Sonnet Serve 2.6 Release Notes

This document provides release information for Sonnet Serve version 2.6. It discusses new features in this release as well as best practices, fixed and known issues.

What's New

Backing Up and Restoring the Sonnet Serve Settings Configuration

Version 2.6 allows you to back up the settings configuration of your Sonnet Serve and then restore it. You can create as many backups as you want and then restore a selected one.

For more information refer to the Sonnet Serve 2.6 User's Guide.

Fixed Known Issues in Version 2.6

Improved Compatibility with Archiware P5 Backup Software

Version 2.6 provides improved compatibility with Archiware P5 backup software on Windows Sonnet Serve Client computers.

Stability Improvements on Mac OS X Sonnet Serve Clients Accessing Smart Storage Pool

Version 2.6 includes fixes improving the stability of Mac OS X Sonnet Serve Clients working with memory map files on a smart storage pool.

Upgrading to Version 2.6

Important: *All computers on your Sonnet Serve network must run the same version of the software.*

To upgrade your Sonnet Serve network to software version 2.6 you must first install the update on the appliance and after that download and install the updated Sonnet Serve Client software on each Sonnet Serve Client computer.

The firmware update doesn't keep any settings except the IP addresses and name of the storage server, that is why after upgrading to version 2.6 you have to re-configure all settings manually.

Once you upgrade the appliance, the web interface provides the updated list with Sonnet Serve Client software and you can upgrade all client computers. On Mac OS X and Linux, you should first

uninstall the previous version of the Sonnet Serve Client software and after that perform a clean installation. On Windows, you can upgrade the Sonnet Serve Client software without uninstalling the previous version, following the steps below.

To upgrade Sonnet Serve to version 2.6:

1. In the left pane of the web interface, click System and then Maintenance.

2. Click Enter Maintenance mode and then confirm that you want to enter Maintenance mode.

   Important: *All connected Sonnet Serve Clients will be automatically disconnected from the shared volumes and any file operation going on at the moment will be canceled.*

3. In Firmware Update, click Browse/Choose file and then browse for and select the file containing the 2.6 update to upload.

4. Click Continue to confirm that you want to perform firmware update.

Sonnet Serve uploads the firmware on the system hard drive of the appliance, unpacks it and applies the firmware update. When the firmware update finishes, the system automatically restarts and all clients can connect to it and download the updated version of the Sonnet Serve Client software for their operating system.

To upgrade Sonnet Serve Client to version 2.6:

1. Access the web interface of the storage server.

2. Find the Sonnet Serve Client installation for your operating system and click Download.

3. Once the installation downloads to your computer, run it, following the installation steps described in the Sonnet Serve Administration Guide.

Best Practices

Granting Full Control to the System Account

In Windows, the built-in System account, used by the operating system and by services, by default has Full Control to all files on an NTFS volume. To provide for the normal operation of Sonnet Serve, it is advisable not to change the Full Control permissions of this account.

For details about displaying the System account when setting permissions and granting Full Control to it, refer to your Windows documentation.

Detaching Shared Volumes from Sonnet Servefor Use on Another Computer

To protect volumes from data corruption that could occur when multiple computers have access to them simultaneously, Sonnet Serve marks the volumes it manages. To be able to mount a volume without Sonnet Serve, this volume needs to be unmarked. Sonnet Serve automatically unmarks all volumes with Offline status. If you intend to physically disconnect a volume for use on another computer, you must first change the status of this volume to Offline. If you fail to set the volume to Offline, you need to contact Sonnet Technologies support for assistance on unmarking the volume.

IP Addresses of 10GbE Ports

When a Fast LAN Sonnet Serve Client can reach the appliance both through the Public port and the 10GbE port, it is important to add Sonnet Serve to the storage servers list on each Fast LAN Sonnet Serve Client using the IP address set for a 10GbE port and not the Public port.

Migrating Replicated Files from One Replication Target to Another

While the Replication & Tiering mechanism of Sonnet Serve doesn't restrict you about changing the replication target, to avoid problems, you should set a new replication target with caution and after careful planning. If you need to set a new replication target to which files to be copied, you should keep in mind that all already replicated files will be inaccessible from the new replication target. Additionally, offline files (replicated files that have a copy only on the replication target) cannot be retrieved unless they have a counterpart on the new replication target.

When changing the replication target of your shared storage, it is recommended to migrate all already replicated data from the previous replication target to the new one. The safest workflow to do this is to let the Replication & Tiering mechanism replicate it again on the new replication target. For the purpose, you have to make sure that:

• all already replicated files are available on the shared storage (note that lack of free space on your shared storage may hamper the process).

• the status of all already replicated files is not "replicated" but "normal" as the Replication and Tiering mechanism will skip files on the shared storage that are with "replicated" status and will not copy them to the new replication target.

You can achieve this following these steps:

1. To ensure that each replicated file has an offline counterpart on the shared volume(s), in the drop-down box of the Volume Browser, select a volume with enabled replication and then click Rescan Volume.

2. Repeat the above step for each volume on which replication is enabled.

3. In the left pane of the Volume Browser, select the root of the volume and in the right pane select a folder and click Restore.

> **Note:** *You have to manually select all offline files in the root of the volume and click Restore.*

4. Repeat the above step for each folder on each volume with enabled replication in order to restore all replicated files to their original locations.

5. In the Replication & Tiering page of the web UI, specify a new replication target.

6. In the Replication Options dialog, select "Do not replicate" and leave the Exceptions list empty.

7. In the left pane of the Volume Browser, select the root of the volume and in the right pane select a folder and click Make Offline, to revert all files from "Replicated" status to "Normal" status.

> **Note:** *You have to manually select all restored file in the root of the volume and click Make Offline to revert their status to "Normal".*

> **Important:** *Clicking Make Offline transfers the status of replicated files to "normal" only if the Replication & Tiering mechanism detects that the selected files don't have copies on the replication target. If you issue the command for a file with "replicated" status, which actually has a copy on the replication target, the command will replace the file on the shared storage with a stub file pointing to its copy on the replication target.*

8. Repeat the above step for each folder on each volume with enabled replication.

9. Set replication policy parameters for the new replication target to let the Replication & Tiering mechanism to copy all files.

Setting Up the SAN Policy on Windows Sonnet Serve Clients

By default, on computers running Windows Vista and above all shared disks visible to the computer are delivered as offline and read-only. You can bring these disks to online mode in Disk Management, still, there's a possibility on the next boot of the system the disks to be offline again. To change this behaviour, you should make sure that the SAN policy of the operating system is set to "Online All". To view and set the SAN policy of your computer you can use diskpart.exe command-line utility that is stored in the system drive of your computer.

To view and change the SAN policy of your computer:

1. Run command prompt as administrator.

2. In command prompt, start diskpart utility by typing:
```
diskpart
```

3. To view the current SAN policy, type this followed by return:
```
SAN
```
The utility displays one of the following:

- Offline Shared - all newly discovered disks that do not reside on a shared bus are brought online and made read-write.

- Offline - all newly discovered disks remain offline and read-only.

- Online All - all newly discovered disks are brought online and made read-write.

4. Do one of the following:

- If the SAN policy of your computer is "Online All", exit diskpart utility and command prompt.

- If the SAN policy of your computer is not "Online All", proceed with the steps below.

5. Run command prompt as administrator.

6. In command prompt, start diskpart utility by typing:
`diskpart`

7. Execute the following:
`san policy=OnlineAll`

Using Identical Time and Date Settings

It is advisable to use identical settings for time and date on all computers on your Sonnet Serve network (the storage server and all client computers). Using different time and date settings may hamper communication with the storage server and the Traffic and Events reports may display incorrect information.

Disabling Mac OS X Time Machine for Shared Volumes

It is highly advisable to exclude all volumes shared by Sonnet Serve from the list of locations Time Machine is set to back up on your Mac OS X. Keeping this feature turned on for shared volumes may hamper performance.

To exclude a shared volume from Time Machine's backup:

1. In Time Machine preferences, click the Options button.

2. In the sheet with locations, select a shared Sonnet Serve volume and click the "-" button.

3. Repeat the above step for each shared Sonnet Serve volume.

4. Click Save.

Calculating Folder Size (Mac OS X)

Use the Calculate Sizes option, available in List view of the Finder, to calculate sizes per folder and per window. Activate this option only for folders on your local disks. Do not enable it for folders on

the shared storage volumes, as this will temporarily slow down performance. If you enable this option on a shared volume, network workstations that see the volume will be unable to work on it.

For details about managing the "Calculate Sizes" option, refer to your Mac OS X® documentation.

File Systems Behaviour and Files Compatibility

The three operating systems (Windows, Mac OS X and Linux) on which you can install the Sonnet Serve Client software differ in the way they manage files. On Windows, files can have many streams, in contrast to Mac OS X (only 2 streams - data fork and resource fork), and Linux (only data stream). In addition, files created by Mac OS X also have extended attributes (such as the Finder Info, for example) that are not available on the other two platforms.

These peculiarities of the file systems lead to partial loss of information when transferring a file created on one platform through a machine running on another platform.

For instance, when on Mac OS X you copy a file with 50 streams created by Windows, all file streams' information is lost, except the information of the data stream. The result will be the same when a Linux computer copies a 50-stream Windows file. A Mac OS X file copied by Linux will also lose its resource fork's info.

Streams' information is not lost when copying Mac OS X or Linux files by a Windows computer, but in this case a Mac OS X file will lose the extended attributes information.

There is another problem with files sharing common file format. For example, a movie file created with Final Cut Pro on Mac OS X is playable by QuickTime. If a Windows workstation copies this file, it will not recognize it as QuickTime-playable until adding the *.mov extension to it.

See also .

Avoiding Long File Names

As a limitation of the file system, it is advisable to avoid long file names in order to ensure that file operations on the shared storage are normally processed.

Final Cut Pro Project Names on the Shared Volumes

It is advisable that the Final Cut Pro projects you create on the shared volumes have names that do not exceed 31 symbols.

New Known Issues

Volume Status not Preserved after Exiting Maintenance Mode (6601)

Volumes that have been shared before entering Maintenance mode may become Private after exiting Maintenance mode even though its tile shows Shared status. That is why after exiting Maintenance mode, it is advisable to check the status of all volumes seen by the appliance and manually change it. If the status of the volume is Shared, but it cannot be mounted on Sonnet Serve Clients, first set it to Private and then set it to Shared to let client computers mount it.

LAN Clients Taking Up SAN Client Licenses

When a Sonnet Serve Client sends a request to Sonnet Serve for connection to the shared volumes, the storage server checks the number of currently available licenses for this type of connection (SAN, Fast LAN or LAN) and if a license is available, lets the Sonnet Serve Client mount the volumes. If all connections for this type are already in use, the storage server lets the Sonnet Serve Client mount the volume(s) using another type of connection as long as such is available. While this lets Fibre Channel clients mount the volumes over the Ethernet when there's a problem with the FC HBA or port, or all SAN connections are already in use, it is possible a LAN client to take up a SAN connection and thus prevent a SAN computer from mounting the volumes, because all SAN connections are already in use. A workaround to this problem is to manually free the connection, by disconnecting the LAN computer in the Clients page of the web interface.

Unresolved Known Issues

Mac OS X Clients Mounting Volumes on Dynamic Disk(s)

When a dynamic disk contains more than one volume, all connected Mac OS X SAN clients will mount just the first volume on the disk directly, and all other volumes - as LAN clients, even though they have direct connection to them.

Volume Disappears from Web UI during Check and Repair Procedure

While you perform the Check & Repair procedure on a Sonnet Serve volume, it is not listed in the web UI. Once the procedure finishes, you can manage the volume in the web interface again.

Only Automatic Defragmentation of Volumes Available

Currently, you cannot perform manual defragmentation of your volumes. To keep your volumes defragmented it is advisable to enable the automatic defragmentation.

Exporting a SMB Share in Domain Environment

To ensure that Sonnet Serve can export a SMB share to computers without the Sonnet Serve Client software, when your appliance is deployed in an Active Directory domain, the domain account "Everyone" must have at least Read Only access to the root of the volume from which the share is exported.

Mounting a Storage Pool on Sonnet Serve Client in Domain Environment

In case you have deployed your Sonnet Serve in Active Directory domain and smart storage pooling is enabled, Windows Sonnet Serve Clients may fail to mount the storage pool unless the group 'Everyone' has Read access to the virtual volume.

Incorrect Connection Status on Sonnet Serve Clients Running Mac OS X

The Sonnet Serve Client software on Mac OS X may sometimes fail to correctly display the connection status to the Sonnet Serve appliance. For example, the Settings dialog of the Sonnet Serve Client menulet may display that the Sonnet Serve is online, when it is actually offline. Another example is when the Sonnet Serve Client loses its Fibre Channel connection to the appliance and mounts the volume(s) over the LAN, while the volume icons in the Finder and on the desktop are not of volumes mounted over the Ethernet. Additionally, in this case Sonnet Serve Clients running Mac OS X may fail to disconnect from the volume(s).

Allowing smct.app and vpd During Sonnet Serve Client Installation on Mac OS X

During installation of Sonnet Serve Client on Mac OS X, even if you specify that smct.app and the vpd daemon must be added as firewall exceptions, you should manually allow them in the firewall database of your computer. Note that as long as the firewall of your computer is turned on, you will have to add them to the firewall database after each reboot of the computer.

Connect to Sonnet Serve from Mac OS X Without DNS Server

If there isn't a DNS server on the network through which a Mac OS X Sonnet Serve Client communicates with Sonnet Serve, the Sonnet Serve Client computer will fail to connect to the storage server and mount its volumes.

A workaround to the problem is to add an entry about the storage server you want to connect to in the hosts file on the Mac OS X Sonnet Serve Client:

1. In Terminal, type:
   ```
   sudo nano /etc/hosts
   ```

2. At the end of the hosts file, add a new line for each storage server you want to connect to, which contains the following:
   ```
   [IP address of the storage server] [name of the storage server]
   ```

3. For example, if your Sonnet Serve use 172.16.1.1 as IP address and the name of the appliance in the web UI is Sonnet Serve, in the hosts file enter the following line:
   ```
   172.16.1.1 Sonnet Serve
   ```
   Press CTRL+X, then Y and then Enter to exit the nano editor and save the changes.

4. Restart the Sonnet Serve Client.

Applying New Network Environment Settings

It is possible when changing the settings for network environment (domain or workgroup) of your appliance after clicking the Apply button in the Settings page an error to be displayed, when in fact the changes have been applied. It is advisable to refresh the web UI of Sonnet Serve in order to verify whether the new settings have been applied.

Renaming the Appliance

Should you rename your Sonnet Serve appliance after it has been added to an Active Directory domain, Sonnet Serve Clients may fail to browse the volumes it shares even if they re-add it to their storage servers list. It is advisable before renaming the appliance, to set the network environment to workgroup and manually delete the records about the appliance from the domain controller. It is advisable to do this each time you switch the network environment of your Sonnet Serve from domain to workgroup.

Moving Replicated or Offline Files/Folders

If you move a replicated or offline file/folder from its original location to a folder that is not subject to replication on the shared storage, this folder will also appear on the replication target, but will contain just the files/folders that are subject to replication. For example, if you move an offline file

"Report" from its original folder "April" to folder "Drafts" that is not subject to replication and contains other files as well, the replication and tiering mechanism of Sonnet Serve will create on the replication target a folder "Drafts", but containing just the file "Report".

Importing Offline Dynamic Disks in Maintenance Mode

Offline dynamic disks cannot be imported when your Sonnet Serve appliance operates in Maintenance mode. To import offline disks, you have to exit Maintenance mode.

Errors When Entering/Exiting Maintenance Mode

When entering/exiting Maintenance mode, the web UI of Sonnet Serve may display errors, when in fact the operation has succeeded. To verify that you have entered/exited Maintenance mode, refresh the browser. If on exiting Maintenance mode the error persists, restart the storage server.

Emptying the Trash of a Mac OS X Client

When Sonnet Serve is deployed in an Active Directory domain and a Mac OS X domain user moves a file from the Sonnet Serve storage to the Trash of the client computer, that user may fail to permanently delete the file.

You can permanently delete this file either in Terminal on the Mac OS X computer, or from a Windows client.

To permanently delete the file from Terminal on Mac OS X:

1. On the Mac OS X client computer, log on as a user with Full Control on the Sonnet Serve volume.

2. Start Terminal and navigate to the Sonnet Serve volume.

   Important: *In the volume, navigate to the* `.Trashes` *folder and in it find the folder that has the same name as the ID of the Mac OS X user whose Trash you want to empty.*

3. Important: It is important to double check that you are in the correct directory. You can use the `pwd` command to view the full path and verify the correct directory.

4. In Terminal type this followed by return:

   Important: *This command deletes the whole content of the directory you have navigated to in Terminal.*

   `rm −rf *`

   The whole contents of the Trash of the user is permanently deleted.

To permanently delete the file from Windows:

1. On a Windows client computer, log on as a user with Full Control on the Sonnet Serve volume.

2. On the Sonnet Serve volume, browse to the `.Trashes` folder.

Note: *You may have to unhide the hidden folders on the Sonnet Serve volume to display the "*.Trashes" folder.*

3. In the `.Trashes` folder, find the folder that has the same name as the ID of the Mac OS X user whose Trash you want to empty.

4. Delete the file from the folder.

Executing Operation on the Sonnet Serve Volume from Terminal

When Sonnet Serve is deployed in an Active Directory domain, you won't be able to execute certain operations on the Sonnet Serve volume(s) from the Terminal of a Mac OS X client computer even if you have logged on as a user that has Full Control. These security mapping issues are not valid for operations performed in the file browser.

Restored Files Remain Gray on Mac OS X Mountain Lion

When on Mac OS X Mountain Lion you restore a file from the replication target on the Sonnet Serve volume, this file remains gray in the Finder until you relaunch it.

Disconnecting from a Shared Volume While Browsing it in Terminal on Mac OS X/Linux

On Mac OS X and Linux, if you attempt to disconnect from Sonnet Serve while browsing its volume(s) in the Terminal, the volume(s) might remain mounted on the Desktop and in the Finder. To be able to disconnect the Sonnet Serve Client, in Terminal change the currently browsed directory to one that is not on the shared storage.

No Authorization Required When Removing Sonnet Serve from the Domain

If you decide to switch your Sonnet Serve from domain to workgroup environment, the domain controller does not require that you authenticate yourself as a user authorized to remove computers from the domain.