



使用手册

For Network Attached Storage

Ver.1.0.0.0411

(For ADM 1.0)

目录

1. 说明.....	5
2. 内建应用程序.....	6
2.1. 设定.....	6
2.1.1. 一般.....	6
2.1.2. 网络.....	6
2.1.3. 区域选项	7
2.1.4. 硬件.....	7
2.1.5. 通知.....	8
2.1.6. ADM Defender	8
2.1.7. ADM 更新	8
2.1.8. 网络资源回收桶.....	9
2.1.9. Energy Saver	9
2.1.10. 轻松存取	9
2.1.11. 还原至出厂设定	10
2.1.12. 注册.....	10
2.2. 服务.....	11
2.2.1. Windows.....	11
2.2.2. Mac OS X.....	11
2.2.3. NFS.....	12
2.2.4. FTP 服务器.....	12
2.2.5. WebDAV	13
2.2.6. Web 服务器.....	13
2.2.7. MySQL 服务器	14
2.2.8. 终端机	14
2.2.9. Rsync 服务器.....	14

2.3.	储存管理员	16
2.3.1.	硬盘群组	16
2.3.2.	硬盘.....	17
2.3.3.	iSCSI	17
2.4.	访问控制	19
2.4.1.	本机使用者	19
2.4.2.	本地组	19
2.4.3.	网域使用者	20
2.4.4.	网域群组	20
2.4.5.	共享文件夹	20
2.4.6.	App 权限	21
2.5.	备份与还原	22
2.5.1.	远程同步	22
2.5.2.	FTP 备份.....	23
2.5.3.	云端备份	23
2.5.4.	外接装置备份	23
2.5.5.	USB 单键备份	23
2.5.6.	系统设定备份	24
2.6.	App Central	25
2.7.	外接装置	26
2.7.1.	硬盘.....	26
2.7.2.	打印机.....	26
2.7.3.	Wi-Fi.....	26
2.7.4.	UPS.....	27
2.8.	系统信息	28
2.8.1.	关于这台 NAS	28

2.8.2.	网络.....	28
2.8.3.	事件记录	28
2.8.4.	在线使用者	28
2.8.5.	Dr. ASUSTOR	29
2.9.	资源监控	30
2.10.	File Explorer	31
3.	来自 App Central	32
3.1.	Download Center	32
3.2.	Surveillance Center	33
3.3.	UPnP AV Media Server	34
3.4.	iTunes Server	35
4.	附录.....	36
4.1.	权限对照表	36
5.	EULA	37
6.	GNU General Public License	39

1. 说明

感谢您选择 ASUSTOR 的产品作为您的云端及网络储存服务器 (以下简称 NAS)!

ASUSTOR NAS 具备所有您需要的功能, 从跨平台的档案分享, 到各类档案/多媒体的服务器, 搭配绝佳的扩充平台 App Central, 让您的 NAS 拥有无限的可能。

您的 NAS 出厂即搭载由 ASUSTOR 自行研发的操作系统 ASUSTOR Data Master (以下简称 ADM), 搭配独特设计之网页图形化接口以提供无与伦比的使用者经验。此使用手册将会依据 ADM 出厂时所预安装的应用程序 (以下简称 app) 来分类及详述。

在线资源

类别	网址
官方论坛 (英文)	http://forum.asustor.com/
下载专区	http://www.asustor.com/service/downloads?lan=zh_cn
技术支持	http://www.asustor.com/service/online_support?lan=zh_cn

使用条款

所有 ASUSTOR 所出厂的产品都经过完整的检测, 在一般情况下皆可正常地运作。在有效保固期间内及正常的使用状况下, 倘若您遇到任何硬件的故障, ASUSTOR 皆会负责维修。在开始使用本产品之前, 请先详阅文末的[最终用户许可协议 \(EULA\)](#)。

2. 内建应用程序

内建应用程序主要包含硬件、磁盘、功能及服务设定。所有关于系统相关的设定，乃至访问权限控制皆可在此完成。

2.1. 设定

2.1.1. 一般

您可在修改默认的系统管理接口通讯端口及设定联机逾时时间，若使用者闲置超过该指定时间，即会自动被注销 ADM。

- **系统 HTTP 端口号：**此为用来连接 ADM 网页管理接口的专用端口。您只需要开启浏览器，在网址列输入您的 IP 或主机地址，在加上此端口号，例如：<http://192.168.1.168:8000>，即可联机至 ADM。
- **联机逾时时间：**当使用者登入 ADM 后，在指定时间内未有任何动作，为了安全考虑将自动被注销。

2.1.2. 网络

注：此功能可能会因不同機種而有所差异

您可在设定 NAS 在网络上的识别名称，或变更有线及无线的网络设定，包含 IP 位置、域名服务器 (DNS Server) 及默认通讯闸 (Default Gateway)。

- **服务器名称：**NAS 在网络上的识别名称。
- **默认通讯闸：**欲使用的通讯闸。
- **DNS 服务器：**您可在指定所欲使用的域名 (DNS) 服务器。若您选择透过 DHCP 自动取得 IP 地址，系统将自动取得可用的 DNS 服务器，此外，您也可另行在此指定。若您选择手动输入 IP 地址，您将需在此自行指定 DNS 服务器。

提醒：设定无效的 DNS 服务器将影响部分网络相关之功能，如：下载中心。若您不确定该如何设置，请选择自动取得 IP 地址。

[更多](#)

[NAS 105 – 网路连结：初学者导览](#)

[NAS 307 – 进阶网路应用：Link Aggregation](#)

2.1.3. 区域选项

您可在调整系统的日期时间、日期格式、时区及设定日光节约时间。

2.1.4. 硬件

注：此功能可能会因不同機種而有所差异。

您可在控制硬件相关的设定，如：LED 灯号、蜂鸣器、硬盘休眠、风扇等。此外，您也可在此设定系统自动开/关机排程，以达到节能的目的。

- **系统：**您可自定义欲关闭的 LED 灯号。若选择「夜间模式」，系统将仅保留电源 LED 指示灯，并每十秒闪烁一次橘光。此外，您也可以自定义蜂鸣器警示音以及设定启用或停用机器后方的系统重置按键。
- **硬盘：**您可设定内接与外接硬盘的休眠时间
- **电源：**您可在管理所有电源相关设定，如：网络远程唤醒 (Wake On LAN)及系统自动开/关机排程。
- **风扇控制：**您可指定系统风扇的转速。若您不确定该选择何者，请使用自动模式让系统根据实际温度动态调整风扇转速。
- **LCD 面板：**您可以自定义 LCD 面板上所欲显示的跑马灯文字，或选择显示本地温度，系统将自动判断所在地区来显示当地气候。

提醒：当您选择显示本地温度，系统会透过您当前的网络 IP 位置判定所在区域，此结果可能会因地区不同而有所误差。

关于系统重置按键

当您因某些因素无法联机至 NAS 时，此按键可帮助您将部分设定回复成默认值。

- 系统管理账号 (admin) 之密码将回复为 admin
- 系统 HTTP 及 HTTPS 端口号将回复为 8000 及 8001
- 网络设定将回复为自动取得 IP，您可经由 ASUSTOR Control Center 再次搜寻 NAS。
- ADM Defender 将回复为允许所有联机

2.1.5. 通知

您可在此设定系统事件通知。当系统事件发生时，即可在最短时间内收到通知。

- 传送：您可在此设定用来发送 E-mail 或 SMS 的账号。支持设定多组不同的账号，但仅能设定一组为主要使用。
- 接收：您可在此设定接收 E-mail 或 SMS 的手机门号，及指定欲收到的系统事件类别。

2.1.6. ADM Defender

ADM Defender 可保护您的 NAS 不易受到网络恶意攻击，以确保系统安全。

- 防火墙：您可在此依据不同的通讯协议，封锁特定的 IP 地址联机至 NAS，或设定为仅允许特定的 IP 地址可联机。
- 网络防护：启用并设定网络防护后，当用户在指定时间区间内连续登入失败超过指定次数后，其 IP 地址将会自动被加入封锁清单。如下图中设定，当某个使用者在 10 分钟内连续登入失败达 5 次之后，其 IP 地址将会永远被封锁且无法联机至 NAS。

关于网络防护

网络防护可主动防御网络恶意攻击，避免网络黑客连续尝试登入。支援的通讯协议如下：

- ADM 系统登入 (HTTP & HTTPS)
- 微软网络传输协议 (CIFS/SAMBA)
- 苹果文件传输协定 (AFP)
- 文件传输协定 (FTP)
- Secure Shell (SSH)

2.1.7. ADM 更新

为确保系统稳定及提升软件功能，您可在此进行系统软件的更新。

- 在线更新：当启用在线更新通之后，每次当您登入 ADM 且对外网络可正常联机时，系统将会主动检查是否有新的软件可更新，并以讯息提示。

- 手动更新：您可以登入 ASUSTOR 官方网站 (<http://www.asustor.com/>) 下载新版的 ADM，并由此进行系统更新。

2.1.8. 网络资源回收桶

当启用网络资源回收桶后，系统将会依据每一个逻辑扇区 (Logical Volume) 产生一个共享文件夹 Recycle Bin X (如 Volume 1 即会产生一个对应的 Recycle Bin 1)。所删除的档案将会被移至资源回收桶中，让您可随时救回被误删的数据。

关于网络资源回收桶

当启用网络资源回收桶后，经由以下方式所删除的档案，将会被移至回收桶中：

- 微软网络传输协议 (CIFS/SAMBA)
- 苹果文件传输协定 (AFP)
- 文件传输协定 (FTP)
- File Explorer

当启用资源回收桶之后，Recycle Bin X 会自动产生且不能被移除。

2.1.9. Energy Saver

Energy Saver 可帮助您节省所需用电，让硬件装置在未使用或使用量较小的情况下，以较低电量的方式运行。

2.1.10. 轻松存取

您可在此设定所有远程联机所需要的信息。

- Cloud Connect: 在此您可以为您的 NAS 设定一个专属的 Cloud ID。往后当您使用 ASUSTOR 的客户端软件联机至 NAS 时，不再需要记忆主机网址或 IP 地址，仅需输入 Cloud ID 即可。
- EZ-Router: EZ-Router 可帮助您自动设定路由器及所有远程联机所需要的设定。

提醒：您的路由器需支援 **UPnP** 或 **NAT-PMP**。请注意并非所有的路由器皆支持此自动设定功能，烦请参阅 **ASUSTOR** 官网上之兼容清单。

- **DDNS：**您可以在此申请或设定您的 DDNS 账号。DDNS 让您可直接使用特定的 host name (例如: nas.asustor.com) 来联机至 NAS，而不需要记忆特定 IP 地址。此功能多用于使用浮动 IP 的环境。

2.1.11. 还原至出厂设定

您可在将系统回复成出厂值。执行后，系统将回到未初始化前的状态，您可再次透过 **ASUSTOR Control Center** 或登入至 **ADM** 首页来进行系统初始化。为确保安全，在执行此动作前，将会被要求再次输入 **admin** 密码方可开始执行。

注意：当回复成出厂值后，全部的设定及档案将会被清除且无法还原。请确定您已经先将 **NAS** 的数据进行备份，在执行此动作。

2.1.12. 注册

您可以在此进行个人账号 (**ASUSTOR ID**) 及产品注册。当产品注册完成后，您的 **ASUSTOR ID** 也将自动被启用。

提醒：您必须要有一组有效的 **ASUSTOR ID**，方可从 **App Central** 中下载应用程序或使用 **Cloud Connect** 服务。

2.2. 服务

您可在在此设定所有网络相关的服务，如文件传输协议、网站服务器、MySQL 数据库等。

2.2.1. Windows

当启用 Windows 档案服务后，您即可透过微软窗口操作系统 (如：Windows 7) 来直接存取 NAS 上的数据，此文件传输的协议又称为 CIFS/SAMBA。若您有使用 Windows Active Directory (以下简称 AD)，也可在此将 NAS 加入 AD 网域。

- 工作组：此为 NAS 在局域网络中所属的工作组。
- Local Master Browser：若您启用此选项，NAS 将会在局域网络中，收集同一工作组的所有计算机名称。

提醒：启用此功能可能会导致硬盘无法休眠。

关于 Windows Active Directory

成功加入 Active Directory 后，您可以在 [2.4 访问控制](#) 中的 [网域使用者](#)、[网域群组](#) 及 [共享文件夹](#) 进行权限设定。尔后 AD 使用者即可以自己的 AD 账号登入并存取储存于 NAS 上的数据。

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

当启用 Mac OS X 档案服务后，您即可透过 Apple 的 Mac OS X 操作系统 (如：Mac OS 10.7) 来直接存取 NAS 上的数据，此文件传输的协议又称为 AFP (Apple Filing Protocol)。此外，您也可透过 Time Machine 将您的数据备份至 NAS 上。

- Apple Filing Protocol：简称 AFP，为 Mac OS X 与局域网络计算机进行文件传输的协议。您可由 Finder > Go > Connect to Server，并在 Server Address 中输入欲联机的网络地址。

范例：afp://192.168.1.168

- Bonjour 服务名称：此为 NAS 于 Finder 中显示的名字。
- Time Machine 支援：您可在在此开启 Time Machine 支持，并指定要将备份存在哪一个共享文件夹内。若有多个 Mac 用户欲同时使用此功能，请参阅 [NAS 159– Time Machine: Best Practice](#)。

关于 Bonjour

Bonjour 又名 zero-configuration networking, 广泛被应用于 Apple 相关的产品, 能让用户在不需知道其他 Apple 装置之实际网络 IP 位置的情况下, 于自己的装置上 (如: Mac) 主动显其他邻近的 Apple 装置, 并可直接进行连接。

启用此服务后, 您即可于 Finder 左侧看到您的 NAS, 点击后便可进行联机。

更多

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

[NAS 159 - Time Machine: 最佳范例](#)

2.2.3. NFS

您可以由此启用 NFS 以支持 UNIX 或 Linux 操作系统的主机来存取 NAS 上的档案。

关于 NFS

启用 NFS 服务后, 您可以在 [2.4 访问控制](#) 中的 [共享文件夹](#) 进行 NFS 权限设定。在未启用的情况下, 此选项将会被自动隐藏。

2.2.4. FTP 服务器

您可在启用 FTP 服务器, 即可透过 FTP 客户端程序 (如: FileZilla) 联机至 NAS 以存取数据。FTP 服务器的访问权限与系统相同, 若您欲修改权限设定, 请至 [2.4 访问控制](#) 中的 [共享文件夹](#) 进行设定。

- **Unicode 支援:** 若您的 FTP 软件支持 Unicode, 请启用此选项。
- **允许匿名登录:** 是否允许 FTP 软件以匿名方式登入 NAS (不需输入用户名称及密码)。为了安全考虑, 建议停用此选项。
- **启用 SSL/TLS:** 支持 FTP 加密联机。
- **全部 FTP 联机数上限:** FTP 服务器最多可同时允许的联机总数。
- **单一 IP 地址可联机数上限:** 限制单一 IP 或主机的联机总数。

- 最大上传速度：单一联机的最大上传速度，0 代表无限制。
- 最大下载速度：单一联机的最大下载速度，0 代表无限制。
- 被动式 FTP：为了解决由服务器联机到客户端所产生的安全疑虑，因此发展出了另一种不同的联机模式，称之为被动模式(Passive Mode, PASV)。让客户端程序可以在联机的时候，通知服务器使用被动模式联机。

关于被动式 FTP

为解决主动模式在防火墙外面时所发生无法连接的问题，可以用被动模式 FTP。在被动式 FTP 下，FTP 客户端一开始和主动式 FTP 一样，打开二个 port ($N > 1024$ 及 $N+1$)，使用第一个 port 连接至 FTP 服务器的端口 (预设为 21)，并送出命令 PORT 让服务器连至 N 再送出 PASV 命令给服务器。这样会造成服务器使用一个大于 1024 的端口来连接至客户端，并送出命令 PORT N ($N > 1024$) 给客户端，这样客户端就会使用 $N + 1$ 并开始传输数据。

可参阅：http://en.wikipedia.org/wiki/File_Transfer_Protocol

2.2.5. WebDAV

启用 WebDAV 可让使用者透过浏览器或其他客户端程序，经由 HTTP 或 HTTPS 协议来存取储存于 NAS 上的数据。

[更多](#)

[NAS 208 - WebDAV: 安全档案分享的另一种选择](#)

2.2.6. Web 服务器

ADM 内建一独立网站服务器 (apache)，让您可用来架设属于自己的网站。当您启用此功能后，系统将自动产生一共享文件夹 Web，作为网站服务器的根目录。

- PHP register_globals：预设为不启用。若网站程序要求开启 PHP 设定 register_globals，请将其设为开启。为了确保系统安全性，建议您保持该设定关闭。
- 虚拟主机：您可以透过此功能在本机 NAS 上同时架设多个网站。

[更多](#)

[NAS 321 - 透过虚拟主机部署多个网站](#)

2.2.7. MySQL 服务器

ADM 出厂即内建 MySQL 数据库，您可启用它以作为您的网站数据库。

提醒：您可以透过 **App Central** 下载安装 **phpMyAdmin** 来管理 **MySQL** 服务器。

- 重置密码：若您忘了登入 MySQL 的密码，可在此回复 root 密码 (默认为 admin)。
- 初始化数据库：您可在此重新初始化整个 MySQL 数据库。一旦初始化后，所有原有的 MySQL 数据库及数据将全部被清除。

关于 MySQL

系统默认的 MySQL 管理者账号为 root，密码为 admin。为了安全考虑，请记得变更 root 密码。

2.2.8. 终端机

若欲透过 Secure Shell (SSH) 管理本机 NAS，您可启用本服务。若要支持 SFTP (Secure FTP) 将文件传输至 NAS，也可在此设定。

注意：为了安全考虑，SSH 仅允许以 **admin** 或 **root** (密码与 **admin** 相同) 账号登入。

2.2.9. Rsync 服务器

透过设定 Rsync 服务器，您可将数据由 1. 另一台 ASUSTOR NAS 2. 任一 Rsync 兼容主机备份至本机 NAS，以达到数据备份及异地备援之效果。

- 启用 Rsync 服务器：如果要允许客户端以加密方式进行备份，请启用支持透过 **SSH** 的加密传输。若您启用加密传输，系统将自行开启 SSH 服务 ([2.2.8 终端机](#))。
- 管理 Rsync 使用者：若您想要限定可备份至本机之 Rsync 联机，请先点击**管理使用者**来建立不同的 Rsync 使用者账号。

提醒：Rsync 账号与系统账号为各自独立

- 新增备份模块：点击**新增**以建立一个新的备份模块，每个备份模块将对应至系统中某一实体路径。当 Rsync 客户端联机至本机 NAS 进行备份时，便可从可用之模块中择一并将档案复制到其所对应的实体路径下。

更多

[NAS 259 - 透过远端同步 \(Rsync\) 来保护你的资料](#)

[NAS 351 - 远端同步 \(Rsync\): 最佳范例](#)

2.3. 储存管理员

2.3.1. 硬盘群组

注：此功能可能会因不同機種而有所差异

硬盘群组 (储存空间) 是由一个或数个硬盘所组合而成的逻辑扇区 (Logical Volume)。您可在此建立新的储存空间，根据对于数据保护的需求，来选择最适合此储存空间的 RAID 等级。您仅可以以内接硬盘来建立储存空间，为确保数据完整性，ADM 并不支持以外接硬盘来建立储存空间。

提醒：可使用的 RAID 等级会因硬盘数量而有所不同，因此可能会受限于您的機種。

当您欲建立一个新的储存空间，ADM 提供以下两种模式协助您轻松完成设定：

- 快速设定：您仅需要指定对于储存空间的需求 (如：希望得到较佳的数据保护)，ADM 将会根据现有的硬盘数量，自动帮您建立新的储存空间及决定其 RAID 等级。
- 进阶设定：您可根据现有的硬盘数量，自行指定其 RAID 等级，及设定备用硬盘 (Spare Drive)。

提醒：为达到最佳的硬盘空间利用率，建议您使用相同容量的硬盘来建立储存空间。

关于 RAID 组态

为了提供最佳的储存空间利用及数据保护，ADM 支持多种不同的 RAID 等级，让您可自行依据对于储存空间的需求，来决定选用何种 RAID 等级。以下是所有 ADM 支持的 RAID 等级：

- **Single**：仅使用一颗硬盘来建立储存空间。此类型将不支持任何数据保护。
- **JBOD**：将两颗 (含) 以上的硬盘空间合并，成为一个储存空间。可使用的容量约为所有组成硬盘容量的总和。优点是可使用不同容量的硬盘及拥有较大的储存空间，缺点则是不具任何数据保护性且存取效能较 RAID 0 差。
- **RAID 0**：将两颗 (含) 以上的硬盘空间合并，成为一个储存空间。可使用的容量约为所有组成硬盘容量的总和。优点是可使用不同容量的硬盘及拥有较大的储存空间，缺点则是不具任何数据保护性。
- **RAID 1**：将两颗的硬盘空间合并，成为一个镜像的储存空间。当数据写入此储存空间时，系统将会同时在每颗硬盘上写入相同的数据，因此当其中一颗硬盘损毁时，此储存空间仍可保有完整的数据。优点是提供数据的保护，缺点则是当两颗硬盘容量不同时，此储存空间的可用容量将以较小的硬盘来计算，会造成另一颗 (较大) 硬盘的容量无法被利用。可使用空间： $(\text{最小硬盘容量}) * (1)$ 。
- **RAID 5**：将三颗 (含) 以上的硬盘空间合并，成为一个可允许一颗硬盘损毁的储存空间。当其中一颗硬盘损毁时，此储存空间仍可保有完整的数据，并可正常存取。您可以新的硬盘进行替换并重建此储存空间。优点是提供数据的保护，缺点则是当所使用的硬盘容量不同时，此储存的可用容量将以最小的硬盘来计算。可使用空间： $(\text{最小容量硬盘}) * (\text{硬盘总数} - 1)$

- **RAID 6:** 将四颗 (含) 以上的硬盘空间合并, 成为一个可允许两颗硬盘损毁的储存空间。当其中两颗硬盘损毁时, 此储存空间仍可保有完整的数据, 并可正常存取。您可以新的硬盘进行替换并重建此储存空间。优点是提供更佳数据的保护, 缺点则是可使用的储存空间容量较小。此外, 当所使用的硬盘容量不同时, 此储存的可用容量将以最小的硬盘来计算。可使用空间: $(\text{最小容量硬盘}) * (\text{硬盘总数} - 2)$
- **RAID 10 (1+0):** 将四颗 (含) 以上的硬盘空间合并, 成为一个可允许多颗 (非相连) 硬盘损毁的储存空间。**RAID 10** 兼具了 **RAID 1** 的数据保护性及 **RAID 0** 的读取效能。在数据保护上, **RAID 10** 的原理乃是将每两颗硬盘作为一组 **RAID 1**, 因此当有一颗硬盘损毁时, 数据仍将保持完整。另外, 硬盘总数必须大于或等于四, 且需为偶数。当所使用的硬盘容量不同时, 此储存的可用容量将以最小的硬盘来计算。可使用空间: $(\text{最小容量硬盘}) * (\text{硬盘总数} / 2)$

[更多](#)

[NAS 251 - RAID 简介](#)

[NAS 352 - 线上 RAID 组态升级与线上容量扩充](#)

2.3.2. 硬盘

您可在此检视所有安装于 NAS 上的 (内接) 硬盘及其状态。您也可在此检视个别硬盘的 S.M.A.R.T. 信息或进行测试。

- **S.M.A.R.T. 信息:** 全名为 **Self-Monitoring, Analysis and Reporting Technology**, 是一种硬盘的自我监控机制, 经由硬盘内的指令对其硬件进行检测, 以预先了解硬盘目前的状况。
- **Disk Doctor:** 您可在此进行硬盘的坏轨检查或 S.M.A.R.T. 测试。

2.3.3. iSCSI

iSCSI 是一种基于网络的储存技术, 具备高扩充性及低建置成本, 让您可在现有的网络架构下透过 iSCSI 将 NAS 用来扩充既有的储存空间或作为备份的目的地。iSCSI 分为两端, **Target** 及 **Initiator**, 在您计算机中 (如: Windows 7) 用来寻找 iSCSI 主机 (host) 及设定 **Target** 的, 即称为 **Initiator**。

- **IQN:** IQN (iSCSI Qualified Name) 是每个 iSCSI Target 的一个独特名称, 且此名称不应与其他 iSCSI 主机上的 Target IQN 重复。
- **CHAP 认证:** CHAP 认证可用于验证用户身分。若您选择启用 CHAP 认证, 当 iSCSI Initiator 欲联机至此 Target 时, 则需先在 Initiator 端输入 CHAP 密码方可进行联机验证。

- 相互 CHAP 认证：相互 CHAP 认证要求 Target 及 Initiator 端都需要各自设定一组账号密码。例如 Target 端除了需设定一组账号密码供 Initiator 端认证使用，本身也须取得 Initiator 端的账号密码并预先输入。当 Initiator 端欲联机至 Target 时，便会自动进行相互认证。
- LUN Pool：您可在此检视所有 iSCSI LUN 的使用状况，并指派其所对应的 iSCSI Target。

[更多](#)

[NAS 308 - iSCSI 简介](#)

2.4. 访问控制

2.4.1. 本机使用者

您可以在此管理（新增、修改或删除）系统的用户，或针对个别使用者指派其对于共享文件夹的访问权限。

提醒：若您的使用环境人数较少，可直接根据每个使用者逐一进行权限设定。

在 ADM 中，单一使用者对于某一共享文件夹的权限，将根据使用者本身及其所属群组的权限进行交叉比对（请参阅 [Appendix 4.1](#)）。为方便设定，系统提供预览模式，让您在修改权限的过程中即可预先检视套用之后的变化。

关于本机使用者

当系统初次设定完毕后，将自动产生两组使用者账号 **admin** 及 **guest**。**admin** 为系统默认的管理员并拥有绝大多数的权限，您可稍后在此修改其权限及密码。**guest** 为预设的访客账号，仅适用于 CIFS/SAMBA 及 AFP，因不具备登入及认证的权限，所以无法修改其密码。

更多

[Appendix 4.1 - 权限对照表](#)

2.4.2. 本地组

您可以在此管理（新增、修改或删除）系统的用户群组，或针对个别群组指派其对于共享文件夹的访问权限。

提醒：若您的使用环境人数较多，使用者群组可方便您以群组的方式来指派权限，而不需根据每个使用者逐一进行权限设定。

在 ADM 中，单一使用者对于某一共享文件夹的权限，将根据使用者本身及其所属群组的权限进行交叉比对（请参阅 [Appendix 6.1](#)）。为方便设定，系统提供预览模式，让您在修改权限的过程中即可预先检视套用之后的变化。

关于本机使用者群组

当系统初次设定完毕后，将自动产生两组使用者群组 **administrators** 及 **users**。**administrators** 为系统默认的管理员群组，若某一使用者被加入此群组，原则上其将拥有绝大多数的管理者权限，而 **admin** 账号为此群组的预设成员且无法被移除。

users 为系统的基本群组，所有的使用者皆属于此群组且无法被移除。

[更多](#)

[Appendix 4.1 - 权限对照表](#)

2.4.3. 网域使用者

当 NAS 成功加入 AD 网域后，您即可在此检视所有的 AD 使用者账号，或变更其对于共享文件夹的权限。

提醒：ASUSTOR NAS 可支持 20 万个以上的 AD 使用者及群组。首次加入 AD 网域时，若您的 AD 使用者或群组较多，可能需稍微等候方可完整显示。

[更多](#)

[Appendix 4.1 - 权限对照表](#)

2.4.4. 网域群组

当 NAS 成功加入 AD 网域后，您即可在此检视所有 AD 使用者群组，或变更其对于共享文件夹的权限。

提醒：ASUSTOR NAS 可支持 20 万个以上的 AD 使用者及群组。首次加入 AD 网域时，若您的 AD 使用者或群组较多，可能需稍微等候方可完整显示。

[更多](#)

[Appendix 4.1 - 权限对照表](#)

2.4.5. 共享文件夹

您可在管理 (新增、修改或移除) 共享文件夹，并根据使用者或使用者群组来设定其权限。共享文件夹是 NAS 作为文件服务器，提供外界进行档案存取的基本单位。因此，正确的权限设定对于数据的管理非常重要。

- 不显示于“网络”或“网络上的芳邻”中：此选项仅适用于微软窗口操作系统。当您启用此选项，NAS 将不会主动出现于“网络”中，此并不会影响与 NAS 间的联机。

- 加密此共享文件夹：您可以选择将共享文件夹加密，并选择在开机时不自动挂载。如此一来当系统重新启动后，您必须手动键入密码，此文件夹才可被存取。一般而言，加密数据夹是用来存放较重要或机密的数据，此目的乃是在于防止当机器失窃时，重要数据外泄的可能。

提醒：您除了可在新建共享文件夹时决定是否进行加密，除了系统的默认共享文件夹外，一般共享文件夹也可在之后选择进行或解除加密。一般而言，加密后的共享文件夹访问速度会较一般共享文件夹慢。

注意：当您选择将共享文件夹加密后，请妥善保存您的密码。倘若密码遗失，该文件夹中的数据将永远遗失且无法以任何方式取回。

- NFS 权限：当启用 NFS 服务后，您可在该设定个别共享文件夹之访问权限。

关于共享文件夹

当系统初次设定完毕后，将自动产生一共享文件夹 **Public**，预设权限为所有使用者皆能够读取及写入该文件夹。

此外，系统将依据当前的本机使用者账号，自动建立每个用户的个人目录，默认为仅该使用者能够存取。

[更多](#)

[Appendix 4.1 - 权限对照表](#)

2.4.6. App 权限

您可在该依据使用者或群组逐一设定 App 的访问权限。若某一使用者账号 (例如: Mike) 被设定为无法存取 Surveillance Center，当以 Mike 登入时，将不会在 ADM 的 Home Screen 中看到 Surveillance Center 的图示，亦无法以其他方式执行该 App。

- 网页应用程序 (Web Application) 因属公开性质 (如: WordPress) 或拥有自己的账号管理系统 (如: Joomla)，所以无法在此限制存取。
- 针对网域用户，系统仅提供设定 File Explorer 访问权限。

2.5. 备份与还原

2.5.1. 远程同步

远程同步(Rsync) 可支持多向备份模式。您可将本机 NAS 的数据主动备份至另一台远程的 ASUSTOR NAS 或 rsync 兼容服务器，达到异地备援的效果。亦可由远程的 ASUSTOR NAS 或 rsync 兼容服务器，将数据抓回本机 NAS 存放，让本机 NAS 成为数据备份中心。

提醒：若您欲透过远程同步将本机文件备份至另一台远程 ASUSTOR NAS，或由本机 NAS 主动将远程的 ASUSTOR NAS 的档案下载至本机，请记得先在此远程 NAS 启用 Rsync 服务 (服务 - >Rsync 服务器，请参阅 [Rsync 服务器](#))。

- 启用加密传输：若您欲使用加密联机来进行传输，除了在步骤中输入 Rsync 账号密码外，请在勾选“启用加密传输”后，一并输入对方主机的 SSH 登入信息。
- 使用 1 对 1 文件夹同步：若您勾选此选项，所选择的档案源数据夹 (仅能选择一个) 将会与指定目标文档夹进行同步，意即两个文件夹的内容将会相同。倘若您未勾选勾选此选项，你所选择的源数据夹 (可允许多个) 将会逐一被复制到目标文档夹中。
- 保留目的端的多余档案：当档案复制及同步完成后，原则上目的端应与来源端的数据一致。此处的多余档案指的是，若原本目的端存在部分档案，但来源端中并未含有这些档案，此时若您有勾选此选项，这些档案将会在目的端被保留下来且不会被异动。
- 使用增量备份 (Incremental Backup)：当您勾选此选项，在首次的完整备份完毕后，未来再次进行备份时，仅会针对档案有差异的部份进行更新 (Block-level)。举例来说，若您对一个 10 MB 的档案进行小幅修改后，增量备份将仅会针对修改的部份进行传送，可大幅降低网络带宽的使用。
- 启用压缩功能：对备份的数据在传输时进行压缩处理，可降低带宽的使用。
- 保存档案的 metadata：当您启用此选项，部分文件属性，如：permission, extension, attribute, owner, group 及 modified time 等将会一并被传送至目的端。
- 支持 sparse 档案复制：若您欲备份的数据中含有 sparse 类型的档案，您才需要勾选此选项，一般而言此选项不需被启用。

更多

[NAS 259 - 透过远端同步 \(Rsync\) 来保护你的资料](#)

[NAS 351 - 远端同步 \(Rsync\): 最佳范例](#)

2.5.2. FTP 备份

FTP 备份可支持多向备份模式。您可将本机 NAS 的数据主动备份至另一台远程的 ASUSTOR NAS 或 FTP 服务器，达到异地备援的效果。亦可由远程的 ASUSTOR NAS 或 FTP 服务器，将数据抓回本机 NAS 存放，让本机 NAS 成为数据备份中心。

提醒：若您欲透过 FTP 备份将本机文件备份至另一台远程 ASUSTOR NAS，或由本机 NAS 主动将远程的 ASUSTOR NAS 的档案下载至本机，请记得先在此远程 NAS 启用 FTP 服务器（服务 - >FTP 服务器，请参阅 [FTP 服务器](#)）。

关于 FTP 备份

一般而言，FTP 备份适用于绝大多数的 FTP 服务器，但仍可能发生不兼容的情况。建议您使用两台 ASUSTOR NAS 进行备份。

2.5.3. 云端备份

注：此功能可能会因不同機種而有所差异

透过云端备份，您可定期将 NAS 上的数据备份或传送至云端储存空间，或由云端储存空间下载至 NAS。目前支持的云端储存服务如下：

- Amazon S3

2.5.4. 外接装置备份

您可以选择将 USB 或 eSATA 外接硬盘中的数据备份至 NAS，或将 NAS 中的数据备份至外接储存装置。此功能除支持双向备份外，也支持排程备份，让您的宝贵数据得到完善的保障。

2.5.5. USB 单键备份

注：此功能可能会因不同機種而有所差异

USB 单键备份可让您预先设定 NAS 前面板之 USB 备份按键，指定欲备份的方向及目录。未来您仅需将 USB 外接磁盘连接至前置 USB 埠，按压 USB 备份按键即会自动进行备份。

- 传输模式：

- 由前置 USB 备份至 NAS：系统将会把整个外接装置中的目录及档案，依照原有的目录结构备份至指定的 NAS 路径中。
- 由 NAS 备份至前置 USB：系统将会把指定的 NAS 目录及档案，依照原有的目录结构备份至外接装置的根目录下。
- 备份方式：
 - 复制：若您选择复制，系统将会完整复制数据至外接装置，若遇到相同名称的文件夹或档案，即会自动覆盖，而目的端多余的档案将会被保留。此方式适合单次性的备份。
 - 同步：若您选择同步，系统将会完整同步数据至外接装置，仅会针对差异的部份进行传输，而目的端多余的档案将会被自动删除。此方式适合仅想要保留最新的数据备份，或周期性的固定备份，如：USB 磁盘是长期接于 NAS 上，目的在于固定将 NAS 中的数据备份至外接装置上，且仅保留最新的资料。
 - 储存于新建文件夹：若您选择此模式，您将需要指定此新建文件夹的格式。当每次执行备份时，系统会根据此格式建立一个文件夹，并将数据复制至此文件夹中。此方式适合欲保留每一次备份的完整数据，或常态性的将数据由其他装置备份至 NAS 中，如：每天固定利用 USB 外接装置将数据由工作用的计算机备份出来，在将数据备份回家中的 NAS。

关于 USB 单键备份

当您按压 USB 备份按键约 1.5 秒后，即会自动触发单键备份。在备份过程中，USB 灯号将会持续闪烁，当备份完成后即会自动回复为恒亮状态。若您欲停用单键备份功能，请于 ADM 中进行设定。

2.5.6. 系统设定备份

您可以在此进行系统配置文件的汇出备份 (.bak) 及还原。此功能支持排程备份，意即您可以设定排程工作将系统配置文件汇出及备份至 NAS 文件夹中。

2.6. App Central

透过 App Central，您可下载及安装所有适用于本机 NAS 的 app。App Central 提供各式各样的应用程序，让您可根据自身的需求来安装所需要的软件，无论是下载工具、多媒体服务器、电子商务建站软件、部落格系统等，一应俱全。

- 您必须先注册一个有效的 ASUSTOR ID 并登入，方可开始下载。若您先前尚未注册或登入，请先至 [2.1.12 注册](#) 页面进行产品注册或登入。
- 所有新安装的 App 在安装完成后，将会自动被启用。
- 若您选择移除某 App，所有该 App 本身相关的信息或设定将会一并被移除。若您日后再次安装此 App，系统亦无法回到原本的状态。

关于 App Central

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若您自行手动安装非官方的 App，ASUSTOR 将无法保证系统的稳定性，您必须自行承担任何可能的风险。在开始使用前，您必须先阅读并同意使用条款 (Terms of Use)。

2.7. 外接装置

2.7.1. 硬盘

您可在此检视所有连接至本机 NAS 的 USB 或 eSATA 外接硬盘，并对其进行格式化。支持的文件系统如下：

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

提醒：若您的装置无法正确被侦测，请先尝试更换连接线材，或改接其他端口。

2.7.2. 打印机

您可在此检视所有连接至本机 NAS 的 USB 打印机，以及打印记录。此外，NAS 也支持 Apple AirPrint。

提醒：NAS 最多可支持三台 USB 打印机

- 管理：您可在此启用及设定 AirPrint 装置名称，当您的 Apple 行动装置与 NAS 位于同一个局域网中，您可透过行动装置直接将档案由打印机打印出来。
- 清除等待中工作：您可选择取消所有正在等待的打印作业。

2.7.3. Wi-Fi

当您将 USB Wi-Fi 网络卡接到 NAS 后，即可在此检视其详细信息。

关于在 NAS 上使用 Wi-Fi 联机

若您欲在 NAS 上使用无线网络，在购买之前请参阅网站上的兼容性清单。无线网络的讯号及稳定性会因硬设备（如：Wi-Fi 网络卡及无线基地台）、空间屏障而有所差异，ASUSTOR 将无法确定其稳定性。建议您使用有线网络以确保最佳联机质量。

2.7.4. UPS

使用不断电系统可保护您的 NAS 不会因为市电突然中断而导致服务中断或不正常关机。

- **网络 UPS:** 当 UPS 的 USB 连接线直接连接到本机 NAS 时，您可将本机 NAS 设定为网络 UPS 主机 (**Master 模式**)，并将其他位于同一个局域网络中的装置 (如: NAS) 设定为 **Slave 模式**，并指定 UPS 主机的 IP 地址。当市电中断时，**Master** 及 **Slave** 即可同时得知，并自动根据所设定的时间决定是否进行关机程序。

2.8. 系统信息

2.8.1. 关于这台 NAS

您可在此检视关于本机的基本信息，如硬件型号、软件版本及当前系统状态。

2.8.2. 网络

您可在此检视关于网络的设定及信息，如 IP 地址、网络卡号等。

2.8.3. 事件记录

您可在此检视所有系统事件，如：系统事件记录、系统联机记录及档案存取记录。NAS 也支持 Syslog，可将系统事件传送至 Syslog 服务器以进行集中管理。

- 系统事件记录：所有关于系统的事件记录
- 系统联机记录：所有关于系统的联机记录
- 档案存取记录：所有关于档案的存取记录

2.8.4. 在线使用者

您可在此检视目前登入 ADM 或透过其他传输协议联机至 NAS 的使用者。

关于在线使用者

ADM 可支持显示透过以下方式联机至 NAS 的使用者：

- ADM 系统登入 (HTTP & HTTPS)
- 微软网络传输协议 (CIFS/SAMBA)
- 苹果文件传输协定 (AFP)
- 文件传输协定 (FTP)

- Secure Shell (SSH)
- iSCSI
- WebDAV

2.8.5. Dr. ASUSTOR

Dr.ASUSTOR 提供系统自动检测，可针对当前系统的状态、设定及联机能力进行诊断，并提供建议。

2.9. 资源监控

注：此功能可能会因不同機種而有所差异

您可透过资源监控动态掌握目前 NAS 的使用状况，如：

- CPU 使用率
- 内存使用情况
- 网络流量
- 储存空间使用状况
- 系统主要程序所占的资源

2.10. File Explorer

File Explorer (档案总管) 内建于 ADM 中, 可用来浏览及管理所有 NAS 上的档案。File Explorer 会依据所登入的用户之共享文件夹权限来显示其可存取的目录。

此外, ADM 支持同时开启最多三个 File Explorer 窗口, 并可透过拖曳 (drag-and-drop) 至另一个 File Explorer 窗口来复制档案。

- **ISO 挂载:** 当您需要存取 NAS 中的光盘映像文件, 有别于传统的方式需要将映像文件烧成光盘来读取, 现在您可直接选取 NAS 中的光盘映像文件, 并将它挂载成共享文件夹 (权限为只读), 即可直接在计算机上读取数据。当您日后不再需要此文件夹时, 仅需取消挂载即可。
- **Share Link:** 您可经由 Share Link 来产生实时分享连结, 让其他人不需要拥有 NAS 账号也能直接下载某些指定的档案。Share Link 可自行指定每个连结的有效时间, 同时兼具安全性及弹性管理。

3. 来自 App Central

除了内建应用程序外，ASUSTOR NAS 出厂即会预载安装其他应用程序。您可以稍后在 App Central 中选择是否要停用或移除这些程序，同时也可浏览并选择安装其他的应用程序。

3.1. Download Center

Download Center (下载中心) 让您可轻松下载所需要的档案并直接存放于 NAS，并同时达到节能与兼具数据保护的目地，不需要长时间开着计算机，NAS 即可取代计算机处理下载任务。Download Center 支持 HTTP, FTP 及 BitTorrent 下载，并可排程设定下载任务及限定上传和下载的速度。

有别于一般 NAS，Download Center 在进行 BitTorrent 下载时，可预先指定一个任务中您需要的档案即可，让您的 NAS 不需要浪费带宽及空间来下载及存放任何多余的档案。此外，您也可以透过专属的行动装置 app (iOS 及 Android) 来远程遥控 Download Center。

- **BitTorrent 下载：**您可将 torrent 文件上传至 Download Center，系统即会自动将任务加入下载列表中。此外，Download Center 也支持直接输入 torrent 的下载连结或 magnet link。
- **HTTP/FTP 下载：**Download Center 支持 HTTP 或 FTP 下载，您仅需要将连结贴上或输入画面中，系统即会自动进行下载。
- **RSS 订阅及下载：**RSS 下载 (又称 Broadcatching) 是一种利用订阅 RSS feed，在由 RSS 的内容中选择欲下载项目的技术。Download Center 除支持 RSS 下载外，也提供 RSS 自动下载器，系统会自动依据您的设定来定期更新 RSS feed，并根据您所设定的关键词或条件进行比对及下载，此方式经常被应用在需要定期下载的项目，如每周一次的电视节目。
- **搜寻：**Download Center 支持直接以关键词来搜寻欲下载的档案。

[更多](#)

[NAS 162 – Download Center 简介](#)

[NAS 265 – Download Center 自动下载](#)

3.2. Surveillance Center

Surveillance Center (监控中心) 可让您集中管理所有的网络摄影机 (IP Camera), 提供实时影像 (Live View) 及录像回放 (Playback) 功能。所有的网络摄影机的录像数据可直接存放于 NAS 中, 透过 NAS 自身的数据保护机制 (RAID) 以确保录像文件的完整, 在经由独家的录像回放接口随时检视历史画面。

Surveillance Center 支持多种录像模式, 如: 排程、移动侦测 (Motion Detection) 及警报 (Alarm Trigger) 录像。此外, 您也可以透过内建的事件通知功能, 当指定的事件发生时, 即会立即收到 e-mail 或手机简讯通知。

- 偏好设定: 安装精灵可以协助您简单又快速的启用 Surveillance Center, 帮助您完成新增摄影机、设定录像格式、排程录像等设定。如果您需要增加新的摄影机或是改变原有的设定也可以在这里完成。
- 实时影像: 本页面除了显示所有设定好之摄影机的实时画面以外, 更提供您监控上所需的各种功能, 包含摄影机 PTZ (上下/左右/缩放) 与默认点控制、影像快照、手动录像与声音控制等等。
- 录像回放: 您可以同时回放多台摄影机的特定时间录像数据。当您发现有异常事件时, 可以透过影像快照 (snapshot) 或汇出 (export) 的功能将选取的视讯内容输出至本地端计算机。

[更多](#)

[NAS 161 – Surveillance Center 简介](#)

[NAS 261 – Surveillance Center 的进阶设定](#)

3.3. UPnP AV Media Server

UPnP AV 多媒体服务器可用来作为家中的多媒体串流服务器，只要您有支持 UPnP 或 DLNA 的装置，如：SONY BRAVIA TV, PlayStation3[®]等，即可直接浏览及播放储存于 NAS 上的照片、音乐及影片。

此外，您也可以透过您的行动装置，如：笔记本电脑、iPhone/iPad 等，搭配 UPnP/DLNA 兼容的应用程序，也可直接于装置上播放 NAS 上的多媒体档案。

- 您仅需要将您的多媒体数据存放在共享文件夹- Media 及 Music 中，UPnP AV 多媒体服务器即会自动扫描指定的目录。
- UPnP AV 多媒体服务器目前仅支持照片及音乐的实时转文件 (On-the-fly transcoding)。

提醒：您的装置上所能播放的影音格式可能会因为装置的不同而有所差异。

关于 UPnP AV 多媒体服务器

UPnP AV 多媒体服务器支持的文件格式如下：

- 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 – 你的家庭多媒体中心](#)

3.4. iTunes Server

iTunes 服务器可用来作为家中的影音串流中心，让您可以将 NAS 中的音乐及影片分享给同一个网络环境中的计算机。

- 在启用 iTunes 服务器后，您仅需要将音乐放置于共享文件夹– Music 中，开启您 PC/ Mac 上的 iTunes 应用程序，即可在左侧的“共享”区域中看见您的 NAS，点击即可浏览所有 NAS 上的音乐并播放。
- 若您欲限制可读取音乐的客户端，您可于 iTunes 服务器中设置密码。
- iTunes 服务器也支持与 iOS 的 Remote app 进行配对。

提醒：当您新增音乐至 NAS 时，这些档案可能并不会立即出现在您的 iTunes 应用程序中，此乃因为 iTunes 服务器每隔一段时间才会重新扫描一次目录。

关于 iTunes 服务器

iTunes 服务器支持的文件格式如下：

- 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. 附录

4.1. 权限对照表

Y \ X	禁止存取	读取&写入	只读	未指定
禁止存取	禁止存取	禁止存取	禁止存取	禁止存取
读取&写入	禁止存取	读取&写入	读取&写入	读取&写入
只读	禁止存取	读取&写入	只读	只读
未指定	禁止存取	读取&写入	只读	禁止存取

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