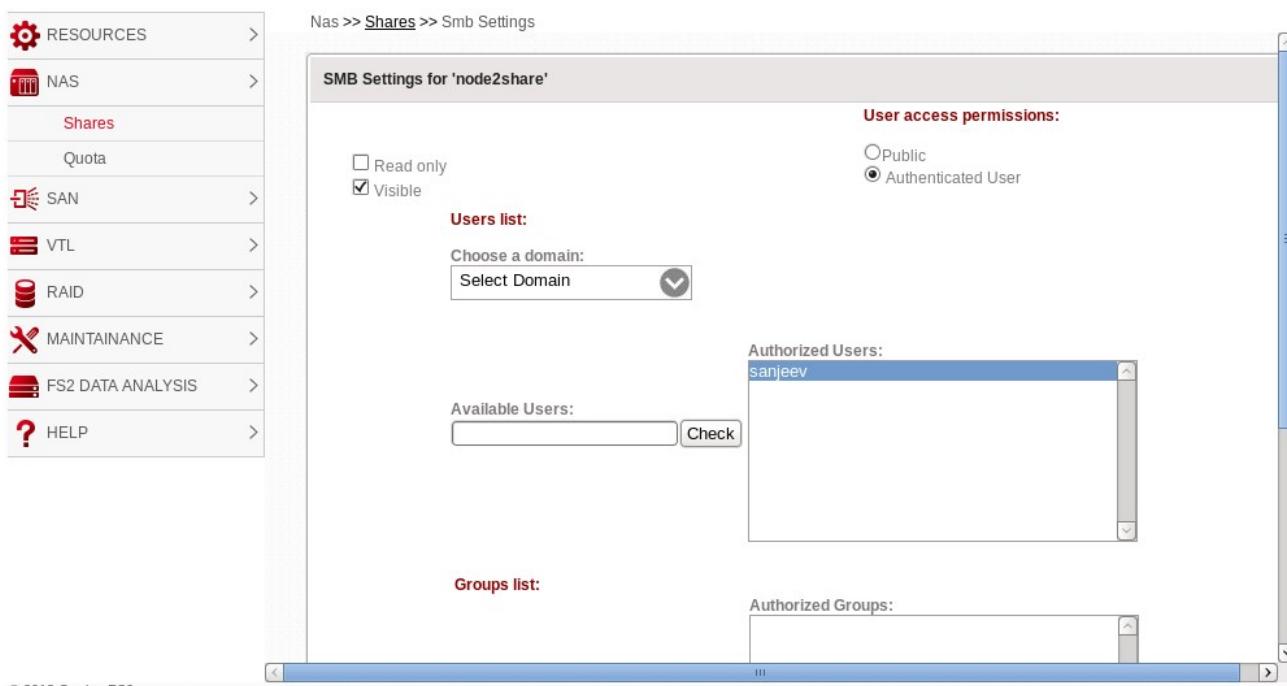


Fig 2.0.5

Above Fig. Shows for Public users but if you want to work for Authenticated user then Click on Radio Button of Authenticated user and you will get the window like the fig 2.0.6 Below one.

Now you can select the domain and user according to your wish and what privileged you want for that user.

Update Configuration will set the SMB Setting for share.

Append Mode:

Next Option is Append Mode bit more will let you see the “Append Mode Settings”. It is a very unique feature of OPSLAG. This feature is useful in case if multiple users are accessing a single folder, then this mode could be enabled to restrict accidental deletion of file by any of the authorized users.
This is essentially full access without deletion rights.

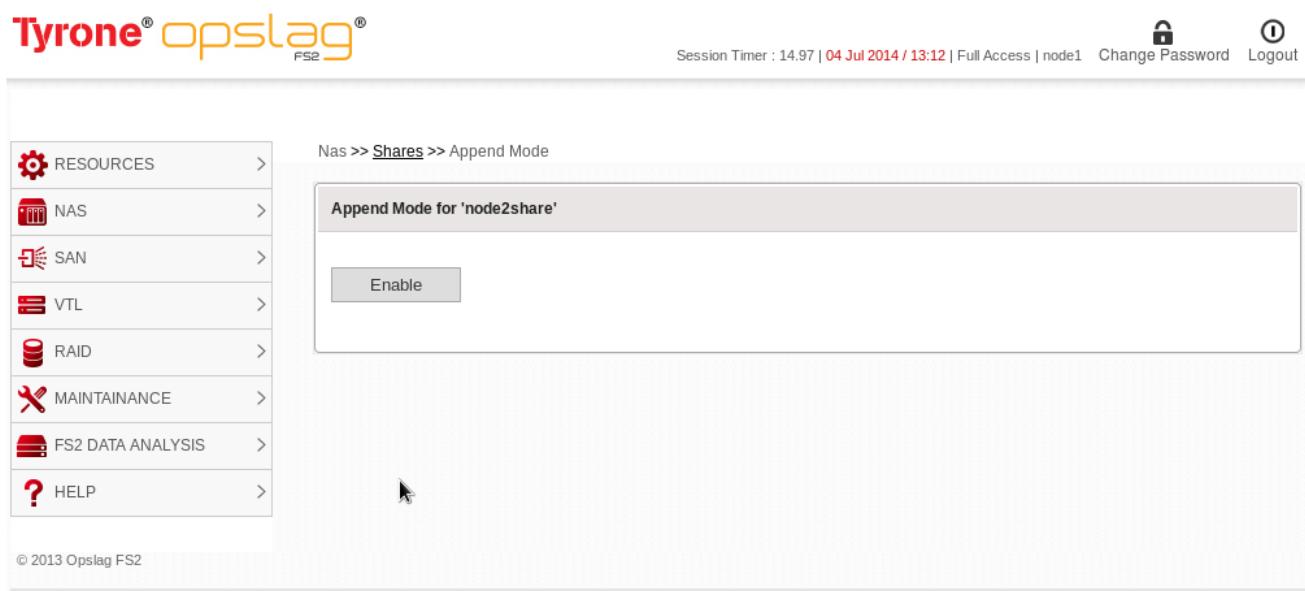


Fig 2.0.6

When you enable append mode, it only restricts the file which exist at the point enabling the Append Mode. The file created afterwards can be deleted.

AFP Settings:

Apple file Protocol is used for accessing data from Mac OS X. This is like SMB in Mac machine.

Share permissions, and ownership and properties need to be set as we do for SMB according to that our requirement .

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there is a navigation bar with the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 14.93 | 04 Jul 2014 / 13:16 | Full Access | node1'), and links for 'Change Password' and 'Logout'. Below the navigation bar is a sidebar with the following menu items: RESOURCES, NAS (selected), Shares, Quota, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area is titled 'Nas >> Shares >> AFP Settings' and contains a section for 'AFP Settings for 'node2share''. It includes two checkboxes: 'Read Only' and 'Advance Permission'. To the right of these checkboxes is a 'User Access Permission' section with two radio buttons: 'Guest' (selected) and 'Authenticated User'. A 'Configure' button is located at the bottom right of the settings panel. A cursor arrow is visible at the bottom center of the page.

Fig 2.0.7

Authentication user or Guest Mode can be Selected but Authentication mode is recommended for security purpose.

NFS Mode:

This section you can enable the NFS sharing for the selected folder. It is as simple as just checking on the “Use NFS” check box and click on the “Configure button.”

no_root_squash: By default, any file request made by user root on the client machine is treated as if it is made by user nobody on the server. If **no_root_squash** is selected, then root on the client machine will have the same level of access to the files on the system as root on the server. This can have serious security implications, although it may be necessary if you want to perform any administrative work on the client machine that involves the exported directories. You should not specify this option without a good reason.

no_wdelay (Write disk as soon as possible) NFS has an optimization algorithm that delays disk writes if NFS deduces a likelihood of a related write request soon arriving. This saves disk writes and can speed performance.

insecure_locks: Some NFS clients don't send credentials with lock requests, and hence work incorrectly with secure_locks., in which case you can only lock world-readable files. If you have such clients, either replace them with better ones, or use the insecure_locks option.

insecure: Requires that requests originate on a specific port .

synchronous :Reply only after disk write,Replies to the NFS request only after all data has been written to disk. This is much safer than async, and is the default in all nfs-utils versions after 1.0.0.

all_squash: Convert incoming requests, from ALL users, to the anonymous uid and gid.

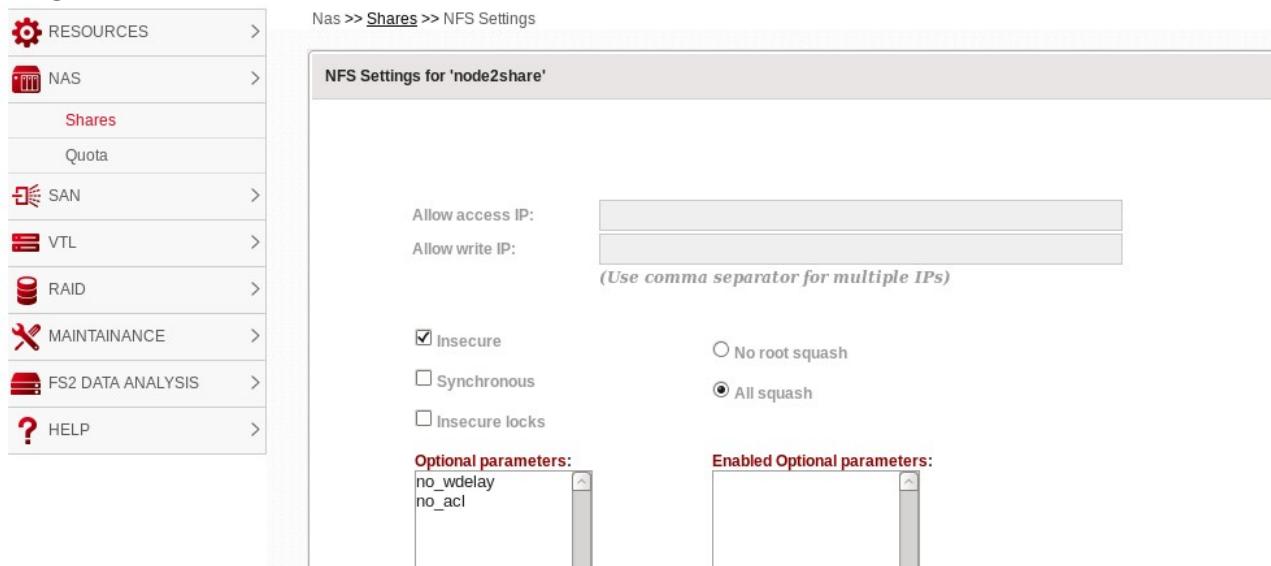


Fig 2.0.8

FTP Setting:

The File Transfer Protocol (FTP) is a standard network protocol used to transfer computer files from one host to another host over a PCT-based network, such as the Internet.

From here you can enable the share over FTP. All you have to do is to click on the check box and then press the “Configure” button and you are done.

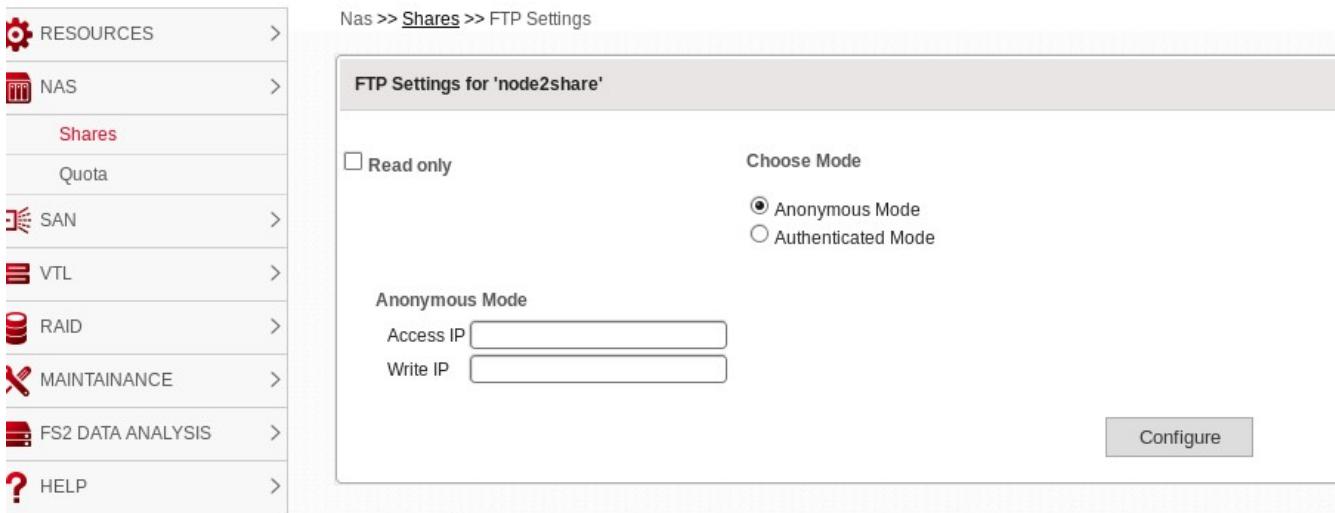


Fig 2.0.9

Here are two option Anonymous mode and Authentication mode.

In Anonymous mode you need to enter the IP Address of Access machine IP and write machine IP and you are done

In Authentication mode you can select specific user for communication .

ACL Settings:

“Access Control Settings”. Here you can select the rights and users for different sub folders inside the share. This will be only applicable if you have selected “Authenticated Users” in the previous section. Here all you have to do is to select the file/folders and then select the users from the ‘Available Users’ column and move them to ‘Authorized users’ column. Once added , you can one by one set the permissions for the users.”

First of All set the path before you begin.

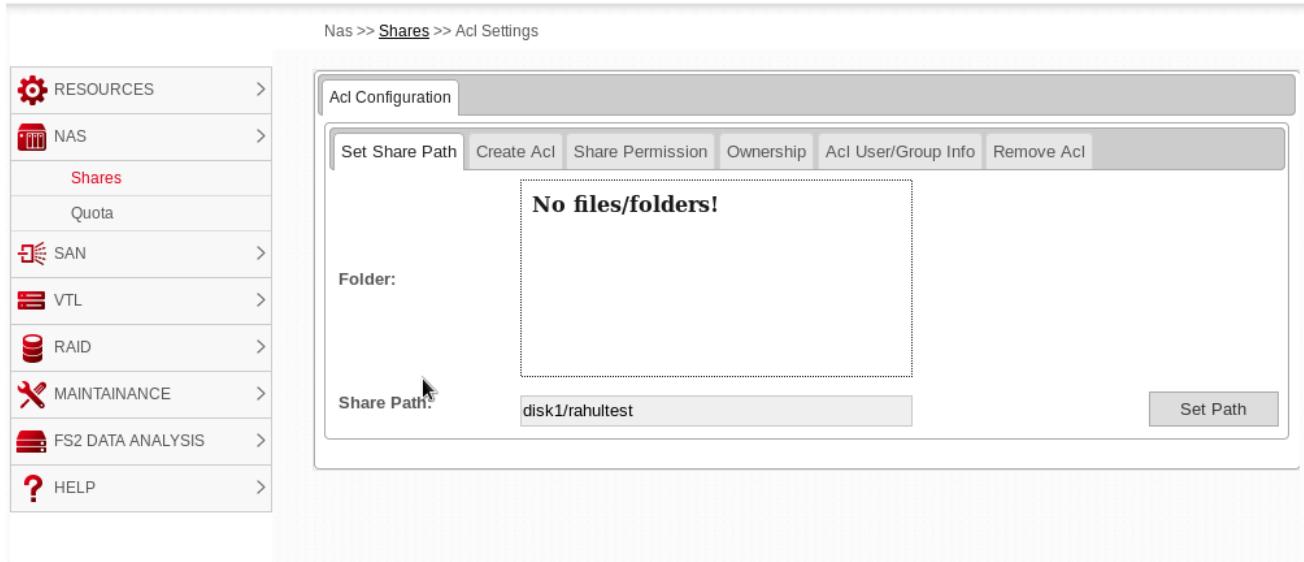


Fig 2.1.0

Create ACL:

After Selecting Path you need to Create share for that select Domain and Select the user and group for your need and if ADS is connected then ADS users will come here automatically.

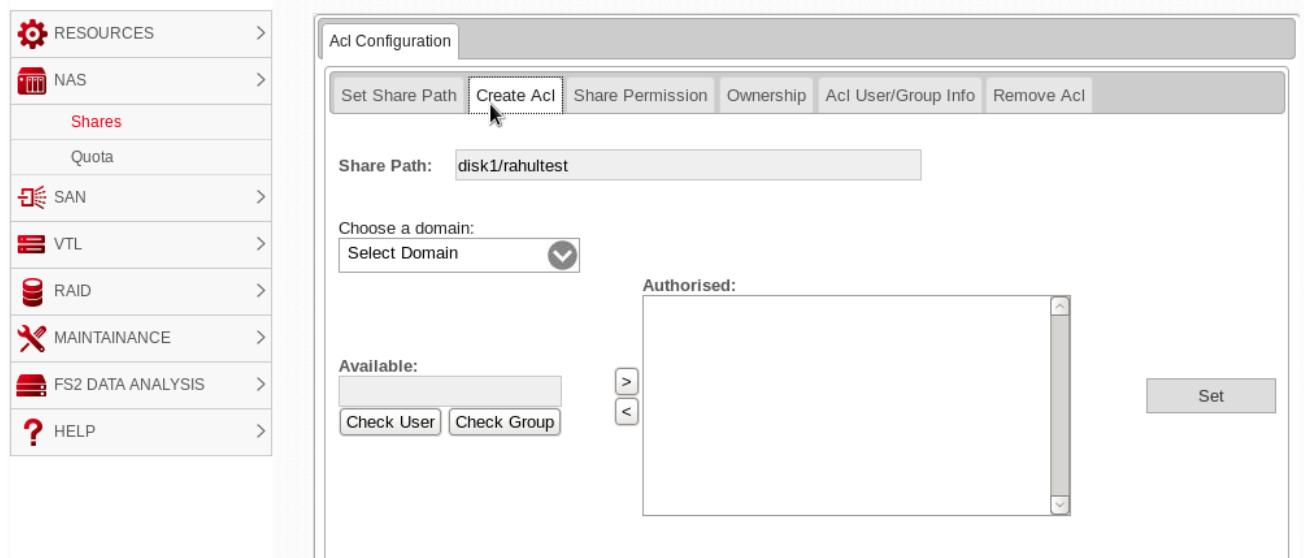


Fig 2.1.1

Share Permissions:

Here Read, Write and Execute permissions can be set for the specific share for 'Owner', 'Group', and 'Others'. When the permissions are set for a share, the folder which is shared with the share name inherits the given permissions. If you would like to inherit the permissions to sub-folders within the shared folder, click the option 'Inherit permissions to sub-folders'. In this case, the permissions are set recursively to the sub-folders."

In open Source software if write permission is given that mean delete permission is also being given to that folder.

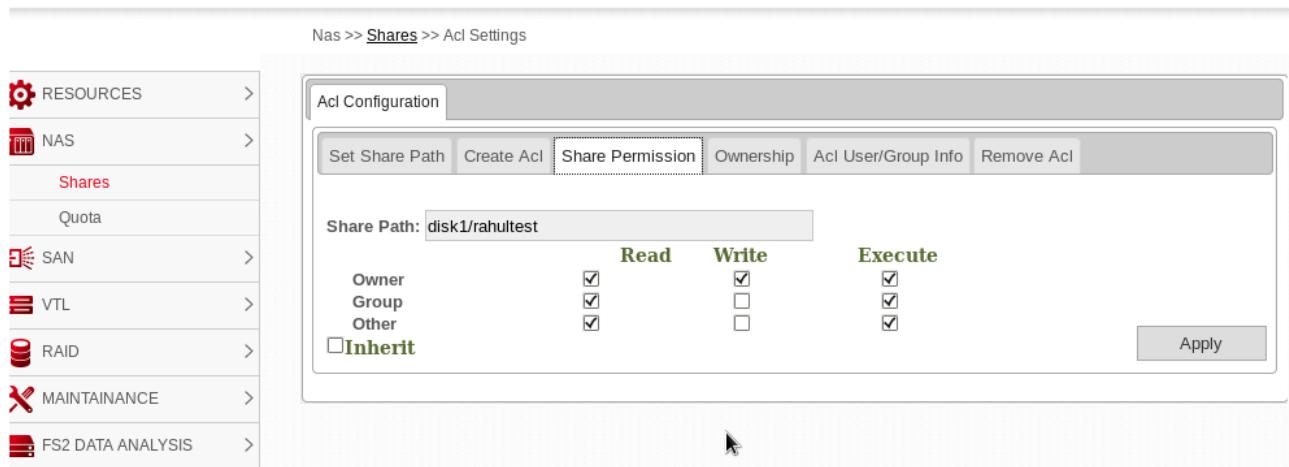


Fig 2.1.2

Read – only visible and user can copy .

Write – user can Paste + delete in the folder.

Execute- user can open that folder.

Share Ownership:

From here the share can be assigned to a specific user selected by Clicking on Change USER and Change Group option. Ownership can be inherited to sub-folders by clicking the 'Inherit ownership to sub-folders' option.

The screenshot shows the 'Acl Configuration' page for a share path 'disk1/rahultest'. On the left is a sidebar with 'RESOURCES' and 'Shares' selected. The main panel has tabs for 'Set Share Path', 'Create Acl', 'Share Permission', 'Ownership' (which is selected), 'Acl User/Group Info', and 'Remove Acl'. Under 'Ownership', 'Assigned to User' is set to 'root' with a 'Change USER' link. Under 'Assigned to Group' is also set to 'root' with a 'Change GROUP' link. A checkbox for 'Inherit Ownership to sub-folders' is checked. There are 'Set' and 'Reset' buttons at the bottom.

Fig 2.1.3

ACL User/Group Info:

It help us to Know the ACL user and group permissions , we can Remove any user or Group from ACL By click on the option Remove.

Nas >> Shares >> Acl Settings

The screenshot shows the 'Acl Configuration' page for a share path 'disk1/rahultest'. The 'Acl User/Group Info' tab is selected. It lists users and groups with their permissions: 'sanjeev' has Read, Write, and Execute checked; '@peg' has Write checked; '@netweb' has Write checked; 'rahul' has Read, Write, and Execute checked. Each row has a 'Remove' button with a trash icon. A 'Revert' button is at the bottom right.

User/Group	Read	Write	Execute	Remove
sanjeev	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
@peg	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
@netweb	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
rahul	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Fig 2.1.4

Remove ACL:

Before Removing ACL Please check the Path which is set for ACL .Recursive option is helpful removing all the share which is inside that share.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 14.67 | 04 Jul 2014 / 13:33 | Full Access | node1'), and a lock icon for password change. The main menu on the left lists 'RESOURCES', 'NAS', 'Shares' (which is selected), 'Quota', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HELP'. The central panel is titled 'Acl Configuration' and contains tabs for 'Set Share Path' (selected), 'Create Acl', 'Share Permission', 'Ownership', 'Acl User/Group Info', and 'Remove Acl'. The 'Share Path' field is set to 'disk1/rahultest' and the 'Recursive' checkbox is checked. A 'Remove' button is visible on the right.

Fig 2.1.5

Properties:

Share Properties option help you to Set SMB Settings and AFP Setting by Directory Mask and Create Mask.

The screenshot shows the 'Properties' dialog for a share. The title bar says 'Nas >> Properties'. The dialog has tabs for 'SMB Permissions' (selected) and 'AFP Permissions'. It displays 'Directory Mask' as '0665' and 'Create Mask' as '0755'. A large 'Change Permission' button is at the bottom right. Below the dialog, three share names are listed: 'rahultest', 'sanieev', and 'test', each with a small yellow square icon.

Fig 2.1.6

Directory Mask

This really the same concept as create mask but it applies to directories not files. Just remember that if you want any of the 3 groups (owner, group, other) to be able to at least access a directory, set the read AND execute permissions. There are many factors that may affect this parameter.

That should be enough information to get the newcomer on their way to using directory and file masks. For more information see the man or info pages for, ls, chmod, and smb.conf.

Create Mask:

This setting tells samba what permissions to mask against the DOS/Windows assigned permissions for a new file when it is created from a Windows/DOS client. This means that if a permission isn't indicated in this create mask parameter, then it won't be assigned to the file when created. This applies to files only, not directories. There are many factors that may affect this parameter so for detailed information see the man or info pages for smb.conf.

Quota Configuration:

The next option in the NAS settings option is the Quota configuration. In this section you can set fixed quota for created users and groups. The process is very simple .Here we will tell you how you can do that. To start with first go to NAS and then click on the Quota Button.

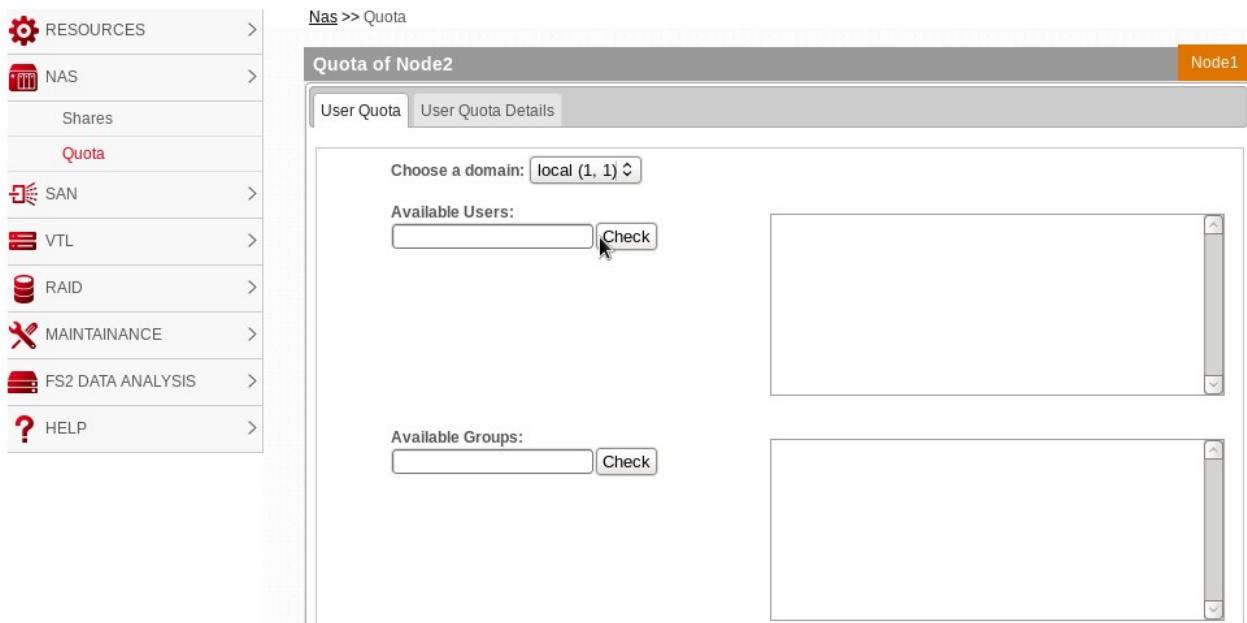


Fig 2.1.7

These are the sub options of quota configurations User Quota and its details. You will see a section like this. It is very simple to allocate Quota either for a user or for a group. If you are setting quota for a user, click on the 'Users' radio button

and in the column next to it, you will see all the local users available in the FS2 box. Click on a user and then at the bottom of the section, in the “Size” Field fill in the amount of disk space (in GB) you want to assign to the selected user. And hit the enter button.

Assigning the quota to the Group is also very similar to assigning the quota to the user.

Select the group from the list and provide the quota amount (in GB) in the Size field.”

User Quota Details:

The Next tab is “user Quota Details” this section lets you see the quota amount configured for each user or group. Just select the type (User or Group) and from the drop down select the particular user or group. It will show you the information. And when it prints the information, it will also let you delete the quota settings for the selected user/group by clicking on the “Delete Quota” button”

The screenshot shows a software interface titled "Quota of Node2". In the top right corner, there is a small orange box labeled "Node1". Below the title, there are two tabs: "User Quota" and "User Quota Details". The "User Quota Details" tab is currently selected, indicated by a grey background. On the left side of the main area, there is a list of options: "Show All", "Users", and "Groups". Under "Users", there is a list box containing "sanjeev" and "USER[G]". To the left of the list box, there is a checkbox. To the right of the list box, there is a table with four columns: "User/Group", "Disk(s)", "Allocated space", and "Used space". The table has three rows corresponding to the users listed in the dropdown. The first row for "sanjeev" shows "disk / FIO / vtldisk1 / vtldisk3" in the Disk(s) column, "5G" in the Allocated space column, and "0" in the Used space column. The second row for "USER[G]" shows the same information. The "Allocated space" and "Used space" columns have arrows pointing to them, likely indicating they are clickable fields.

User/Group	Disk(s)	Allocated space	Used space
sanjeev	disk / FIO / vtldisk1 / vtldisk3	5G	0
USER[G]	disk / FIO / vtldisk1 / vtldisk3	5G	0

Fig 2.1.8

SAN

SAN Disks:

A storage area network (SAN) is a dedicated network that provides access to consolidated, block level data storage. SAN are primarily used to enhance storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear like locally attached devices to the operating system.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 14:03 | 10 Jul 2014 / 14:45 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left is titled 'RESOURCES' and lists 'NAS', 'SAN', 'SAN Disks' (selected), 'i-Scsi', 'Srp', 'Fc', 'VTL', 'RAID', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HELP'. The central content area is titled 'SAN >> Disks added to SAN' and 'Disks added to SAN in Node1'. It displays the message 'No Disk added to SAN!' and has a small orange button labeled 'Node2' with a cursor icon pointing towards it. At the bottom left, there is a copyright notice: '© 2013 Op slag FS2'.

Fig 3.0.0

ISCSI:

ISCSI is an acronym for **Internet Small Computer System Interface**, an Internet Protocol (IP)-based storage networking standard for linking data storage facilities. By this option we can check Iscsi status, iscsi target , Disk to Target Properties Target Information, Session Information.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 14:95 | 10 Jul 2014 / 14:54 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left is titled 'RESOURCES' and lists categories: NAS, SAN, SAN Disks, i-Scsi, Srp, Fc, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The current page, 'Target Information of Node1', is displayed in the center. It shows a summary table with two rows: one for 'Node1' (with a globe icon and the identifier 'PQCGCF') and one for 'Node2' (with a folder icon). The bottom of the screen displays the copyright notice '© 2013 Opslag FS2'.

Fig 3.0.1

Create iSCSI Target:

An iSCSI target is often a dedicated network-connected hard disk storage device, but may also be a general-purpose computer, since as with initiators, software to provide an iSCSI target is available for most mainstream operating systems. iSCSI Target is the option to create new Target or you can Delete the target

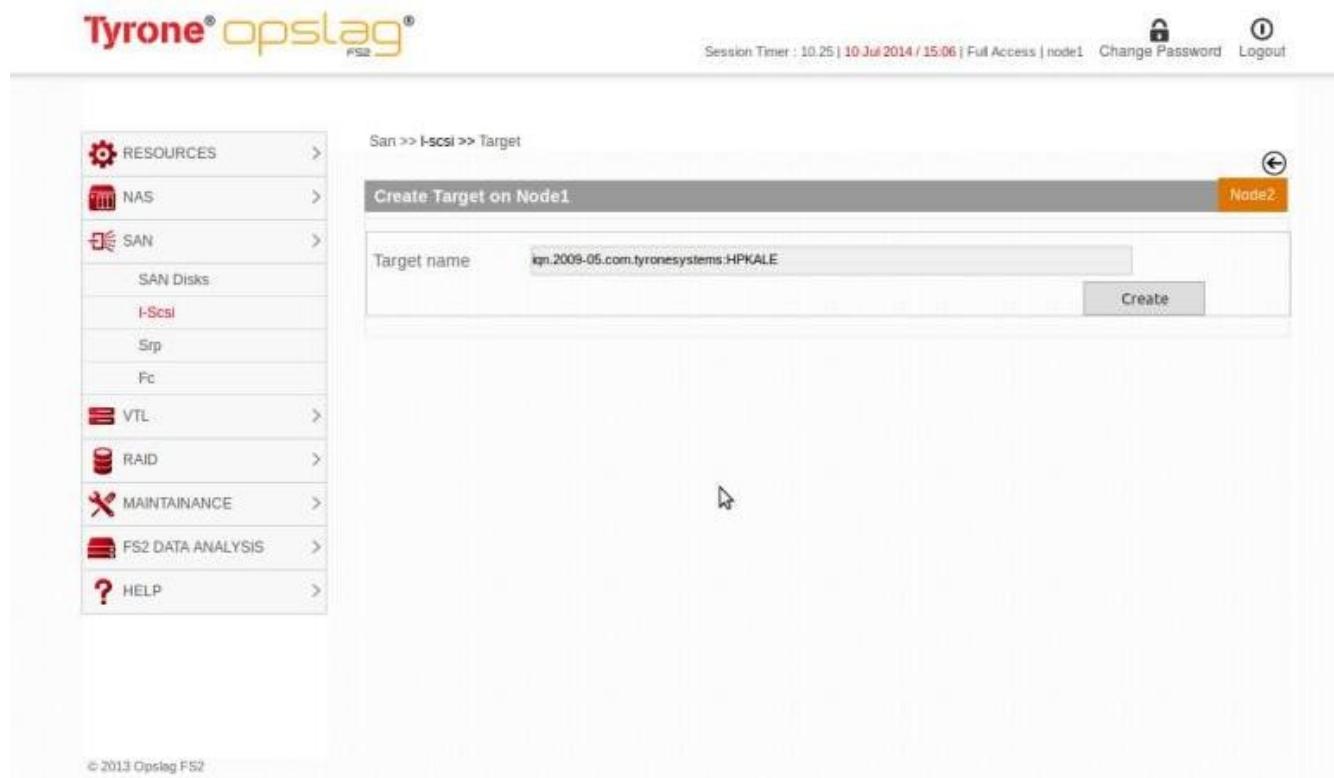


Fig 3.0.2

Iscsi Disk to Target:

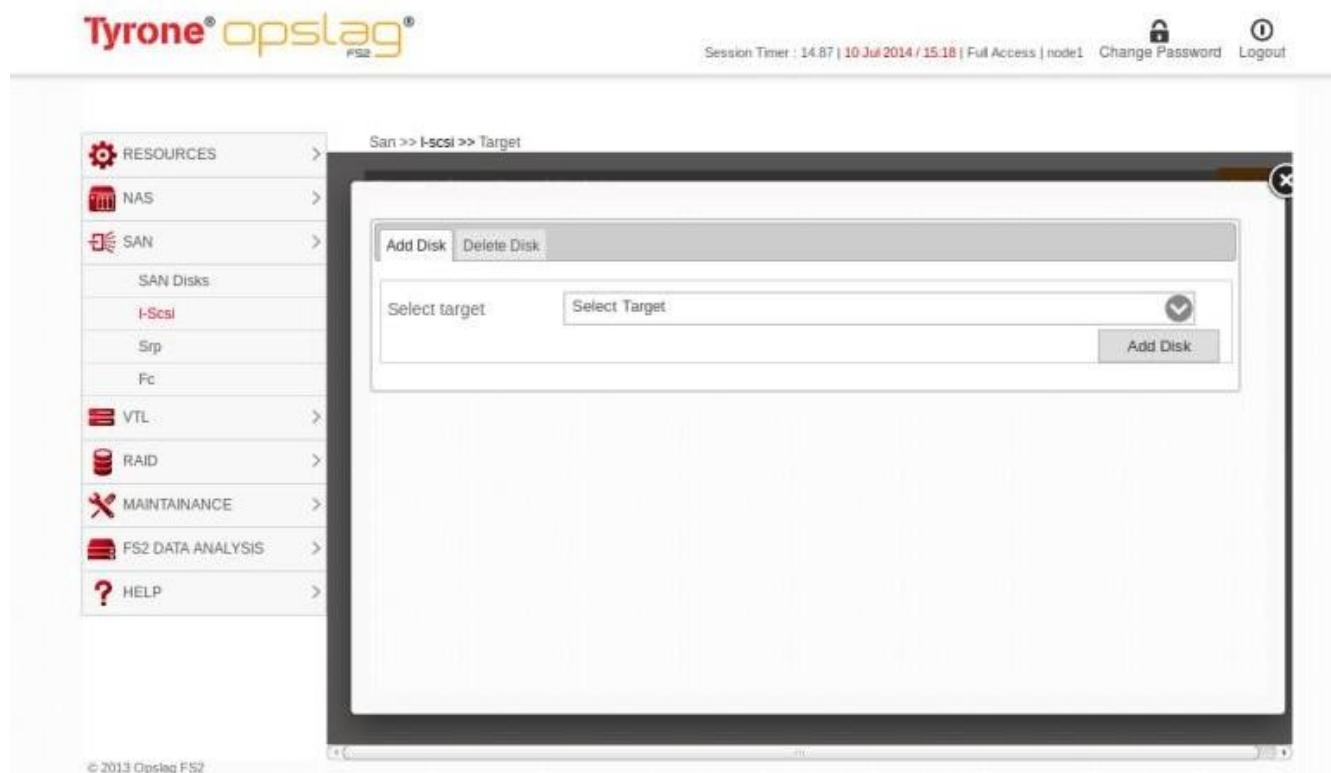


Fig 3.0.3

In the Iscsi disk to target ,we have to add a disk and LUN number in the the target but before that make sure BIO disk is added and disk is added to SAN otherwise disk will not appear here and remove a disk from the target option is also present here before removing disk make sure initiator is not added to the disk, otherwise you will not able to remove disk from target.

Iscsi Initiators:

In this section add a initiators to the target. and also add a check portals(ip).Delete Initiators from the target.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for RESOURCES, SAN, I-Scsi, Srp, Fc, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main area is titled "San >> I-scsi >> Target". A modal dialog box is open, titled "Add Initiator". It has two tabs: "Add Initiator" (selected) and "Delete Initiator". The "Choose a target" field contains "iqn.2009-05.com.tyronesystems:PQCGCF". The "Enter initiator name" field is empty. Below these fields is a section titled "Check the portal(s)" containing a table:

Device	IP	Status	Action
eth2	192.168.6.58	down	<input type="checkbox"/>
eth5		down	<input type="checkbox"/>
eth0	128.0.0.1	up	<input type="checkbox"/>
eth1	192.168.0.58	up	<input type="checkbox"/>
mybond	192.168.12.58	down	<input type="checkbox"/>

Fig 3.0.4

Iscsi Authentication: It is the act of confirming the truth of an attribute of a datum or entity. This might involve confirming the identity of a person or software program, tracing the origins of an artifact, or ensuring that a product is what its packaging and labeling claims to be. Authentication often involves verifying the validity of at least one form of identification.

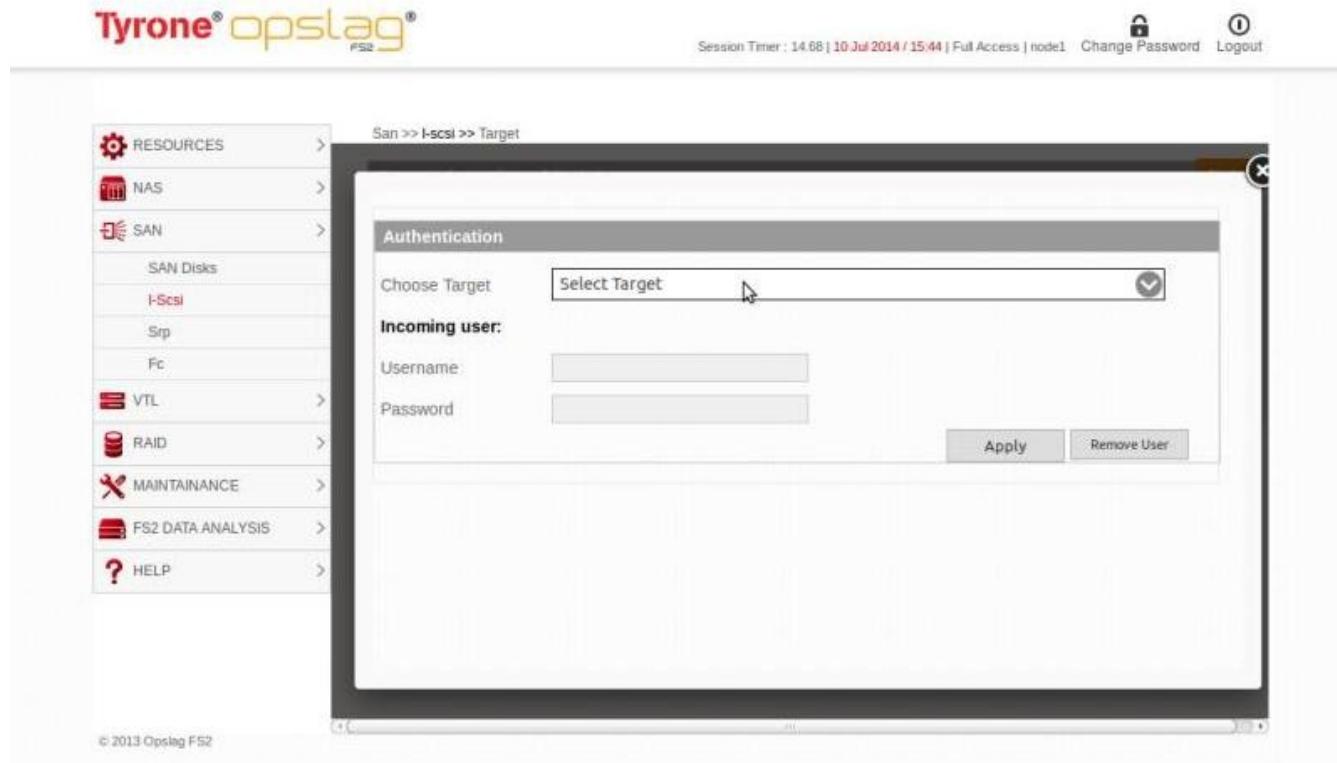


Fig 3.0.5

ISCSI Properties:

Target Properties is the option of getting completely information about the particular target like data digest , first brust length, Header digest, immediate data ,Initial R2T , Max Brust length , Max outstanding R2T, max receive data segment length , max session ,max xmit data segment length,Nop in interval ,Queued Commands ,RSP timeout ,Address Method ,Enabled etc.

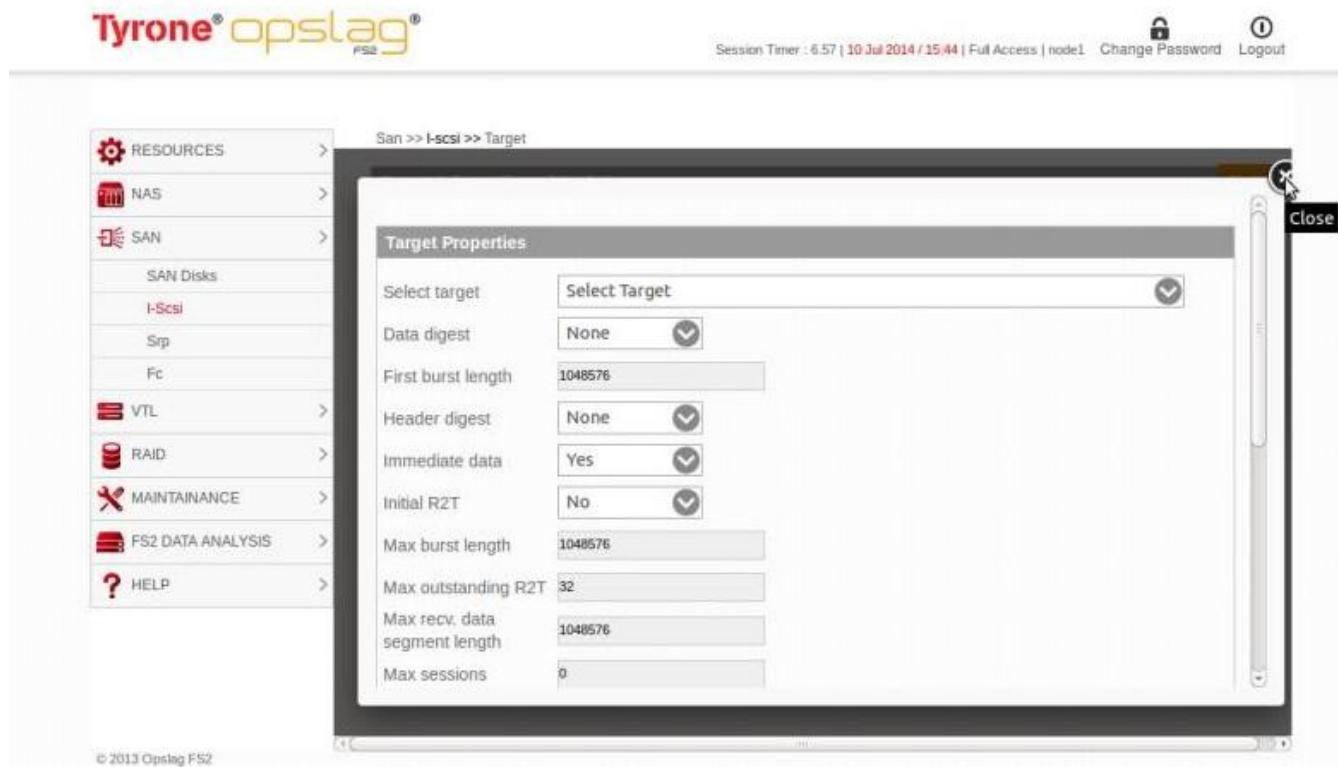


Fig 3.0.6

Iscsi Target Information:

As the name suggest Target Information gives the brief description about the Target like target name , Disk , initiators.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 14.83 | 14 Jul 2014 / 13:01 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left is titled 'RESOURCES' and lists options: 'NAS', 'SAN', 'SAN Disks', 'I-Scsi', 'Srp', 'Fc', 'VTL', 'RAID', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HELP'. The current page path 'San >> I-scsi >> Target' is displayed above the content area. A sub-menu titled 'Iscsi Target Information' is open, showing a table with one row. The table has columns: 'Target', 'Disks', and 'Initiators'. The 'Target' column contains the value 'iqn.2009-05.com.tyronesystems:PQCGCF'. The 'Disks' and 'Initiators' columns are empty.

Fig 3.0.7

Iscsi Session Information:

In this section get a target information of the target ,like target name, disk name and Initiators name.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 14.67 | 10 Jul 2014 / 15.58 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The left sidebar menu under 'RESOURCES' lists: SAN, SAN Disks (I-Scsi, Srp, Fc), VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area displays a sub-menu 'San >> I-scsi >> Target' and a table titled 'I-scsi Session Information' with four columns: Target, Disks, Initiators, and Client IP Info. The 'Target' column contains the message 'No-Client is Connected'.

Fig 3.0.8

Iscsi Delete target:

In this Section delete the the target .But before Deleting target you should make sure that Initiators,disk to target is already removed otherwise you will not be able to remove the target.

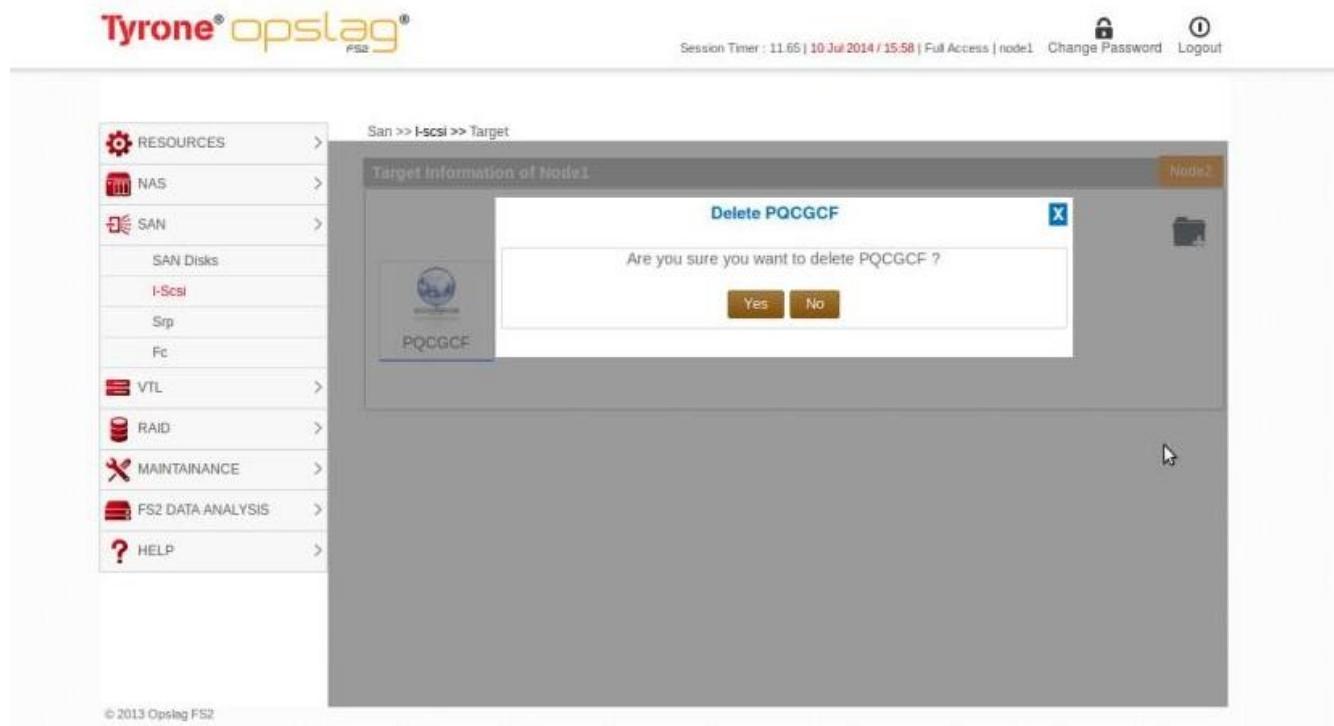


Fig 3.0.9

SRP

In computing the SCSI RDMA Protocol (SRP) is a protocol that allows one computer to access SCSI devices attached to another computer via remote direct memory access (RDMA). The use of RDMA makes higher throughput and lower latency possible than what is possible through e.g. the TCP/IP communication protocol. When click on the SRP target then option like SRP Target , SRP Disk , To Target , SRP Initiators , Target Information , Session Information and Srp Enable/Disable is pop-up.



Fig 3.1.0

SRP Disk to Target :Here We have two option add disk to the target , delete disk from the target. To add disk to the particular target we have to select disk and LUN number.

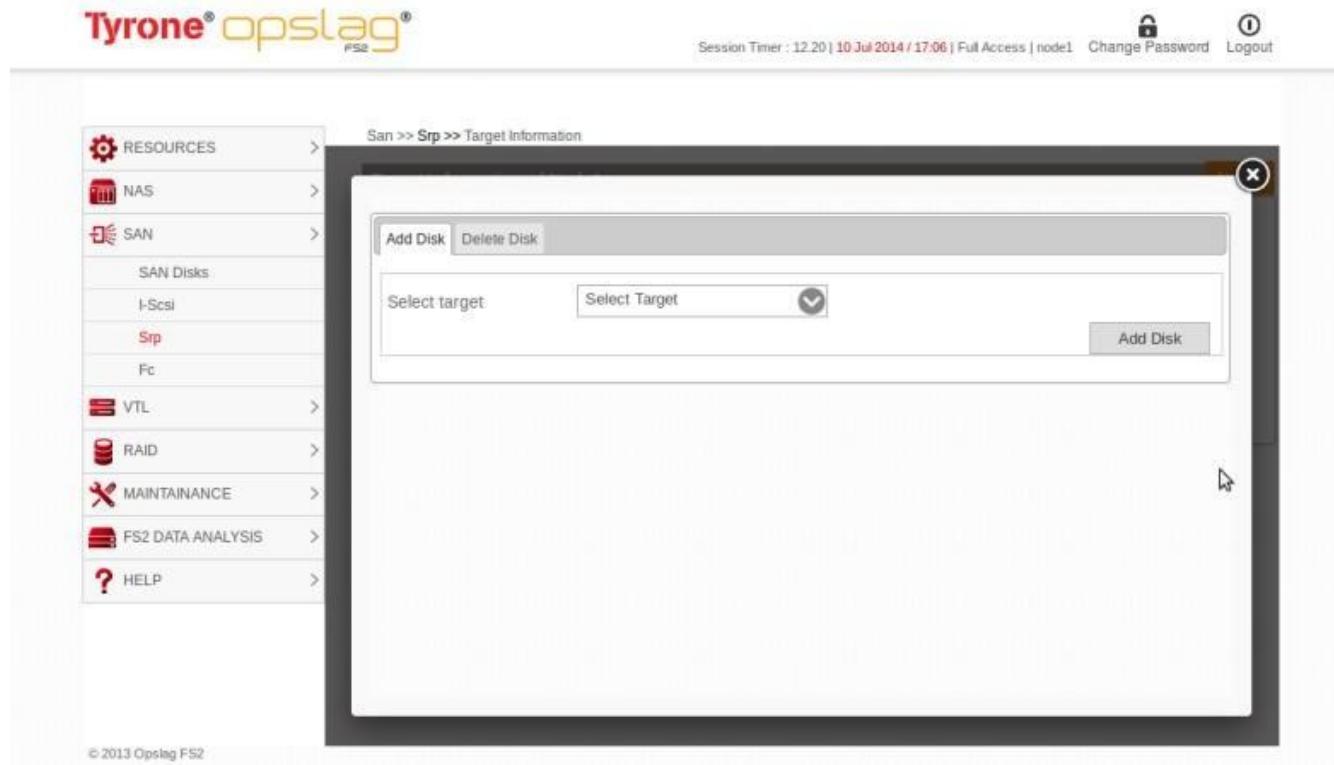


Fig 3.1.1

SRP initiators:

one can add or delete initiator by the help of this option for adding any initiator one should remember that initiator name should be in Hexadecimal format or you can put it name “ * ”as well.

Example 2100:b024:0025:367a

2100:0024:af4a:3675

2100:d024:0041:367b

(Access for all)

Tyrone® opslag®
FS2

Session Timer : 11.62 | 10 Jul 2014 / 17:06 | Full Access | node1 | Change Password | Logout

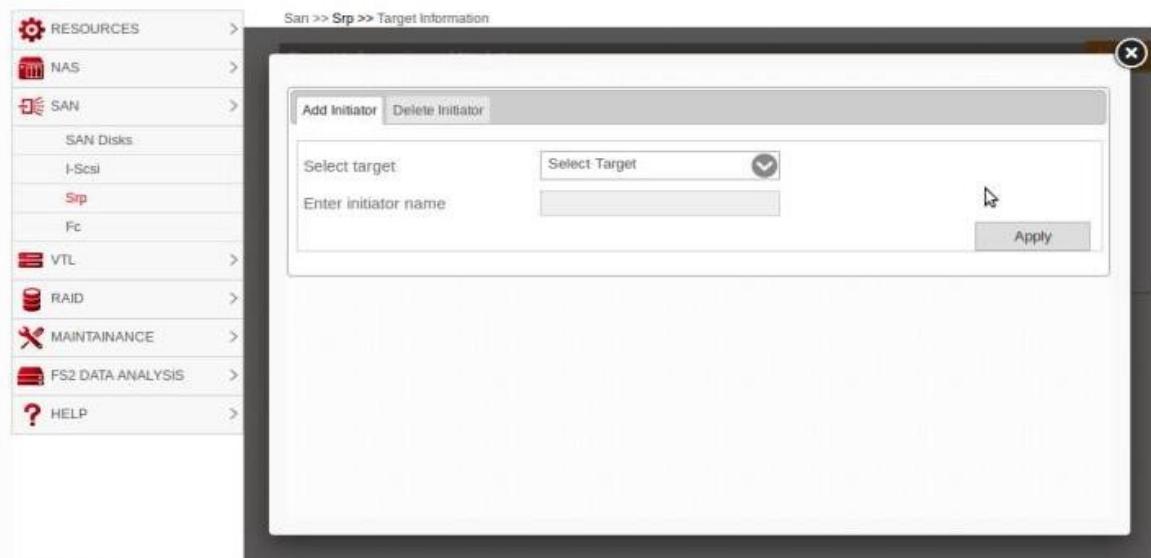


Fig 3.1.2

Target Information:

In this Section show the information of target name, disk and initiators.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 14.82 | 10 Jul 2014 / 17:18 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The left sidebar, titled 'RESOURCES', lists categories: NAS, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. Under SAN, 'Srp' is selected. The main content area displays a table titled 'Srp Target Information' with one row containing the target identifier '0002:c903:0028:314a'. The table has columns for 'Target', 'Disks', and 'Initiators'.

Target	Disks	Initiators
0002:c903:0028:314a		

Fig 3.1.3

SRP Session: In this section show the information of connected client and all information related to that session like SRP Target , Connected client.

The screenshot shows the Tyrone opstag FS2 web interface. At the top, there is a navigation bar with the logo "Tyrone® opstag® FS2", session information ("Session Timer : 10.70 | 10 Jun 2014 / 17:16 | Full Access | node1"), and links for "Change Password" and "Logout". Below the navigation bar is a sidebar menu titled "RESOURCES" containing links for "NAS", "SAN", "SAN Disks", "I-Scsi", "Srp" (which is highlighted in red), "Fc", "VTL", "RAID", "MAINTAINANCE", "FS2 DATA ANALYSIS", and "HELP". The main content area is titled "San >> Srp >> Target Information" and contains a sub-section titled "Srp Session Information". This sub-section has a table with two columns: "Srp Target" and "Connected Client". The "Srp Target" column contains the value "0002:c903:0028:314a", and the "Connected Client" column contains the text "No-Client is Connected".

Fig 3.1.4

SRP Enable/Disable: In this Section Enable and disable operation is performed.

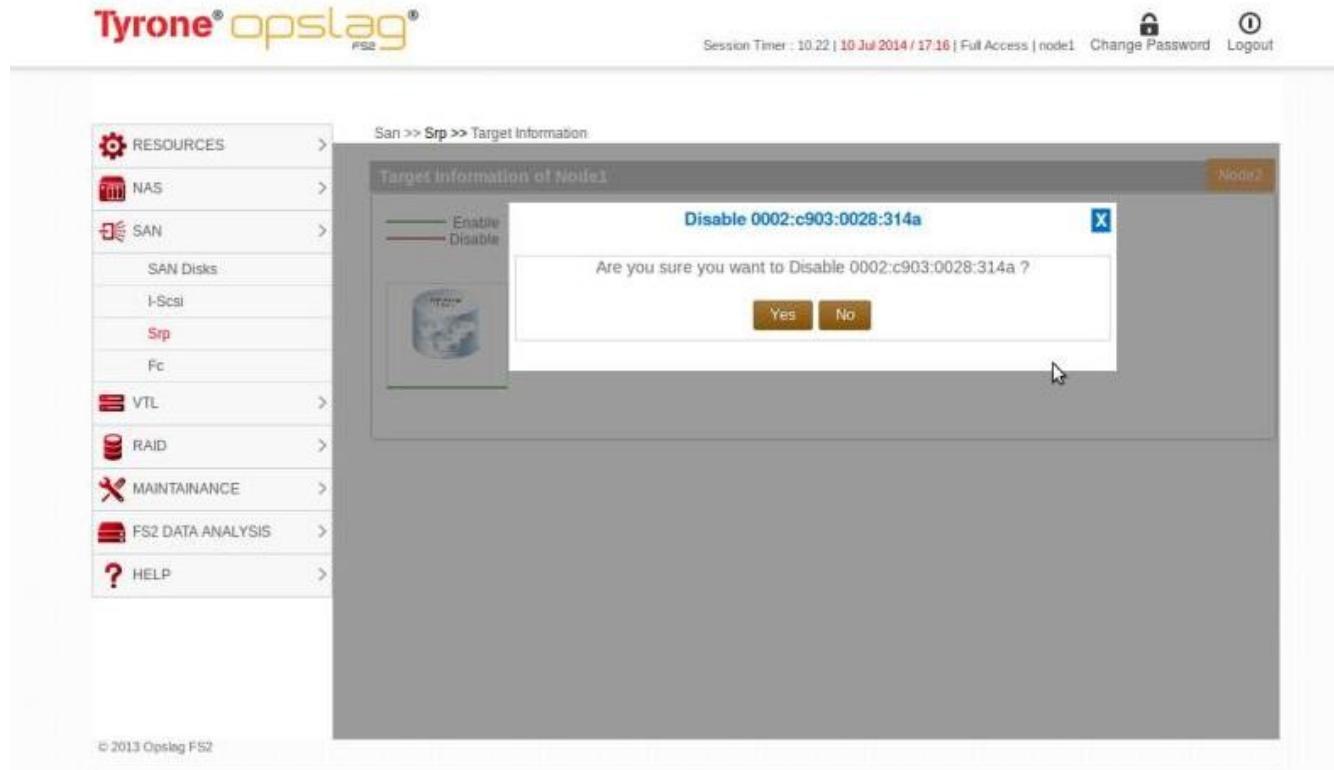


Fig 3.1.5

FC:

FC, is a high-speed network technology (commonly running at 2-, 4-, 8- and 16-gigabyte per second rates) primarily used to connect computer data storage. When Click on FC target then option like FC Target , FC Disk To Target FC Initiator , Target Information , Session Information and FC Enable/Disable option is pop-up.

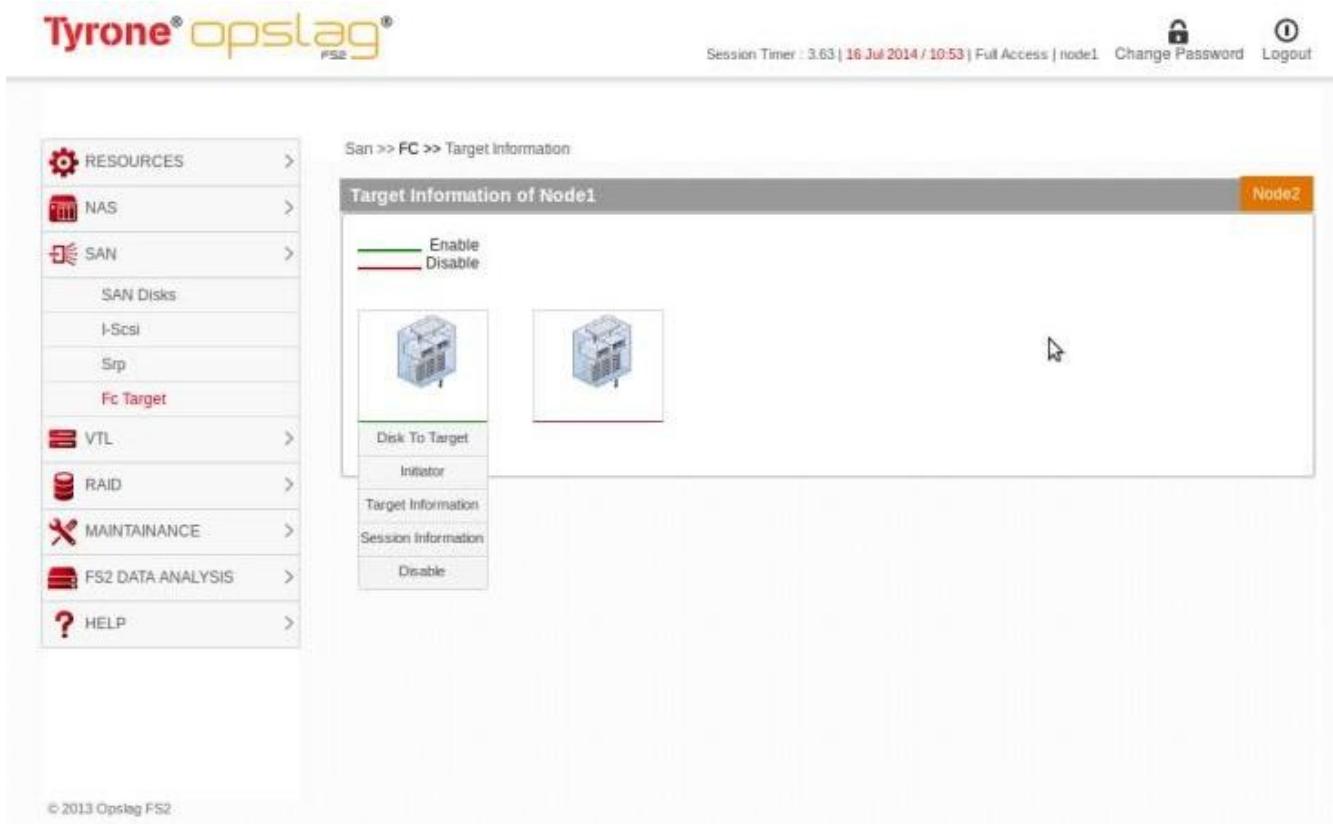


Fig 3.1.6

FC Disk to Target :Here We have two option add disk to the target , delete disk from the target. To add disk to the particular target we have to select disk and LUN number.

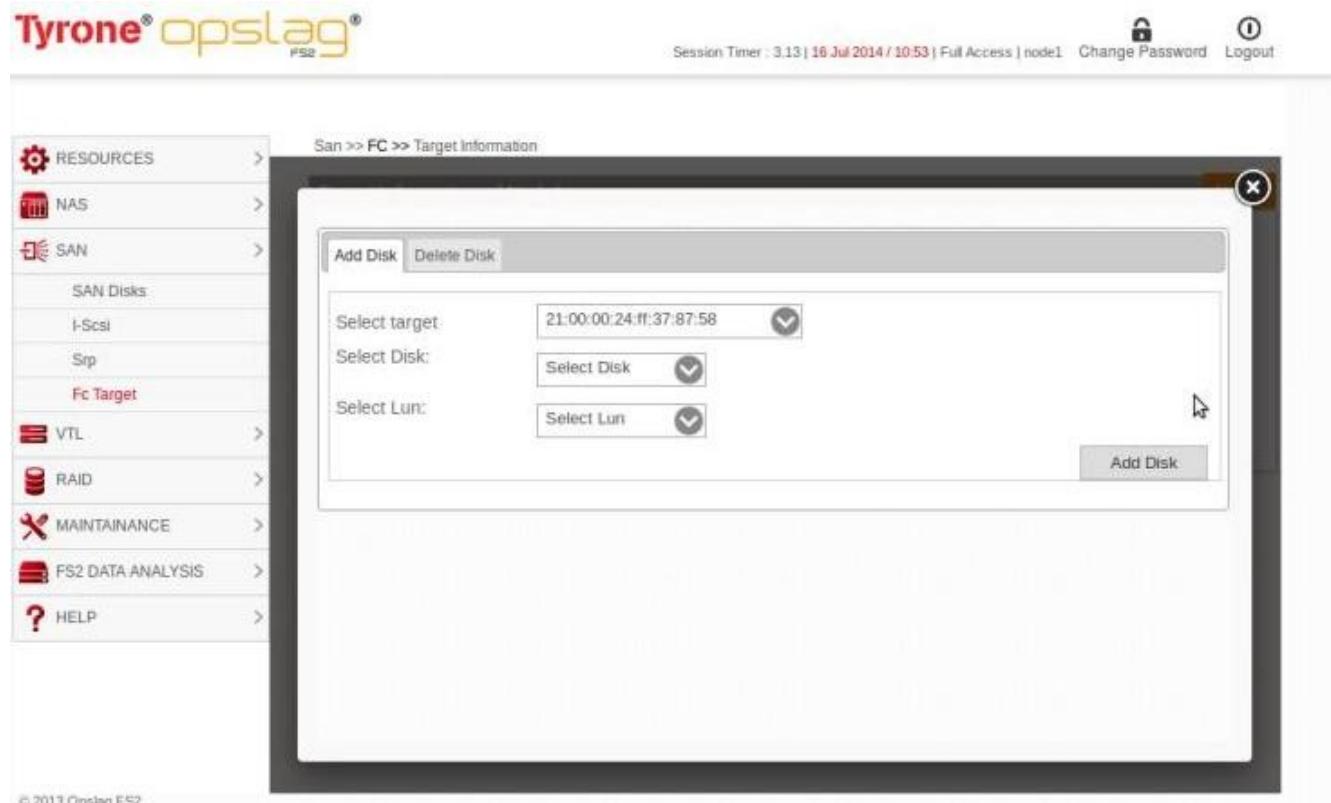


Fig 3.1.7

Fc initiators:

one can add or delete initiator by the help of this option for adding any initiator one should remember that initiator name should be in Hexadecimal format or you can put it name “ * ” as well.

Example 21:00:00:24:ff:37:87:58

21:00:00:24:ff:37:87:58

(Access for all) *

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for RESOURCES (SAN, NAS, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, HELP), SAN (SAN Disks, i-Scsi, Srp, Fc Target), and FC (selected). The main content area is titled 'San >> FC >> Target Information'. A modal dialog box is open, titled 'Add Initiator' (with a 'Delete Initiator' button). It has two input fields: 'Select target' (dropdown menu with 'Select Target' and a checked checkbox) and 'Enter initiator name' (text input field). An 'Apply' button is at the bottom right of the dialog. The top right of the interface shows session information: Session Timer : 2.20 | 16 Jul 2014 / 10:53 | Full Access | node1, along with links for Change Password and Logout.

Fig 3.1.8

FC Target Information:

In this Section show the information of target name, disk and initiators.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 0.96 | 16 Jul 2014 / 10:53 | Full Access | node1'), and links for 'Change Password', 'Logout', and help ('?'). The left sidebar menu lists resources: RESOURCES (selected), NAS, SAN (SAN Disks, I-Scsi, Srp, Fc Target), VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area is titled 'San >> FC >> Target Information' and contains a sub-titled 'Fc Target Information'. A table with three columns ('Target', 'Disks', 'Initiators') displays the value '21:00:00:24:ff:37:87:58' in the 'Target' column. The bottom left corner of the interface has a copyright notice: '© 2013 Opslug FS2'.

Fig 3.1.9

Fc Session: In this section show the information of connected client.

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there is a navigation bar with the logo "Tyrone® opslag® FS2", session timer (0.57 | 16 Jul 2014 / 10:53 | Full Access | node1), and links for Change Password and Logout. On the left, a sidebar menu lists "RESOURCES" (SAN, NAS, SAN Disks, i-Scsi, Srp, Fc Target, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, HELP), each with a corresponding icon. The main content area is titled "San >> FC >> Target Information". A sub-section titled "Fc Session Information" displays a table with one row:

Fc Target	Connected Client
21:00:00:24:ff:37:87:58	No-Client is Connected

At the bottom left of the main content area, there is a copyright notice: "© 2013 Opslug FS2".

Fig 3.2.0

FC Enable/Disable:

In this Section Enable and disable operation is performed.

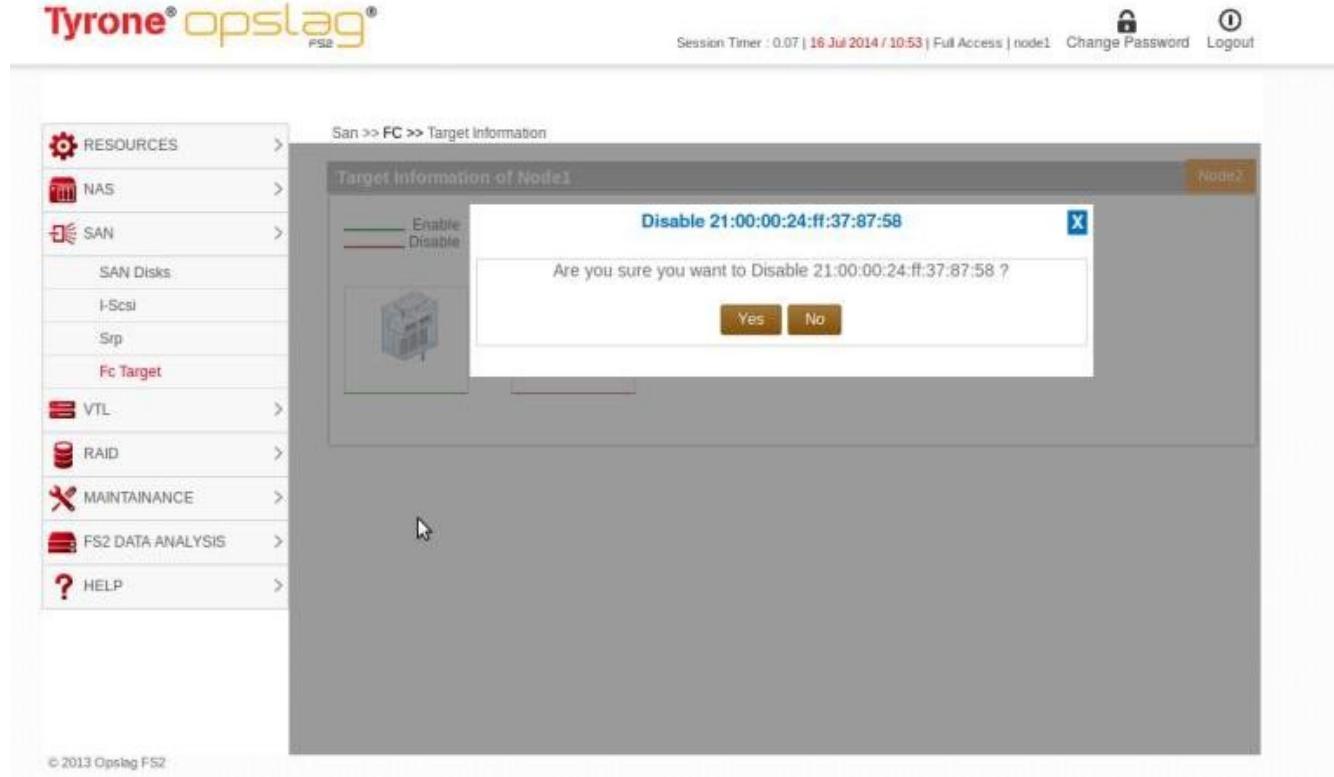


Fig 3.2.1

VTL

A virtual tape library (VTL) is a data storage visualization technology used typically for backup and recovery purposes. A VTL presents a storage component (usually hard disk storage) as tape libraries or tape drives for use with existing backup software.

VTL Settings

Here we are having two options create VTL Library and Show VTL Libraries .

Create VTL Library :

When Select VTL disk ,then select vendor, select Library and select tape drive is pop-up .After that when Select Tape Drive then option like Select No. of Tape Drive , Select Import/Export Slots,Select Library Backoff Value,Enter Tape Size (MB),Select No of Slots full with Tape in Library,Select No of empty Slots in Library,Choose Compression Factor,Select Tape Compression Factor and Choose Compression Type.

The screenshot shows the Tyrone opslag web interface. The top navigation bar includes the logo 'Tyrone opslag', session information (Session Timer : 7.32 | 16 Jul 2014 / 12:57 | Full Access | node1), and links for Change Password, Logout, and Help. The left sidebar has a 'RESOURCES' section with icons for NAS, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area is titled 'VTL >> VTL Settings' and shows 'VTL of Node1'. It has tabs for 'Create VTL Library' (which is selected), 'Show VTL Libraries', and 'Add Target'. The 'Create VTL Library' panel contains fields for 'Select VTL Disk' (set to 'vtldisk4 [61440.0 MB]'), 'Select Vendor' (set to 'Select Vendor'), 'Select Library' (set to 'Select a Vendor to enable this'), and 'Select Tape Drive' (set to 'Select a Library to enable this').

Fig 4.0.0

This fig gives the summary of how to create VTL Library.

Show VTL Library:

This option gives the info about Library name, Library status, Library ID Drive(s). you can work on particular Library by making it on line by clicking on red button. Now you can Add tape to the Library by selecting few details like Tape Density, Tape Type Here you can Select Tape Density where you have multiple option and in tape type you have two option like data and clear. In clear Tape type will be 1 by default .if you want to remove clean then first you have to make it off line.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar has a 'RESOURCES' section with links for NAS, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area is titled 'VTL >> VTL Settings' and shows 'VTL of Node1'. It has tabs for 'Create VTL Library', 'Show VTL Libraries' (which is selected), and 'Add Target'. Below is a table titled 'Show VTL Libraries' with one row:

	Library ID	Library Name	Library Status	Library Drive(s)	Add/Remove Tape	Exported to
<input type="checkbox"/>	1	DellPV-136TVTLvtldisk2	●	1. IBM ULTRIUM-TD1	Add tape to Library	

At the bottom right of the table is a 'Delete Library' button. The top right of the interface shows session information: Session Timer: 13.97 | 16 Jul 2014 / 12:57 | Full Access | node1 | Change Password | Logout. There is also a 'Node2' button.

Fig 4.0.1

ADD VTL Target: Once VTL Target is online now you can Add Target using ISCI ,FC or SRP but Right now only ISCSI option is available FC and SRP are under Development .

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (13:42 | 16 Jul 2014 / 12:57 | Full Access | node1), and links for Change Password and Logout. The left sidebar contains links for RESOURCES, NAS, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The main content area is titled "VTL >> VTL Settings" and "VTL of Node1". It features three tabs: Create VTL Library, Show VTL Libraries, and Add Target, with "Add Target" being the active tab. Below these are three sub-tabs: ISCSI, FC, and SRP. A sub-section titled "Add to Target" is currently selected. It includes fields for "Select VTL Library" (with a dropdown menu showing "Select VTL Library" and "Select VTL Library"), "Target Name" (dropdown menu showing "Select VTL Library"), and "Enter Initiator Name" (text input field). A table titled "Check the Portal(s) to Add" lists network interfaces (Device) and their IP addresses (IP):

	Device	IP
<input type="checkbox"/>	eth2	192.168.6.58
<input type="checkbox"/>	eth5	128.0.0.1
<input type="checkbox"/>	eth0	192.168.0.58
<input type="checkbox"/>	eth1	192.168.12.58
<input type="checkbox"/>	mybond	

A "Add to Target" button is located at the bottom right of the "Add to Target" section.

Fig 4.0.2

RAID

Volume Configuration

Disk Configuration: In this Section display the volume information, and show the information of used and free size.

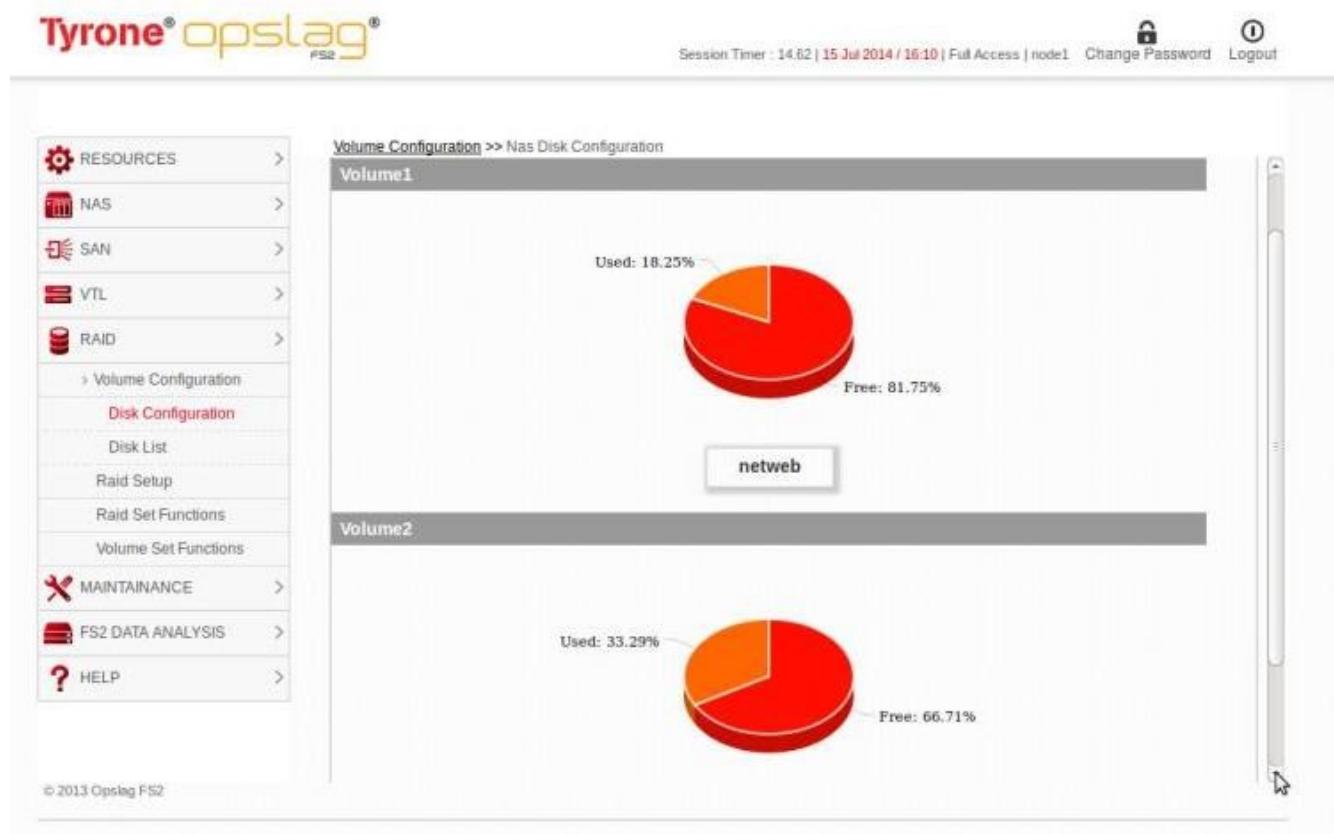


Fig 5.0.1

Disk Creation option: in this Section , when Click on the bottom of volume Configuration , the a pop-up box is open and a option like **NAS Disk,VTL Disk,Bio Disk** and **FIO Disk** is pop-up.



Fig 5.0.2

Disk Creation: when click on the NAS disk option ,then a fancy-box is open for creation of NAS disk creation. On every option click like VTL, **BIO** and **FIO** the same fancy-box will be open.

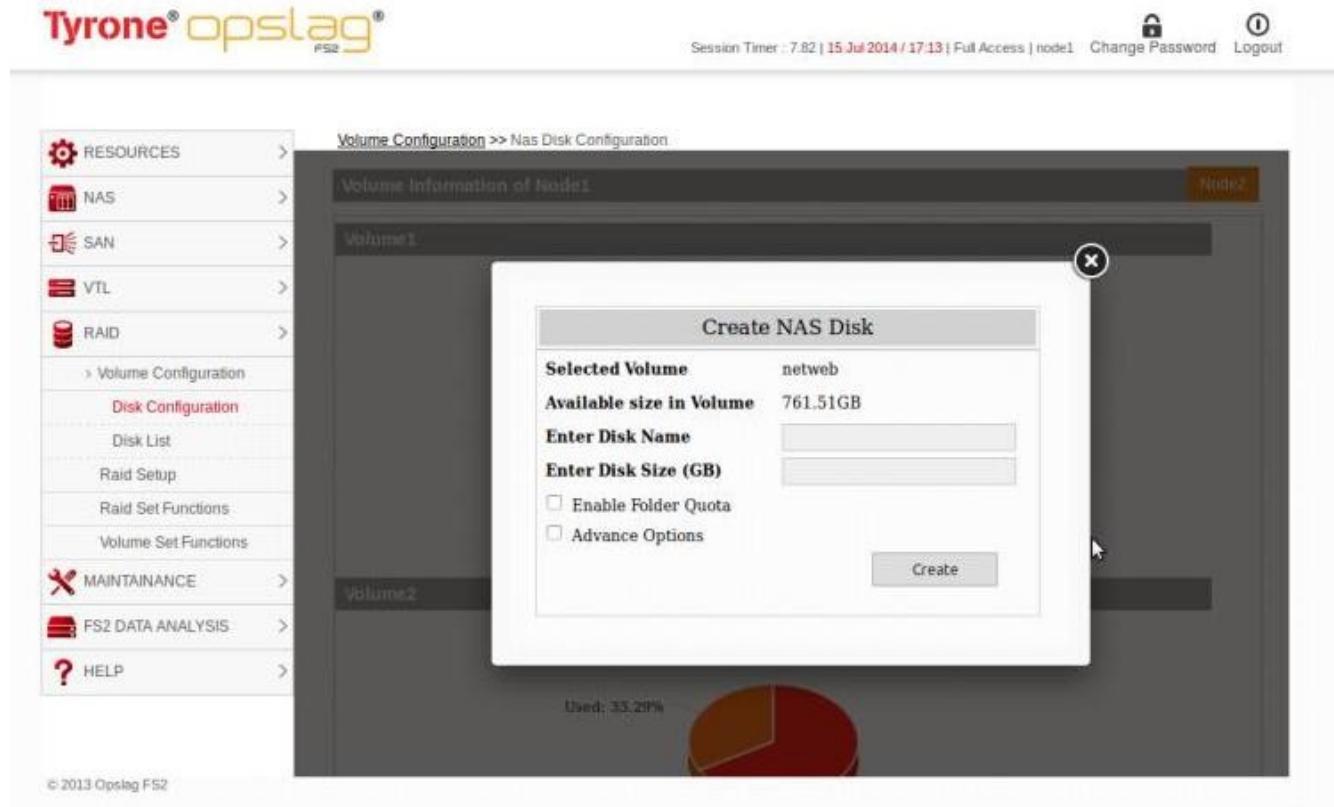


Fig 5.0.3

Disk List:

In this Section Display all the created Disk Information .when click on the bottom of disk then a option is show like **Increase size,Information** and **Delete**. when you want Increase the disk size then just click only increase the small window is open and increase the size.

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there's a navigation bar with links for 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HELP'. On the right side of the header, there are session details ('Session Timer : 14:40 | 15 Jul 2014 / 16:11 | Full Access | node1'), a 'Change Password' link, and a 'Logout' button. Below the header, the main content area is titled 'Raid >> Disk List Information' and 'Disk Information of Node1'. It has tabs for 'Disk List' and 'Images List'. There are filters for 'Filter by volume' (set to 'ALL') and 'Filter by Disk Type' (set to 'ALL'). A legend indicates that red bars represent 'Disk is busy' and green bars represent 'Disk is free'. The main area displays a grid of disk icons with their names: 'sunny' (red), 'disk1' (red), 'sanj_tes' (green), 'mybio' (green), 'testSAN' (green with a cursor over it), 'vtldisk2' (green), and 'vtldisk4' (green). Each disk icon has a dropdown menu with options: 'Increase Size', 'Information', and 'Delete'.

Fig 5.0.4

This is the main wizard page for creating and managing the NAS Disks". Click on the volume groups (vg1, ...) in which you want to create a NAS disk. Enter the size for the disk to be created, and select the unit from the drop down. Limit is the available size shown. Click the '**Create**' button.

Once the disk is created you will see two more buttons. Increase Size and Delete selected. As the name suggests, increase size button lets you increase the size of the volume on the fly, and delete selection button lets you delete all the selected volumes from the list.

Raid setup: In the Volume creation Section create the Volume. This can added only if Raid is set up before. Otherwise No free disk available option will come.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (13:58 | 15 Jul 2014 / 16:08), user information (Full Access | node1), and links for Change Password and Logout. The main menu on the left has categories like RESOURCES, MAINTAINANCE, and HELP, with sub-options like Volume Configuration, Raid Setup, and Raid Set Functions. The central content area is titled "Raid Configuration >> Raid/Volume Set Options" and "Raid Information of Node1". It features two buttons: "Add Volume" and "Remove Volume". A message box below states "No free disks available!". A small orange tab labeled "Node2" is visible in the top right corner of the content area. At the bottom left, there's a copyright notice: "© 2013 Opsslag FS2".

Fig 5.0.5

Remove Volume: In this Section remove the Volume. If there is a disk in volume then can't delete the volume as shown in below diagram there will be no option to edit the volume.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (13.03 | 15 Jul 2014 / 16:08 | Full Access | node1), and links for Change Password and Logout. The left sidebar contains links for RESOURCES (NAS, SAN, VTL, RAID), MAINTAINANCE, and HELP. The main content area is titled "Raid Configuration > Raid/Volume Set Options" and displays "Raid Information of Node1". A table lists volumes: sdb (netweb) and sdc (vg1). A "Remove" button is located at the bottom right of the table. The URL in the browser's address bar is http://192.168.1.100:8080/opslag/FS2/index.jsp?node=Node1&action=edit&volume_id=1.

Fig 5.0.6

RAID Set Function:

In this tab we have the option to create Raid set , Delete Raid set ,Create Hot spare, Delete Hot Spare. By the help of these tabs we can Configure Raid .

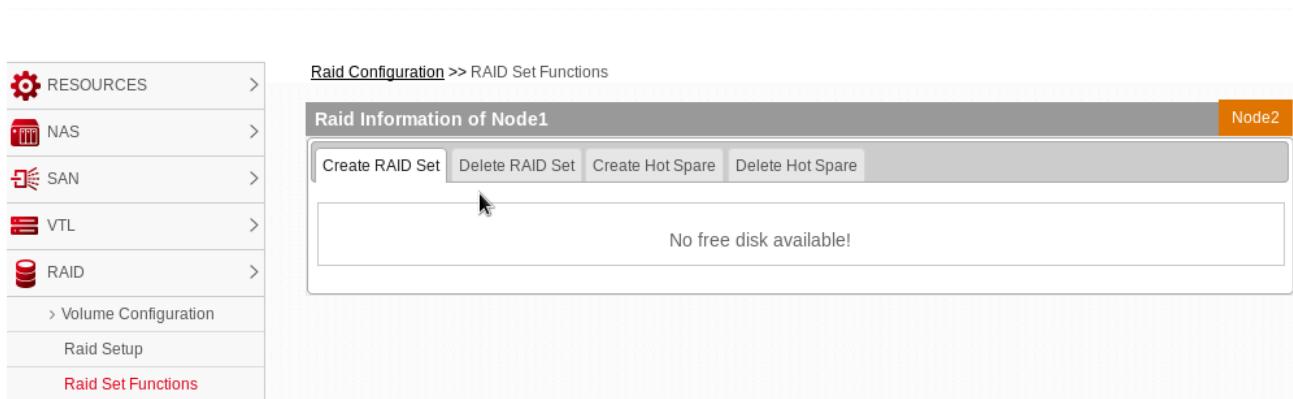


Fig 5.0.7

Create Raid Set:

Here it shows hard disk and help to Create Raid Set..

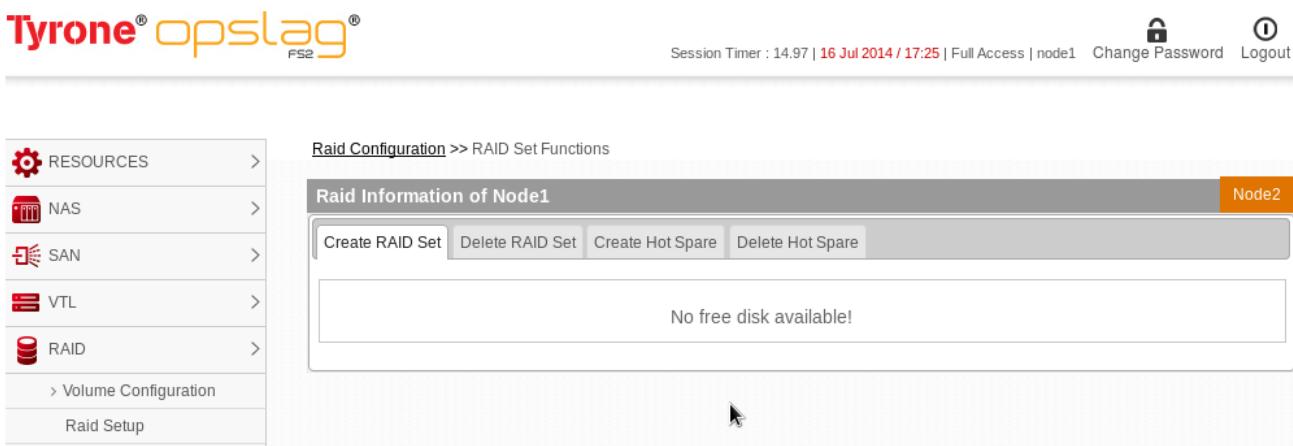


Fig 5.0.8

For Creating NAS Storage you have to Create RAID of the disks . And then Add volume then it will show in Disk Configuration.

Delete Raid Set:

It help to Delete the Raid set which we have created but for deleting an exiting Raid set you have to make sure the Raid set is empty i.e you have to delete volume set and for deleting volume set you have to Clear Volume set you have to delete the existing data.

The screenshot shows the Tyrone opslag interface with the title 'Raid Configuration >> RAID Set Functions'. On the left, there's a sidebar with 'RESOURCES' selected. The main area is titled 'Raid Information of Node1' and shows four buttons: 'Create RAID Set', 'Delete RAID Set' (which is highlighted with a cursor), 'Create Hot Spare', and 'Delete Hot Spare'. Below these buttons is a table with columns 'Select RAID Set', 'RAID set', 'No. of Disks', 'Size', and 'State'. A 'Delete' button is located at the bottom right of the table. The top right of the interface shows session information: 'Session Timer : 14.88 | 16 Jul 2014 / 18:54 | Full Access | node1' and links for 'Change Password' and 'Logout'.

Fig 5.0.9

Create Hot Spare: In Case of one Hard disk crash you need to change the hard disk. So when new hard disk is placed make it hot spare.

The screenshot shows the Tyrone opslag interface with the title 'Raid Configuration >> RAID Set Functions'. On the left, 'RESOURCES' is selected in the sidebar. The main area is titled 'Raid Information of Node1' and shows four buttons: 'Create RAID Set', 'Delete RAID Set', 'Create Hot Spare' (which is highlighted with a cursor), and 'Delete Hot Spare'. Below these buttons is a message box stating 'No free disk available!'. The top right of the interface shows session information: 'Session Timer : 14.70 | 16 Jul 2014 / 18:54 | Full Access | node1' and links for 'Change Password' and 'Logout'.

Fig 5.1.0

Delete Hot Spare : In case you want to Delete the Hot spare then this is the best option for you.

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there is a navigation bar with links for 'Session Timer : 14.58 | 16 Jul 2014 / 18:54 | Full Access | node1', 'Change Password', and 'Logout'. Below the navigation bar, there is a header 'Raid Configuration >> RAID Set Functions' and a sub-header 'Raid Information of Node1'. On the left, there is a sidebar with icons and labels for 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'Volume Configuration', 'Raid Setup', and 'Raid Set Functions'. The main content area displays a button labeled 'Delete Hot Spare' which is highlighted with a cursor. Below this button, a message says 'No Hot Spare available!'. There is also a small orange button labeled 'Node2' in the top right corner of the main content area.

Fig 5.1.1

Volume Set Function:

Volume set function is created by the help of Raid Set so if you want to create Volume set then first you need to create Raid Set. In Volume Set Function are two options first Create Volume set and Delete Volume Set.

The screenshot shows the Tyrone opslag FS2 web interface. At the top, there is a navigation bar with a timestamp '18 Oct 2007 / 23:01 | Full'. Below the navigation bar, there is a header 'Raid Configuration >> Create/Delete Volume Set' and a sub-header 'Raid Information'. On the left, there is a sidebar with icons and labels for 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'Volume Configuration', and 'Raid Setup'. The main content area displays a button labeled 'Create Volume Set' which is highlighted with a cursor. Below this button, there is another button labeled 'Delete Volume Set'. Further down, there are two input fields: 'Select RAID Set' and 'Select RAID Set' with a checked checkbox. There is also a small orange button labeled 'Node2' in the top right corner of the main content area.

Fig 5.1.2

Create Volume Set: If you select Raid Set then you will have this info put volume Set Name and click on create. And you can change Raid Level according to your wish.

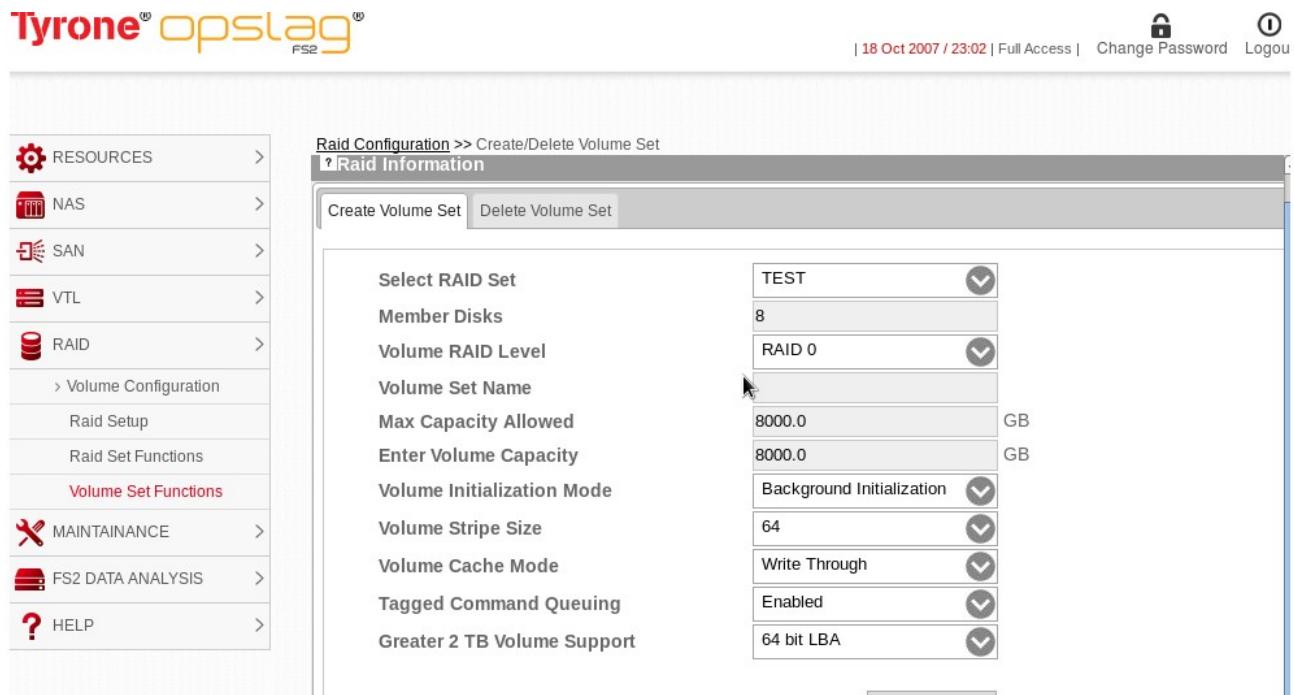


Fig 5.1.3

Delete Volume Set :

You can Select the Volume set by the Radio button which you want to delete.

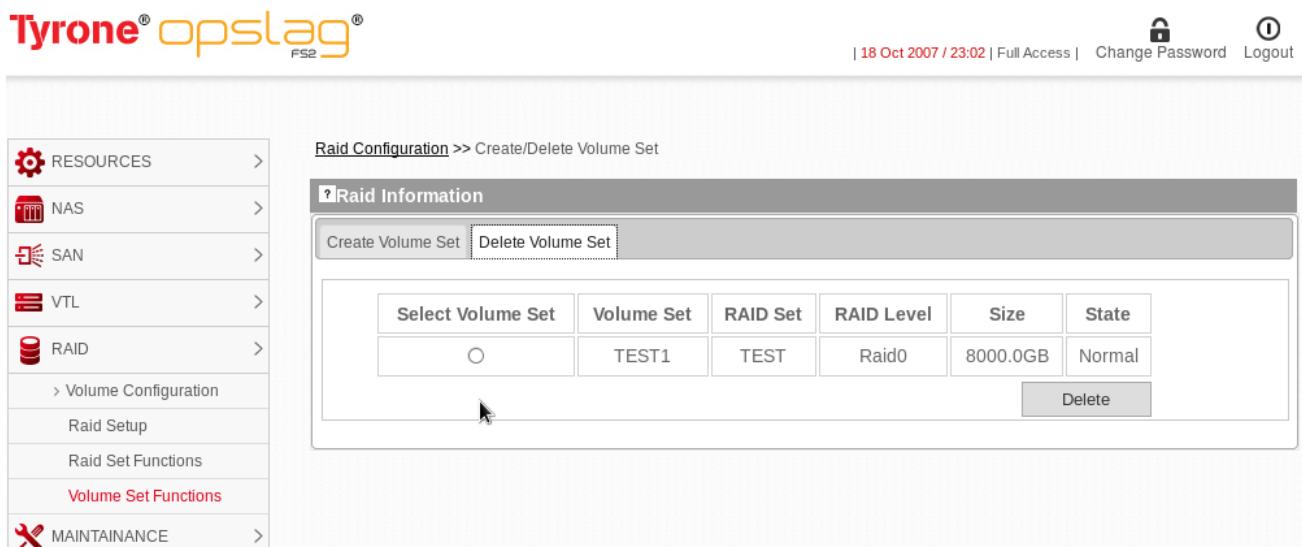


Fig 5.1.4

MAINTENANCE

Maintenance menu

In this section you will be able to do regular maintenance related tasks such as Services . scheduling shutdowns, and reboot of FS2. Creating Snapshots, checking for number of active connections,etc. we will talk about all of them one by one and explain how to use all of the features in detail.

Services :In this Section Start/Restart the Services like SAN,NFS,SMB,AFP,FTP and Raid Controller.

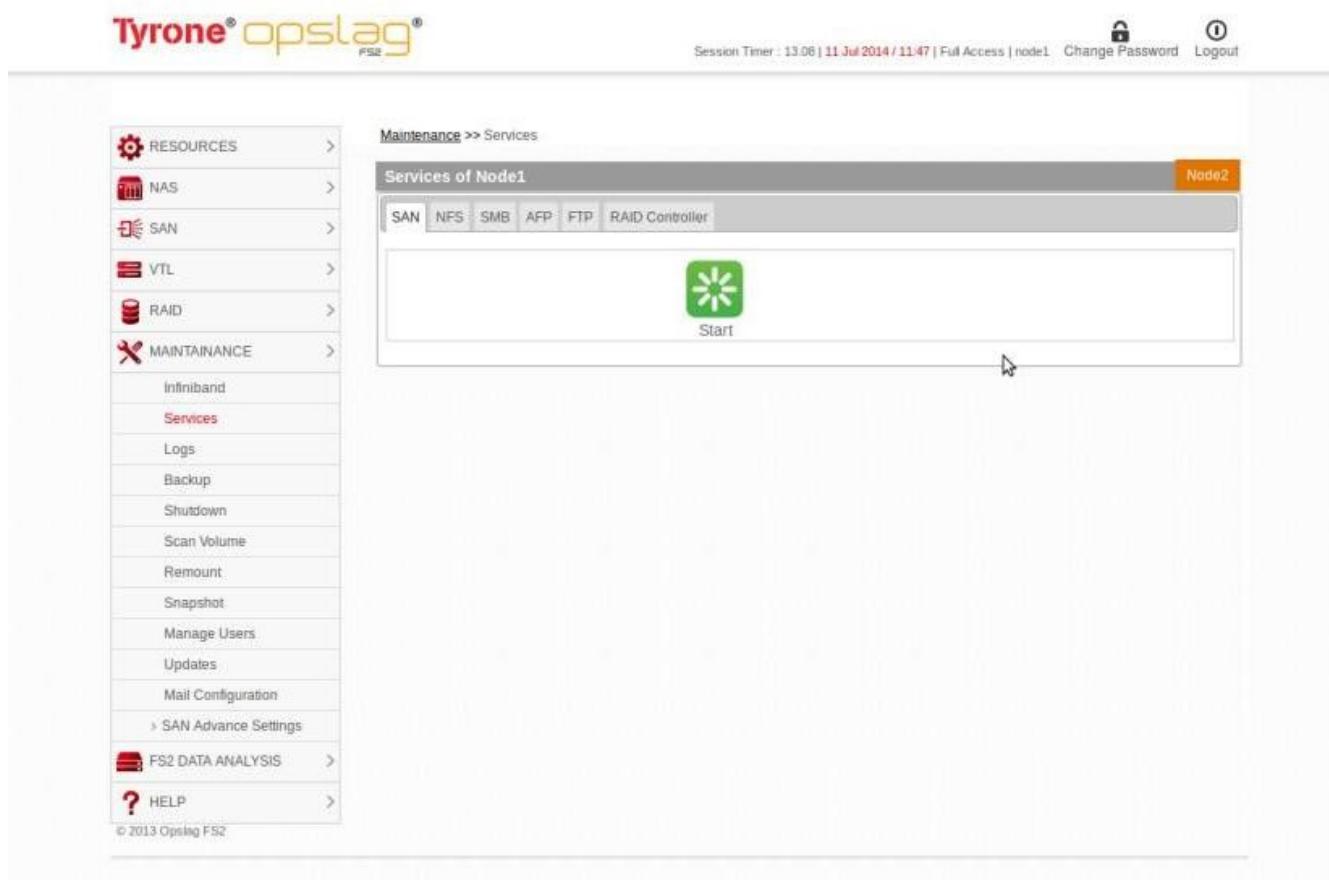


Fig 6.0.1

Logs menu

You have options to get logs or auto schedule logs daily, weekly, monthly.

Get Logs

The FS2 stores all the logs generated by it in a specific location which can be accessed and downloaded by the web interface. All you have to do is to go to Maintenance -->Logs and click on Get Entire Log to get all the logs in a single file.

The “Clear Logs” button lets you delete all the log files from the system.

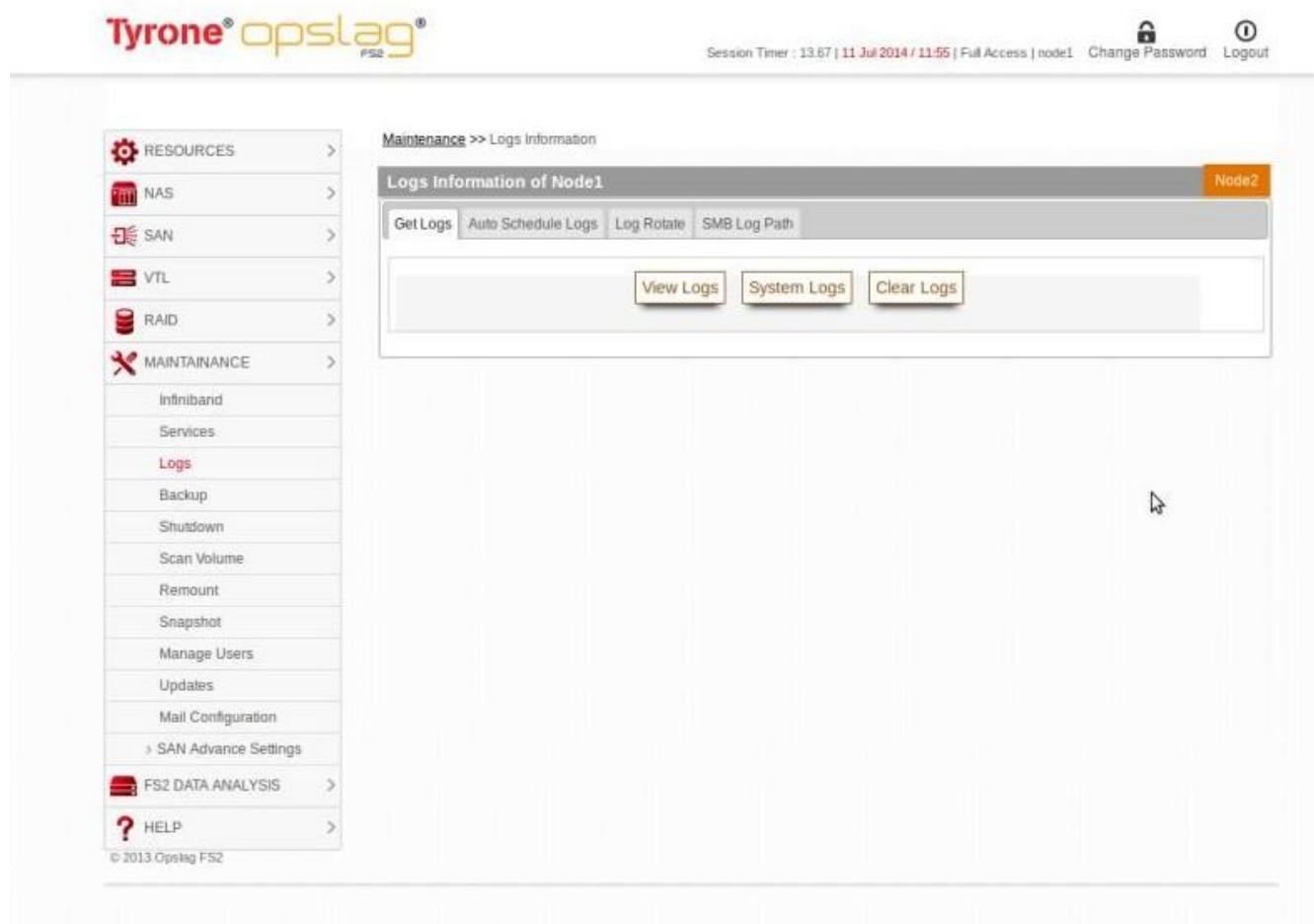


Fig 6.0.6

Shows the Get Logs button when you click it a BIN file is created for the entire settings in the FS2 Box, it is for the backup.

Auto Schedule Logs:

Chose a week day and click on the auto schedule log button to delete it automatically weekly.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar has a tree view with nodes like 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE' (with sub-options like Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), 'FS2 DATA ANALYSIS', and 'HELP'. The main content area is titled 'Maintenance >> Logs Information' and 'Logs Information of Node1'. It has tabs for 'Get Logs', 'Auto Schedule Logs' (which is selected and highlighted in orange), 'Log Rotate', and 'SMB Log Path'. Under 'Auto Log information', there's a field for 'Frequency of backups:' with a dropdown set to '15 Days(s)', and a field for 'Number of Files:' with a dropdown set to '6'. There are three small colored icons (green, yellow, red) next to the file number. At the bottom right of this panel are 'Schedule Log' and 'Remove' buttons. The top right of the interface shows session details: 'Session Timer: 12:15 | 11 Jul 2014 / 11:55 | Full Access | node1 | Change Password | Logout'.

Fig 6.0.7

This fig Shows the Schedule option for Automatic deletion of Logs.

Log rotate

In this section we handle the frequency of logs. We can create configuration by putting new name and configuration path.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 10.70 | 11 Jul 2014 / 11:55 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left lists 'RESOURCES' (NAS, SAN, VTL), 'MAINTAINANCE' (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), 'FS2 DATA ANALYSIS', and 'HELP'. The current page is 'Maintenance >> Logs Information' under 'Logs Information of Node1'. The sub-menu tabs are 'Get Logs', 'Auto Schedule Logs', 'Log Rotate' (which is selected and highlighted in orange), and 'SMB Log Path'. The 'Log Rotation' section contains fields for 'Create New Configuration' (checkbox), 'Frequency' (dropdown menu with 'Frequency' selected), 'ConfigurationFile:' (listbox containing 'apache2', 'apt', 'aptitude', 'dpkg', 'exim4-base', 'exim4-paniclog', 'heartbeat', 'logs', 'logs1', 'logs2', and an 'All' checkbox), 'Log rotate frequency:' (input field with a dropdown arrow), 'Log size(MB):' (input field with a dropdown arrow), and two buttons 'Fetch Log' and 'Rotate Log'.

Fig 6.0.8

This figure shows the create configuration option , frequency , configuration files ,log rotate frequency.

SMB Log Path:

In SMB log path we can set the SMB Log by selecting log path and can set the log path.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), FS2 DATA ANALYSIS, and HELP. The main content area is titled 'Maintenance >> Logs information' and 'Logs Information of Node1'. It includes tabs for Get Logs, Auto Schedule Logs, Log Rotate, and SMB Log Path (which is selected). A sub-section titled 'SMB Log Information' shows a dropdown menu labeled 'Choose log path:' with the option 'Select a Share'. Below this are 'Set Log' and 'Reset Log' buttons. The top right of the interface shows session details: Session Timer : 9:57 | 11 Jul 2014 / 11:55 | Full Access | node1 | Change Password | Logout. There is also a 'Node2' button.

Fig 6.0.9

shows the choose log path option and set the log path .

FS2 Backup/ Restore:

This section lets you take a system setting's backup for your FS2. A simple file is created which you can download and preserve. and in case you change some settings in FS2 or something goes wrong. You can just use that file to restore all settings instantly. It's a very good idea to create a backup and preserve after every major configuration Change you do to the box. Or before upgrading the firmware.

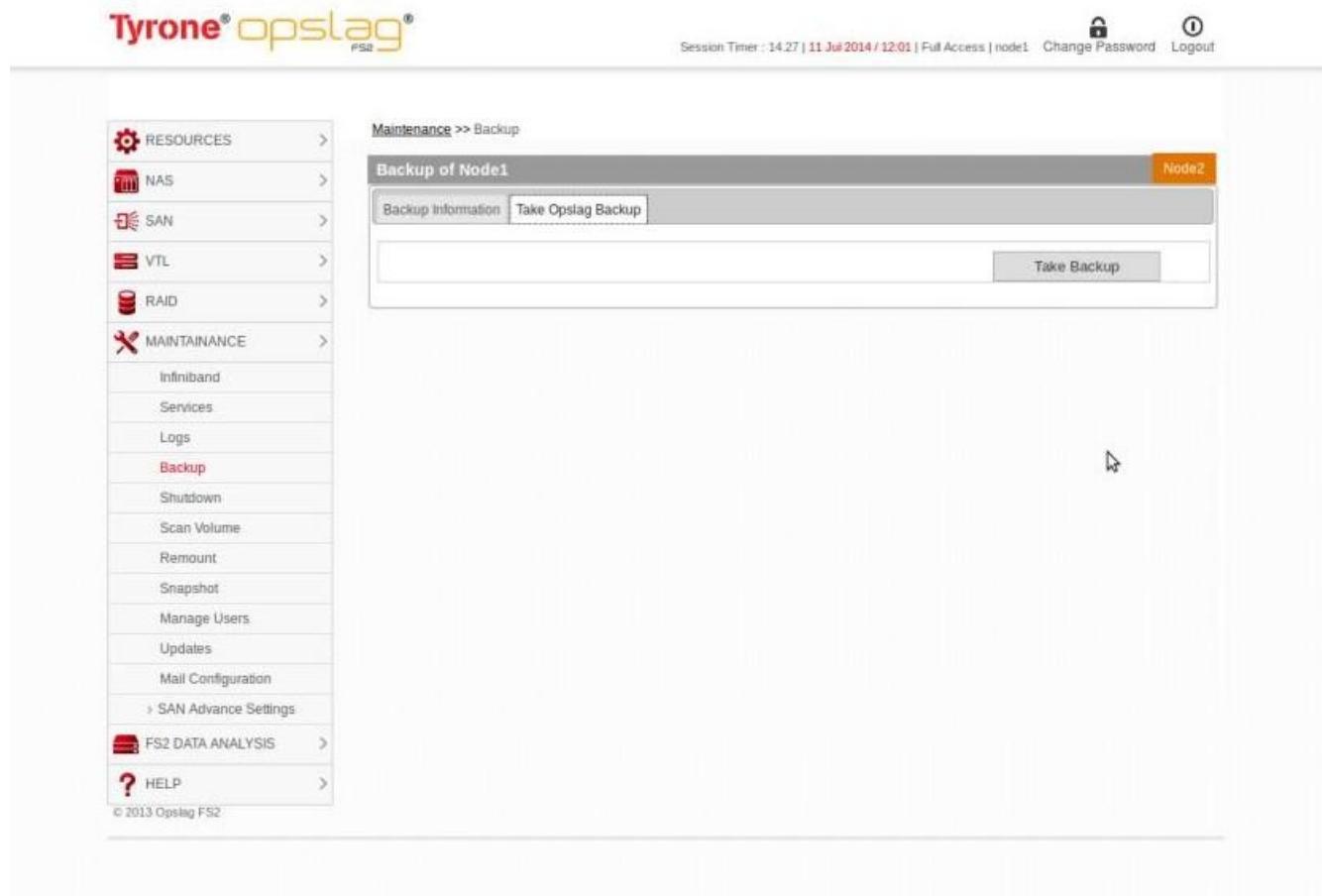


Fig 6.1.0

Shows the options for FS2 Backup i.e. Take FS2 Backup and Restore it back.

Restore FS2 backup

The interface for taking backup and restoring is very simple. All you have to do is to click on the Take FS2 Backup button and you will have the option to download Delete Restore .

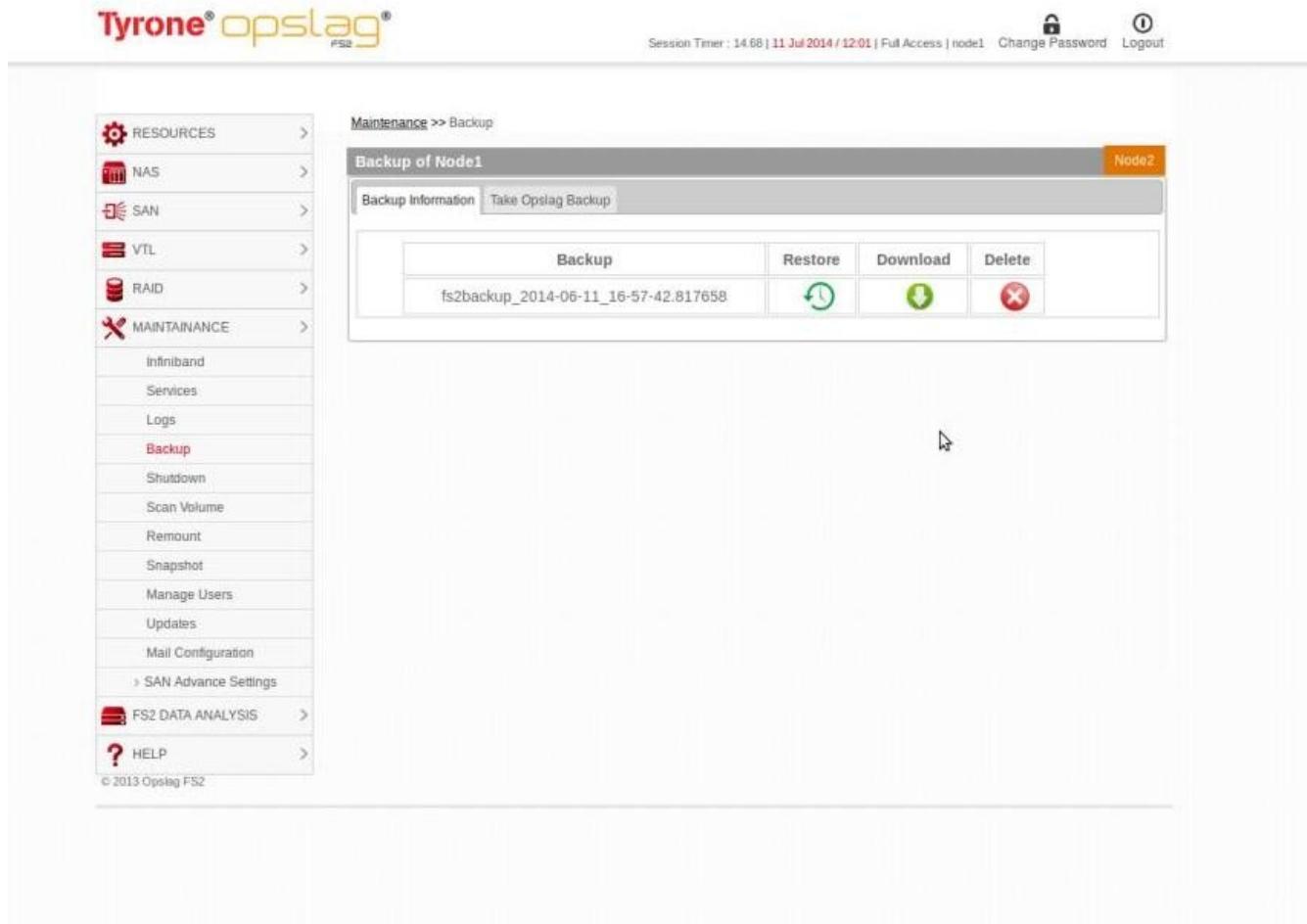


Fig 6.1.1

This Figure Shows the Backup button for FS2 .

Shutdown

From this section you can either shut down or restart the FS2 box or you can plan and schedule future recurring Shutdown/restarts.

System Shutdown

Simply click on the Shutdown button to send the shutdown command to the box instantly.

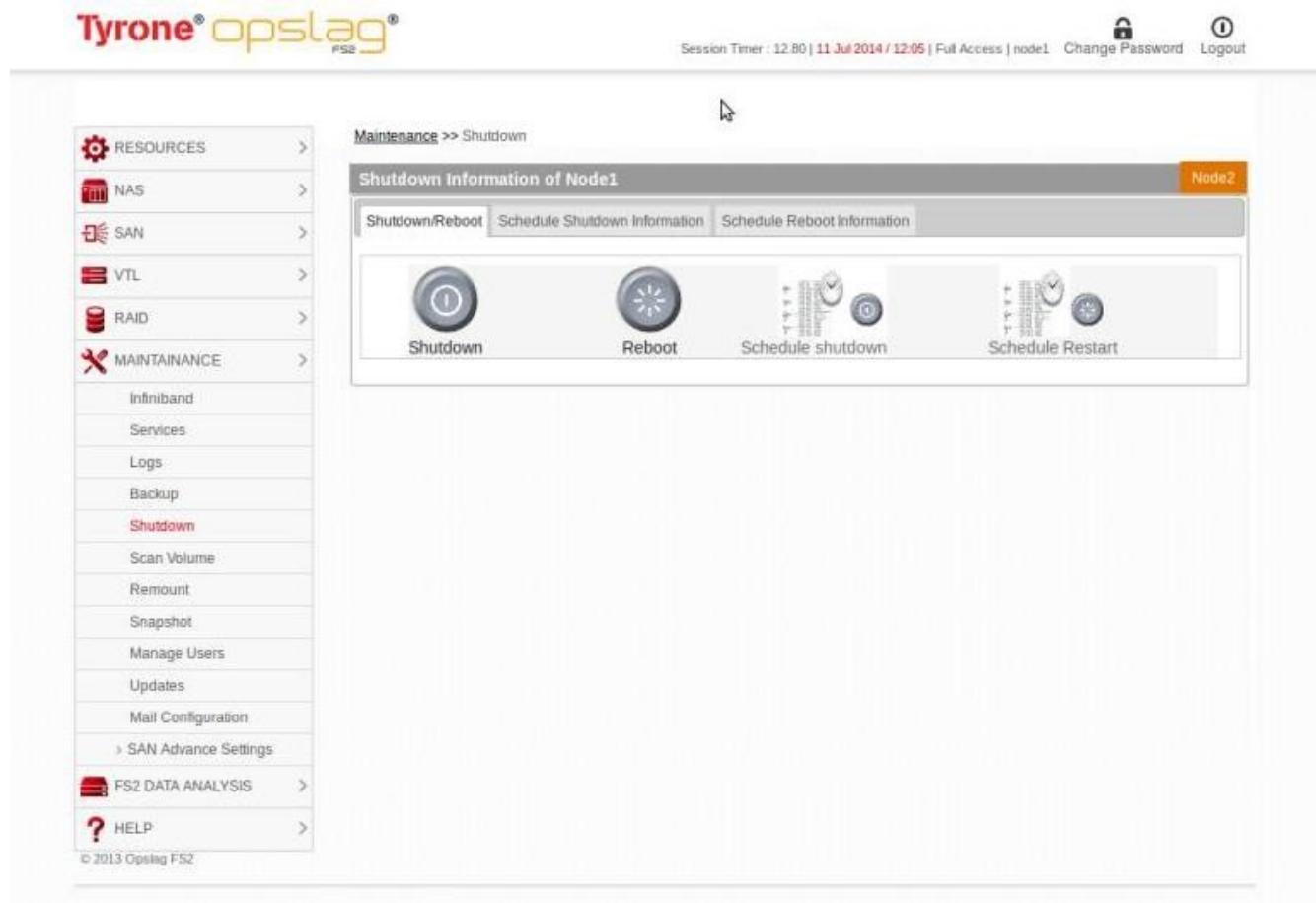


Fig 6.0.2

Shows the Shutdown button and if you click the FS2 box shutdown.

System Restart

For an instant reboot click on the restart button here.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (12:80 | 11 Jul 2014 / 12:05), and links for Change Password and Logout. The left sidebar contains links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), FS2 DATA ANALYSIS, and HELP. The main content area is titled "Maintenance > Shutdown" and shows "Shutdown Information of Node1". It has tabs for Shutdown/Reboot (selected), Schedule Shutdown Information, and Schedule Reboot Information. Below the tabs are four buttons: "Shutdown" (grey circle with a power icon), "Reboot" (grey circle with a circular arrow icon), "Schedule shutdown" (grey circle with a checkmark and a calendar icon), and "Schedule Restart" (grey circle with a checkmark and a power icon). A small orange box labeled "Node2" is visible in the top right corner of the main content area.

Fig 6.0.3

Shows the Restart button to reboot the FS2 box when you click it.

Schedule Shutdown : in this Section when click on Schedule shutdown button ,then a fancybox is open and scheduled the shutwon Information as per user Requirement.

From here you can schedule a shutdown for your FS2 box. You can either select a day from the list at the left hand side or you can set a specific date and time from the right hand side of the window. In case you select a day from the left hand side and keep '*' as the selection in all the fields at the right hand side, then on the day which you have selected, the FS2 will keep shutting down whenever its booted. To avoid such a situation, you can specify a time along with the day for scheduling the shutdown. So for instance you select 'Sun' and 12 Hours 00 Minutes. Then the device will shut down at that particular time.

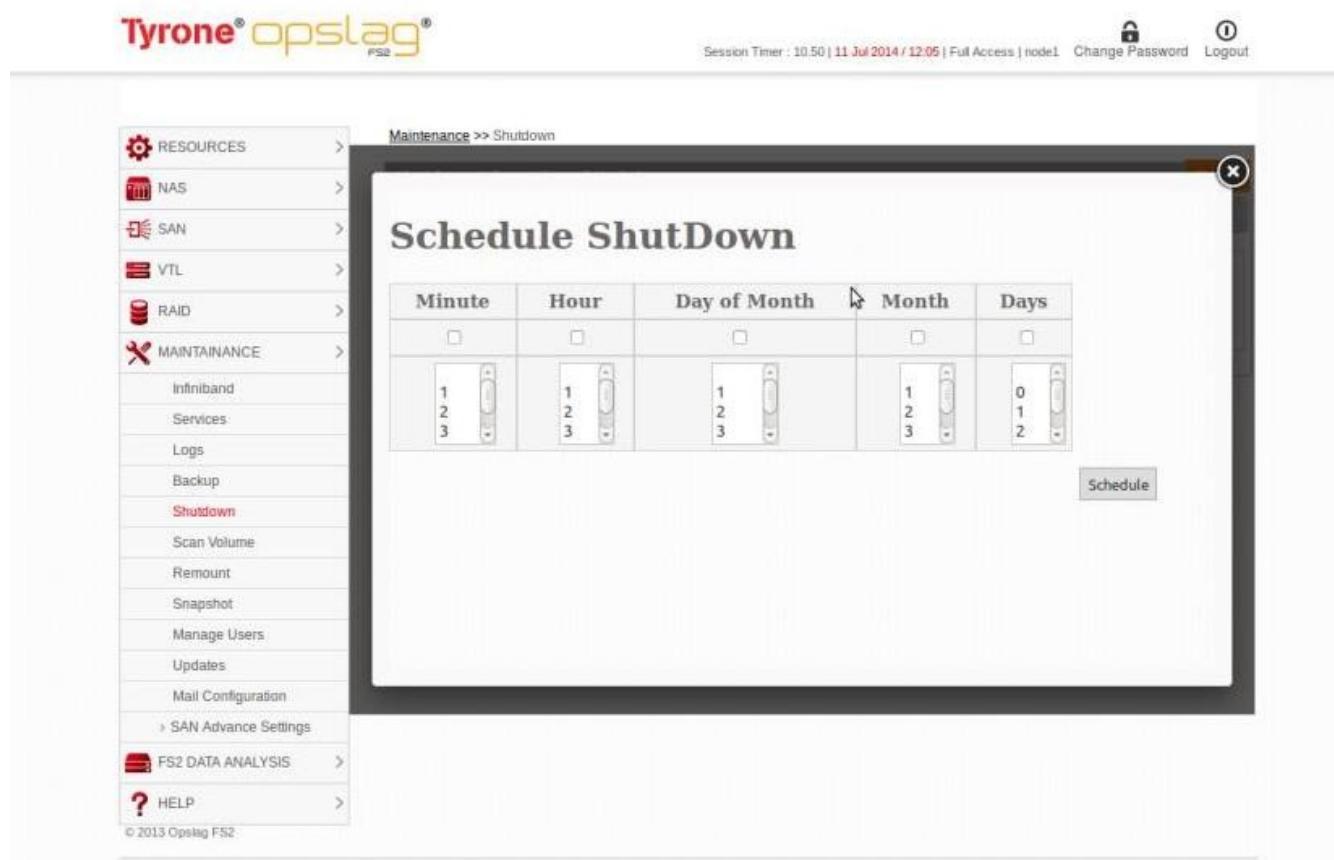


Fig 6.0.4

shows the schedule shutdown option where months,day,minutes and hours options are given to schedule the shutdown automatically.

Schedule Restart :

In this Section when Click onthe Scheduled restart button ,then a fancy box is open and scheduled the system restart as per user requirement.

This interface is exactly same as the Shutdown interface. Juts that instead of the shutdown, it will send the restart command to the FS2 box on the desired scheduled date.

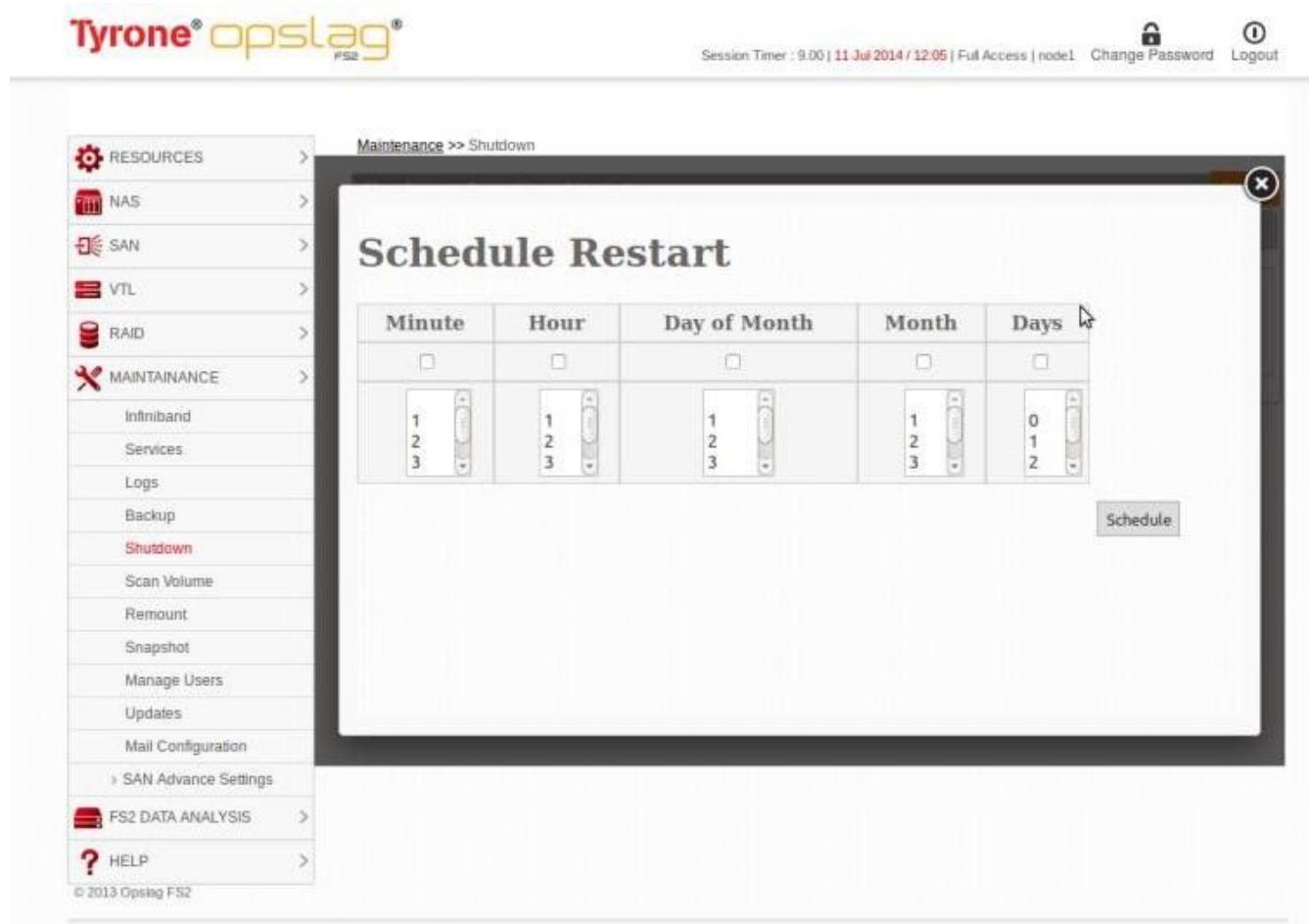


Fig 6.0.5

Show the Schedule interface for restart automatically , this is same as shutdown

Schedule Shutdown Information:

In this Section show the Information of Scheduled shutdown.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo "Tyrone® opslag® FS2", session information ("Session Timer : 14:18 | 11 Jul 2014 / 12:21 | Full Access | node1"), and links for "Change Password" and "Logout". The main menu on the left has categories like "RESOURCES", "NAS", "SAN", "VTL", "RAID", "MAINTAINANCE", "FS2 DATA ANALYSIS", and "HELP". The "MAINTAINANCE" category is expanded, showing options such as Infiniband, Services, Logs, Backup, Shutdown (which is highlighted in red), Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings, and FS2 Advance Settings. The central content area is titled "Maintenance >> Shutdown" and "Shutdown Information of Node1". It features tabs for "Shutdown/Reboot", "Schedule Shutdown Information" (which is selected and highlighted in blue), and "Schedule Reboot Information". A table header with columns "Type", "Schedule", "Time", and "Delete" is present, followed by the message "No Schedule Information is Available". The top right corner of the content area has a button labeled "Node2".

Fig 6.1.2

Schedule Reboot Information

In this Section show the Information of Scheduled Reboot..

The screenshot shows the Tyrone opstag FS2 web interface. The left sidebar contains navigation links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), FS2 DATA ANALYSIS, and HELP. The main content area is titled "Maintenance >> Shutdown" and "Shutdown Information of Node1". It features tabs for "Shutdown/Reboot", "Schedule Shutdown Information", and "Schedule Reboot Information". A message states "No Schedule Information is Available". The top right corner shows session details: Session Timer : 13:80 | 11 Jul 2014 / 12:21 | Full Access | node1 | Change Password | Logout.

Fig 6.1.3

Scan Volume: Scan mean look at all parts of (something) carefully in order to detect some feature. It scan the volume of the system that they are function well or not.

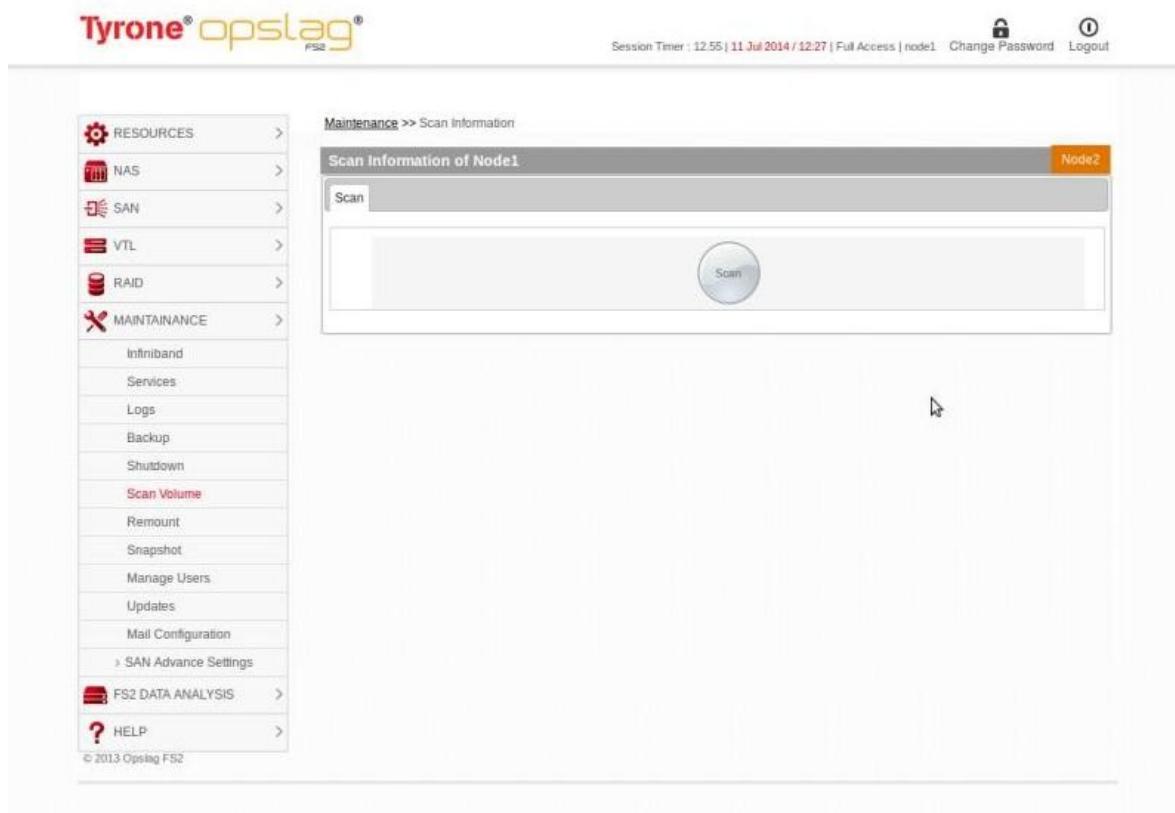


Fig 6.1.4

Remount:

When you 'mount' something you are placing access to the file system contained within onto your root file system structure. You can remount the drive if needed by the single click.

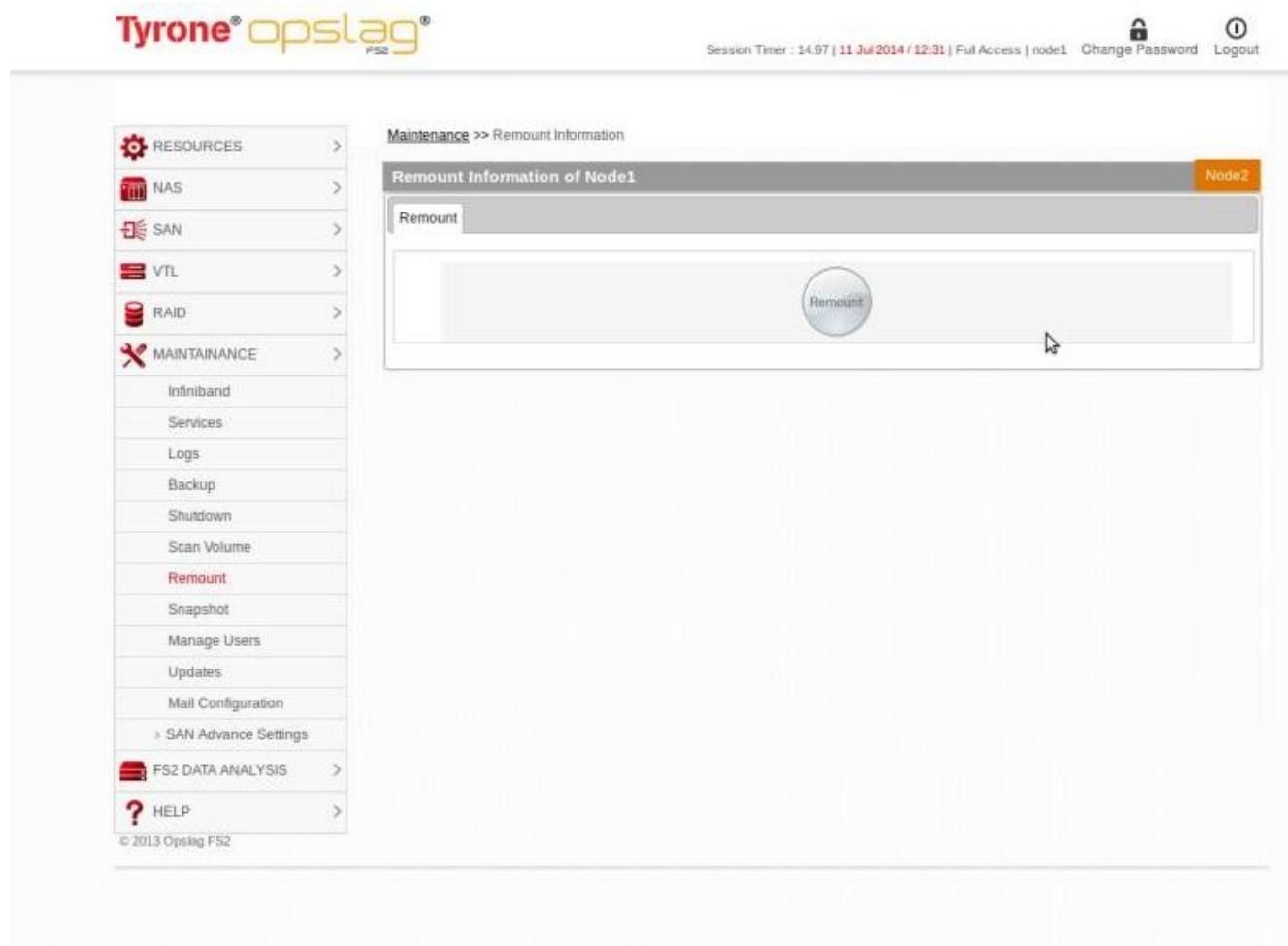


Fig 6.1.5

Create NAS Snapshot :

By this one can easily create NAS Snapshot by putting Disk name and size.

The screenshot shows the Tyrone opstag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opstag® FS2', session information ('Session Timer : 14:45 | 11 Jul 2014 / 12:57 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left lists 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE' (with sub-options like Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), 'FS2 DATA ANALYSIS', and 'HELP'. The current page is 'Maintenance > Snapshot Information'. A sub-menu for 'Snapshot Information of Node1' is displayed, featuring tabs for 'Create Snapshot' (selected), 'Show Snapshot', 'Snapshot Schedule', 'Schedule Search List', and 'Remove Schedule'. Below these tabs is a form with fields 'Select Disk name' (dropdown menu showing 'Select a Disk' with a checked checkbox) and 'Enter Size(GB)' (text input field). A large 'Create' button is located at the bottom right of the form area.

Fig 6.1.6

This Fig Shows the snapshots to be created for NAS protocol and the size , there is a limit provided as standard and recommended.

NAS Snapshot Details :

The screenshot shows the Tyrone opstag FS2 web interface. The top navigation bar includes the logo, session information (Session Timer: 13:03 | 11 Jul 2014 / 12:57 | Full Access | node1), and links for Change Password and Logout. A help icon is also present.

The main menu on the left is organized into sections: RESOURCES, SAN, VTL, RAID, MAINTAINANCE, FS2 DATA ANALYSIS, and HELP. The MAINTAINANCE section is expanded, showing options like Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot (which is highlighted in red), Manage Users, Updates, Mail Configuration, SAN Advance Settings, and FS2 DATA ANALYSIS.

The central content area is titled "Snapshot Information of Node1" and "Node2". It features tabs for Create Snapshot, Show Snapshot, Snapshot Schedule, Schedule Search List, and Remove Schedule. Below the tabs, three disk icons are listed: 000NAS-disk1, 001NAS-disk1, and 002NAS-disk1, each with a checkmark icon to its right.

Fig 6.1.7

This Fig Shows the details of the snapshots that are created, even delete it form the same interface. It also lets you share a NAS Snapshot either as a SMB or as NFS share by just clicking on the check boxes at the right most Column.

Schedule NAS Snapshot : In this Section Scheduled the Snapshot.

Maintenance >> Snapshot Information

Snapshot information of Node1

Create Snapshot Show Snapshot Snapshot Schedule Schedule Search List Remove Schedule

Select Disk name: Select a Disk

Snap Name:

Max Snaps:

Snap Size(GB):

Minute	Hour	Day of Month	Month	Days
<input type="checkbox"/>				
1 2 3	1 2 3	1 2 3	1 2 3	0 1 2

Schedule

Fig 6.1.8

This Figure Shows the NAS snapshot scheduled to be taken at a particular time.

Search Snapshot List: In this Section choose the disk name and corresponding Information is displayed on the given below.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo "Tyrone opslag FS2", session information (Session Timer: 7:88 | 11 Jul 2014 / 14:02 | Full Access | node1), and links for Change Password and Logout. The main menu on the left is organized into sections: RESOURCES (NAS, SAN, VTL, RAID), MAINTAINANCE (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), FS2 DATA ANALYSIS, and HELP. The current page is "Snapshot Information" under the MAINTAINANCE section. The sub-menu for Snapshot includes Create Snapshot, Show Snapshot, Snapshot Schedule, Schedule Search List, and Remove Schedule. A message at the bottom of the page reads "Select the disk to Get Information".

Fig 6.1.9

Scheduled Snapshot Remove: In this Section Scheduled Snapshot Information is displayed. when click on the delete image , Scheduled snapshot is deleted.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for RESOURCES, NAS, SAN, VTL, RAID, and MAINTAINANCE (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings). Below these are links for FS2 DATA ANALYSIS and HELP. The top right corner shows session information (Session Timer: 3.75 | 11 Jul 2014 / 14:02 | Full Access | node1), a Change Password link, and a Logout link. The main content area is titled "Snapshot Information of Node1" and includes tabs for Create Snapshot, Show Snapshot, Snapshot Schedule, Schedule Search List, and Remove Schedule. A table header with columns Disk Name, Snap Name, Snap Size, Max Snap, Schedule, Time, and Delete is present, followed by a message "No Information is Available".

Fig 6.2.0

Manage Users:

In this section you can manage the setting of users and groups. If you want can the password for any particular user then click on Manager user in this section.

Create Users

This option allows you to create a user.

The screenshot shows the Tyrone opstag FS2 web interface. At the top, there is a navigation bar with the logo 'Tyrone opstag FS2', session information ('Session Timer : 10.55 | 11 Jul 2014 / 14:17 | Full Access | node1'), and links for 'Change Password' and 'Logout'. Below the navigation bar is a sidebar menu with the following items:

- RESOURCES
 - NAS
 - SAN
 - VTL
 - RAID
- MAINTAINANCE
 - Infiniband
 - Services
 - Logs
 - Backup
 - Shutdown
 - Scan Volume
 - Remount
 - Snapshot
- Manage Users
 - Updates
 - Mail Configuration
 - SAN Advance Settings
- FS2 DATA ANALYSIS
- HELP

At the bottom of the sidebar, it says '© 2013 Opstag FS2'.

The main content area is titled 'Maintenance >> Manage Users' and 'Manage Users of Node1'. It features a sub-menu with options: Create User, Create Group, Manage User, Manage Group, Delete User, Delete Group, and Sync Users. The 'Create User' option is selected. The 'Create User' form contains three input fields: 'User Name', 'Password', and 'Confirm Password'. A 'Create' button is located at the bottom right of the form. The word 'Node2' is visible in the top right corner of the main content area.

Fig 6.2.1

Type the user name and the password for the user and click on “**Create**” button.

Create Groups:

This option allows you to create Group.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 10.12 | 11 Jul 2014 / 14:17 | Full Access | node1'), and links for 'Change Password' and 'Logout'. On the left, a vertical sidebar menu lists 'RESOURCES' (NAS, SAN, VTL, RAID), 'MAINTAINANCE' (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), 'FS2 DATA ANALYSIS', and 'HELP'. The main content area is titled 'Maintenance > Manage Users' and 'Manage Users of Node1'. It features tabs for 'Create User', 'Create Group', 'Manage User', 'Manage Group', 'Delete User', 'Delete Group', and 'Sync Users'. A sub-section titled 'Create Group' contains a 'Group' input field and a 'Create' button. The top right corner of the main content area has a 'Node2' indicator.

Fig 6.2.2

Type the group name that you want to create and click on “**Create Group**” button

Manager User

In this Section you can change the password for the user and change the group of particular user.

The screenshot shows the Tyrone opstag FS2 web interface. The top navigation bar includes the logo 'Tyrone opstag FS2', session information ('Session Timer : 9.50 | 11 Jul 2014 / 14:17 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left has categories like 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE' (with sub-options like Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot), 'FS2 DATA ANALYSIS', and 'HELP'. The central content area is titled 'Maintenance > Manage Users' and 'Manage Users of Node1'. It features tabs for 'Create User', 'Create Group', 'Manage User' (which is selected), 'Manage Group', 'Delete User', 'Delete Group', and 'Sync Users'. A sub-section titled 'Manage User' contains a 'Select User' dropdown menu with an option 'Select User' checked. The interface uses a light blue and white color scheme with orange highlights for selected tabs.

Fig 6.2.3

This figure gives the control to Manage user .

Manage Groups:

This option allows you to manage groups. You can add or remove users from a particular group.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot), Manage Users, Updates, Mail Configuration, SAN Advance Settings, FS2 DATA ANALYSIS, and HELP. The main content area is titled 'Maintenance > Manage Users' and 'Manage Users of Node1'. It features a toolbar with buttons for Create User, Create Group, Manage User, Manage Group (which is highlighted in orange), Delete User, Delete Group, and Sync Users. Below the toolbar is a 'Manage Group' section with 'Select User' and 'Select Group' dropdown menus. The top right corner shows session information: Session Timer : 9.12 | 11 Jul 2014 / 14:17 | Full Access | node1 | Change Password | Logout. A small orange button labeled 'Node2' is also visible.

Fig 6.2.4 gives the control to manage group.

Delete Users

This option is used to delete users.

The screenshot shows the Tyrone opstag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opstag® FS2', session information ('Session Timer : 8.57 | 11 Jul 2014 / 14:17 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left has categories like 'RESOURCES', 'MAINTAINANCE', 'FS2 DATA ANALYSIS', and 'HELP'. Under 'MAINTAINANCE', 'Manage Users' is selected. The central content area is titled 'Manage Users of Node1' and contains tabs for 'Create User', 'Create Group', 'Manage User', 'Manage Group', 'Delete User' (which is highlighted), 'Delete Group', and 'Sync Users'. A sub-dialog titled 'Delete User' is open, showing a dropdown menu labeled 'Select User to delete' with a checked item and a 'Delete' button below it. The status bar at the bottom left says '© 2013 Opstag FS2'.

Fig 6.2.5

Type the name of the user you want to delete and click on “**Delete**” button.

Delete Groups:

This option is used to Delete Groups.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains navigation links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings), FS2 DATA ANALYSIS, and HELP. The main content area is titled "Maintenance >> Manage Users" and "Manage Users of Node1". It includes tabs for Create User, Create Group, Manage User, Manage Group, Delete User, Delete Group (which is selected and highlighted in orange), and Sync Users. A sub-section titled "Delete Group" contains a dropdown menu labeled "Select Group to delete" with "Select Group" selected, and a "Delete" button. The top right of the interface shows session information: Session Timer: 8.20 | 11 Jul 2014 / 14:17 | Full Access | node1 | Change Password | Logout. There is also a lock icon and a help icon.

Fig 6.2.6

In This figure Type the name of the group you want to delete and click on “Delete” button.

Synchronization: In this Section ,when click on the button ,the all users and group are Synchronized.

The screenshot shows the Tyrone opslag FS2 web interface. The left sidebar contains a navigation menu with categories like RESOURCES, MAINTAINANCE, and FS2 DATA ANALYSIS. Under MAINTAINANCE, there is a 'Manage Users' section. The main content area is titled 'Manage Users of Node1'. At the top of this area is a toolbar with buttons for Create User, Create Group, Manage User, Manage Group, Delete User, Delete Group, and Sync Users. The 'Sync Users' button is highlighted with a yellow background and a black border. Below the toolbar, there is a section titled 'Sync Users' containing a large orange circular icon with a white 'C' symbol. The top right corner of the main content area has a small orange box labeled 'Node2'.

Fig 6.2.7

Updates:

This option allows you to upload the update file. Select the update file and click on the “**Update File**” button.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo "Tyrone opslag FS2", session information ("Session Timer : 14:00 | 11 Jul 2014 / 14:41 | Full Access | node1"), and links for "Change Password" and "Logout". The main menu on the left has categories like "RESOURCES", "NAS", "SAN", "VTL", "RAID", "MAINTAINANCE" (which is expanded to show "Infiniband", "Services", "Logs", "Backup", "Shutdown", "Scan Volume", "Remount", "Snapshot", "Manage Users", "Updates", "Mail Configuration", and "SAN Advance Settings"), "FS2 DATA ANALYSIS", and "HELP". The central content area is titled "Maintenance >> Update Information" and "Updates Information of Node1". It features a "Updates" tab, a "Browse..." button, a message "No file selected.", and an "Update" button. A small orange box labeled "Node2" is visible in the top right corner of the content area.

Fig 6.2.8

This will give you an option to update file.

Mail Configuration : In this Section configure the mail. If any problem comes in storage then this functionality will help to email or give notification to the administrator .

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone® opslag® FS2', session information ('Session Timer : 14:97 | 11 Jul 2014 / 14:42 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left has categories like 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE' (which is expanded to show 'Infiniband', 'Services', 'Logs', 'Backup', 'Shutdown', 'Scan Volume', 'Remount', 'Snapshot', 'Manage Users', 'Updates', and 'Mail Configuration'), 'SAN Advance Settings', 'FS2 DATA ANALYSIS', and 'HELP'. The central content area is titled 'Maintenance > mail information' and 'Mail Configuration of Node1'. It contains a form with fields: 'Server Name:' (dropdown), 'Authentication:' (dropdown), 'Port:' (text input '587'), 'Tsl:' (dropdown), 'From:' (text input), and 'To:' (text input). Below the form is a note 'All Fields are Mandatory (*)'. There are 'Set' and 'Get' buttons at the bottom right of the form. A small orange 'Node2' button is visible in the top right corner of the content area.

Fig 6.2.9

SAN Advance Settings:

SRP Mapping: In this Section mapping the SRP target of both node and help HA environment to handle .

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (13.05 | 11 Jul 2014 / 15.12), and links for Change Password and Logout. The main menu on the left lists RESOURCES, NAS, SAN, VTL, RAID, MAINTAINANCE (with sub-options like Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration, SAN Advance Settings, SRP Map Settings, FC Map Settings), FS2 DATA ANALYSIS, and HELP. The current page is Maintenance > San Advance Information, specifically the SRP Map Information of Node1. The sub-menu here shows tabs for SRP and SRP List, with the SRP tab selected. It contains fields for Source Target*, Destination Target*, and Node*: node1, along with an Apply button. A small cursor icon is visible near the bottom center of the page.

Fig 6.3.0

SRP Mapping Information: In this Section select the Source target name ,and get the Information.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo 'Tyrone opslag FS2', session information ('Session Timer : 12:35 | 11 Jul 2014 / 15:12 | Full Access | node1'), and links for 'Change Password' and 'Logout'. The main menu on the left has categories like 'RESOURCES', 'NAS', 'SAN', 'VTL', 'RAID', 'MAINTAINANCE' (which is expanded to show 'Infiniband', 'Services', 'Logs', 'Backup', 'Shutdown', 'Scan Volume', 'Remount', 'Snapshot', 'Manage Users', 'Updates', 'Mail Configuration', 'SAN Advance Settings', 'Srp Map Settings', and 'Fc Map Settings'), 'FS2 DATA ANALYSIS', and 'HELP'. The current page is 'Maintenance > SAN Advance Information' under 'Srp Map Information of Node1'. It shows a table with one entry:

Source Target	Destination Target	Node	Time
0002:c903:0028:314a	0002:c903:0028:314a	node1	2014-06-28 17:01:03

Fig 6.3.1

FC Mapping: In this Section mapping the FC target for this particular node.

The screenshot shows the Tyrone opslag FS2 web interface. The top navigation bar includes the logo, session timer (14.95 | 11 Jul 2014 / 15.20), and links for Change Password and Logout. The main menu on the left lists RESOURCES (NAS, SAN, VTL, RAID), MAINTAINANCE (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration), SAN Advance Settings, Srp Map Settings, and Fc Map Settings. The Fc Map Settings option is currently selected. The central content area is titled "Maintenance >> San Advance Information" and "FC Map Information of Node1". It displays a form with tabs for "Fc" and "Fc List" (selected). The form fields include "Source Target:" (dropdown menu), "Destination Target:" (dropdown menu), and "Node:" (text input field containing "node1"). An "Apply" button is at the bottom right of the form. A small orange button labeled "Node2" is located in the top right corner of the main content area.

Fig 6.3.2

Fc Mapping Information: In this Section select the Source target and get the mapping information.

The screenshot shows the Tyrone opstag FS2 web interface. The left sidebar contains navigation links for Resources (NAS, SAN, VTL, RAID), Maintenance (Infiniband, Services, Logs, Backup, Shutdown, Scan Volume, Remount, Snapshot, Manage Users, Updates, Mail Configuration), SAN Advance Settings, Srp Map Settings, and Fc Map Settings. The main content area is titled "Maintenance > San Advance Information" and "FC Map Information of Node1". It has tabs for "Fc" and "Fc List", with "Fc" selected. A dropdown menu labeled "Select Target" is open. Below it is a table with columns: Source Target, Destination Target, Node, and Time. A message at the bottom says "Select the Target to Get Information". The top right of the interface includes session details (Session Timer: 14:55 | 11 Jul 2014 / 15:20 | Full Access | node1), a lock icon, "Change Password", and "Logout".

Fig 6.3.3

FS2 data Analysis: In this Section show the charts of System temperature ,memory Information, Disk Graph and Interfaces information. These charts show the which section is used how many data.

System Temperature: This fig .show the data uses of temperature.

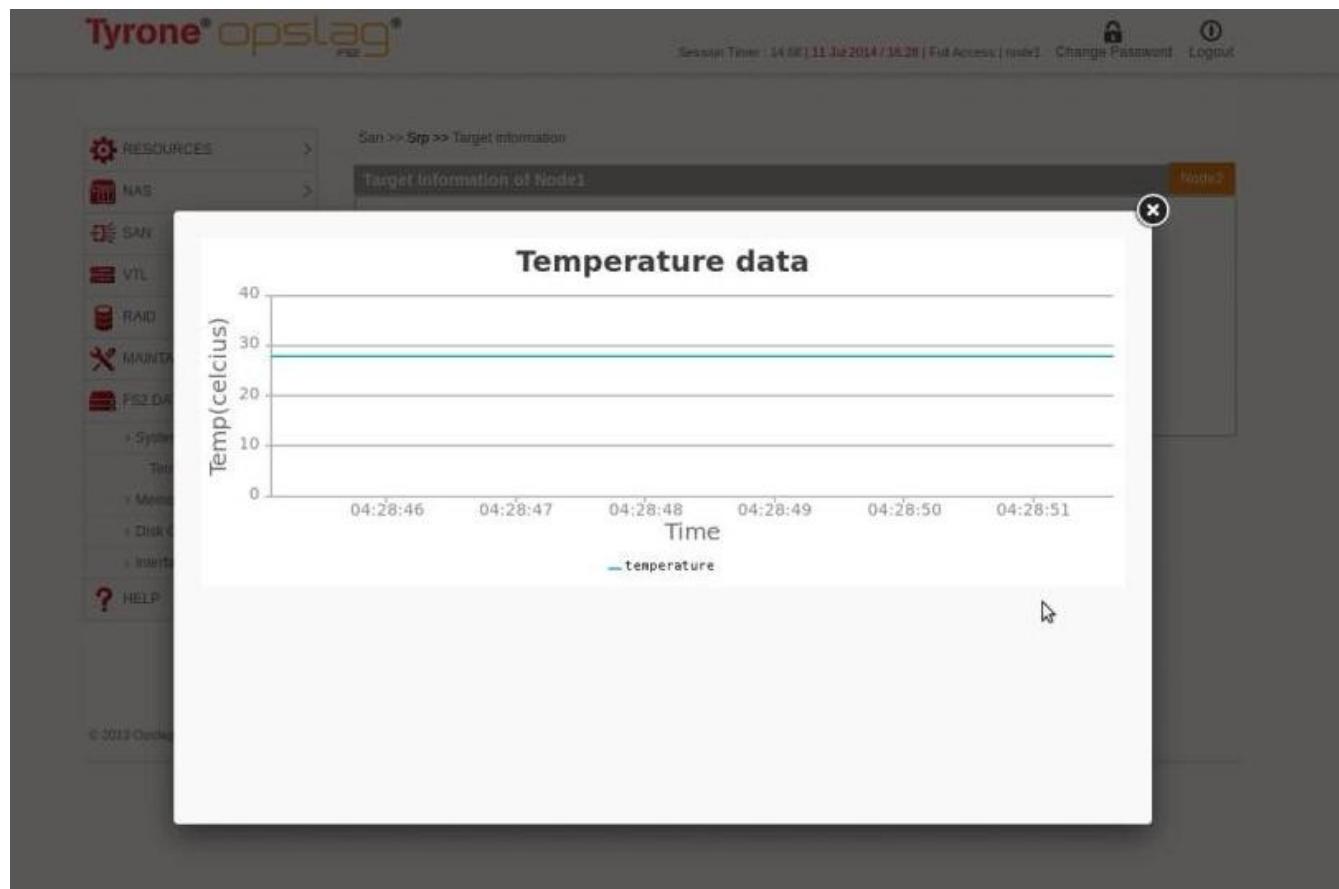


Fig 6.3.4

Memory Information: This fig. show the data uses of memory Information.

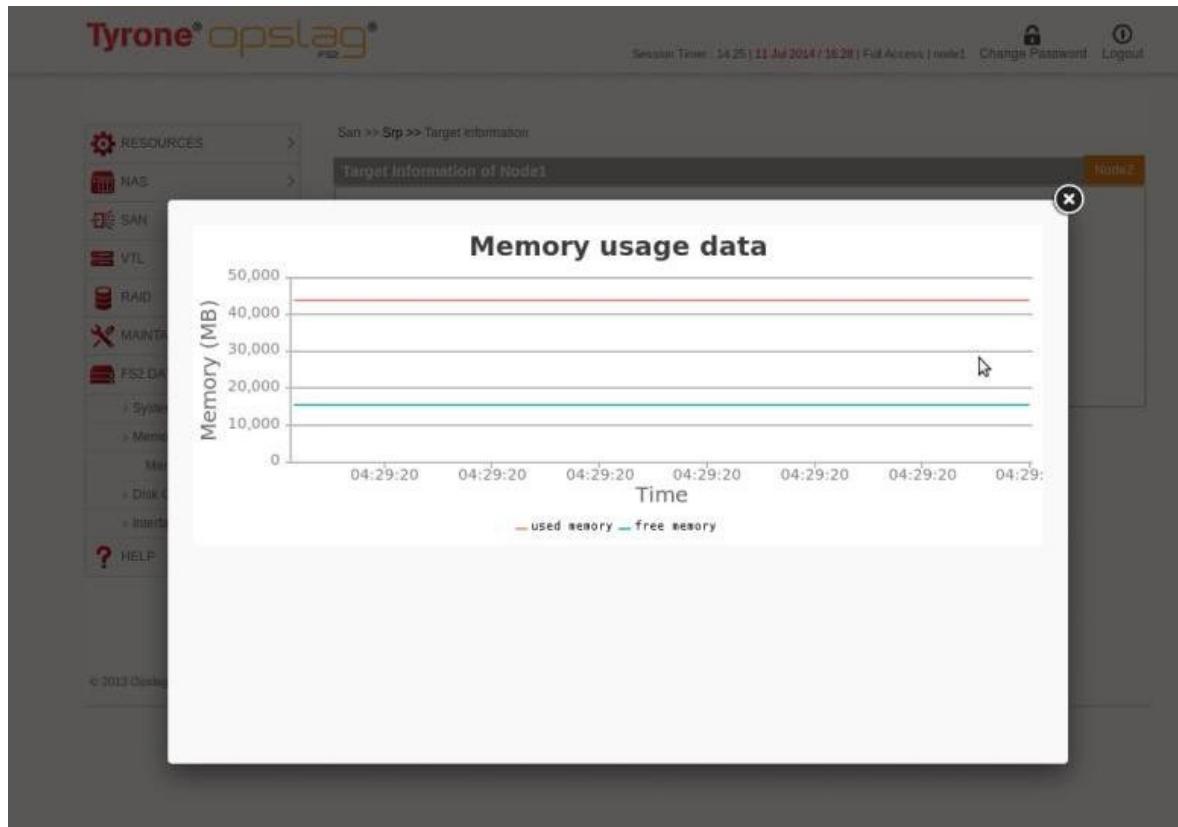


Fig 6.3.5

And the blue show the free memory and red color show the used memory that is counted in MB size this is basically RAM size .

INDEX

A

ACL Settings 24

ADS 15 , 19 ,25

AFP Setting 21,28

ALB 11

Append mode 20

Authentication 13,36

Authentication mode
22,24

B

Backup 11,53,74,75

BIO 34 ,62,63

Blink 9

C

Change host name 8

Configure share 17

Create user 85

Create VTL 53

Create Group 86

D

Date and time setting 6

DNS Configuration 10

Disk Information 5,63

Disk To Target 34

Delete Initiators 35

Delete Users 89

Delete Groups 90

E

Ethernet Teaming/Aggregation
10

F

FC 47

FC Initiators 48

FTP setting 23

FC Target 50

I

ISCSI 32

ISCSI Setting 33-35

ISCSI Status 32

ISCSI Target 33

N

NTP server 8

Network setting 9

Network Information 10

NAS Setting 29

R

RAID 56

RAID volume set option 56

S

Sensor Information 4

SRP 40

SRP initiators 43

SRP Target 44,45

SRP Status

share ownership 27

V

Volume group
Information 5
VTL 53