



使用手冊

For Network Attached Storage

Ver.1.0.0.0411

(For ADM 1.0)

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1. 說明

感謝您選擇 ASUSTOR 的產品作為您的雲端及網路儲存伺服器 (以下簡稱 NAS) !

ASUSTOR NAS 具備所有您需要的功能，從跨平台的檔案分享，到各類檔案/多媒體的伺服器，搭配絕佳的擴充平台 App Central，讓您的 NAS 擁有無限的可能。

您的 NAS 出廠即搭載由 ASUSTOR 自行研發的作業系統 ASUSTOR Data Master (以下簡稱 ADM)，搭配獨特設計之網頁圖形化介面以提供無與倫比的使用者經驗。此使用手冊將會依據 ADM 出廠時所預先安裝的應用程式 (以下簡稱 app) 來分類及詳述。

線上資源

類別	網址
官方論壇 (英文)	http://forum.asustor.com/
下載專區	http://www.asustor.com/service/downloads?lan=zh_tw
技術支援	http://www.asustor.com/service/online_support?lan=zh_tw

使用條款

所有 ASUSTOR 所出廠的產品都經過完整的檢測，在一般情況下皆可正常地運作。在有效保固期間內及正常的使用狀況下，倘若您遇到任何硬體的故障，ASUSTOR 皆會負責維修。在開始使用本產品之前，請先詳閱文末的[使用者授權合約 \(EULA\)](#)。

2. 內建應用程式

內建應用程式主要包含硬體、磁碟、功能及服務設定。所有關於系統相關的設定，乃至於存取權限控制皆可在此完成。

2.1. 設定

2.1.1. 一般

您可在此修改預設的系統管理介面通訊埠及設定連線逾時時間，若使用者閒置超過該指定時間，即會自動被登出 ADM。

- 系統 HTTP 埠號：此為用來連接 ADM 網頁管理介面的專用連接埠。您只需要開啟瀏覽器，在網址列輸入您的 IP 或主機位址，在加上此埠號，例如：<http://192.168.1.168:8000>，即可連線至 ADM。
- 連線逾時時間：當使用者登入 ADM 後，在指定時間內未有任何動作，為了安全考量將自動被登出。

2.1.2. 網路

註：此功能可能會因不同機種而有所差異

您可在此設定 NAS 在網路上的識別名稱，或變更有線及無線的網路設定，包含 IP 位置、網域名稱伺服器 (DNS Server) 及預設通訊閘 (Default Gateway)。

- 伺服器名稱：NAS 在網路上的識別名稱。
- 預設通訊閘：欲使用的通訊閘。
- DNS 伺服器：您可在此指定所欲使用的網域名稱 (DNS) 伺服器。若您選擇透過 DHCP 自動取得 IP 位址，系統將自動取得可用的 DNS 伺服器，此外，您也可另行在此指定。若您選擇手動輸入 IP 位址，您將需在此自行指定 DNS 伺服器。

提醒：設定無效的 DNS 伺服器將影響部分網路相關之功能，如：下載中心。若您不確定該如何設置，請選擇自動取得 IP 位址。

[更多](#)

[NAS 105 – 網路連結: 初學者導覽](#)

[NAS 307 – 進階網路應用: Link Aggregation](#)

2.1.3. 區域選項

您可在此調整系統的日期時間、日期格式、時區及設定日光節約時間。

2.1.4. 硬體

註：此功能可能會因不同機種而有所差異。

您可在此控制硬體相關的設定，如：LED 燈號、蜂鳴器、硬碟休眠、風扇等。此外，您也可在此設定系統自動開/關機排程，以達到節能的目的。

- 系統：您可自訂欲關閉的 LED 燈號。若選擇「夜間模式」，系統將僅保留電源 LED 指示燈，並每十秒閃爍一次橘光。此外，您也可以自訂蜂鳴器警示音以及設定啟用或停用機器後方的系統重置按鍵。
- 硬碟：您可設定內接與外接硬碟的休眠時間
- 電源：您可在管理所有電源相關設定，如：網路遠端喚醒 (Wake On LAN) 及系統自動開/關機排程。
- 風扇控制：您可指定系統風扇的轉速。若您不確定該選擇何者，請使用自動模式讓系統根據實際溫度動態調整風扇轉速。
- LCD 面板：您可以自訂 LCD 面板上所欲顯示的跑馬燈文字，或選擇顯示本地溫度，系統將自動判斷所在地區來顯示當地氣候。

提醒：當您選擇顯示本地溫度，系統會透過您當前的網路 IP 位置判定所在區域，此結果可能會因地區不同而有所誤差。

關於系統重置按鍵

當您因某些因素無法連線至 NAS 時，此按鍵可幫助您將部分設定回復成預設值。

- 系統管理帳號 (admin) 之密碼將回復為 admin
- 系統 HTTP 及 HTTPS 埠號將回復為 8000 及 8001
- 網路設定將回復為自動取得 IP，您可經由 ASUSTOR Control Center 再次搜尋 NAS。
- ADM Defender 將回復為允許所有連線

2.1.5. 通知

您可在此設定系統事件通知。當系統事件發生時，即可在最短時間內收到通知。

- 傳送：您可在此設定用來發送 E-mail 或 SMS 的帳號。支援設定多組不同的帳號，但僅能設定一組為主要使用。
- 接收：您可在此設定接收 E-mail 或 SMS 的手機門號，及指定欲收到的系統事件類別。

2.1.6. ADM Defender

ADM Defender 可保護您的 NAS 不易受到網路惡意攻擊，以確保系統安全。

- 防火牆：您可在此依據不同的通訊協定，封鎖特定的 IP 位址連線至 NAS，或設定為僅允許特定的 IP 位址可連線。
- 網路防護：啟用並設定網路防護後，當使用者在指定時間區間內連續登入失敗超過指定次數後，其 IP 位址將會自動被加入封鎖清單。如下圖中設定，當某個使用者在 10 分鐘內連續登入失敗達 5 次之後，其 IP 位址將會永遠被封鎖且無法連線至 NAS。

關於網路防護

網路防護可主動防禦網路惡意攻擊，避免網路駭客連續嘗試登入。支援的通訊協定如下：

- ADM 系統登入 (HTTP & HTTPS)
- 微軟網路傳輸協定 (CIFS/SAMBA)
- 蘋果檔案傳輸協定 (AFP)
- 檔案傳輸協定 (FTP)
- Secure Shell (SSH)

2.1.7. ADM 更新

為確保系統穩定及提昇軟體功能，您可在此進行系統軟體的更新。

- 線上更新：當啟用線上更新通之後，每次當您登入 ADM 且對外網路可正常連線時，系統將會主動檢查是否有新的軟體可更新，並以訊息提示。

- 手動更新：您可以登入 ASUSTOR 官方網站 (<http://www.asustor.com/>) 下載新版的 ADM，並由此進行系統更新。

2.1.8. 網路資源回收桶

當啟用網路資源回收桶後，系統將會依據每一個邏輯磁區 (Logical Volume) 產生一個共用資料夾 Recycle Bin X (如 Volume 1 即會產生一個對應的 Recycle Bin 1)。所刪除的檔案將會被移至資源回收桶中，讓您可隨時救回被誤刪的資料。

關於網路資源回收桶

當啟用網路資源回收桶後，經由以下方式所刪除的檔案，將會被移至回收桶中：

- 微軟網路傳輸協定 (CIFS/SAMBA)
- 蘋果檔案傳輸協定 (AFP)
- 檔案傳輸協定 (FTP)
- File Explorer

當啟用資源回收桶之後，Recycle Bin X 會自動產生且不能被移除。

2.1.9. Energy Saver

Energy Saver 可幫助您節省所需用電，讓硬體裝置在未使用或使用量較小的情況下，以較低電量的方式運行。

2.1.10. 輕鬆存取

您可在此設定所有遠端連線所需要的資訊。

- Cloud Connect：在此您可以為您的 NAS 設定一個專屬的 Cloud ID。往後當您使用 ASUSTOR 的用戶端軟體連線至 NAS 時，不再需要記憶主機網址或 IP 位址，僅需輸入 Cloud ID 即可。
- EZ-Router：EZ-Router 可幫助您自動設定路由器及所有遠端連線所需要的設定。

提醒：您的路由器需支援 **UPnP** 或 **NAT-PMP**。請注意並非所有的路由器皆支援此自動設定功能，煩請參閱 **ASUSTOR** 官網上之相容清單。

- **DDNS：**您可以在此申請或設定您的 **DDNS** 帳號。**DDNS** 讓您可直接使用特定的 **host name** (例如：**nas.asustor.com**) 來連線至 **NAS**，而不需要記憶特定 **IP** 位址。此功能多用於使用浮動 **IP** 的環境。

2.1.11. 還原至出廠設定

您可在此將系統回復成出廠值。執行後，系統將回到未初始化前的狀態，您可再次透過 **ASUSTOR Control Center** 或登入至 **ADM** 首頁來進行系統初始化。為確保安全，在執行此動作前，將會被要求再次輸入 **admin** 密碼方可開始執行。

注意：當回復成出廠值後，全部的設定及檔案將會被清除且無法還原。請確定您已經先將 **NAS** 的資料進行備份，在執行此動作。

2.1.12. 註冊

您可以在此進行個人帳號 (**ASUSTOR ID**) 及產品註冊。當產品註冊完成後，您的 **ASUSTOR ID** 也將自動被啟用。

提醒：您必須要有一組有效的 **ASUSTOR ID**，方可從 **App Central** 中下載應用程式或使用 **Cloud Connect** 服務。

2.2. 服務

您可在此設定所有網路相關的服務，如檔案傳輸協定、網站伺服器、MySQL 資料庫等。

2.2.1. Windows

當啟用 Windows 檔案服務後，您即可透過微軟視窗作業系統 (如：Windows 7) 來直接存取 NAS 上的資料，此檔案傳輸的協議又稱為 CIFS/SAMBA。若您有使用 Windows Active Directory (以下簡稱 AD)，也可在此將 NAS 加入 AD 網域。

- 工作群組：此為 NAS 在區域網路中所屬的工作群組。
- Local Master Browser：若您啟用此選項，NAS 將會在區域網路中，收集同一工作群組的所有電腦名稱。

提醒：啟用此功能可能會導致硬碟無法休眠。

關於 Windows Active Directory

成功加入 Active Directory 後，您可以在 [2.4 存取控制](#) 中的 [網域使用者](#)、[網域群組](#) 及 [共用資料夾](#) 進行權限設定。爾後 AD 使用者即可以自己的 AD 帳號登入並存取儲存於 NAS 上的資料。

更多

[NAS 106 – 在 Microsoft Windows 上使用 NAS](#)

[NAS 206 – 在 Windows Active Directory 上使用 NAS](#)

2.2.2. Mac OS X

當啟用 Mac OS X 檔案服務後，您即可透過 Apple 的 Mac OS X 作業系統 (如：Mac OS 10.7) 來直接存取 NAS 上的資料，此檔案傳輸的協議又稱為 AFP (Apple Filing Protocol)。此外，您也可透過 Time Machine 將您的資料備份至 NAS 上。

- Apple Filing Protocol：簡稱 AFP，為 Mac OS X 與區域網路電腦進行檔案傳輸的協定。您可經由 Finder > Go > Connect to Server，並在 Server Address 中輸入欲連線的網路位址。

範例：`afp://192.168.1.168`

- Bonjour 服務名稱：此為 NAS 於 Finder 中顯示的名字。

- **Time Machine 支援**：您可在此開啟 Time Machine 支援，並指定要將備份存在哪一個共用資料夾內。若有多個 Mac 使用者欲同時使用此功能，請參閱 [NAS 159 – Time Machine: Best Practice](#)。

關於 Bonjour

Bonjour 又名 zero-configuration networking，廣泛被應用於 Apple 相關的產品，可讓使用者在不需要知道其他 Apple 裝置之實際網路 IP 位置的情況下，於自己的裝置上 (如：Mac) 主動顯其他鄰近的 Apple 裝置，並可直接進行連接。

啟用此服務後，您即可於 Finder 左側看到您的 NAS，點擊後便可進行連線。

更多

[NAS 108 – 在 Apple Mac OS X 上使用 NAS](#)

[NAS 159 – Time Machine: 最佳範例](#)

2.2.3. NFS

您可以由此啟用 NFS 以支援 UNIX 或 Linux 作業系統的主機來存取 NAS 上的檔案。

關於 NFS

啟用 NFS 服務後，您可以在 [2.4 存取控制](#) 中的 [共用資料夾](#) 進行 NFS 權限設定。在未啟用的情況下，此選項將會被自動隱藏。

2.2.4. FTP 伺服器

您可在此啟用 FTP 伺服器，即可透過 FTP 用戶端程式 (如：FileZilla) 連線至 NAS 以存取資料。FTP 伺服器的存取權限與系統相同，若您欲修改權限設定，請至 [2.4 存取控制](#) 中的 [共用資料夾](#) 進行設定。

- **Unicode 支援**：若您的 FTP 軟體支援 Unicode，請啟用此選項。
- **允許匿名登入**：是否允許 FTP 軟體以匿名方式登入 NAS (不需輸入使用者名稱及密碼)。為了安全考量，建議停用此選項。

- 啟用 SSL/TLS：支援 FTP 加密連線。
- 全部 FTP 連線數上限：FTP 伺服器最多可同時允許的連線總數。
- 單一 IP 位址可連線數上限：限制單一 IP 或主機的連線總數。
- 最大上傳速度：單一連線的最大上傳速度，0 代表無限制。
- 最大下載速度：單一連線的最大下載速度，0 代表無限制。
- 被動式 FTP：為了解決由伺服器連線到用戶端所產生的安全疑慮，因此發展出了另一種不同的連線模式，稱之為被動模式(Passive Mode, PASV)。讓用戶端程式可以在連線的時候，通知伺服器使用被動模式連線。

關於被動式 FTP

為解決主動模式在防火牆外面時所發生無法連接的問題，可以用被動模式 FTP。在被動式 FTP 下，FTP 用戶端一開始和主動式 FTP 一樣，打開二個 port ($N > 1024$ 及 $N+1$)，使用第一個 port 連接至 FTP 伺服器的連接埠 (預設為 21)，並送出命令 PORT 讓伺服器連至 N 再送出 PASV 命令給伺服器。這樣會造成伺服器使用一個大於 1024 的連接埠來連接至用戶端，並送出命令 PORT N ($N > 1024$) 給用戶端，這樣用戶端就會使用 $N + 1$ 並開始傳輸資料。

可參閱：http://en.wikipedia.org/wiki/File_Transfer_Protocol

2.2.5. WebDAV

啟用 WebDAV 可讓使用者透過瀏覽器或其他用戶端程式，經由 HTTP 或 HTTPS 協定來存取儲存於 NAS 上的資料。

[更多](#)

[NAS 208 – WebDAV: 安全檔案分享的另一種選擇](#)

2.2.6. Web 伺服器

ADM 內建一獨立網站伺服器 (apache)，讓您可用來架設屬於自己的網站。當您啟用此功能後，系統將自動產生一共用資料夾 Web，作為網站伺服器的根目錄。

- **PHP register_globals**：預設為不啟用。若網站程式要求開啟 PHP 設定 register_globals，請將其設為開啟。為了確保系統安全性，建議您保持該設定關閉。
- **虛擬主機**：您可以透過此功能在本機 NAS 上同時架設多個網站。

[更多](#)

[NAS 321 – 透過虛擬主機佈署多個網站](#)

2.2.7. MySQL 伺服器

ADM 出廠即內建 MySQL 資料庫，您可啟用它以作為您的網站資料庫。

提醒：您可以透過 **App Central** 下載安裝 **phpMyAdmin** 來管理 **MySQL** 伺服器。

- **重置密碼**：若您忘了登入 MySQL 的密碼，可在此回復 root 密碼 (預設為 admin)。
- **初始化資料庫**：您可在此重新初始化整個 MySQL 資料庫。一旦初始化後，所有原有的 MySQL 資料庫及資料將全部被清除。

關於 MySQL

系統預設的 MySQL 管理者帳號為 root，密碼為 admin。為了安全考量，請記得變更 root 密碼。

2.2.8. 終端機

若欲透過 Secure Shell (SSH) 管理本機 NAS，您可啟用本服務。若要支援 SFTP (Secure FTP) 將檔案傳輸至 NAS，也可在此設定。

注意：為了安全考量，SSH 僅允許以 **admin** 或 **root** (密碼與 admin 相同) 帳號登入。

2.2.9. Rsync 伺服器

透過設定 Rsync 伺服器，您可將資料由 1. 另一台 ASUSTOR NAS 2. 任一 Rsync 相容主機備份至本機 NAS，以達到資料備份及異地備援之效果。

- 啟用 Rsync 伺服器：如果要允許用戶端以加密方式進行備份，請啟用支援透過 **SSH** 的加密傳輸。若您啟用加密傳輸，系統將自行開啟 **SSH** 服務 ([2.2.8 終端機](#))。
- 管理 Rsync 使用者：若您想要限定可備份至本機之 Rsync 連線，請先點擊**管理使用者**來建立不同的 Rsync 使用者帳號。

提醒：Rsync 帳號與系統帳號為各自獨立

- 新增備份模組：點擊**新增**以建立一個新的備份模組，每個備份模組將對應至系統中某一實體路徑。當 Rsync 用戶端連線至本機 NAS 進行備份時，便可從可用之模組中擇一並將檔案複製到其所對應的實體路徑下。

[更多](#)

[NAS 259 – 透過遠端同步 \(Rsync\) 來保護你的資料](#)

[NAS 351 – 遠端同步 \(Rsync\): 最佳範例](#)

2.3. 儲存管理員

2.3.1. 硬碟群組

註：此功能可能會因不同機種而有所差異

硬碟群組 (儲存空間) 是由一個或數個硬碟所組合而成的邏輯磁區 (Logical Volume)。您可在此建立新的儲存空間，根據對於資料保護的需求，來選擇最適合此儲存空間的 RAID 等級。您僅可以以內接硬碟來建立儲存空間，為確保資料完整性，ADM 並不支援以外接硬碟來建立儲存空間。

提醒：可使用的 RAID 等級會因硬碟數量而有所不同，因此可能會受限於您的機種。

當您欲建立一個新的儲存空間，ADM 提供以下兩種模式協助您輕鬆完成設定：

- 快速設定：您僅需要指定對於儲存空間的需求 (如：希望得到較佳的資料保護)，ADM 將會根據現有的硬碟數量，自動幫您建立新的儲存空間及決定其 RAID 等級。
- 進階設定：您可根據現有的硬碟數量，自行指定其 RAID 等級，及設定備用硬碟 (Spare Drive)。

提醒：為達到最佳的硬碟空間利用率，建議您使用相同容量的硬碟來建立儲存空間。

關於 RAID 組態

為了提供最佳的儲存空間利用及資料保護，ADM 支援多種不同的 RAID 等級，讓您可自行依據對於儲存空間的需求，來決定選用何種 RAID 等級。以下是所有 ADM 支援的 RAID 等級：

- **Single**：僅使用一顆硬碟來建立儲存空間。此類型將不支援任何資料保護。
- **JBOD**：將兩顆 (含) 以上的硬碟空間合併，成為一個儲存空間。可使用的容量約為所有組成硬碟容量的總和。優點是可使用不同容量的硬碟及擁有較大的儲存空間，缺點則是不具任何資料保護性且存取效能較 RAID 0 差。
- **RAID 0**：將兩顆 (含) 以上的硬碟空間合併，成為一個儲存空間。可使用的容量約為所有組成硬碟容量的總和。優點是可使用不同容量的硬碟及擁有較大的儲存空間，缺點則是不具任何資料保護性。
- **RAID 1**：將兩顆的硬碟空間合併，成為一個鏡像的儲存空間。當資料寫入此儲存空間時，系統將會同時在每顆硬碟上寫入相同的資料，因此當其中一顆硬碟損毀時，此儲存空間仍可保有完整的資料。優點是提供資料的保護，缺點則是當兩顆硬碟容量不同時，此儲存空間的可用容量將以較小的硬碟來計算，會造成另一顆 (較大) 硬碟的容量無法被利用。可使用空間： $(\text{最小硬碟容量}) * (1)$ 。
- **RAID 5**：將三顆 (含) 以上的硬碟空間合併，成為一個可允許一顆硬碟損毀的儲存空間。當其中一顆硬碟損毀時，此儲存空間仍可保有完整的資料，並可正常存取。您可以新的硬碟進行替換並重建此儲存空間。優點是提供資料的保護，缺點則是當所使用的硬碟容量不同時，此儲存的可用容量將以最小的硬碟來計算。可使用空間： $(\text{最小容量硬}$

碟) * (硬碟總數 - 1)

- **RAID 6**：將四顆 (含) 以上的硬碟空間合併，成為一個可允許兩顆硬碟損毀的儲存空間。當其中兩顆硬碟損毀時，此儲存空間仍可保有完整的資料，並可正常存取。您可以新的硬碟進行替換並重建此儲存空間。優點是提供更佳資料的保護，缺點則是可使用的儲存空間容量較小。此外，當所使用的硬碟容量不同時，此儲存的可用容量將以最小的硬碟來計算。可使用空間：(最小容量硬碟) * (硬碟總數 - 2)
- **RAID 10 (1+0)**：將四顆 (含) 以上的硬碟空間合併，成為一個可允許多顆 (非相連) 硬碟損毀的儲存空間。**RAID 10** 兼具了 **RAID 1** 的資料保護性及 **RAID 0** 的讀取效能。在資料保護上，**RAID 10** 的原理乃是將每兩顆硬碟作為一組 **RAID 1**，因此當有一顆硬碟損毀時，資料仍將保持完整。另外，硬碟總數必須大於或等於四，且需為偶數。當所使用的硬碟容量不同時，此儲存的可用容量將以最小的硬碟來計算。可使用空間：(最小容量硬碟) * (硬碟總數 / 2)

[更多](#)

[NAS 251 – RAID 簡介](#)

[NAS 352 – 線上 RAID 組態升級與線上容量擴充](#)

2.3.2. 硬碟

您可在此檢視所有安裝於 **NAS** 上的 (內接) 硬碟及其狀態。您也可在此檢視個別硬碟的 **S.M.A.R.T.** 資訊或進行測試。

- **S.M.A.R.T. 資訊**：全名為 **Self-Monitoring, Analysis and Reporting Technology**，是一種硬碟的自我監控機制，經由硬碟內的指令對其硬體進行檢測，以預先了解硬碟目前的狀況。
- **Disk Doctor**：您可在此進行硬碟的壞軌檢查或 **S.M.A.R.T.** 測試。

2.3.3. iSCSI

iSCSI 是一種基於網路的儲存技術，具備高擴充性及低建置成本，讓您可在現有的網路架構下透過 iSCSI 將 **NAS** 用來擴充既有的儲存空間或作為備份的目的地。iSCSI 分為兩端，**Target** 及 **Initiator**，在您電腦中 (如：Windows 7) 用來尋找 iSCSI 主機 (host) 及設定 **Target** 的，即稱為 **Initiator**。

- **IQN**：IQN (iSCSI Qualified Name) 是每個 iSCSI **Target** 的一個獨特名稱，且此名稱不應與其他 iSCSI 主機上的 **Target IQN** 重複。

- **CHAP 認證**：CHAP 認證可用來驗證用戶身分。若您選擇啟用 CHAP 認證，當 iSCSI Initiator 欲連線至此 Target 時，則需先在 Initiator 端輸入 CHAP 密碼方可進行連線驗證。
- **相互 CHAP 認證**：相互 CHAP 認證要求 Target 及 Initiator 端都需要各自設定一組帳號密碼。例如 Target 端除了需設定一組帳號密碼供 Initiator 端認證使用，本身也須取得 Initiator 端的帳號密碼並預先輸入。當 Initiator 端欲連線至 Target 時，便會自動進行相互認證。
- **LUN Pool**：您可在此檢視所有 iSCSI LUN 的使用狀況，並指派其所對應的 iSCSI Target。

[更多](#)

[NAS 308 - iSCSI 簡介](#)

2.4. 存取控制

2.4.1. 本機使用者

您可以在此管理（新增、修改或移除）系統的使用者，或針對個別使用者指派其對於共用資料夾的存取權限。

提醒：若您的使用環境人數較少，可直接根據每個使用者逐一進行權限設定。

在 ADM 中，單一使用者對於某一共用資料夾的權限，將根據使用者本身及其所屬群組的權限進行交叉比對（請參閱 [Appendix 4.1](#)）。為方便設定，系統提供預覽模式，讓您在修改權限的過程中即可預先檢視套用之後的變化。

關於本機使用者

當系統初次設定完畢後，將自動產生兩組使用者帳號 `admin` 及 `guest`。`admin` 為系統預設的管理員並擁有絕大多數的權限，您可稍後在此修改其權限及密碼。`guest` 為預設的訪客帳號，僅適用於 `CIFS/SAMBA` 及 `AFP`，因不具備登入及認證的權限，所以無法修改其密碼。

更多

[Appendix 4.1 - 權限對照表](#)

2.4.2. 本機群組

您可以在此管理（新增、修改或移除）系統的使用者群組，或針對個別群組指派其對於共用資料夾的存取權限。

提醒：若您的使用環境人數較多，使用者群組可方便您以群組的方式來指派權限，而不需根據每個使用者逐一進行權限設定。

在 ADM 中，單一使用者對於某一共用資料夾的權限，將根據使用者本身及其所屬群組的權限進行交叉比對（請參閱 [Appendix 6.1](#)）。為方便設定，系統提供預覽模式，讓您在修改權限的過程中即可預先檢視套用之後的變化。

關於本機使用者群組

當系統初次設定完畢後，將自動產生兩組使用者群組 `administrators` 及 `users`。`administrators` 為系統預設的管理員群組，若某一使用者被加入此群組，原則上其將擁有絕

大多數的管理者權限，而 **admin** 帳號為此群組的預設成員且無法被移除。

users 為系統的基本群組，所有的使用者皆屬於此群組且無法被移除。

[更多](#)

[Appendix 4.1 – 權限對照表](#)

2.4.3. 網域使用者

當 NAS 成功加入 AD 網域後，您即可在此檢視所有的 AD 使用者帳號，或變更其對於共用資料夾的權限。

提醒：ASUSTOR NAS 可支援 20 萬個以上的 AD 使用者及群組。首次加入 AD 網域時，若您的 AD 使用者或群組較多，可能需稍微等候方可完整顯示。

[更多](#)

[Appendix 4.1 – 權限對照表](#)

2.4.4. 網域群組

當 NAS 成功加入 AD 網域後，您即可在此檢視所有 AD 使用者群組，或變更其對於共用資料夾的權限。

提醒：ASUSTOR NAS 可支援 20 萬個以上的 AD 使用者及群組。首次加入 AD 網域時，若您的 AD 使用者或群組較多，可能需稍微等候方可完整顯示。

[更多](#)

[Appendix 4.1 – 權限對照表](#)

2.4.5. 共用資料夾

您可在管理（新增、修改或移除）共用資料夾，並根據使用者或使用者群組來設定其使用權限。共用資料夾是 NAS 作為檔案伺服器，提供外界進行檔案存取的基本單位。因此，正確的權限設定對於資料的管理非常重要。

- 不顯示於“網路”或“網路上的芳鄰”中：此選項僅適用於微軟視窗作業系統。當您啟用此選項，NAS 將不會主動出現於“網路”中，此並不會影響與 NAS 間的連線。
- 加密此共用資料夾：您可以選擇將共用資料夾加密，並選擇在開機時不自動掛載。如此一來當系統重新開機後，您必須手動鍵入密碼，此資料夾才可被存取。一般而言，加密資料夾是用來存放較重要或機密的資料，此目的乃是在於防止當機器失竊時，重要資料外洩的可能。

提醒：您除了可在新建共用資料夾時決定是否進行加密，除了系統的預設共用資料夾外，一般共用資料夾也可在之後選擇進行或解除加密。一般而言，加密後的共用資料夾存取速度會較一般共用資料夾慢。

注意：當您選擇將共用資料夾加密後，請妥善保存您的密碼。倘若密碼遺失，該資料夾中的資料將永遠遺失且無法以任何方式取回。

- NFS 權限：當啟用 NFS 服務後，您可在此設定個別共用資料夾之存取權限。

關於共用資料夾

當系統初次設定完畢後，將自動產生一共用資料夾 **Public**，預設權限為所有使用者皆能夠讀取及寫入該資料夾。

此外，系統將依據當前的本機使用者帳號，自動建立每個使用者的個人目錄，預設為僅該使用者能夠存取。

[更多](#)

[Appendix 4.1 - 權限對照表](#)

2.4.6. App 權限

您可在此依據使用者或群組逐一設定 App 的存取權限。若某一使用者帳號 (例如：Mike) 被設定為無法存取 Surveillance Center，當以 Mike 登入時，將不會在 ADM 的 Home Screen 中看到 Surveillance Center 的圖示，亦無法以其他方式執行該 App。

- 網頁應用程式 (Web Application) 因屬公開性質 (如：WordPress) 或擁有自己的帳號管理系統 (如：Joomla)，所以無法在此限制存取。
- 針對網域使用者，系統僅提供設定 File Explorer 存取權限。

2.5. 備份與還原

2.5.1. 遠端同步

遠端同步(Rsync) 可支援多向備份模式。您可將本機 NAS 的資料主動備份至另一台遠端的 ASUSTOR NAS 或 rsync 相容伺服器，達到異地備援的效果。亦可由遠端的 ASUSTOR NAS 或 rsync 相容伺服器，將資料抓回本機 NAS 存放，讓本機 NAS 成為資料備份中心。

提醒：若您欲透過遠端同步將本機檔案備份至另一台遠端 ASUSTOR NAS，或由本機 NAS 主動將遠端的 ASUSTOR NAS 的檔案下載至本機，請記得先在此遠端 NAS 啟用 Rsync 服務 (服務 - >Rsync 伺服器，請參閱 [Rsync 伺服器](#))。

- 啟用加密傳輸：若您欲使用加密連線來進行傳輸，除了在步驟中輸入 Rsync 帳號密碼外，請在勾選“啟用加密傳輸”後，一併輸入對方主機的 SSH 登入資訊。
- 使用 1 對 1 資料夾同步：若您勾選此選項，所選擇的檔案來源資料夾 (僅能選擇一個) 將會與指定目的資料夾進行同步，意即兩個資料夾的內容將會相同。倘若您未勾選勾選此選項，你所選擇的來源資料夾 (可允許多個) 將會逐一被複製到目的資料夾中。
- 保留目的端的多餘檔案：當檔案複製及同步完成後，原則上目的端應與來源端的資料一致。此處的多餘檔案指的是，若原本目的端存在部分檔案，但來源端中並未含有這些檔案，此時若您有勾選此選項，這些檔案將會在目的端被保留下來且不會被異動。
- 使用增量備份 (Incremental Backup)：當您勾選此選項，在首次的完整備份完畢後，未來再次進行備份時，僅會針對檔案有差異的部份進行更新 (Block-level)。舉例來說，若您對一個 10 MB 的檔案進行小幅修改後，增量備份將僅會針對修改的部份進行傳送，可大幅降低網路頻寬的使用。
- 啟用壓縮功能：對備份的資料在傳輸時進行壓縮處理，可降低頻寬的使用。
- 保存檔案的 metadata：當您啟用此選項，部分檔案屬性，如：permission, extension, attribute, owner, group 及 modified time 等將會一併被傳送至目的端。
- 支援 sparse 檔案複製：當您欲備份的資料中含有 sparse 類型的檔案，您才需要勾選此選項，一般而言此選項不需被啟用。

[更多](#)

[NAS 259 – 透過遠端同步 \(Rsync\) 來保護你的資料](#)

[NAS 351 – 遠端同步 \(Rsync\): 最佳範例](#)

2.5.2. FTP 備份

FTP 備份可支援多向備份模式。您可將本機 NAS 的資料主動備份至另一台遠端的 ASUSTOR NAS 或 FTP 伺服器，達到異地備援的效果。亦可由遠端的 ASUSTOR NAS 或 FTP 伺服器，將資料抓回本機 NAS 存放，讓本機 NAS 成為資料備份中心。

提醒：若您欲透過 FTP 備份將本機檔案備份至另一台遠端 ASUSTOR NAS，或由本機 NAS 主動將遠端的 ASUSTOR NAS 的檔案下載至本機，請記得先在此遠端 NAS 啟用 FTP 伺服器（服務 - >FTP 伺服器，請參閱 [FTP 伺服器](#)）。

關於 FTP 備份

一般而言，FTP 備份適用於絕大多數的 FTP 伺服器，但仍可能發生不相容的情況。建議您使用兩台 ASUSTOR NAS 進行備份。

2.5.3. 雲端備份

註：此功能可能會因不同機種而有所差異

透過雲端備份，您可定期將 NAS 上的資料備份或傳送至雲端儲存空間，或由雲端儲存空間下載至 NAS。目前支援的雲端儲存服務如下：

- Amazon S3

2.5.4. 外接裝置備份

您可以選擇將 USB 或 eSATA 外接硬碟中的資料備份至 NAS，或將 NAS 中的資料備份至外接儲存裝置。此功能除支援雙向備份外，也支援排程備份，讓您的寶貴資料得到完善的保障。

2.5.5. USB 單鍵備份

註：此功能可能會因不同機種而有所差異

USB 單鍵備份可讓您預先設定 NAS 前面板之 USB 備份按鍵，指定欲備份的方向及目錄。未來您僅需將 USB 外接磁碟連接至前置 USB 埠，按壓 USB 備份按鍵即會自動進行備份。

- 傳輸模式：

- 由前置 USB 備份至 NAS：系統將會把整個外接裝置中的目錄及檔案，依照原有的目錄結構備份至指定的 NAS 路徑中。
- 由 NAS 備份至前置 USB：系統將會把指定的 NAS 目錄及檔案，依照原有的目錄結構備份至外接裝置的根目錄下。
- 備份方式：
 - 複製：若您選擇複製，系統將會完整複製資料至外接裝置，若遇到相同名稱的資料夾或檔案，即會自動覆蓋，而目的端多餘的檔案將會被保留。此方式適合單次性的備份。
 - 同步：若您選擇同步，系統將會完整同步資料至外接裝置，僅會針對差異的部份進行傳輸，而目的端多餘的檔案將會被自動刪除。此方式適合僅想要保留最新的資料備份，或週期性的固定備份，如：USB 磁碟是長期接於 NAS 上，目的在於固定將 NAS 中的資料備份至外接裝置上，且僅保留最新的資料。
 - 儲存於新建資料夾：若您選擇此模式，您將需要指定此新建資料夾的格式。當每次執行備份時，系統會根據此格式建立一個資料夾，並將資料複製至此資料夾中。此方式適合欲保留每一次備份的完整資料，或常態性的將資料由其他裝置備份至 NAS 中，如：每天固定利用 USB 外接裝置將資料由工作用的電腦備份出來，在將資料備份回家中的 NAS。

關於 USB 單鍵備份

當您按壓 USB 備份按鍵約 1.5 秒後，即會自動觸發單鍵備份。在備份過程中，USB 燈號將會持續閃爍，當備份完成後即會自動回復為恆亮狀態。若您欲停用單鍵備份功能，請於 ADM 中進行設定。

2.5.6. 系統設定備份

您可以在此進行系統設定檔的匯出備份 (.bak) 及還原。此功能支援排程備份，意即您可以設定排程工作將系統設定檔匯出及備份至 NAS 資料夾中。

2.6. App Central

透過 App Central，您可下載及安裝所有適用於本機 NAS 的 app。App Central 提供各式各樣的應用程式，讓您可根據自身的需求來安裝所需要的軟體，無論是下載工具、多媒體伺服器、電子商務架站軟體、部落格系統等，一應俱全。

- 您必須先註冊一個有效的 ASUSTOR ID 並登入，方可開始下載。若您先前尚未註冊或登入，請先至 [2.1.12 註冊](#) 頁面進行產品註冊或登入。
- 所有新安裝的 App 在安裝完成後，將會自動被啟用。
- 若您選擇移除某 App，所有該 App 本身相關的資訊或設定將會一併被移除。若您日後再次安裝此 App，系統亦無法回到原本的状态。

關於 App Central

App Central 中可能包含由 ASUSTOR 自行開發的 app、open source 社群所維護的開源軟體以及第三方協力廠商所開發的軟體。ASUSTOR 對於 App Central 中經官方驗證後的 App 將提供有限度的保證，如：安裝與執行。若您對於 App 有任何問題或建議，請直接與該開發者聯繫。

若您自行手動安裝非官方的 App，ASUSTOR 將無法保證系統的穩定性，您必須自行承擔任何可能的風險。在開始使用前，您必須先閱讀並同意使用條款 (Terms of Use)。

2.7. 外接裝置

2.7.1. 硬碟

您可在此檢視所有連接至本機 NAS 的 USB 或 eSATA 外接硬碟，並對其進行格式化。支援的檔案系統如下：

- FAT32：通用於 Windows, Mac OS X
- NTFS：通用於 Windows
- HFS+：通用於 Mac OS X
- EXT4：通用於 Linux

提醒：若您的裝置無法正確被偵測，請先嘗試更換連接線材，或改接其他連接埠。

2.7.2. 印表機

您可在此檢視所有連接至本機 NAS 的 USB 印表機，以及列印記錄。此外，NAS 也支援 Apple AirPrint。

提醒：NAS 最多可支援三台 USB 印表機

- 管理：您可在此啟用及設定 AirPrint 裝置名稱，當您的 Apple 行動裝置與 NAS 位於同一個區域網路中，您可透過行動裝置直接將檔案由印表機列印出來。
- 清除等待中工作：您可選擇取消所有正在等待的列印工作。

2.7.3. Wi-Fi

當您將 USB Wi-Fi 網路卡接到 NAS 後，即可在此檢視其詳細資訊。

關於在 NAS 上使用 Wi-Fi 連線

若您欲在 NAS 上使用無線網路，在購買之前請參閱網站上的相容性清單。無線網路的訊號及穩定性會因硬體設備（如：Wi-Fi 網路卡及無線基地台）、空間屏障而所有差異，ASUSTOR 將無法確定其穩定性。建議您使用有線網路以確保最佳連線品質。

2.7.4. UPS

使用不斷電系統可保護您的 NAS 不會因為市電突然中斷而導致服務中斷或不正常關機。

- 網路 UPS：當 UPS 的 USB 連接線直接連接到本機 NAS 時，您可將本機 NAS 設定為網路 UPS 主機 (Master 模式)，並將其他位於同一個區域網路中的裝置 (如：NAS) 設定為 Slave 模式，並指定 UPS 主機的 IP 位址。當市電中斷時，Master 及 Slave 即可同時得知，並自動根據所設定的時間決定是否進行關機程序。

2.8. 系統資訊

2.8.1. 關於這台 NAS

您可在此檢視關於本機的基本資訊，如硬體型號、軟體版本及當前系統狀態。

2.8.2. 網路

您可在此檢視關於網路的設定及資訊，如 IP 位址、網路卡號等。

2.8.3. 事件記錄

您可在此檢視所有系統事件，如：系統事件記錄、系統連線記錄及檔案存取記錄。NAS 也支援 Syslog，可將系統事件傳送至 Syslog 伺服器以進行集中管理。

- 系統事件記錄：所有關於系統的事件記錄
- 系統連線記錄：所有關於系統的連線記錄
- 檔案存取記錄：所有關於檔案的存取記錄

2.8.4. 線上使用者

您可在此檢視目前登入 ADM 或透過其他傳輸協定連線至 NAS 的使用者。

關於線上使用者

ADM 可支援顯示透過以下方式連線至 NAS 的使用者：

- ADM 系統登入 (HTTP & HTTPS)
- 微軟網路傳輸協定 (CIFS/SAMBA)
- 蘋果檔案傳輸協定 (AFP)

- 檔案傳輸協定 (FTP)
- Secure Shell (SSH)
- iSCSI
- WebDAV

2.8.5. Dr. ASUSTOR

Dr.ASUSTOR 提供系統自動檢測，可針對當前系統的狀態、設定及連線能力進行診斷，並提供建議。

2.9. 資源監控

註：此功能可能會因不同機種而有所差異

您可透過資源監控動態掌握目前 NAS 的使用狀況，如：

- CPU 使用率
- 記憶體使用情況
- 網路流量
- 儲存空間使用狀況
- 系統主要程序所佔的資源

2.10. File Explorer

File Explorer (檔案總管) 內建於 ADM 中，可用來瀏覽及管理所有 NAS 上的檔案。File Explorer 會依據所登入的使用者之共用資料夾權限來顯示其可存取的目錄。

此外，ADM 支援同時開啟最多三個 File Explorer 視窗，並可透過拖曳 (drag-and-drop) 至另一個 File Explorer 視窗來複製檔案。

- **ISO 掛載**：當您需要存取 NAS 中的光碟映像檔，有別於傳統的方式需要將映像檔燒成光碟來讀取，現在您可直接選取 NAS 中的光碟映像檔，並將它掛載成共用資料夾 (權限為唯讀)，即可直接在電腦上讀取資料。當您日後不再需要此資料夾時，僅需取消掛載即可。
- **Share Link**：您可經由 Share Link 來產生即時分享連結，讓其他人不需要擁有 NAS 帳號也能直接下載某些指定的檔案。Share Link 可自行指定每個連結的有效時間，同時兼具安全性及彈性管理。

3. 來自 App Central

除了內建應用程式外，ASUSTOR NAS 出廠即會預載安裝其他應用程式。您可以稍後在 App Central 中選擇是否要停用或移除這些程式，同時也可瀏覽並選擇安裝其他的應用程式。

3.1. Download Center

Download Center (下載中心) 讓您可輕鬆下載所需要的檔案並直接存放於 NAS，並同時達到節能與兼具資料保護的目的，不需要長時間開著電腦，NAS 即可取代電腦處理下載任務。Download Center 支援 HTTP, FTP 及 BitTorrent 下載，並可排程設定下載任務及限定上傳和下載的速度。

有別於一般 NAS，Download Center 在進行 BitTorrent 下載時，可預先指定一個任務中您需要的檔案即可，讓您的 NAS 不需要浪費頻寬及空間來下載及存放任何多餘的檔案。此外，您也可以透過專屬的行動裝置 app (iOS 及 Android) 來遠端遙控 Download Center。

- **BitTorrent 下載：**您可將 torrent 檔上傳至 Download Center，系統即會自動將任務加入下載清單中。此外，Download Center 也支援直接輸入 torrent 的下載連結或 magnet link。
- **HTTP/FTP 下載：**Download Center 支援 HTTP 或 FTP 下載，您僅需要將連結貼上或輸入畫面中，系統即會自動進行下載。
- **RSS 訂閱及下載：**RSS 下載 (又稱 Broadcatching) 是一種利用訂閱 RSS feed，在由 RSS 的內容中選擇欲下載項目的技術。Download Center 除支援 RSS 下載外，也提供 RSS 自動下載器，系統會自動依據您的設定來定期更新 RSS feed，並根據您所設定的關鍵字或條件進行比對及下載，此方式經常被應用在需要定期下載的項目，如每週一次的電視節目。
- **搜尋：**Download Center 支援直接以關鍵字來搜尋欲下載的檔案。

[更多](#)

[NAS 162 – Download Center 簡介](#)

[NAS 265 – Download Center 自動下載](#)

3.2. Surveillance Center

Surveillance Center (監控中心) 可讓您集中管理所有的網路攝影機 (IP Camera)，提供即時影像 (Live View) 及錄影回放 (Playback) 功能。所有的網路攝影機的錄影資料可直接存放於 NAS 中，透過 NAS 自身的資料保護機制 (RAID) 以確保錄影檔的完整，在經由獨家的錄影回放介面隨時檢視歷史畫面。

Surveillance Center 支援多種錄影模式，如：排程、移動偵測 (Motion Detection) 及警報 (Alarm Trigger) 錄影。此外，您也可以透過內建的事件通知功能，當指定的事件發生時，即會立即收到 e-mail 或手機簡訊通知。

- 偏好設定：安裝精靈可以協助您簡單又快速的啟用 Surveillance Center，幫助您完成新增攝影機、設定錄影格式、排程錄影等設定。如果您需要增加新的攝影機或是改變原有的設定也可以在這裡完成。
- 即時影像：本頁面除了顯示所有設定好之攝影機的即時畫面以外，更提供您監控上所需的各種功能，包含攝影機 PTZ (上下/左右/縮放) 與預設點控制、影像快照、手動錄影與聲音控制等等。
- 錄影回放：您可以同時回放多台攝影機的特定時間錄影資料。當您發現有異常事件時，可以透過影像快照 (snapshot) 或匯出 (export) 的功能將選取的視訊內容輸出至本地端電腦。

[更多](#)

[NAS 161 – Surveillance Center 簡介](#)

[NAS 261 – Surveillance Center 的進階設定](#)

3.3. UPnP AV Media Server

UPnP AV 多媒體伺服器可用來作為家中的多媒體串流伺服器，只要您有支援 UPnP 或 DLNA 的裝置，如：SONY BRAVIA TV, PlayStation3[®]等，即可直接瀏覽及播放儲存於 NAS 上的照片、音樂及影片。

此外，您也可以透過您的行動裝置，如：筆記型電腦、iPhone/iPad 等，搭配 UPnP/DLNA 相容的應用程式，也可直接於裝置上播放 NAS 上的多媒體檔案。

- 您僅需要將您的多媒體資料存放在共用資料夾- Media 及 Music 中，UPnP AV 多媒體伺服器即會自動掃描指定的目錄。
- UPnP AV 多媒體伺服器目前僅支援照片及音樂的即時轉檔 (On-the-fly transcoding)。

提醒：您的裝置上所能播放的影音格式可能會因為裝置的不同而有所差異。

關於 UPnP AV 多媒體伺服器

UPnP AV 多媒體伺服器支援的檔案格式如下：

- Video: 3GP, 3G2, ASF, AVI, DAT, FLV, ISO, M2T, M2V, M2TS, M4V, MKV, MPv4, MPEG1, MPEG2, MPEG4, MTS, MOV, QT, SWF, TP, TRP, TS, VOB, WMV, RMVB, VDR, MPE
- Audio: 3GP, AAC, AC3, AIFC, AIFF, AMR, APE, AU, AWB, FLAC¹, M4A, M4R, MP2, MP3, OGG Vorbis¹, PCM, WAV, WMA
- Photo: BMP, GIF, ICO, JPG, PNG, PSD, TIF, RAW Image¹ (3FR, ARW, CR2, CRW, DCR, DNG, ERF, KDC, MEF, MOS, MRW, NEF, NRW, ORF, PEF, PPM, RAF, RAW, RW2, SR2, X3F)

¹You must first enable real time transcoding for these files in order to play them.

[更多](#)

[NAS 168 - 你的家庭多媒體中心](#)

3.4. iTunes Server

iTunes 伺服器可用來作為家中的影音串流中心，讓您可以將 NAS 中的音樂及影片分享給同一個網路環境中的電腦。

- 在啟用 iTunes 伺服器後，您僅需要將音樂放置於共用資料夾– Music 中，開啟您 PC/ Mac 上的 iTunes 應用程式，即可在左側的“共享”區域中看見您的 NAS，點擊即可瀏覽所有 NAS 上的音樂並播放。
- 若您欲限制可讀取音樂的用戶端，您可於 iTunes 伺服器中設置密碼。
- iTunes 伺服器也支援與 iOS 的 Remote app 進行配對。

提醒：當您新增音樂至 NAS 時，這些檔案可能並不會立即出現在您的 iTunes 應用程式中，此乃因為 iTunes 伺服器每隔一段時間才會重新掃描一次目錄。

關於 iTunes 伺服器

iTunes 伺服器支援的檔案格式如下：

- Audio: AIF, M4A (AAC & Apple Lossless), M4P, M4R, MP3, WAV
- Playlist: M3U, WPL
- Video: M4V, MOV, MP4

[更多](#)

[NAS 165 – iTunes 伺服器](#)

4. 附錄

4.1. 權限對照表

Y \ X	禁止存取	讀取&寫入	唯讀	未指定
禁止存取	禁止存取	禁止存取	禁止存取	禁止存取
讀取&寫入	禁止存取	讀取&寫入	讀取&寫入	讀取&寫入
唯讀	禁止存取	讀取&寫入	唯讀	唯讀
未指定	禁止存取	讀取&寫入	唯讀	禁止存取

X: 使用者的共用資料夾權限

Y: 群組的共用資料夾權限

存取權限的優先序為：禁止存取 > 讀取&寫入 > 唯讀 > 未指定

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Version 3, 29 June 2007

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