

Release Notes

NetCache 5.4R3 DNFS Software



About this release

The NetCache® 5.4R3 release is intended for users of appliances that are running the distributed NFS software.

The release notes provide upgrade instructions and information about enhancements, bug fixes, known bugs, and known issues.

NetCache 5.4R3 is supported on the following platforms: the C2100, C3100, and C6100 series.

The NetCache 5.4R3 software introduces bug fixes for users of appliances that are running the distributed NFS software.

NetCache 5.4R3 includes all the new and enhanced features introduced in NetCache 5.4.

Fixed bugs and known issues

For information on fixed bugs in NetCache 5.4R3, see “Fixed bugs in 5.4R3” on page 4.

For instructions on how to view bugs online, see “Bugs and Issues” on page 4.

New and enhanced features

NetCache 5.4R3 supports the following:

- ◆ NetApp® SpinServer® systems
- ◆ Automatic backup of configuration files

Support for NetApp SpinServer

Netcache 5.4R3 supports the caching of objects from NetApp SpinServer systems running the SpinFS® 2.5.1 software.

**Automatic
configuration file
backup**

The new Upload Configuration Backup feature (Maintenance tab > Configuration Files > Upload Configuration Backup) enables you to schedule the periodic backup and push of appliance configuration files to a remote server.

**Upgrading
to NetCache
5.4R3**

This section describes how to upgrade to NetCache 5.4R3. For information about how to upgrade from earlier software versions, see the Software Download section of the NOW site at <http://www.netapp.com>. NetCache 5.4R3 supports upgrading from 5.3.1 or later.

Upgrade issues

This section contains information that you need to know before you upgrade to NetCache 5.4R3, including what to expect if you upgrade and then revert to a previous release of NetCache.

Multiple-cache management: NetCache 5.4R3 requires that all global configuration files include a version string as the first line. If a global configuration file does not contain a version string, The distributed NFS software assumes that the version is 5.0, the local appliance does not read the global configuration file, and an error message is displayed.

Before upgrading to NetCache 5.4R3, ensure that you edit the global configuration file to include a version string. Use as the version number the lowest version in the group of appliances that references the global configuration file. The format for a version string is as follows:

```
#!Config Vx.x.x
```

All configuration options specified in the configuration file must be compliant with the version specified in this line.

**Upgrading from the
Web**

See the Upgrade page on the Network Appliance NOW (NetApp® On the Web) web site (now.netapp.com) for specific information on how to upgrade to 5.4R3 from your current distributed NFS software version. Some software versions require the upgrade to be done in stages.

To upgrade to NetCache 5.4R3 from the NOW Web site, complete the following steps:

1. Save a backup copy of the distributed NFS appliance configuration file to another host, following the procedure in the Appliance Manager online Help.
2. Log in to the NOW Web site (now.netapp.com) and select Service & Support.
3. Select Download Software.
4. Under Products, select NetCache Appliance and select your appliance model from the View drop-down menu.
5. Select View and Download, then follow the instructions.

Note the path to the downloaded file.

6. Open the Appliance Manager user interface and select Maintenance Tab > Software > Appliance.
7. Select the Upload Software From an HTTP or FTP server option or the Upload Software From Your Computer option and enter the path to the downloaded file (that you recorded in Step 5).
8. Click Upload.

Result: The uploaded software appears in the Available Software Files list (Maintenance tab > Software > Appliance).

9. Select the uploaded file from the Available Software Files list.
10. Select the Activate the Selected Software at the Next Reboot check box.
11. Click Submit.

Result: The Software Installed page appears.

12. Reboot the appliance from the Software Installed page.

Reverting from NetCache 5.4R3

NetCache 5.4R3 supports reversion to 5.3.1 and later. If you want to revert to a different version, contact Network Appliance Technical Support.

Recommendation: Before reverting, note the upgrade and revert issues described in “Upgrading to NetCache 5.4R3” on page 2.

Bugs and Issues

This section contains two categories of bugs and issues, fixed and known. Only noteworthy bugs and issues (fixed and known) are included in this document.

To obtain a complete list of fixed and known bugs, complete the following steps:

1. Log in to the NOW Web site (now.netapp.com).
2. Select the Service & Support home page.
3. Under Technical Assistance & Documentation, select Access to Software Bug Tools.
4. Under View Bug Details or Bug Tools, select the search parameters and click Go!

Fixed bugs in 5.4R3

The following table shows the noteworthy bugs that are fixed in NetCache 5.4R3.

Bug ID	Description of fixed bugs in 5.4R3
136404	If you export '/', then the mount requests for its subdirectories will fail and access to the subdirectories will be denied.
113420	If an origin server either permanently or temporarily stops supporting NLM traffic, then the distributed NFS software might fail while processing NLM traffic.

Bug ID	Description of fixed bugs in 5.4R3
129794	If a disconnected operation is enabled, then the client request will be received and the client will be allowed to use all available memory. This process is allowed as long as the distributed NFS software reads the index of objects stored in the disk. If this operation results in insufficient memory, then the distributed NFS software will fail.
95140	Deleting a distributed NFS export from the Appliance Manager user interface might modify the access lists of other export entries. This might result in inaccessibility of access lists.
93679	If verify schedules are used, then the distributed NFS software might fail when clocks change as a result of daylight savings.
83811	All network drivers can handle scatter or gather lists, but most have certain limits on the number of segments that can be handled. LTM has a function that will minimize the number of segments to a level that the driver can handle. When using upper layer protocols, such as NFS/iSCSI/CIFS over TCP, it is possible that LTM is not successful in minimizing the segments. This can result in either a panic or in LTM consistently reducing the TCP output. This problem occurs when large jumbo frames are used. When this problem occurs, all available memory is consumed and the distributed NFS software fails.
132242	Caching files equal to or larger than 2 GB using only NFS V2 through distributed NFS might cause the distributed NFS software to fail. If the last block of a 2-GB file is read through a distributed NFS cache using only NFS V2, then the distributed NFS software will fail when subsequent data is read from the file.

Known issues in 5.4R2

This section describes browser issues you might encounter when running the Appliance Manager with specific versions of Netscape Navigator. To avoid these problems, you can run the Appliance Manager and Help system using either a different version of the Netscape Navigator browser or the Internet Explorer browser.

Issues when running the Appliance Manager with Netscape Navigator 6.x: Netscape Navigator 6.x does not support the scripting language that is required for applets used to display real-time information graphically in the Appliance Manager.

On the System Status - General page, text is displayed, but graphs and charts are not displayed. (To view this page, select Data tab > System Status > General.)

Help display issues with Netscape Navigator 7.x : The Help navigation pane (table of contents, search, and index features) does not appear in Netscape Navigator 7.x.

Issues with Netscape Navigator affecting the Appliance Manager Help system: Limitations in Netscape sometimes cause problems with the Appliance Manager Help system, depending on factors such as network conditions, the operating system, and applications running on a user's computer. Problems that have been observed include the following:

- ◆ The navigation pane in the Help system might load slowly.
- ◆ Resizing the Help window sometimes causes the currently displayed topic to be replaced with the About Help topic.
- ◆ Clicking rapidly through Help topics might cause problems with the display or crash Netscape.

Fixed bugs in 5.4R1

The following table shows the noteworthy bugs that were fixed in NetCache 5.4R1.

Bug ID	Description of fixed bugs in 5.4R1
85608	When a lost block was recomputed during normal I/O, a message identifying that volume disk and block number was displayed.

Bug ID	Description of fixed bugs in 5.4R1
85139	In NetCache 5.4, the enclosure services tasks were not being started. As a result, systems running the 5.4 release could not set the Fault LED for drives that fail. Also, commands such as <code>sysconfig -r</code> could not display the correct shelf and bay information for the disk drives present in the system.

Fixed bugs in 5.4 The following table shows the noteworthy bugs that were fixed in the NetCache 5.4 release.

Bug ID	Description of fixed bugs in 5.4
77650	A single client using NFS/UDP could cause Denial-of-Service on appliances running the distributed NFS software. A malfunctioning client could cause the appliance to temporarily run out of slots in the IP reassembly queue. This problem was seen with Red Hat 7.3 (Linux) clients. The problem affected appliances running 5.3.1 and later versions that were configured for the NFS caching service, distributed NFS.

Known bugs in 5.4 The following table shows the bugs that were known to exist in the NetCache 5.4 release.

Bug ID	Description of known bugs in 5.4
83565	On C2100 appliances, users are unable to set the Media Type of the Gigabit Ethernet interface to 100Base-T, full-duplex.
83557	To push configuration changes from DataFabric® Manager, you must configure DataFabric Manager to grant read privileges to the user Everyone. To work around the problem, grant read access privileges to the user Everyone only for the duration of the configuration push, and remove the access when the push has completed.
82091	In some cases, when an MMS client unsuccessfully attempts to access streaming content using HTTP, the CLI command <code>smstats</code> continues to display MMS streaming information for the client even though the client never played the stream. This problem persists even after the client player closes. There is no workaround for this problem.
80603	Restoring the configuration backup does not report an error condition if the process failed. When you use the Appliance Manager to restore a configuration backup, you might receive a success message (changes comitted) even if the restoration was unsuccessful. This problem occurs when conflicting options cause the commit process to fail. To work around the problem, commit the backup using the CLI option <code>config -r backup-file</code>. The CLI will correctly report all backup failures.

Bug ID	Description of known bugs in 5.4
78429	Distributed NFS appliances providing services for origin servers that do not support TCP might experience poor performance. If a client mounts a distributed NFS appliance using TCP and the origin server does not support TCP, the client might receive frequent “NFS Server not responding” messages. The reason is that clients change their retransmit times to be very long because they are using reliable TCP to communicate with a distributed NFS appliance. However, because the appliance is forced to use UDP to the origin server, packets can be dropped and the client will be forced to wait the long retransmit time. You can use either of the following solutions as a workaround for this problem: ◆ Enable TCP on the origin server. ◆ Turn off TCP on the distributed NFS appliance by disabling the Enable NFS over TCP option on the NFS - General page (CLI option: config.nfs.tcp.enable). If this problem exists, the following message appears in the Messages log: <pre>Server XXX does not support NFSV[23] over TCP. Please enable NFSV[23] over TCP on server XXX.</pre> After the problem is resolved, the following message appears in the Messages log: <pre>Server XXX now supports NFSV[23] over TCP. Enabling TCP connections to server XXX.</pre>
70408	The software commit takes several minutes to complete on the C1200 and C2100.

