# StorageWorks by Compaq

## NAS B3000 Release Notes

Part Number 277984-002

Second Edition (March 2002)

Product Version: Version 2.0

These release notes are for the *StorageWorks*™ NAS B3000 by Compaq running version 2.0 of the Compaq NAS software image and provide important information not covered in other documentation.

**COMPAQ**

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Second Edition (March 2002)

# Contents

# Release Notes

## Overview

These release notes are for the *StorageWorks*™ NAS B3000 by Compaq running version 2.0 of the Compaq NAS software image; they provide important information not covered in other documentation.

**IMPORTANT:** Read this entire document before installing and configuring the StorageWorks NAS B3000 by Compaq.

## Software Updates

The software that ships with the StorageWorks NAS B3000 by Compaq includes a special build of Microsoft Windows Powered (R) Operating System. Any software updates must be qualified against the Windows Powered (R) Operating System.

**IMPORTANT:** Install only Compaq approved patches or service packs.

To view the list of approved patches please see the StorageWorks NAS Website at:

http://www.compaq.com/storage/nas_index.html

# Services for UNIX (SFU)

## NFS Logging

The maintenance of the NFS log through the web interface to the B3000 does not allow the deletion of the log. The NFS log delete option is located in the WebUI under Maintenance, Logs, NFS Log, and then clicking the Clear button. After clicking the Clear button, a confirmation screen will appear. After clicking OK to confirm the deletion, the following error message will appear:

```
"Error: There has been a sharing violation.  The
source or destination file may be in use."
```

The administrator can delete the log after the Server for NFS service is stopped.

Be aware that this will cause a service interruption to all users trying to access NFS shares on the B3000.

1. Open the WebUI to the B3000.

2. Click **Maintenance->Terminal Services** and log in.

3. Right-click the My Computer icon and choose Manage.

4. Open the Services portion of the management tree.

5. Select and stop the Server for NFS service. You can now delete the log using the web interface as instructed.

6. Start the Server for NFS service.

## NFS administrative shares support

SFU does not work with administrative shares in the same fashion as CIFS. By default, a volume drive such as C: is CIFS shared as C$. This is an example of an administrative share and is hidden to CIFS clients. If an NFS share is created and named drive$ as in the example, the share will not be hidden to NFS clients. This NFS share will act as a normal NFS share.

## Volume Mount Points support

Attempting to create an NFS share on a disk mounted on a mount point will result in the error:

```
"Cannot write IOCTL to NFS driver…".
```

StorageWorks NAS B3000 by Compaq supports many network sharing protocols, including the NFS protocol for UNIX and Linux clients. Shares for which the NFS protocol will be enabled must be created on Virtual Disks that are mounted on a drive letter. Microsoft Windows Powered OS supports mounting virtual disks onto mount points or reparse points created on another disk already mounted on a drive letter.

Mount points enable the administrator to mount many disk devices under a single drive letter, creating the appearance and behavior of a larger disk drive with a contiguous namespace. However, the Microsoft Services for UNIX (SFU) NFS Server does not yet support the functionality of mount points.

All virtual disks to be used for NFS sharing should be mounted on a drive letter, not on a reparse or mount point. If no NFS shares will be created on a particular virtual disk, that virtual disk may be mounted on a mount point instead of a drive letter.

## User name mapping Japanese characters

User name mapping for the network file system (NFS) server does not support Windows or UNIX user names containing Japanese characters.

The name of NFS client groups that are used by the NFS server cannot contain Japanese characters.

## NFS Share parameters cannot be changed after taking a group offline

NFS Share parameters cannot be changed after taking its group offline. An error will appear when attempting to edit the NFS parameters in this manner. The error message reads:

```
"Error: The Path entered does not exist."
```

### Workaround

NFS Share parameters can be modified if the NFS resource is taken offline individually, rather than as a whole group.

Take only the NFS share that you want to edit offline and then change parameters.

1. Select Cluster Management from the WebUI.
2. Click Resources.
3. Click the radio button for the NFS resource being edited.
4. Click Take Offline.
5. Return to the Resources page and click the radio button for the NFS resource being edited.
6. Click Parameters from the NFS resource properties page.
7. Edit the parameters and click OK.
8. Using Cluster Management in the WebUI, turn the NFS resource back online.

## Admin cannot list and map domain users and groups for SFU mapping unless the SFU admin is logged into the domain

The admin must log into the domain before mapping domain users and groups. If the admin is not logged into the domain, the domain user or group is not on the list of Windows users or groups and cannot be mapped.

## Password Synchronization will not work correctly on a Domain Controller without an Admin UI

The *sfucustom.msi* file located on the StorageWorks NAS B3000 at c:\SFU does not install an Admin UI for password synchronization on a DC.

The Admin UI is used to set up the following:

- Direction of password synchronization

- Encryption Key

- Port Number

- Password Sync retries

- Which UNIX systems to sync with

**NOTE:** NFS Authentication Tools and Password Synchronization can be installed separately or together. The instructions follow.

To install Password Synchronization on the DC by itself (no NFS Authentication Tools):

1. Allow the *c:\WINNT\bin\SFU* directory of the B3000 to be shared.

   ```
   net share SFU=C:\WINNT\bin\SFU
   ```

2. On the DC, connect to the share:

   ```
   net use Z: \\NAS_machine_name\SFU
   ```

3. Change directories from the DC to the root of the connected B3000 share:

   ```
   cd /d Z:\
   ```

4. Run the install program on the DC:

   ```
   OemSetup.msi ADDLOCAL=PasswdSync
   SFUDIR=C:\SFU OEMINSTALL=TRUE SOURCELIST=Z:\
   /l*v %temp%\sfusetup.log /q
   ```

5. Reboot the DC. The DC must be rebooted manually after installing the password synchronization piece in order to run correctly.

6. Run the Admin UI on the DC and setup password synchronization.

7. Click **Start->Programs->Windows Services for UNIX->Services for UNIX Administration**.

To install NFS Authentication Tools on the DC by itself (no Password Synchronization), use the instructions outlined in the B3000 Administration Guide.

To install NFS Authentication Tools and Password Synchronization on the DC:

1. Allow the *c:\WINNT\bin\SFU* directory of the B3000 to be shared:

   ```
   net share SFU=C:\WINNT\bin\SFU
   ```

2. On the DC, connect to the share:

   ```
   net use Z: \\NAS_machine_name\SFU
   ```

3. Change directories from the DC to the root of the connected B3000 share:

   ```
   cd /d Z:\
   ```

4. Run the install programs on the DC in the following order:

   ```
   OemSetup.msi ADDLOCAL=NFSServerAuth
   SFUDIR=c:\SFU OEMINSTALL=TRUE SOURCELIST=Z:\
   /l*v %temp%\sfusetup.log /q
   ```

   ```
   OemSetup.msi ADDLOCAL=PasswdSync
   SFUDIR=c:\SFU OEMINSTALL=TRUE SOURCELIST=Z:\
   /l*v %temp%\sfusetup.log /q
   ```

5. Reboot the DC. The DC must be rebooted manually after installing the password synchronization piece in order to run correctly.

## Disconnected Client Telnet Session can cause the SFU GUI to hang

If a client Telnet session is forcibly disconnected from the B3000 while the SFU GUI is open, the SFU GUI can hang and become unusable. To get around this, stop the SFU GUI on the B3000 using Task Manager and reopen the SFU GUI.

## How to read SFU Help

When browsing to the SFU help under the documentation menu branch, the browser will prompt for action on downloading an executable. Download this self-extracting zip file and allow it to unzip to a temporary directory. Browse to that directory and open the *svcsUNIX.chm* file to view the help for Microsoft SFU.

# Storage, SAN, and Switching

## LUN Identification

For an administrator to identify LUN-Pool mapping:

1. Open Snapshot Manager (SWVR).

2. **START->PROGRAMS->COMPAQ SANworks VIRTUAL REPLICATOR->SNAPSHOT MANAGER**.

3. Select the pool. Right click and select properties. Select the STORAGE UNITS tab. Note the disk number(s) in the pool.
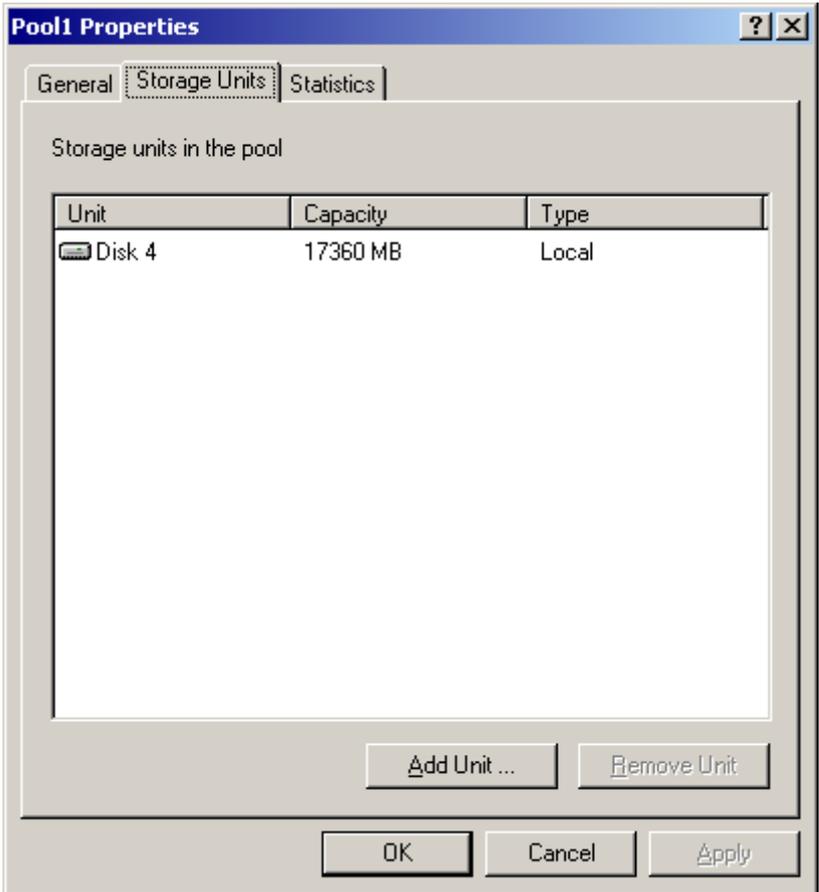
4. Open Secure Path.

5. Select **START->PROGRAMS->SECURE PATH->SPM**.

6. Log in to Secure Path Manager.

7. Expand the tree by double-clicking the Storage System icon and clicking
   the + sign next to the controller icon.

   All LUNs should now be present.

8. Select **VIEW->DEVICE IDENTIFICATION->
   WINNT->DISK NUMBER**.

9. This view displays the disk number that correlates to the disk number previously noted. Select the Disk that correlates to the disk number previously noted.
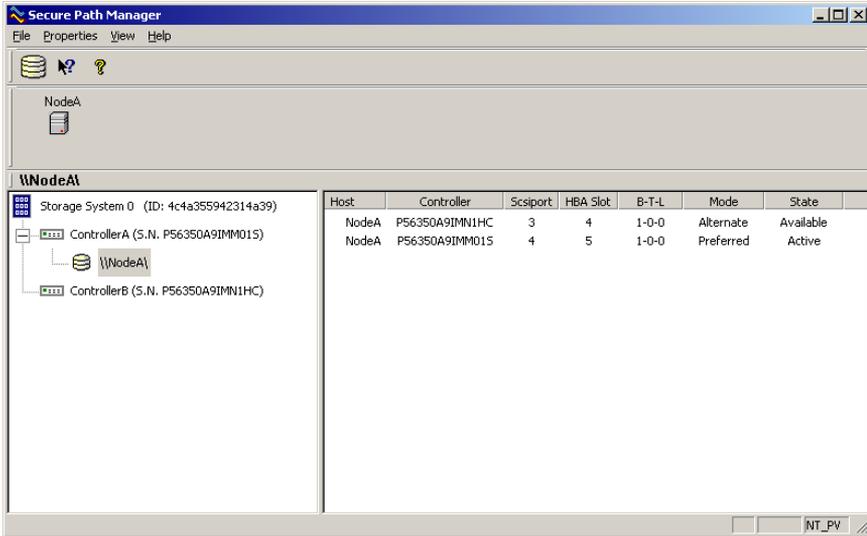


When the Disk is selected, the right pane displays the B-T-L column. This represents the Bus-Target-LUN number for the selected disk. The LUN ID for the disk in the screenshot above is 1.

10. Open Compaq Array Configuration Utility.

11. Select **START -> PROGRAMS -> COMPAQ SYSTEM UTILITIES -> COMPAQ ARRAY CONFIGURATION UTILITY**.

12. Select the MSA 1000 Controller from the Controller Selection drop-down box.

The Logical Drive numbering scheme in ACU begins with Logical Drive 1. However, the LUN ID numbering scheme in SPM begins with LUN 0. Therefore, Logical Drive 1 in ACU corresponds to LUN 0 in SPM. The corresponding Logical Drive for the LUN in the screen shot above will be Logical Drive 2 in ACU.

# SAN Connection Process

The process of configuring the StorageWorks NAS B3000 by Compaq with the correct software for a particular SAN configuration is accomplished via a Web interface and an automated installation process. This process must be redone only if the number of HBAs in the system changes.

**IMPORTANT:** If it becomes necessary to make changes to the SAN configuration, the steps below must be followed to ensure the setup is completed properly. This complete uninstall and reinstall process guarantees compliance with the various dependencies and load order rules among the software components.

If only one HBA is inserted into the StorageWorks NAS B3000 by Compaq when two were previously set up, follow these steps to remove the SAN software components.

**NOTE:** The SAN software components are not required if only one HBA is installed.

1. Verify that there is a known good backup of the NAS device's data.

2. Disconnect the fiber optic cable or cables from the NAS device's Fibre Channel HBAs.

3. Connect to the NAS device's WebUI: (http://NASname:3201)

4. Select Maintenance from the WebUI's left menu.

5. Select Terminal Services to launch a console window on the NAS device.

6. Log in as administrator on the console of the NAS device.

7. Open the Control Panel using **Start -> Settings->Control Panel**.

8. Open Add/Remove Programs.

9. Select Secure Path software and remove it.

10. Shut down.

11. Make any hardware changes required.

If two HBAs are inserted into the StorageWorks NAS B3000 by Compaq when only one was previously set up, follow these steps to set up the SAN software components:

1. Verify that there is a known good backup of the NAS device's data.

2. Disconnect the fiber optic cable or cables from the NAS device's Fibre Channel HBAs.

3. Connect to the NAS device's WebUI:

   (http://NASname:3201)

4. Select Maintenance from the WebUI's left menu.

5. Select Terminal Services to launch a console window on the NAS device.

6. Log in as administrator on the console of the NAS device.

7. At a Run command, type: Regedit. Navigate to the following drive:
   *Hkey_Local_Machine\Software\Compaq\StorageWorks NAS*.
   Set the PRSState to –1.

8. Shut down.

9. Make any hardware changes required.

10. Rerun the SAN Connect process as outlined below.

11. Verify that the SAN is not connected to the Fibre Channel HBAs in the NAS device.

12. Connect to the NAS device's WebUI:

    (http://NASname:3201)

13. Select the SAN Connect item from the left menu.

14. Monitor the automated process that installs correct software and reboots.

15. Physically connect the fiber optic cables to the NAS device when prompted.

## Hub and loop switch support

The following Fibre Channel hubs and loop switches are supported for use with the StorageWorks NAS B3000 by Compaq:

- Hub 7

- SAN Switch 8EL

- SAN Switch 16EL

- MSA Fabric Switch 6

**NOTE:** The StorageWorks NAS B3000 does not support connecting the MSA Fabric Switch 6 to another switch or SAN fabric.

# SNMP Management

## Cluster Agent Activation

If the StorageWorks NAS B3000 by Compaq server is part of a cluster, the Compaq Insight Manager Cluster Agent has to be activated. The Cluster Agent allows administrators to monitor the state of the cluster and the cluster resources from Compaq *Insight Manager*™.

To activate the agent, click **Start->Settings->Control Panel->Compaq Management Agents** and add the clustering agent to the active agent list.

# Cluster Setup Tool

## "Page Unavailable" Error in Cluster Setup Tool

When using the Cluster Setup Tool of the NAS B3000, the html page may return a "Page Unavailable" error. Several conditions can lead to this behavior, including:

- System is rebooting and is temporarily unavailable.

- Network IP address through which the client is accessing the server has been changed.

- Host Name of the node being accessed is missing in the address line of the browser.

- An invalid host name was entered as the name of the node being accessed.

### Resolution

- Wait for the system to finish rebooting and for services to have time to start.

- If IP address has changed, use the new IP address.

  **NOTE:** The node name should be used instead of the IP address, if possible.

- Verify that the host name being accessed is entered and correct in the browser address line.

- Validate the host name of the node being accessed in the address line of the browser.

# SWVR fails to reinstall during Cluster Setup Tool

As part of the CST process, the *SANworks*™ Virtual Replicator by Compaq software component is uninstalled, then reinstalled in cluster-aware mode.

Occasionally, this automated process does not complete successfully, leaving the NAS B3000 with no Virtual Replicator software installed. Attempting to access the Virtual Replicator item in the WebUI or later in the CST process results in an HTTP page with the following message:

```
Object Required.

Object Required.

Error Creating Page.
```

If the Cluster Setup Tool (CST) process for uninstalling and reinstalling Virtual Replicator fails, it will become apparent during the CST process to create Virtual Replicator Pools and virtual disks, when the error message above is displayed.

## Resolution

To solve the problem, use the following procedure to manually execute the Virtual Replicator reinstallation script.

1.  If not already connected, connect to the NAS B3000 using the WebUI:

    http://name:3201

2.  Select the Maintenance item from the menu on the left of the WebUI.

3.  Select Terminal Services under the Maintenance Menu.

4.  Log in as Administrator in the Terminal Services session.

5.  Click the start button and select Run.

---

6. In the Run interface, type the following Windows Installer command to reinstall Virtual Replicator and cause a reboot:

```
msiexec /I "C:\winnt\bin\swvr\storage
software\compaq sanworks virtual
replicator.msi" /q
```

7. After the system reboots, continue with the Cluster Setup Tool (CST) process or manually create Virtual Replicator pools and virtual disks using the Virtual Replicator item in the WebUI.

# Quick Restore Process

## Quick Restore Removes all Data on the local disks

When Help is selected from the QR CD 1, the only text displayed is:

```
Storage Works NAS Quick Restore - Compaq
Appliance : Storage Works NAS B3000 - Press C
to continue
```

When you press C, the contents of the local drives will be erased. The system will then be restored to factory state using the Quick Restore process.

# StorageWorks Virtual Replicator

## Disk Defragment does not work on SWVR volumes

A portion of the Windows 2000 operating system related to disk access does not function with SWVR managed disks. This includes the disk defragment program included with Windows 2000.

## LVM Defaults to Dynamic Disk

Microsoft Logical Volume Manager (LVM) prompts you to upgrade to Dynamic disk type. Do not upgrade any Virtual Replicator created disks to Dynamic type. Press Cancel and manage your volumes.

## Network Disks

The current StorageWorks NAS B3000 by Compaq implementation of SWVR does not support network disks. Do not attempt to install this feature on top of the NAS B3000 image.

## Lifeguard and Snapshots

Lifeguard is a service that deletes snapshots automatically when the amount of pool space in a pool has been exhausted. The Lifeguard service is a safety mechanism that prevents pool space depletion, which can result in blue screens and data corruption. A snapshot should be viewed as transitory because it can be deleted at any time without user notification. Refer to the *StorageWorks by Compaq NAS B3000 Administration Guide* for details about the Lifeguard service and its implications.

## Snapshots Naming

The parent and child relationships of snapshots to other snapshots are not reflected in the interface. A snapshot of a snapshot appears as a child of the original virtual disk, instead of the original snapshot. Detailed naming of snapshots should be maintained to accurately track the relationship, and to avoid confusion. For example, include "child of" in the snapshot name.

## SWVR and TaskScheduler

SWVR jobs submitted to the TaskScheduler show a successful completion status whether or not the underlying task was successful. Administrators should enable logging on all tasks associated with SWVR and examine these logs for successful completion.

SWVR uses the TaskScheduler in the Windows Powered Operating System for some SWVR functions. When a snapshot is scheduled for immediate creation, a date two days in the past is indicated. To ensure that the proper dates and completion criteria is reviewed, logging should be enabled for all SWVR events through the interface option.

Tasks submitted to the TaskScheduler are retained by the TaskScheduler even after the underlying virtual disk is removed. Tasks should be cleared from the TaskScheduler prior to the deletion of a virtual disk.

## Using Virtual Replicator With Other Windows Tools

This section includes best practices and restrictions for using Virtual Replicator with other Windows tools, such as Disk Management and Cluster Administrator.

Keep in mind the following guidelines:

- When there are two ways to do a task—using Virtual Replicator or using another tool—always use Virtual Replicator. For example:

  — Use Virtual Replicator to delete a pool in a cluster, rather than Cluster Administrator.

  — Use Virtual Replicator to map drive letters to virtual disks and snapshots, rather than Disk Management (in Windows 2000).

- Do not use Windows Explorer to monitor free space in a pool; Windows Explorer does not recognize pools.

- Do not use Virtual Replicator in conjunction with the Windows Disk Management/Logical Disk Manager. Doing so can result in unpredictable behavior.

- Close Logical Disk Manager whenever you are using Virtual Replicator management tools.

- Do not perform Disk Management tasks on disks that are part of Virtual Replicator pools.

- Do not perform online volume growth of basic or virtual disks at the same time as other major disk management operations, such as defragmenting and disk checking.

- As an extra precaution, before performing any tasks with Disk Management, use Device Manager to scan for hardware changes to update disk information.

See the *Compaq SANworks Virtual Replicator System Administrator's Guide* for additional information on using VR. This guide can be found on the documentation CD.

## Segment Size

During SWVR pool creation you are asked to select a Segment Size. The Segment Size is used to determine the largest possible virtual disk in a pool and the largest storage unit you can add to the pool. The segment size is set when a pool is created and cannot be changed without deleting the pool. Compaq recommends the use of 256K for the segment size.

## Allocation Unit Size

During SWVR virtual disk creation you are asked to select a file allocation unit size. One possible option is to select Default, but the display does not indicate that the default is set at a 16K allocation unit size. Compaq recommends the default 16K file allocation unit size.

## SWVR Driver and Windows Powered Operating System Issue

The SANworks Virtual Replicator filter driver is not digitally signed. As a result, a permission issue prevents Windows from completing Virtual Replicator operations to create VR objects initiated remotely from the Web UI and from Microsoft Terminal Services unless the console is logged in.

To resolve this issue, you must create the objects by accessing the Web UI or the VR Snapshot Manager from the server console using the Compaq Remote Insight Lights Out Board. If an actual console is connected to the server, you must access the console itself.

Alternatively, you can log in and lock the console, allowing the Web UI or Microsoft Terminal Services to be used remotely.

1. Connect to the server via the network and the Remote Insight Lights Out Board and access the server console.

2. Log in to the console using the administrative account.

3. Press the **CTRL-ALT-DEL** buttons and lock the console as a security measure.

4. Terminate the Remote Insight Lights Out Board session.

Compaq is working with Microsoft to resolve this issue.

## VR Namespace Recovery

Namespace Recovery is a tool that can be used to resync VR objects in the Windows Registry. However, in the event that it becomes necessary to run Namespace Recovery, the per pool policy information will set back to the default per pool policy values.

**IMPORTANT:** The administrator will need to reset custom per pool policies through the performing Namespace Recovery.

The Namespace Recovery utility currently does not work with clustered systems.

For more information on recovering from a disaster, see the Compaq White Paper: "Disaster Recovery: A Planning and Recovery Guide for the StorageWorks NAS B3000 by Compaq," which can be found at the following location:

   http://www.compaq.com/storage/nas_index.html

## Invalid Drive Letters or Volume Labels

If the administrator creates more than 15 Virtual Disks through the SWVR Command Line utility, it is possible that the $16^{th}$ Virtual Disk and above will have the label "Local Disk" when displayed in Windows Explorer. Rebooting the system will restore the correct volume labels.

When using a clustered system, if more the 26 Virtual Disks and Snapshots are created and all the drive letters are being used, it is possible for all the drive letters to become mixed during a failover event. It is also possible for Virtual Disks or Snapshots without previously assigned drive letters to get a drive letter, and for some to lose their drive letter. To resolve this issue, run the BAT file located at: *C:\Program Files\Compaq\SANWorks Virtual Replicator\RestoreDrives.BAT*.

## Windows Authentication in IIS prevents VR Management

Turning on Windows Authentication in IIS prevents the user from Managing Virtual Replicator pools through the web UI. A web page with messages similar to the following displays:

```
Could not connect to Node NODEA

An exception occurred. There was an error
creating the page. Additionally, other pages
in the web UI are adversely affected.
```

### Resolution

Restore the Administrator site in IIS to Basic Authentication. At this time, Windows authentication through IIS is not supported. Compaq and Microsoft are working to resolve this issue.

## VR Errors seen during the Failover of a Clustered Node

Using the NAS B3000 version 2.0, if you attempt to access SANworks Virtual Replicator when a cluster node is failing over to the second node, an error reading "Snapshot Manager - CONNECTION FAILED" may occur.

This is expected behavior. The administrator must wait for the resource to completely fail over before attempting to run SANworks Virtual Replicator on the second node.

## Multiple Warning Messages after a Pool is moved

Multiple warning messages appear after a pool is moved to another node in StorageWorks NAS cluster by Compaq. This will occur if the user has enabled the removable storage service. The warning message will appear once for every Virtual disk that is moved. It appears on the console.

### Resolution

If you enable the removable storage service, you will see these messages. Compaq is working to resolve this issue.

# NAS Web User Interface

## WebUI screens lose focus

When administering the StorageWorks NAS by Compaq with the WebUI, in some cases the WebUI will open multiple screens to perform a specific task. The current screen focus can get lost when a screen that does not have focus refreshes itself. Verify the screen you are on by reading the hostname or screen title at the top of the page before proceeding to the next step when performing specific tasks.

## WebUI hangs when moving the cluster group

If the cluster group is moved when using the WebUI from the Resource Groups screen, the browser screen will hang after clicking OK at the `"Are you sure want to move the Cluster Group?"` screen.

The cluster group moves; the browser page needs to be refreshed. The page can be refreshed by clicking the WebUI Status screen and then returning to Resource Groups screen.

## Web UI default page may change

Re-running either Cluster Setup Tool or Rapid Startup changes the default page.

If you re-run either the Cluster Setup Tool or Rapid Startup, the default page is changed to something other than the status page. To make the status page the default again, simply press the Cancel button on the page.

## Terminal Services returns a VBScript error

Terminal Services through the Web UI may cause a VBScript error if the client has a trust violation with the NAS Server. This is caused by the Microsoft Internet Explorer settings. If you use an IP address instead of using name resolution through a DNS Server, there will be a broken trust issue between the NAS server and the browser. Microsoft Internet Explorer does not accept ActiveX controls from distrusted websites.

1. On the client machine, open Internet Explorer 5.5 or higher.

2. From the menu, choose **Tools->Internet Options**.

3. Click the Security tab, select trusted sites, and click the Sites button.

4. Add your NAS Server's site to the list of trusted sites and save the settings.

Your ActiveX services should now work.

## Moving an owned Cluster resource should report an error

When attempting to move a resource owned by node A to a group owned by Node B, the Move resource page does not move resource and shows no error.

In this situation, you have two groups: group A and group B. Node A owns group A. Node B owns group B. As a rule, you are not allowed to move a resource from group A to group B when the groups are owned by different nodes. Doing this through Cluster management will result in an error. The Web UI does not generate an error. It also does not advance to the next page. Compaq is currently working to resolve this issue.

## Managing NTFS Mount points

No facility currently exists for managing NTFS mount points in the web user interface. To create or manage NTFS mount points, you must use Terminal Services. To start terminal services, select Maintenance, then Terminal Services on the navigation menu.

## CIFS incorrectly allows 'Change' selection

The CIFS share "change" permission is not implemented correctly when using the WebUI Share Management Wizard.

If you create a CIFS share using the Share Management Wizard and assign the user the permission of allow "change," they will not have access to that folder. Allowing read, change/read, or full access will provide access to the folder.

## WebUI continues to display Orphaned Shares

In Windows 2000, deleting a disk that contains a share leaves an orphaned share on the file system. Orphaned shares will continue to be displayed in the Web UI until removed or until the system or service is restarted.

## Resolution

There are three methods that remove these shares from the system. Methods one and two cause an interruption in service.

1. Restart the Server service.

   a. Open the WebUI to the B3000.

   b. Click **Maintenance->Terminal Services** and log in.

   c. Right-click the My Computer icon and choose Manage.

   d. Open the Services portion of the management tree.

   e. Select the Server service, right-click and select restart.

2. Restart the B3000.

   a. Open the WebUI.

   b. Browse to **Maintenance->Shutdown->Restart**.

   c. Click OK to restart the B3000.

3. Rebuild the share drive and share folder, then remove each share.

   d. Open the web interface to the B3000.

   e. Click **Maintenance->Terminal Services** and log in.

   f. Create a disk and map it to the same drive letter as the orphaned share.

   g. Recreate the path to the orphaned share.

   h. Delete the share.

# SAN Initialization Fails for Certain Time Zones

During the Rapid Startup wizard, if the user sets the Time Zone to one of the Time Zones listed below, then the SAN Initialization wizard will fail to work and will never complete.

The Time Zones that fail are:

- (GMT-01:00) Azores, Cape Verde Island
- (GMT) Casablanca, Monrovia, Dublin, Edinburgh, Lisbon, London
- (GMT+02:00) Athens, Istanbul, Minsk, Bucharest, Cairo, Harare, Pretoria, Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius, Jerusalem
- (GMT+03:00) Baghdad, Kuwait, Riyadh, Moscow, St. Petersburg, Volgograd, Nairobi
- (GMT+03:30) Tehran
- (GMT+04:00) Abu Dhabi, Muscat, Baku, Tbilisi, Yerevan
- (GMT+04:30) Kabul
- (GMT+05:00) Ekaterinburg, Islamabad, Karachi, Tashkent
- (GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi
- (GMT+05:45) Kathmandu
- (GMT+06:00) Almaty, Novosibirsk, Astana, Dhaka, Sri Jayawardenepura
- (GMT+06:30) Rangoon
- (GMT+07:00) Bangkok, Hanoi, Jakarta, Krasnoyarsk
- (GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi, Irkutsk, Ulaan Bataar, Kuala Lumpur, Singapore, Perth, Taipei
- (GMT+09:00) Osaka, Sapporo, Tokyo, Seoul, Yakutsk
- (GMT+09:30) Adelaide, Darwin

- (GMT+10:00) Brisbane, Canberra, Melbourne, Sydney, Guam, Port Moresby, Hobart, Vladivostok

- (GMT+11:00) Magadan, Solomon Is., New Caledonia

- (GMT+12:00) Auckland, Wellington, Fiji, Kamchatka, Marshall Is.

- (GMT+13:00) Nuku'alofa

To avoid this problem, leave the Time Zone set to the Default Time Zone during the Rapid Startup Wizard. Once the StorageWorks NAS B3000 by Compaq is completely set up, you can change to the appropriate Time Zone.

# Microsoft Powered OS

## Event Log Messages in the Event Log

During a reboot of the system when services are starting, dependent services may initially fail waiting for other services to start.  Messages will be logged to the event log and can be ignored as the service restarts. Messages include services related to:

**MSFTPSVC**

The description for Event ID ( 105 ) in Source (MSFTPSVC) cannot be found. The local computer may not have the necessary registry information or message DLL files to display messages from a remote computer. Refer to Microsoft Knowledge Based Article Q240779.

**W3SVC**

The description for Event ID (105) in Source (W3SVC) cannot be found. The local computer may not have the necessary registry information or message DLL files to display messages from a remote computer. Refer to Microsoft Knowledge Based Article Q240779.

**Userenv**

Windows cannot determine the user or computer name. Return value (1722). Refer to Microsoft Knowledge Based Article Q261007.

**Perfdisk error**

WMI ADAP unable to process PerfDisk performance library due to a time violation in the open function. Refer to Microsoft Knowledge Based Article Q266416.

## Preventing Cluster Failures

- Do not change the names of the nodes. This will cause the cluster service to fail.

- Do not change the name of the cluster.

- Do not change your public network to a private network. You will be unable to change this back to public. It is a one-time-only change.

- Do not delete the Quorum Disk. This is used for cluster communication and houses the cluster database which is used for keeping track of all the cluster information.

- Do not change subnet mask on one of the nodes.

- Do not assign the drive letter that is used for the Quorum Disk to newly created virtual disks.

# Miscellaneous

## ROM Disaster Recovery

ROM disaster recovery fails to function correctly on a StorageWorks NAS B3000 with the Remote Insight Lights Out Board installed. Disaster recovery is only necessary when a failure occurs such as power outage during a ROM flash.

### Resolution

To resolve this issue:

1. Power down the server and remove power cords.

2. Remove the Remote Insight Lights Out Board from the server.

3. Reconnect power.

4. Verify that the ROMPAQ diskette is inserted in the floppy drive.

5. Power on the server and resume the disaster recovery of the ROM.

6. After ROM recovery is complete, power down the server and remove power cords.

7. Reinstall the Remote Insight Lights Out Board.

8. Reconnect the power.

9. Power on the server.

## Clearing NVRAM

If the administrator attempts to clear NVRAM (Nonvolatile Random Access Memory) by setting SW1 position six to the "On" position, the system may fail to start up properly. To resolve this, the administrator must shut down the system and remove the battery on the system board for at least one hour. After one hour, the administrator can reinstall the battery and power on the system.

To avoid this, clear NVRAM by using one of the following methods:

- Shut down and restart the StorageWorks NAS B3000.

- Press the **F10** key when you see the following message displayed:

    "Press 'F10' for System Partition Utilities."

- Press **Ctrl + A** to enter Advanced Mode.

- Select View & Edit Details.

- Select Advanced.

- Select Clear NVRAM.

Alternately, the administrator can create a bootable Erase Disk, using the SmartStart and Support Software CD, that clears NVRAM.

**NOTE:** Using the Erase Disk will delete everything on the hard drives as well.