



Sun StorEdge™ 5210/5310 NAS Appliance 和 Gateway System 版本說明

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Sun StorEdge 5210/5310 NAS Appliance 和 Gateway System 版本說明

此版本說明含有 Sun StorEdge™ 5210/5310 NAS Appliance 和 Gateway System 軟體 4.11 版的相關資訊及後續補充資訊。此軟體相容於舊版的 Sun StorEdge 5210 和 5310 NAS Appliance 軟體。

安裝 Sun StorEdge 5310 Cluster 時，請先閱讀此版本說明與「Sun StorEdge 5310 NAS Appliance 和 Gateway System 入門指南」(819-5228-10)。

此版本說明包含下列章節：

- 第 2 頁的「系統需求」
- 第 3 頁的「軟體更新」
- 第 3 頁的「新增功能」
- 第 6 頁的「已解決的問題」
- 第 8 頁的「已知的問題」
- 第 13 頁的「文件補遺」
- 第 21 頁的「發行文件」
- 第 21 頁的「服務連絡資訊」
- 第 22 頁的「第三方授權合約」

重要 – Web Administrator 僅支援單一登入。因此，最理想的做法是一次只登入一位系統管理員，以避免發生指令衝突。在叢集配置中，您必須個別登入每部伺服器，才能夠管理該伺服器。

系統需求

Sun StorEdge 5210 和 5310 NAS Appliance 系統在銷售時就已經安裝了 Web Administrator 軟體。您無需安裝任何軟體，即可管理 Sun StorEdge 5210 和 5310 NAS Appliance。

要存取 Web Administrator 管理介面，您必須有台已連接網路的電腦，並且可執行下列其中一種瀏覽器。瀏覽器必須支援 Java™ 技術，並安裝 Java Plug-In 1.3.1 (最低版本)。

- Internet Explorer
- Mozilla™
- Netscape Navigator™

重要 – 若要下載最新的 Java Plug-In 軟體，請連線至 <http://java.com>。

▼ 判別 NAS 作業系統軟體與組件版本

請執行下列一項程序。

- 存取 Web Administrator 導覽面板，並選取 [System Operations] → [Update Software]。
- 例如，在指令行介面 (CLI) 上鍵入 `version`，畫面上即會顯示 `build 18`：

```
4.11 M0 (build 18)
```

▼ 判別韌體修訂版本等級

使用 `raidctl profile` 指令，即可判別各 RAID 控制器裝置、擴充裝置、控制器 NVSRAM 與磁碟機目前的韌體修訂版本等級，並予以記錄。

如需詳細資訊，請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」。

軟體更新

請至 <http://sunsolve.sun.com> 網站下載最新版的 NAS 軟體，以升級您的系統。選取 [Patchfinder] 連結，然後輸入您系統所需的修補程式編號。

- 118216 適用於 Sun StorEdge 5210 Appliance 的軟體
- 119351 適用於 Sun StorEdge 5310 Appliance 的軟體

重要 – 若要將 Sun StorEdge 5210 NAS Appliance 從 4.05 版之前的版本升級為 4.11 版的軟體，必須使用 FCO 257。升級軟體之前，請先連絡 Sun Service，以取得 FCO 257 進行套用。Sun StorEdge 5210 NAS Appliance 若含有 4.05 版 (或更高版本) 的軟體，便無需套用 FCO。

軟體降級

您如需將 NAS 軟體版本降級為舊版，請在嘗試執行降級之前，先連絡 SunSM Services 諮詢相關的建議。

新增功能

4.11 版新增了下列增強功能：

- 「稽核追蹤」功能現提供一組可供稽核的檔案操作，能讓您在符合規格的磁碟區上操作「單寫多讀 (WORM)」特性的檔案。
- 「即時防毒掃描」功能可讓您將 Sun StorEdge 5000 系列的 NAS 產品，設定為在 Windows 上執行之 Symantec Antivirus 掃描引擎的用戶端。
- 「遵循歸檔規範的軟體」會提供嚴格 (稱為「強制執行」) 與較不嚴格 (稱為「建議執行」) 兩種格式。具有建議執行功能的「遵循歸檔規範的軟體」，適用於對規範遵循的要求較其定義寬鬆的客戶使用。此軟體也能夠在保有還原動作、刪除檔案及刪除磁碟區等能力的情況下，做為規範相符測試功能的暫時性解決方案。Gateway System 上亦支援具有建議執行功能的「遵循歸檔規範的軟體」，但因為本身的限制，Gateway System 將無法升級為具有強制執行功能的「遵循歸檔規範的軟體」。
- Sun StorEdge 5310 Appliance 與 Gateway System 上的 iSCSI 目標現已可支援 Microsoft Exchange 用戶端的 iSCSI 初始器。但不支援其他 iSCSI 初始器。

- CIFS 驗證的 IPC 功能可以讓 Sun StorEdge 5000 系列的 NAS 產品在與 Microsoft Windows 相容的網域控制器 (DC) 通訊時，使用驗證過的程序間通訊 (IPC)。現有的匿名 IPC 支援將會提供此安全性選項。
- Sun StorEdge 5310 NAS Gateway System 針對下列系統提供了網路檔案系統 (NFS) 與共用網際網路檔案系統 (CIFS) 檔案服務：
 - Sun StorEdge 9970、9980、9985 與 9990 系統
 - Sun StorEdge 6920 系統 2.0.5 版
 - Sun StorEdge 6130 陣列。如需安裝指示，請參閱第 15 頁的「將 Gateway System 連接至 Sun StorEdge 6130 陣列」。
- Sun StorEdge 5310 NAS Gateway System 可與下列光纖通道 (FC) 交換器搭配使用：
 - Brocade SilkWorm 3250、3850、3900、4100、200E、24000 與 48000
 - Sun StorEdge 2 Gb 8、16 與 64 連接埠
 - McData Intrepid 6064、6164 與 Sphereon 4500
 - Qlogic 5200 與 5602
- Sun StorEdge 5310 NAS Appliance 和 Gateway System 在連接至 Sun StorEdge 5310 NAS 伺服器上未使用之 FC 連接埠時，可與下列 FC 磁帶庫搭配使用。磁碟與磁帶庫不可連至相同的 FC 連接埠。
 - Sun StorEdge L180/500/700
 - Sun StorEdge L25/100
 - Sun StorEdge LTO 3 磁碟機
 - Sun StorEdge LTO 2 磁碟機
 - Sun StorEdge SDLT 320 磁碟機
 - StorageTek 9940B 與 9840C 磁碟機

若所有的 FC 連接埠皆被磁碟儲存裝置所佔用，您可以在配置中增加一部 FC 交換器，將這兩個 FC 連接埠上的磁碟連結而為一。如此將可釋放其餘的 FC 連接埠，專供 FC 磁帶使用。

磁帶裝置可以在叢集與閘道配置中運作，但只有其所連接的 NAS 伺服器能夠使用。磁帶裝置不具備叢集支援的能力。磁帶裝置一律會以連接至單一 NAS 伺服器的形式運作。

- Sun StorEdge 5310 NAS Appliance 可與混合擴充裝置搭配使用。每項元件皆須使用表 1 中所列的韌體修訂等級。

表 1 必要的陣列韌體等級

元件	檔案名稱
RAID 控制器	SNAP_288X_06120910.dlp
RAID 控制器 NVSRAM	N2882-612843-503.dlp
光纖通道擴充裝置 (EU)	esm9631.s3r
SATA 擴充裝置 (EU)	esm9722.dl

如需有關如何將控制器裝置、擴充裝置與磁碟機升級為最新韌體修訂等級的資訊，請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」。

透過下列規定，目前已可支援「序列式先進附加技術 (SATA)」與光纖通道擴充裝置 (EU) 混合配置。

- 完整的 EU 必須包括光纖通道磁碟機或所有的 SATA 磁碟機。EU 中不可含有混合的磁碟機類型。
- 即使 EU 中所含為 SATA 磁碟機，控制器磁碟匣中仍可能會有光纖通道磁碟機。控制器磁碟匣無法包含 SATA 磁碟機。
- 在陣列中使用 SATA 與光纖通道時，兩者皆須具備唯一且容量相同的緊急備援磁碟。
- LUN 不可同時含有 SATA 與光纖通道磁碟機。
- 連接至 RAID 控制器之擴充磁碟匣的韌體等級必須與控制器相同。例如您若是將韌體等級 1.2 的 SATA 磁碟機擴充磁碟匣，增加到 RAID 控制器韌體等級為 1.0 的 NAS 伺服器上，則必須將整個系統升級為修訂等級 1.2。
- Sun StorEdge 5310 NAS Appliance 可與 300 GB 光纖通道 (FC) 磁碟機搭配使用。300 GB FC 磁碟機的最低磁碟機韌體等級為 055A。若要將這些磁碟機增加到現有的控制器裝置上，必須更新陣列控制器上的韌體。(請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」。)

已解決的問題

此版本已解決下列問題。

- 從叢集磁頭建立之新 LUN 所顯示的擁有者為「無擁有者」。(6287381)
解決方法：使用 Web Administrator GUI 或 Telnet/CLI 指定 LUN 所有權。
- LDAP 搜尋已經過修改，如此在使用 NAS 的 autohome 功能時，便不會刪除 Microsoft Windows Active Directory Server (ADS) 中的使用者資訊。(6310891)
- 中繼目錄的時間戳記將在 NDMP 回復作業期間復原。(6259093)

已解決的舊版問題

- 當將 Sun StorEdge 6920 系統用為 Sun StorEdge 5310 Gateway System 的儲存裝置時，Web Administrator 已可正確地顯示 LUN 與磁碟區資訊。(6318244)
- 強制連結的目錄備份與復原現在應可正確運作。過去在某些情況下，檔案系統會變成唯讀的狀態。(6324643)
- 在將某磁頭上的 LUN 容錯移轉到叢集系統中的其他磁頭後，LUN 偶爾會因為無法正確執行錯誤後回復，而導致不正確的磁頭所有權與 I/O 失敗。現在所有 LUN 皆可在錯誤後回復到正確磁頭的所有權。(6327065)
- 系統現在已可處理分離的 LUN。在前一版中，系統會在處理分離的 LUN 時進入混亂狀態。(6328165)
- 系統現在已可讓您建立多個 LUN。在前一版中，伺服器會在嘗試建立多個 LUN 時當機。(6305831)
- 使用擴充 (8 位元) ASCII 字元的 ISO8859 字碼頁現在已可正確顯示。(6299983)
- 現在已可在根層級上正確掛載 /vol*.chkpnt 磁碟區。使用下列指令掛載檢查點磁碟區，已不會再導致 pwd 指令失效。(5100110)

```
mount -F nfs se5k:/vol01.chkpnt /z/vlcp
```

- 「簡易網路管理協定 (SNMP)」屬性 system.sysDescr.0 現在已可正確設定。(5062965)
- 所有檢查點都可列出 [Backup] 選項。(5079000)
- Sun StorEdge 5210 NAS Appliance 擴充裝置中的「環境監視裝置 (EMU)」板現在已可正確運作及接受監視。(5092547)
- 不論在何種情況下，網路連結儲存裝置 (NAS) 磁頭已不再傳送不正確的電池錯誤訊息。(5101253)

- NAS 作業系統中的「檔案傳輸通訊協定 (FTP)」模組已可在開機時自動載入，且預設會保持在停用的狀態。(5106379)
- 圖形化使用者介面 (GUI) 對於其所能夠顯示的外部擴充裝置數目已不再有所限制。(6184256)
- 即使有超過 50 個檔案磁碟區，主控台已可同時顯示所有檔案磁碟區。(6180031)
- 建立和刪除連結 (連接埠集合) 偶爾會導致系統無反應，此問題目前已被修復。(5108956/5109029)
- 大型「網路資料管理協定 (NDMP)」備份將不再會使用 NDMP 工作檔案填寫 /dvol。(6252667)
- 已將 SNMP 屬性 se5210RaidBBUStatus 設為「normal」。(5064730)
- 若是在「一般儲存模組 (CSM)」之獨立磁碟備援陣列 (RAID) 控制器硬碟失效時，將控制器連同使用中的 I/O 一起取出，已不再會造成使磁碟區變成唯讀狀態。(6215728)
- I/O 執行時所偶發的磁碟或光纖通道錯誤，已不再會造成某些磁碟區被標示成唯讀。(6213003/6214237)
- 在使用現有的緊急備援磁碟時，RAID 磁碟區已能夠在 Expansion Unit Fibre 擴充裝置上自動重新建立。(6221965)
- NDMP Direct Access Restore (DAR) 回復已可搭配備份類型「tar」一起運作。(6259024)
- 當發生 LUN 錯誤時，Web Administrator 已可指出唯讀磁碟區。(6222888)
- 從 Telnet Menu/CLI 和從 Web Administrator 設定時區的不一致狀況已經解決。(6234042)
- 從 4.11 版開始即支援頻帶內 RAID 管理。因此相關的說明主題仍屬有效。(6215325)
- 若無相關聯的磁碟區，便不會再出現舊的匯出資料。(6197943)
- 當叢集處於容錯移轉模式時，若由邏輯單元號碼 (LUN) 上之 Alone 磁頭所建立的磁碟區，一開始是由 Quiet 磁頭所擁有，則當應用程式存取該磁碟區時，已不會在叢集回復過程中收到 EACCESS 錯誤。(6236671)
- 增加磁碟匣時，已可使用 Web Administrator 指定不具擁有者之 LUN 的所有權。(6227823)
- 當鏡像磁碟區使用 Web Administrator GUI 進行升級時，已可在 GUI 上顯示狀態訊息。(6233969)
- 當叢集處於負載尖峰時，已不再會因為錯失時間而放棄進行同步。(6235662)

已知的問題

以下是目前還未解決的問題。

- **Web Administrator** 介面在開啓後，若保持閒置超過 15 分鐘，便會轉而呈現空白。若將下列畫面保持閒置，即可能發生此問題：
 - 檔案磁碟區
 - 複寫
 - iSCSI

您接著進入的其他畫面也將是空白。(6356459)

解決方法：關閉 Web Administrator 與瀏覽器。重新啓動 Web Administrator，即可恢復正常運作。

- 使用 Sun Enterprise Backup Software 7.2 版執行 NDMP 三向回復時，回復程序可能會在所有資料順利復原至 NAS 後失效。ndmp.log 檔案中如有記錄「EBADF Bad file descriptor」訊息，即表示回復已完成，但 Sun Enterprise Backup Software 回復程序失效。(6348765)

解決方法：從 Sun Enterprise Backup Software 中取消回復，即可繼續作業。

- 寫入直接連接的 SCSI LTO3 磁帶機期間，可能會出現 SCSI 錯誤。

解決方法：使用主機板上內建的光纖通道/機器上的 SCSI 橋接器連接到網路連結式儲存裝置 (NAS) 上的光纖通道連接埠。(6347059)

- 非管理員之 windows 網域使用者可移除 Compliance Lite 磁碟區上所保留的檔案。(6361605)
- 若是同時安裝了 Symantec Anti-Virus Scan Engine (SAVSE) 與 Symantec Anti-Virus Corporate Edition (SAVESE)，或同時安裝了 SAVSE 與其他可以攔截檔案系統上病毒感染的防毒產品，則檔案系統層級的防護可能會對 SAVSE 產品的正常運作造成影響，導致 SAVESE 產品發出內部錯誤訊息。(6351326)

解決方法：您可以停用檔案系統即時防護，或從檔案系統層級防護中排除 SAVSE 所使用之暫存檔。

- 在新購買的系統上，或當您新增控制器或擴充裝置時，某些 LUN 會出現離線的狀況。(6337658)

解決方法：這可能是 EU 上存有重複的 SSID 所致。若要使 LUN 連線，請執行下列動作。

1. 關閉所有儲存裝置陣列。
2. 開啟控制器陣列。
3. 等待陣列電源開啟完畢。
4. 開啟磁碟機模組的電源，並等待其電源開啟完畢之後，再開啟下一個模組的電源。

- LUN 若是需要數分鐘的時間才能夠建立完成，則 Web Administrator 所提供的資訊內容會不夠清楚。(6273163/6273171/6276198)
解決方法：關閉 Web Administrator 與瀏覽器。重新啓動 Web Administrator 應可提供正確的資訊。
- Web Administrator 目前未提供任何方法可以將 [RAID] → [Manage RAID] 畫面中顯示為離線的磁碟區連線。(6331263)
解決方法：請與 SUN Service 連絡。
- 於拔除光纖通道纜線後始設定主要路徑的 LUN 在進行復原之後，沒有替代路徑可供使用。(6309701)
解決方法：在實際變更後端配置之後，使用者必須啓始重新掃描作業。使用 Web Administrator，進入 [Volume Operations] → [Create File Volumes]，然後按一下 [Scan for New Disks]。
- 使用「頻帶內 RAID 管理 (IBRM)」升級 CRM 韌體，可能會造成 Sun StorEdge 6130 陣列上所有的 LUN 容錯移轉至單一的 RAID 控制器。(6283300)
解決方法：使用 Web Administrator 將 *LUNS* 放回 *primary* 路徑中。
- 若使用 Web Administrator 以外的方法關閉 Sun StorEdge 5210 或 5310 NAS Appliance，或 Web Administrator 失去和 Sun StorEdge 5310 NAS Appliance 的聯繫，瀏覽器便可能會停止運作。(6209231)
解決方法：請關閉所有 Web Administrator 和瀏覽器的執行個體。在系統重新開機後，請重新執行瀏覽器並重新啓動 Java 瀏覽器介面。
- [Notification Email URL] 欄位會顯示主機名稱 URL。若點選此 URL，將無法連接到 Web Administrator。(6217684)
解決方法：「網域名稱系統 (DNS)」若是無法解析主機名稱，可改用 IP 位址連接至 Sun StorEdge 5210 或 5310 NAS Appliance。請確定已在名稱伺服器上註冊 Sun StorEdge 5210 或 5310 NAS Appliance 中所定義的主機名稱 (例如 DNS 或 Network Information System (NIS))。
- 當您刪除連結後，高可用性和連接埠集合連結 IP 位址可能無法正確復原。(6212483)
解決方法：請選取不同的 IP 位址來連結。
- 不足的 RX/TX 光學訊號強度可能會導致執行效能降低。(6207069)
解決方法：沒有其他重要的硬體錯誤，而您看見明顯的執行效能降低，其所導致的原因可能來自於光纖通道連結錯誤。請與 Sun Services 連絡以獲得協助。(請參閱第 21 頁的「服務連絡資訊」。)
- 當您選擇 [Configure NFS] → [Setup Hosts] → [Add user] 時，視窗內容不會更新，且系統會因為 NIS/NIS+ 對映中有太多項目，而出現看似停止運作的狀況。(5054655)
請耐心等待系統完成所有處理後，重新顯示正常的畫面。請勿重新啓動系統。

- 當您嘗試從 Web Administrator 的 [Manage Raid] 選項建立具有超過六部 SATA 磁碟機的 LUN 時，[Apply] 按鈕將會變成無法使用。(6277449)

解決方法：使用 Web Administration 工具重新配置 SATA 磁碟機時，請勿超過 RAID 控制器 2.0 TB LUN 的大小上限。

- 嘗試使用 Web Administrator 登入內含離線 LUN 的系統時，會導致「Login rejected」錯誤。嘗試從離線 LUN 刪除磁碟區造成伺服器無回應。(6282749)

解決方法：在從 LUN 刪除檔案系統後所尾隨的雙重錯誤若是造成 LUN 離線，便會發生此狀況。您必須重新開機。

叢集相關問題 (僅適用於 Sun StorEdge 5310 Cluster)

以下是目前還未解決的叢集相關問題。

- 當 Quiet 磁頭處於 Quiet 狀態時，Alone 磁頭可能會停留在轉換狀態中。(6240366)

解決方法：在執行任何升級前，請先從 Alone 磁頭執行其他回復，以確定您的叢集是處於「正常」模式下。

- 在使用「頻帶內 RAID 管理 (IBRM)」的叢集系統中，磁頭 2 上的 HBA 連接埠必須使用相同的序列，連結到與磁頭 1 之連接埠上的同一個 RAID 控制器。此設定必須以完全相同的方式配置。

例如，若磁頭 1 上的 HBA 連接埠 2 是連至控制器 A，則磁頭 2 上的 HBA 連接埠 2 便須連至相同陣列控制器上的控制器 A。如需範例，請參閱圖 1。

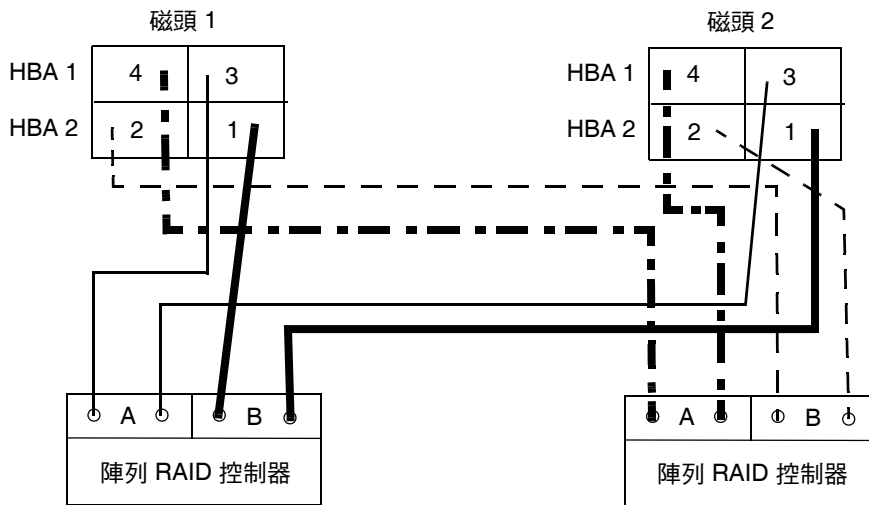


圖 1 HBA 連接埠與 RAID 控制器的關係

- 在不同磁頭間手動移動 LUN，卻得到容量為零的讀取訊息。在初次設定叢集期間或是新增磁碟匣時，可能會發生這種情況。(6239025)

解決方法：請使用 Web Administrator 或 Telnet Menu/CLI 手動執行磁碟掃描作業，磁頭將會更新 LUN 容量。

- 在叢集配置中，若 Quiet 磁頭在回復過程中發生系統問題，便可能導致其部分磁碟區無法掛載到 Alone 磁頭上。(6214772)

解決方法：使用 Telnet Menu/CLI 功能鍵入下列指令：

```
mount -f /volume-name
```

- 在叢集配置中進行回復程序之前，請使用 LCD 檢查其他磁頭，確認其是否處於 Quiet 模式。接著再使用 Web Administrator 或 Alone 磁頭的 Telnet Menu 進行回復程序。(6229943)

若無法實體存取系統，應對叢集系統進行 Telnet。如此將會登入 Alone 磁頭。您可以由該處檢視記錄，以確定 Quiet 磁頭是否已完成啟動，或 ping Quiet 磁頭的活動訊號。磁頭 1 的活動訊號 IP 預設為 10.10.10.1，磁頭 2 則為 10.10.10.2。

- 在叢集配置中，磁頭僅應修改其所擁有之檔案系統的檔案權限，而不應修改協力電腦磁頭所擁有的權限。(6262339, 6222886)
- 嘗試登入 Web Administrator 時的延遲時間若是過長，並收到「Login rejected」訊息，登入便會失敗。(6278471)

解決方法：關閉所有瀏覽器實例，然後重新啟動 Web Administrator。似乎只有 Mozilla 版本的 Web 瀏覽器有此問題，Internet Explorer 沒有問題。

檔案複寫程式相關問題

以下是目前還未解決的複寫程式相關問題。

- 您若是不具備有效的鏡像授權，則在嘗試鏡像作業時，可能會引發無效的訊息。(6332950)
- 建立新鏡像期間，若目標/鏡像系統沒有足夠空間和分割區，則來源/主要系統將會不斷地重試，直到有足夠的空間和分割區為止。(6197388)

解決方法：您可以中斷鏡像。待目標系統上有足夠的空間與分割區後，再重新建立鏡像。

- 在變更角色程序一開始的 10 秒內，發生了系統錯誤 (例如電源故障)，則系統可能被設定為 TARGET，並且也不會有 MASTER，也會導致鏡像毀損。(6198655)

解決方法：請連絡 Sun 技術支援部門尋求協助，以重新建立您的鏡像檔案。

- 當主磁碟區中 I/O 活動過多時，若此時您進行了變更角色操作，主磁碟區可能會暫停作業，而您也會遺失磁碟區的 CIFS 存取。(6248243)

解決方法：請從 CLI 上重新手動掛載檔案磁碟區。例如磁碟區名稱若為 volx，請鍵入下列項目：

```
nas-5310> umount /volx
nas-5310> mount /volx
```

- Web Administrator 中沒有 RESYNC 選項可供使用。
解決方法：此選項位於 Telnet 功能表中。(6198789)
- 當 I/O 活動過多時進行鏡像，或是進行叢集系統的鏡像時，您可能會在 Target/Mirror 伺服器的記錄檔中看見下列訊息：(6176236)

```
nmir: deseq_rcv: The mirror log appears to be full
```

解決方法：這些訊息僅供參考之用，鏡像作業仍會繼續正常進行。所以您可以放心地忽略這些訊息。

閘道相關問題 (僅適用於 Sun StorEdge 5310 Gateway System)

以下是目前還未解決的閘道相關問題。

- 在 Sun StorEdge 6130 後端上將韌體升級為閘道叢集，可能會導致控制器陣列重新啟動，並進入 Quiet 狀態。(6339825)
解決方法：執行回復作業。
- Gateway System 不支援連接該磁頭的異質系統。每一個 Sun StorEdge 5310 Gateway System 配置、磁頭或叢集只可支援一個儲存系統。您不可連接多個儲存系統。(6315936)
- 在閘道叢集系統中，每一個磁頭對 SAN 儲存裝置皆須具有兩條光纖通道連線。一條光纖通道連線不足以供高可用性功能正確運作。
- 在您將 LUN 從其他 SAN 主機重新對映至 NAS Gateway System 後，可能會無法存取該 LUN。(6272080)

解決方法：執行 CLI `disk disk-name` 指令。若 LUN 的擁有人被列名為「noDPMGR」，表示磁碟中還有殘存的資料。

請執行下列 CLI 指令清除資料，並將 LUN 標示為可使用。

```
disk disk_name,partition-number zap
```

注意 – zap 指令會重新格式化 LUN。磁碟表格將會被刪除。



文件補遺

此小節包含本文件的補充資訊或置換資訊。其包含下列主題。

- 第 13 頁的「iSCSI LUN 效能」
- 第 13 頁的「叢集啟動程序」
- 第 14 頁的「掛載檔案系統」
- 第 14 頁的「管理 GUI 容錯與高可用性的比較」
- 第 14 頁的「對檔案系統指定磁碟機代號」
- 第 14 頁的「增加磁碟機至 Sun StorEdge 5210 與 5310 NAS Appliance」
- 第 14 頁的「規範遵循功能」
- 第 15 頁的「升級為 4.10 或更高版本必須重設時區」
- 第 15 頁的「將 Gateway System 連接至 Sun StorEdge 6130 陣列」
- 第 18 頁的「讓 Sun StorEdge 6130 陣列 SAN 儲存裝置可供使用」
- 第 19 頁的「若要重新導入 LUN，必須重新開機」
- 第 20 頁的「離線的 LUN 無法刪除」
- 第 20 頁的「請勿手動掛載 /CVOL」
- 第 20 頁的「使用叢集的檔案複寫」
- 第 20 頁的「匯出檔案磁碟區」
- 第 20 頁的「MIB 檔案」
- 第 20 頁的「NAS 系統記錄訊息」

iSCSI LUN 效能

若 iSCSI LUN 所在的磁碟區僅供 iSCSI LUN 專用，iSCSI LUN 就能提供最佳效能。這些磁碟區若含有共用網際網路檔案系統 (CIFS) 共用或網路檔案系統 (NFS) 掛載，則 iSCSI LUN 的效能便可能無法達到最佳化 (視每個通訊協定的 I/O 流量而定)。

叢集啟動程序

「Sun StorEdge 5310 NAS Appliance 和 Gateway System 入門指南」中的叢集啟動程序，會指示您先開啓伺服器 H1 的電源。如需判別 H1 伺服器，請查閱 NAS 伺服器背面板黏貼標籤上的軟體序號 (以 -H1 結尾)。標籤若不是在伺服器背面，請檢查 NAS 伺服器左側的金屬片。

掛載檔案系統

在多次連續重新開機後，可能會有一或多個檔案系統變得無法掛載。若要掛載檔案系統，請發出下列指令：(6306480)

```
mount -f volume-name
```

管理 GUI 容錯與高可用性的比較

Sun StorEdge 5310 NAS Appliance 4.5 版的文件集未反映 Web Administrator GUI 的容錯，已變更為高可用性。因此，如有步驟指示您選取 [Fault Tolerance] 時，請改為選取 [High Availability]。例如，若要從容錯移轉啓始回復作業，請選取 [High Availability] → [Recover]。(6301656)

對檔案系統指定磁碟機代號

檔案系統建立期間，NAS 會自動為檔案系統指定可透過 SMB/CIFS 方法加以存取的磁碟機代號。磁碟機代號可能會用完。(6315946)

此訊息僅供參考之用。檔案系統仍會建立，但若要指定其磁碟機代號，必須重新指定其他檔案系統目前所使用的磁碟機代號。

增加磁碟機至 Sun StorEdge 5210 與 5310 NAS Appliance

Sun StorEdge NAS Appliance 支援熱插入磁碟機。但若要增加或移除擴充裝置，必須關閉系統。

規範遵循功能

下列資訊適用於 Sun StorEdge 5310 Appliance 與 Cluster 配置。

- 預設會關閉因為 Microsoft Windows 軟體而造成檔案感染的規範遵循功能。(6227484)
若要開啓 Windows 觸發程式，請使用下列 CLI 指令：

```
fsctl compliance wte on
```

- 當規範遵循授權過期或遭到移除時，系統會繼續保留規範遵循規則，但無法建立新的規範遵循磁碟區。(6229562)

升級為 4.10 或更高版本必須重設時區

在從 4.10 之前的版本升級為 4.10 或更高版本時，系統會要求您重新輸入時區資訊，即使您先前已輸入過亦然。這是因為變更後的實作提供了其他時區位置所致。

將 Gateway System 連接至 Sun StorEdge 6130 陣列

本小節提供將 Sun StorEdge 5310 NAS Gateway System 連接及配置到 Sun StorEdge 6130 陣列的相關指示。此程序假設您已經執行下列作業：

- 根據「Sun StorEdge 5310 NAS Appliance 和 Gateway System 入門指南」中所述之方式安裝及配置閘道系統。
- 根據「Sun StorEdge 6130 陣列入門指南」(文件號碼 819-2494-*nn*) 中所述之方式安裝及配置陣列。

將 Gateway System 連接至 Sun StorEdge 6130 陣列

您可以直接將 Gateway System 連接至 Sun StorEdge 6130 陣列，也可以透過單一或雙重光纖通道交換器進行連接。NAS 伺服器與 6130 陣列上至少要有一個可用的連接埠。

- 如需有關 NAS 伺服器連接埠與一般安裝指示的資訊，請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 入門指南」。
- 如需有關陣列連接埠與一般安裝指示的資訊，請參閱「Sun StorEdge 6130 陣列入門指南」。

必要的軟體與韌體

Sun StorEdge 5310 NAS Gateway System 需要 4.10 版 (最低版本) 的軟體支援閘道。

Sun StorEdge 6130 閘道需要表 2 中所列的軟體與韌體。

表 2 必要的 Sun StorEdge 6130 陣列軟體與韌體

軟體	版本 (最低)	修補程式 ID
Sun StorEdge 6130 陣列管理軟體	1.3	118164-06
控制器 CRM-F 韌體	06.12.09.10	117856-18
陣列韌體安裝程式		118185-14

升級 Sun StorEdge 5310 NAS Gateway System

1. 您的 **Gateway System** 若是沒有 4.10 版 (最低版本) 的軟體，請從下列網址下載最新版本：<http://sunsolve.sun.com>。
2. 安裝修補程式隨附之 `install.txt` 檔案中所述的更新項目。

升級 Sun StorEdge 6130 陣列管理軟體

若 Sun StorEdge 6130 陣列目前的版本為 1.2 版，請先將管理軟體升級為 1.3 版，再安裝修補程式。

若 Sun StorEdge 6130 陣列目前的版本為 1.3 版，請根據第 16 頁的「升級 Sun StorEdge 6130 陣列韌體」中的說明安裝修補程式。

若要升級管理軟體：

1. 從 **Sun StorEdge 6130 陣列管理介面**，登入 **Sun Storage Automated Diagnostic Environment**，並清除所有現有的警示。
2. 以 `root` 身份登入管理主機。
3. 連線至 <http://sunsolve.sun.com>，並下載適用於 **Solaris** 的最新 **Sun StorEdge 6130 主機軟體套件**，並將其儲存在管理主機的任意工作目錄中。
4. 解壓縮發行檔案與 `tar` 檔案。
5. 輸入以下指令：

```
./upgrade -n
```

`-n` 選項會指定非互動式升級。程序檔會在詢問您要升級軟體或韌體之後直接完成升級，而不會再有其他詢問動作。

安裝完成後會顯示確認畫面，並接著顯示完成升級的日期與時間。

此時您便可依照下節所述的方式安裝修補程式。

升級 Sun StorEdge 6130 陣列韌體

Sun StorEdge 6130 陣列管理軟體必須使用 1.3 版的韌體，才能夠安裝必要的修補程式。

若要升級 Sun StorEdge 6130 陣列的韌體：

1. 從下列網址下載必要的修補程式 (請參閱表 2)：<http://sunsolve.sun.com/>。
2. 停止對磁碟機的所有 I/O。
3. 以 `root` 身份登入管理主機。
4. 變更至下載軟體的存放目錄。

5. 遵循修補程式之 README 檔案中的指示安裝各修補程式。
6. 驗證是否已安裝最新的修補程式：
 - a. 開啟支援的瀏覽器。
 - b. 以下列格式輸入管理主機的 IP 位址：
https://host-IP:6789
 - c. 登入管理軟體。
 - d. 按一下 [Sun StorEdge 6130 Configuration Service]。
[Array Summary] 頁面會隨即顯示。
 - e. 驗證 [Firmware Version] 欄位中是否顯示 06.12.09.10 (或更高版本)。

驗證陣列

若要驗證 Sun StorEdge 6130 主機軟體是否可看見陣列，請使用自動探索或手動註冊。

▼ 自動驗證陣列

若陣列與管理主機位於相同的子網路上，即可自動驗證陣列。

1. 開啟支援的瀏覽器。
2. 以下列格式輸入管理主機的 IP 位址：
https://host-IP:6789
3. 登入管理軟體。
4. 按一下 [Sun StorEdge 6130 Configuration Service]。
[Array Summary] 頁面會隨即顯示。
5. 按一下 [Auto Discover]，以顯示與管理主機位於相同子網路上的陣列。

重要 – 此軟體約需要 2 分鐘來探索每一個陣列。

6. 驗證陣列是否列示於 [Array Summary] 頁面上。

▼ 手動註冊陣列

陣列與管理主機若位在不同的子網路上，便須手動註冊陣列。

1. 開啟支援的瀏覽器。
2. 以下列格式輸入管理主機的 IP 位址：
https://host-IP:6789
3. 登入管理軟體。
4. 按一下 [**Sun StorEdge 6130 Configuration Service**]。
[Array Summary] 頁面會隨即顯示。
5. 按一下 [**Register Array**]。
[Array Registration] 頁面會隨即顯示。
6. 輸入控制器的 IP 位址，然後按一下 [OK]。
7. 驗證陣列是否列示於 [Array Summary] 頁面上。

讓 Sun StorEdge 6130 陣列 SAN 儲存裝置可供使用

若要將 Sun StorEdge 6130 SAN 儲存裝置提供 NAS Gateway System 使用，請執行下列作業：

1. 在 Sun StorEdge 6130 陣列上建立初始器。
2. 在 Sun StorEdge 6130 陣列上定義新的磁碟區。
3. 在 NAS 伺服器上定義 NAS 磁碟區。

▼ 建立初始器

1. 登入 **Sun StorEdge 6130 Configuration Service** 軟體，然後按一下 [**Physical Storage**] → [**Initiators**]。
[Initiator Summary] 頁面會隨即顯示。
2. 按一下 [**New**]。
[New Initiator Summary] 頁面會隨即顯示。
3. 輸入新初始器名稱 (30 個字元以內)。
4. 選取現有的 **World Wide Name (WWN)**，或輸入新的名稱。
5. 選取初始器的主機。

6. 選取初始器的主機類型。

7. 按一下 [OK]。

[Initiator Summary] 頁面會顯示新初始器的初始器名稱、主機名稱、主機類型與 WWN。

▼ 定義 Sun StorEdge 6130 磁碟區

1. 在 **Sun StorEdge 6130 Configuration Service** 介面上，按一下 [**Logical Storage**] > [**Volumes**]。

[Volume Summary] 頁面會隨即顯示。

2. 按一下 [**New**]。

[New Volume] 精靈會隨即顯示。

3. 輸入磁碟區的名稱與容量。

4. 選取要用於此磁碟區的虛擬磁碟。

5. 將磁碟區對映至 **Sun StorEdge 5310 NAS Gateway** 主機。

新的磁碟區會顯示在 [Volume Summary] 頁面中。

▼ 定義 NAS 5310 磁碟區

1. 從 NAS 伺服器的用戶端登入 **Web Administrator**。

2. 在 **Sun StorEdge 6130** 磁碟區上建立 **NAS** 磁碟區，並加以格式化：

a. 開啟 [**File Volume Operations**] 功能表。

b. 選取 [**Create File Volumes**]。

c. 按一下 [**Scan New Disks**]。

新建的 6130 LUN 會顯示在中央窗格的左側。

d. 命名磁碟區，並輸入必要的參數，然後按一下 [**Apply**]。

如需有關必要參數的資訊，請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」。

若要重新導入 LUN，必須重新開機

若使用頻帶內 RAID 管理以外的方式，在刪除 LUN 之後再將其重新導入 NAS，必須重新開機 (6281673)。

開道系統不需要重新啟動伺服器。您可以根據「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」中所述的方式，取消對映及重新對映 LUN。

離線的 LUN 無法刪除

離線的 LUN 或磁碟區無法刪除。LUN 必須進入連線狀態，才可刪除其本身或其磁碟區 (6282821)。

請勿手動掛載 /cvol

/cvol 檔案系統不應以手動方式共用或掛載。請勿使用 Web Administrator 或 Telnet/CLI 以外的方式修改 /cvol。(6280955)

重要 – Sun 支援工程師可執行手動掛載。

使用叢集的檔案複寫

當叢集處於降級狀態時，請勿執行「Change Role」一類的鏡像操作。如需最佳做法的相關資訊，請參閱「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」(文件號碼為 819-5233-10) (6291398, 6218561, 6233839, 6234948)。

匯出檔案磁碟區

您可以使用 [Set Up Hosts] 視窗將主機增加至「trusted group」，而只將檔案磁碟區匯出到擁有 Root 權限的主機組 (如 Sun Solaris 或 UNIX)。另一種方法是先將主機組增加至主機群組中，再使用 [with Map Root User set to Root User] 選項，將此群組所需要的檔案磁碟區匯出 (6222556)。

MIB 檔案

管理資訊庫 (MIB) 檔案會透過映像檔安裝在 boot-directory/www/data/mib 目錄中，例如 /cvol/nf1/www/data/mib。您可以透過 Web Admin 在 mib 子目錄中找到 MIB 檔案，例如 <http://hostname/mib>，其中 *hostname* 是適當的系統主機名稱或 IP 位址。

您也可以從下列網址的發行軟體下載中找到 MIB 檔案：
<http://sunsolve.sun.com>。

NAS 系統記錄訊息

您的系統記錄若出現指出「Unowned SFS2」磁碟區的錯誤訊息，請致電技術支援部門，以尋求協助。(6186842)

發行文件

下列文件會公佈於文件網站上：

http://www.sun.com/hwdocs/Network_Storage_Solutions/nas。

標題	文件號碼
Sun StorEdge 5310 NAS Gateway System 簡圖	819-5261-10
「Sun StorEdge 5310 NAS Appliance 和 Gateway System 入門指南」	819-5228-10
「Sun StorEdge 5310 NAS Appliance 和 Gateway System 管理指南」	819-5233-10
「Sun StorEdge 5310 NAS Appliance 安全標準和規範指南」	819-3090-10
「Sun StorEdge 5300 RAID 擴充裝置和 Sun StorEdge 5300 擴充裝置的安全標準和規範指南」	819-3091-10

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Documentation and source code may be found at
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26 Open source http client library

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