NetApp Virtual File Manager 6.1.1

Release Notes

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NetApp Virtual File Manager 6.1.1 Release Notes

This version of the NetApp Virtual File Manager product (VFM) improves usability and resolves several issues. Many of these improvements were made in direct response to suggestions from our customers. This document outlines why you should install this version, provides additions to the documentation, and identifies the known or resolved issues. This document includes the following sections:

- "Why install this version?" on page 1
- "Resolved issues" on page 2
- "Additions to documentation" on page 5
- "Contacting support" on page 6
- "Known issues" on page 6

Why install this version?

VFM is an integrated data management solution that logically aggregates distributed file storage and provides policies that automate data management functions, such as heterogeneous migration, local and remote replication, client failover, capacity optimization, tiered data management, disk-to-disk archival, and data classification and reporting. VFM allows you to perform these tasks with minimal manual involvement and without causing client downtime.

This version of VFM is a cumulative release that includes all of the features and resolved issues in VFM 6.1.0. VFM 6.1 supports upgrades from VFM 5.8 and 6.0. This release is a maintenance update to VFM version 6.1.0 and resolves several reported issues. This section describes the VFM 6.1.0 features. For more information about the resolved issues in VFM 6.1.0 and in this update, refer to "Resolved issues" on page 2.

- "64-bit operating system support" on page 1
- "Extended migration and replication capabilities" on page 2
- "New server configuration report" on page 2
- "Comprehensive Administrator's Guide" on page 2

64-bit operating system support

This version provides 64-bit Windows operating system support. This support adds to the extensive list of supported operating systems and environments.

Extended migration and replication capabilities

Many improvements were made to significantly extend the scalability of migration and replication operations. These improvements will help you meet your growing storage environment requirements. In addition to these scalability improvements, this version provides several other enhancements to extend the migration and replication support:

- To help you track and evaluate migration and replication operations, this version adds a **Migration Tasks** view. This view provides progress and summary information about all the migration tasks in a policy.
- To help you further evaluate these operations, you can now display a detailed report of each replicated file at the end of a replication or migration task. These details provide a comprehensive view of the activities performed during the task.
- For comprehensive reporting and compliance needs, you can save the detailed replication or migration task report as a tab-separated value (*.tsv*) file. This format allows you to save this information over time and analyze the report with the tool of your choice. You can also report the information as needed to meet your specific compliance requirements.

New server configuration report

This version adds a server configuration report, which provides a list of computers managed by VFM, as well as the amount of storage used on each computer.

Comprehensive Administrator's Guide

In this version, the documentation has been consolidated into a single, comprehensive *Administrator's Guide*. This content is also provided in the online help, which provides a powerful full-text search capability.

Resolved issues

This section lists the issues resolved in VFM 6.1.0 and in this update.

Issues resolved in VFM 6.1.0

VFM 6.1.0 resolves several previously-reported issues:

- "Extra .tmp files" on page 3
- "Client performance, response times, and migration statistics" on page 3
- "Alternate schedule processing" on page 3
- "Snapshot replication failure processing" on page 3
- "NTFS Change Journal usage reporting" on page 3
- "Phased migration pauses" on page 3
- "Storage load balancing policy processing" on page 3
- "Migration policy and multi-targeted link" on page 4
- "Agent management task list not showing all tasks" on page 4

- "File difference replication exclusions" on page 4
- ".NET error can stop VFM server" on page 4
- "Application snapshot processing and errors" on page 4

Extra .tmp files

In some cases, VFM creates temporary files during copy operations and then renames those temporary files after the copy is successful. If the copy and rename fails, extra temporary files can be left on the system. This version resolves this issue.

Client performance, response times, and migration statistics

Migration tasks with large amounts of historical data can cause slow response times in the VFM client. This version improves the performance of the VFM client in several areas. In addition, the History tab within migration tasks displays additional statistics about the files copied.

Alternate schedule processing

When a replication policy fails, VFM uses the alternate schedule. In this case, the policy could run past the time specified by the **stop at this time** option on the Schedule tab. This version resolves this issue by enforcing the timeline specified.

Snapshot replication failure processing

If **nosnapdir** is **on** for a volume on a filer, snapshot replication fails. This version ensures snapshots created in these conditions are correctly deleted after the failure.

NTFS Change Journal usage reporting

During some replication activities, the **NTFS Change Journal not used** message was incorrectly reported in the event details. This version resolves this issue.

Phased migration pauses

After manually advancing to the final phase using the **Now** option, VFM ran the first task in incremental mode, which could cause other tasks not to run. This version resolves this issue by running all remaining tasks when you select the **Now** option.

Storage load balancing policy processing

The following adjustments were made to how storage load balancing policies are processed:

- Storage Load Balancing policies now group tasks into User Action Required and Completed Tasks groupings to help you more effectively review these results.
- Storage Load Balancing policies now pause when an error occurs during an action rather than pausing after each action.

Migration policy and multi-targeted link

In previous versions, migration policies with the update namespace action set to retarget the links could update the wrong target for links with multiple targets. This version resolves this issue.

Agent management task list not showing all tasks

In some cases, the task list in the agent management area of the VFM client did not display all tasks. This version resolves this issue.

File difference replication exclusions

In some cases, exclusions were not properly handled during file difference replication operations. The replication agent performed case-sensitive comparisons. This version resolves this issue by making this comparison processing ignore case.

.NET error can stop VFM server

In previous versions, port scanning activities could interfere with .NET support and stop the VFM server. This version resolves this issue.

Application snapshot processing and errors

In some cases, error reporting did not provide enough information. This version resolves this issue by providing additional information to help you resolve the error.

Issues resolved in this update

This version of VFM resolves several previously-reported issues:

- "Issue when upgrading to VFM 6.1" on page 4
- "Disaster recovery reports displayed inconsistent data" on page 4
- "Events tab displayed hex warning" on page 5
- "Failure to delete VSS snapshot did not remove drive" on page 5
- "Replication agent memory utilization" on page 5
- "Replication agent logged unnecessary events" on page 5

Issue when upgrading to VFM 6.1

In some cases, upgrading to VFM 6.1 from certain previous versions caused policies to be deleted. This version resolves this issue. However, taking an application snapshot before upgrading is still recommended as a best practice.

Disaster recovery reports displayed inconsistent data

In previous versions of VFM, client disaster recovery reports sometimes displayed data that was not consistent with data in replication tasks. This issue was caused by a SQL stored procedure in the report database, and occurred only in installations with an MSDE database. This version resolves this issue.

Events tab displayed hex warning

The VFM client console reported a hex warning on the **Events** tab when replication was unable to use NTFS Change Journal due to failure in reading a file with a particular File Reference Number (FRN). This version of VFM displays an improved error message indicating the cause of the failure.

Failure to delete VSS snapshot did not remove drive

In previous versions of VFM, during a replication using VSS snapshot, the VFM server or replication agent did not remove the exposed drive if there was an error in deleting the snapshot. The VFM server now attempts to remove the drive several times, and logs an error if unable to remove the drive.

Replication agent memory utilization

This version includes enhancements to the replication agent to improve memory utilization when scanning NetApp directories.

Replication agent logged unnecessary events

In previous versions of VFM, an unnecessary event was logged in the Application event log of the replication agent host computer when the replication agent was unable to send a status message to the VFM server. This version resolves this issue.

Additions to documentation

The following sections outline additions to the documentation. For more information about system requirements, installing the product, and using the product, refer to the *Administrator's Guide*. This section provides the following additional information:

- "New replication agent installation location" on page 5

New replication agent installation location

With this version of VFM, the replication agent is now installed in a different location than in previous product versions.

TABLE 1 Replication agent installation location

Version	Installation location
6.0 and earlier	*WINDOWS\System32\Brocade\Tapestry StorageX\ReplicationAgent*
6.1.0 and 6.1.1	*WINDOWS\Brocade\StorageX\ReplicationAgent*

Contacting support

This section defines how to get additional support and information.

NOTE
To get your product build number and license information, click **About VFM** on the **Help** menu.

You can contact NetApp technical support 24 hours a day, 7 days a week. You can receive assistance either through the Web site at http://now.netapp.com or by telephone. For more information about our support services, refer to http://www.netapp.com/support.

Telephone numbers

TABLE 2 Support telephone numbers

Location	Telephone Number
United States and Canada	+1-888-463-8277
Europe, Middle East, and Africa	+00-800-44-NETAPP
Asia Pacific	+800-800-80-800

Known issues

The following issues are currently being researched:

- "Using a non-default MSDE or SQL Server Express instance" on page 7
- "Upgrading the server if MSDE is already installed" on page 7
- "NFS replication policies containing non-ASCII characters" on page 8
- "Only migrate data referenced through namespace issues" on page 8
- "Changing ports can cause communication issues" on page 8
- "Files locked during file difference replication" on page 8
- "Storage usage above High-Mark in storage load balancing policy" on page 8
- "Displaying server events in certain configurations" on page 8
- "Startup times in large installations" on page 8
- "Using the replication agent to replicate large numbers of files" on page 9
- "Ensuring adequate CPU speed and memory when running a large number of migration tasks" on page 9
- "Replication agent on a Linux computer may not be running after upgrade" on page 9
- "Display of cascaded domain-based roots" on page 9
- "Order of events affected by time differences" on page 9
- "Changes to domain-based roots not displayed immediately" on page 9
- "Modifying link targets" on page 9
- "Share names containing apostrophes" on page 10
- "Errors during evaluation phase of data transfer" on page 10
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- "Managing DFS roots on Windows Server 2003 systems" on page 10
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- "Cancelling a manual scan for a Namespace Creation policy" on page 11
- "Security settings for mixed-security mode locations" on page 11
- "Home folder policy creation display issue" on page 11
- "Associated policies run incorrectly" on page 11
- "Dragging and dropping links with two targets" on page 11
- "UNIX replication agent deployment" on page 11
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- "VFM Browse dialog box display issue" on page 12
- "NFS file inclusions and exclusions" on page 12
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- "PuTTY suite support" on page 12
- "Upgrading a monitoring agent" on page 12
- "Using networknames.xml files" on page 13
- "Installing earlier versions of VFM" on page 13
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Using a non-default MSDE or SQL Server Express instance

For non-default instances of MSDE and SQL Server Express, TCP is disabled by default. If you are using a non-default instance of MSDE or SQL Server Express for your VFM installation, complete the following steps before you install VFM. Otherwise, the installation process will fail with SQL connection errors.

To prepare your non-default instance of MSDE and SQL Server Express

1. Navigate to the *Program Files\Microsoft SQL Server\80\Tools\Binn* folder.
2. Run the *SVRNETCN.exe* file.
3. In the SQL Server console, enable the Named Pipes (TCP) protocol for the non-default instance you will use.
4. Restart the SQLSERVER and SQLAGENT services.

Once you have completed these steps, you can install VFM and use the non-default instance.

Upgrading the server if MSDE is already installed

When you try to upgrade the VFM server on a computer where an instance of MSDE is already installed, the following error message is displayed:

```
Error 27502 Could not connect to Microsoft SQL Server... does not exist or access
denied.
```

To avoid this issue, install the VFM server on a computer where an instance of MSDE is not already installed.

NFS replication policies containing non-ASCII characters

VFM does not support non-ASCII characters in the source or destination names specified in NFS replication policies.

Only migrate data referenced through namespace issues

In an archival migration policy, the **Only migrate data referenced through namespace** option can cause VFM to exclude migration candidates, even if the **Always migrate** option is selected. To avoid this issue, do not select the **Only migrate data referenced through namespace** option and specifically select the data you want to migrate.

Changing ports can cause communication issues

The VFM server listens on ports 6001 and 6005. Changing ports through agent management causes communication issues. To avoid these issues, use the default ports.

Files locked during file difference replication

In some cases during file difference replication operations, network errors can cause the assisting replication agent to hold locks on the destination files. You may need to restart the assisting replication agent to release these locks.

Storage usage above High-Mark in storage load balancing policy

When processing storage load balancing policies, VFM does not move data to a target computer if the storage usage on that computer is above the defined **High-Mark**. However, if the storage usage is below the defined **High-Mark**, VFM may move data onto that computer, which could cause storage usage to go above the defined High-Mark. This data movement can cause issues on filers when the storage usage is more than 95%.

Displaying server events in certain configurations

In certain configurations, the user and effective user fields in events generated by the VFM server are displayed as N/A by the client. For example, this issue occurs when the VFM client and server reside in separate domains with a one-way forest trust by the server domain of the client domain, and the client and server are running under different accounts in the two domains.

Startup times in large installations

In installations with large namespaces, such as those with thousands of links, the VFM client requires more time to start than in installations with smaller configurations.

In some cases, such as configurations with many migration policy subtasks, the VFM server service can require 15 minutes or more to start and load all the policy-related data.

Using the replication agent to replicate large numbers of files

If you are using the replication agent to replicate a large number of files, such as more than 20 million files, ensure the computer where the replication agent is installed has at least 4 GB of memory.

Ensuring adequate CPU speed and memory when running a large number of migration tasks

If you are running a large number of migration tasks, such as more than 1,000 migration tasks, ensure you have adequate CPU speed and at least 4 GB of memory on the computer where the VFM server is installed.

Replication agent on a Linux computer may not be running after upgrade

When you upgrade the VFM 6.0 server to VFM 6.1, Agent Manager displays the replication agent version as the previous version and the replication agent status as unknown. After you upgrade a VFM 6.0 replication agent to VFM 6.1, Agent Manager displays the replication agent version as the correct version and the replication agent status as running. However, the replication agent may not be running on the Linux computer. To resolve this issue, restart the replication agent on the Linux computer in Agent Manager.

Display of cascaded domain-based roots

Cascaded domain-based roots appear as computers in the physical view if any of their links are themselves targets of links in a managed namespace.

Order of events affected by time differences

Time differences between the VFM console computer and computers where the VFM replication agent has been deployed affect the order in which events are displayed in the VFM console.

Changes to domain-based roots not displayed immediately

Changes made to domain-based roots can take time to appear in the VFM console, since the changes take some time to propagate through the Active Directory domain controllers.

Modifying link targets

If the computer hosting a new target is online, the directory being targeted by the link must exist or VFM displays a `Network resource was not found` message.

When you are modifying link targets, if the computer hosting the new link target is offline, you can still re-target the link to the offline computer. This implementation allows you to configure your namespace while computers are offline, but provides additional validation of the configuration if the targeted computer is online.

Share names containing apostrophes

Share names containing apostrophes might prevent VFM from accessing data on the share. The symptom is an “access-denied” error when attempting to migrate data to or from the share.

Errors during evaluation phase of data transfer

Certain combinations of file permissions can cause VFM to report “access-denied” errors during the evaluation phase of a data transfer. However, the evaluation will succeed if you allow it to continue.

Internet Explorer print limitations

Internet Explorer 6 limitations cause changes to print orientation to be applied to the specified printer instead of only the print item itself. To resolve this issue, restore the orientation for the selected printer back to the desired default setting after the report has been printed. This limitation is not present in Internet Explorer 5.5.

Managing DFS roots on Windows Server 2003 systems

When VFM is installed on a Windows 2000 computer, limitations in Windows 2000 prevent VFM from managing DFS roots on Windows Server 2003 systems that host more than one DFS root. To manage roots on a Windows Server 2003 system hosting more than one DFS root, you must install VFM on Windows XP or Windows Server 2003.

Antivirus software interference

Antivirus software configured to prevent scripts from running interferes with scripts used in VFM during product installation, as well as the application snapshot feature and customized scripts configured for use with VFM storage policies. To prevent this issue, configure virus scanning software correctly so VFM can be installed and the scripts associated with the product can function.

Upgrading using terminal services

If you upgrade VFM using terminal services, you may encounter problems printing from VFM to PDF files. To prevent this issue, upgrade VFM from the computer console and not through terminal services.

BLOB size reported incorrectly

Due to changes in the implementation of DFS roots in Windows Server 2003, BLOB size is reported as zero for roots hosted on Windows Server 2003 in the VFM Namespace Properties report.

Name resolution configurations in DNS

Incorrect name resolution configurations in DNS can cause problems when managing or referencing domain-based DFS roots. For information about how to diagnose and correct DNS name resolution problems, refer to the VFM documentation.

Cancelling a manual scan for a Namespace Creation policy

If you initiate a manual scan for a Namespace Creation policy and no items are found, you must click **Cancel** to close the instruction dialog box.

Security settings for mixed-security mode locations

When copying files from mixed-security mode locations on filers, ensure permissions are set so VFM can read security information from the system. UNIX permissions are not transferred. Errors occur if VFM cannot read the security settings from the source data.

Home folder policy creation display issue

If you perform the following steps during home folder policy creation, VFM does not show users without home folders:

1. You select the option **Show users without a home folder**.
2. You select users without home folders.
3. You click **Next** and then click **Back**. The users without home folders you selected do not appear in the list.

To resolve this issue

1. After you click **Back**, clear and select the option **Show users without a home folder**.
2. Click **Next** and then click **Finish**.

Associated policies run incorrectly

When the target monitoring schedule runs, server disaster recovery policies incorrectly run associated policies instead of running associated policies only when a failover is required. This issue causes extra namespace update activity.

Dragging and dropping links with two targets

Links with two targets, one each on the primary and secondary servers, cannot be dragged to the Active Link list of a server disaster recovery policy. Instead, right-click a link in the Nonactive Links list and click **Move to Active Links List**.

UNIX replication agent deployment

UNIX replication agents cannot be deployed by VFM monitoring agents. This can result in an unexpected replication agent performing the data transfer.

To prevent this issue, use Agent Management to manually deploy the UNIX replication agent to the source or destination computers before starting the policy. On the **Tools** menu, click **Agent Management** and follow the online help instructions to deploy a UNIX replication agent.

Incomplete event history message

The event history message that appears when a UNIX replication agent tries to access an NFS export on a Celerra system contains text and hexadecimal code. The hex error code matches the text displayed in the message and does not provide any additional information.

VFM Browse dialog box display issue

The VFM Browse dialog box incorrectly shows two copies of the same root when the NETBIOS domain name differs from the host name portion of the fully qualified domain name.

NFS file inclusions and exclusions

NFS file inclusions and exclusions in VFM policies may not function correctly. When configuring policies that use inclusion or exclusion lists, assess replication results carefully.

Large Files report directory inclusions and exclusions

If you want to specify directory inclusions and exclusions when running the Large Files report, you must include the asterisk character (`*`) immediately following the names of the directories you want to include or exclude from the report.

PuTTY suite support

VFM is compatible with PuTTY suite 0.55. Later versions of PuTTY introduced compatibility issues with VFM, so only programs from PuTTY suite 0.55 should be installed.

Upgrading a monitoring agent

When you try to upgrade a monitoring agent installed on a computer that is hosting a replication agent, the upgrade fails and you see the following error message:

```
Destination key already exists.
```

To resolve this issue

1. Delete the replication agent. For information about how to delete replication agents, refer to the online help.
2. Delete the following registry key:

   `HKEY_LOCAL_MACHINE\SOFTWARE\Brocade`
3. Upgrade the monitoring agent.
4. Deploy a replication agent on the same computer where you installed the monitoring agent.

Using networknames.xml files

You may experience issues when upgrading if you have a large *networknames.xml* file. It is recommended that you make a backup of the *networknames.xml* file prior to upgrading. However, the *networknames.xml* file is only a workaround for name resolution problems. The recommended approach is to correct name resolution issues in DNS or, if necessary, use a hosts file to correct issues on the VFM host computers.

Installing earlier versions of VFM

When installing VFM, ensure you do not already have a later version of the product installed in your environment, otherwise you may experience issues with the product. If you attempt to install VFM 6.1.0 over VFM 6.1.1, the setup program warns you that you already have a later version installed. However, versions of VFM prior to VFM 6.1 do not warn you if you already have a later version of the product installed.

Importing snapshots from different versions

Importing application snapshots from different versions of VFM, such as from VFM 6.0 to VFM 6.1, is not supported. When you attempt to import a snapshot, VFM displays a standard confirmation message to ensure you want to continue. If you continue with the operation, VFM verifies that the snapshot matches the currently installed version of the product. If the snapshot is from a different version, VFM displays the following error message:

```
13:37:26.479 ERR NService::RestoreApplication: error performing app-specific
restore of service 'StorageXServer'
```

This message does not clearly indicate the cause of the error or the current state of the operation, but VFM does *not* import the snapshot in this case.

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