



QNAP

QSW-M5216-1T

使用手冊



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1. 前言





關於本指南

本手冊涵蓋 QNAP QSW-M5216-1T 網路交換器的相關資訊，以及安裝硬體的逐步指示。此外，本指南也提供基本操作說明與支援資訊。

適用對象

本文件的適用對象為消費者與儲存空間管理員。本手冊預設使用者對於儲存與備份概念有基本的認識。

慣用符號

符號	說明
	注意事項。用於提供預設組態設定與其他補充資訊。
	重要注意事項。用於提供必要組態設定及其他重要資訊。
	提示。用於提供任務執行或組態設定的建議或替代方式。
	警告。忽略此類資訊可能導致潛在損失、受傷甚至死亡事故。

2. 產品概觀

本章介紹 QNAP 裝置的基本資訊。

關於 QSW-M5216-1T

QSW-M5216-1T 是一款第二層網管交換器，具有 16 個 25 GbE SFP28 連接埠和一個用於高速資訊傳輸的 10GBASE-T 連接埠。其外型小巧，可以簡易部署分支機構，並使用 QNAP 交換器系統 (QSS) 管理交換器作業。

硬體規格



警告

如果您的 QNAP 產品有硬體瑕疵，請將產品寄回 QNAP 或 QNAP 授權服務中心進行維修或換貨。只要您或未經授權的第三方嘗試修復產品或執行產品維修流程，皆會導致產品保固失效。

對於因未獲授權進行修改或安裝不支援之第三方應用程式所導致的任何損害或資料遺失，QNAP 一概不予負責。

如需詳細資訊，請參見：[QNAP 產品保固服務條款](#)。



提示

型號規格如有變更，恕不另行通知。若要查看最新規格，請前往：<https://www.qnap.com>。

訂購料號	CPU	電源供應器
QSW-M5216-1T	Marvell ® ARMADA ® 88F6821	單獨

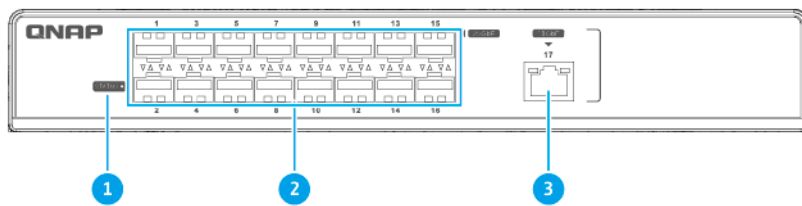
元件	QSW-M5216-1T
處理器	
CPU	Marvell ® ARMADA ® 88F6821
頻率	Dual-core 2.0 GHz
架構	ARM 32 位元
網路	
25 Gigabit 網路介面	16 x 25 GbE SFP28
10 Gigabit 網路介面	1 x 10GbE RJ45
介面	
按鈕	交換器重設按鈕
尺寸	
外型	精簡式
尺寸 (高 x 寬 x 深)	43.5 x 285 x 237.7 mm (1.70 x 11.22 x 9.35 in)
淨重	2.15 kg (4.73 lbs)
操作溫度	0°C 至 40°C (32°F 至 104°F)
相對濕度	<ul style="list-style-type: none"> 不凝結相對溼度：5% 至 95% 濕球溫度：27°C (80.6°F)

包裝內容

項目	數量
QSW-M5216-1T	1
電源線	1
滑軌支架螺絲	6
滑軌支架	2
橡膠腳座	4
快速安裝手冊 (QIG)	1

元件

前面板



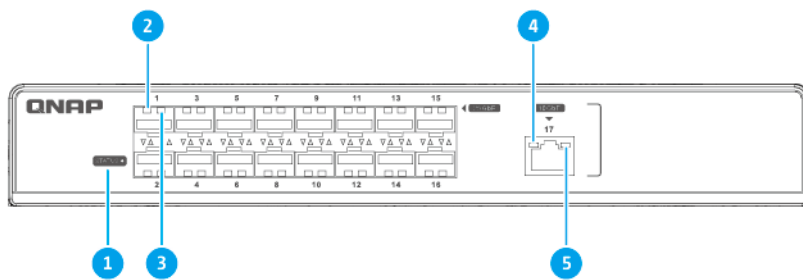
編號	元件	編號	元件
1	交換器狀態 LED 燈	3	10GBASE-T 連接埠 (RJ45)
2	25 Gigabit SFP28 連接埠	-	-

後面板



編號	元件	編號	元件
1	電源輸入	4	重設按鈕
2	管理連接埠	5	Kensington 安全插槽
3	主控台連接埠	-	-

前面板 LED 燈



編號	元件	編號	元件
1	交換器狀態 LED 燈	4	10GBASE-T 連結 (左側) LED 燈
2	25 Gigabit SFP28 連結 (左側) LED 燈	5	10GBASE-T 連結 (右側) LED 燈

編號	元件	編號	元件
3	25 Gigabit SFP28 連結 (右側) LED 燈	-	-

3. 安裝與存取

本章說明特定硬體安裝與交換器存取步驟。

安裝需求

類別	項目
環境	<ul style="list-style-type: none"> • 室溫：0°C 到 40°C (32°F 到 104°F) • 不凝結相對溼度：5% 至 95% • 濕球溫度：27°C (80.6°F) • 平坦且防靜電的表面，不受陽光直射，亦不與液體或化學物質接觸 • 確認沒有物體會阻礙交換器的通風口，或者對交換器或電源線產生壓力。
硬體和週邊設備	<ul style="list-style-type: none"> • 電腦或 NAS • 網路線
工具	<ul style="list-style-type: none"> • 1 號或 2 號十字螺絲起子 • 平頭螺絲起子 • 防靜電腕帶

設定交換器

1. 將交換器置於符合需求的環境。
如需詳細資訊，請參見：[安裝需求](#)。
2. 將交換器安裝到機架上。
您可以在機架滑軌的包裝中找到安裝資訊。
3. 打開交換器電源。
如需詳細資訊，請參見：[後面板](#)。
4. 連接交換器至電腦或網路。
如需詳細資訊，請參見：[連接交換器至電腦或網路](#)。
5. 登入 QSS。

連接交換器至電腦或網路

您可透過 QSW-M5216-1T 連接至電腦或區域網路。如需詳細資訊，請參見下列主題：

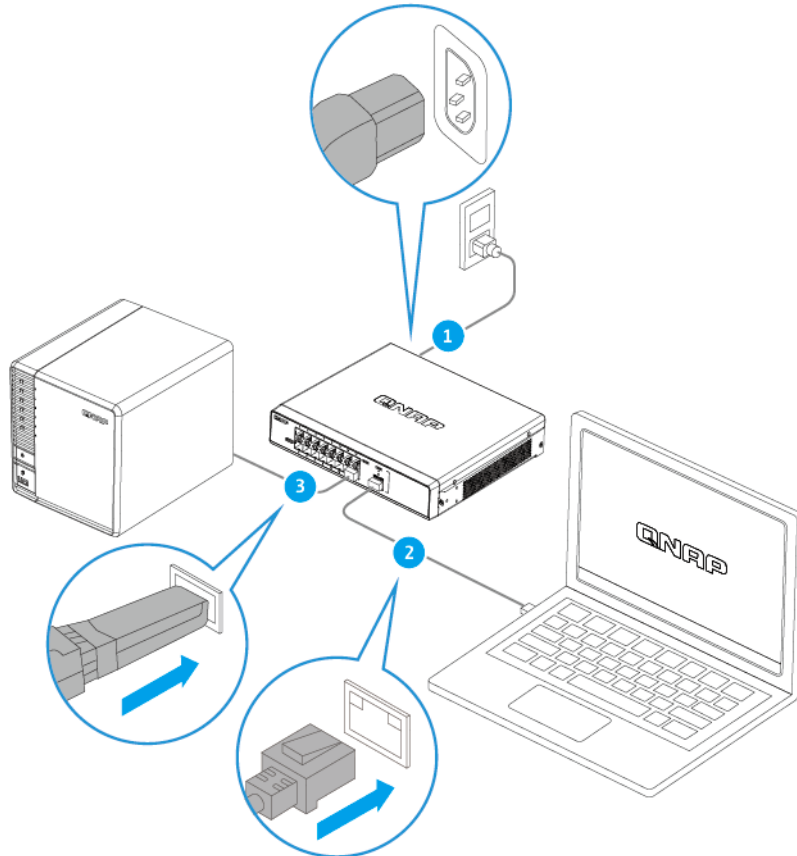
- [連接交換器至電腦](#)
- [連接交換器至網路](#)

連接交換器至電腦

您可透過將網路線連接至交換器上的 PoE 連接埠，將交換器連接至 QNAP NAS，來擴充儲存容量並將資料備份至另一台 NAS。但是您必須將交換器連接至電腦來編輯設定。

1. 打開交換器電源。

2. 連接交換器至電腦。
 - a. 將網路線連接至交換器上的主機連接埠。
 - b. 將網路線連接至電腦上的 Gigabit 網路連接埠。



3. 確認電腦可辨識交換器。
 - a. 在主機電腦中開啟 Qfinder Pro。



注意

若要下載 Qfinder Pro，請前往：<https://www.qnap.com/utilities>。

- b. 從清單中尋找交換器。

連接交換器至網路

您可透過主機連接埠或 PoE 連接埠來連接至區域網路。

1. 打開交換器電源。
2. 利用主機連接埠，將交換器連接至區域網路。
3. 在連接相同區域網路的電腦上執行 Qfinder Pro。



注意

若要下載 Qfinder Pro，請前往：<https://www.qnap.com/utilities>。

4. 在清單中找到交換器，然後在名稱或 IP 位址上按兩下。
QSS 登入畫面隨即出現。
5. 輸入 QSS 登入資訊。
6. 按一下 [登入] 。

交換器存取

方式	說明	需求
網頁瀏覽器	<p>如果具備下列資訊，就可以使用相同網路內的任何電腦存取交換器：</p> <ul style="list-style-type: none"> • 交換器名稱（例如：http://example123/）或 IP 位址 • 登入有效使用者帳戶的認證資料 <p>如需詳細資料，請參見：使用瀏覽器存取交換器。</p>	<ul style="list-style-type: none"> • 與交換器連接相同網路的電腦 • 網頁瀏覽器
Qfinder Pro	<p>Qfinder Pro 是一款桌面應用工具，可讓使用者定位和存取特定網路內的 QNAP 裝置。此應用工具支援 Windows、macOS、Linux 及 Chrome OS。</p> <p>如需詳細資訊，請參見：透過 Qfinder Pro 存取交換器。</p>	<ul style="list-style-type: none"> • 與交換器連接相同網路的電腦 • 網頁瀏覽器 • Qfinder Pro

使用瀏覽器存取交換器



如果您知道交換器的 IP 位址以及有效使用者帳戶的登入認證資料，就可以從網路上的任何電腦來存取交換器。QNAP 交換器預設支援 DHCP 客戶端設定進行 IP 分配。連線至網路時，交換器將自動保留來自 DHCP 伺服器的 IP 位址。



注意

- 如果您不知道交換器的 IP 位址，則可使用 Qfinder Pro 來尋找交換器。
- 如果交換器未連接 DHCP 支援的網路，則可以透過將電腦的 IP 地址更改為 169.254.100.102 來存取交換器網頁界面。
- 交換器的預設 IP 位址為 169.254.100.101。

1. 請確認您的電腦與交換器連線到相同的網路。
2. 開啟電腦的網頁瀏覽器。
3. 在網址列中輸入交換器的 IP 位址。
QSS 登入畫面隨即顯示。
4. 指定預設使用者名稱與密碼。

預設使用者名稱	預設密碼
admin	<p>交換器映像的 MAC 位址，請刪去所有標點符號，並將所有字母大寫。</p> <p> 提示 例如，如果 MAC 位址為 00:0a:0b:0c:00:01，預設密碼則為 000A0B0C0001。 您可以透過 Qfinder Pro 找到 MAC 位址，也可在裝置上的貼紙找到「MAC」字樣。</p> <p> 注意 系統將會提示您在首次登入後更改密碼。 出於安全考慮，QNAP 強烈建議您在首次登入後更改密碼。</p>

- 按一下 [登入]。

QSS 桌面隨即顯示。



重要

在設定交換器後，確保將電腦的 IP 地址更改為原始設定。

透過 Qfinder Pro 存取交換器


- 在與交換器連接到相同網路的電腦上安裝 Qfinder Pro。



提示

若要下載 Qfinder Pro，請前往：<https://www.qnap.com/en/utilities>。

- 開啟 Qfinder Pro。
Qfinder Pro 會自動搜尋網路內的所有 QNAP 裝置。
- 在清單中找到交換器，然後在名稱或 IP 位址上按兩下。
QSS 登入畫面隨即在預設網頁瀏覽器中開啟。
- 指定預設使用者名稱與密碼。

預設使用者名稱	預設密碼
admin	<p>交換器映像的 MAC 位址，請刪去所有標點符號，並將所有字母大寫。</p> <p> 提示 例如，如果 MAC 位址為 00:0a:0b:0c:00:01，預設密碼則為 000A0B0C0001。 您可以透過 Qfinder Pro 找到 MAC 位址，也可在裝置上的貼紙找到「MAC」字樣。</p>

- 按一下 [登入]。

QSS 桌面隨即顯示。

4. 基本操作

本章介紹交換器的基本操作。


LED 燈號

LED 燈號指示交換器開機時的系統狀態與相關資訊。下列 LED 燈號資訊僅適用於交換器已連接至網路的情況。

如需 LED 燈號的位置資訊，請參見：[前面板 LED 燈](#)。

LED	狀態	說明
系統狀態	綠燈	裝置已就緒。
	綠燈閃爍	<ul style="list-style-type: none"> 裝置正在初始化。 韌體正在更新。 <div style="border-left: 2px solid #0070C0; padding-left: 10px; margin-top: 10px;"> <p>注意 請勿在韌體更新期間拔下電源線或 USB 連接線，也不要強制結束應用程式。</p> </div> <ul style="list-style-type: none"> 裝置正在重設中。
	紅燈	裝置發生嚴重錯誤。
	熄滅	裝置已關機。
25 Gigabit SFP28 連結 (左側)	綠燈	連結速度為 25 Gbps。
	綠燈閃爍	資料傳送中。
	熄滅	無網路連線。
25 Gigabit SFP28 連結 (右側)	橙燈	連線速度為 10 或 1 Gbps。
	橙燈閃爍	資料傳送中。
	熄滅	無網路連線。
10GBASE-T RJ45 連結 (左側)	綠燈	連結速度為 10 Gbps。
	綠燈閃爍	資料傳送中。
	熄滅	無網路連線。
10GBASE-T RJ45 連結 (右側)	橙燈	連結速度為 5 Gbps、2.5 Gbps、1Gbps 或 100 Mbps。
	橙燈閃爍	資料傳送中。
	熄滅	無網路連線。

重設按鈕

操作	使用者操作	結果
系統基本重設	按住按鈕 5 秒。	<p>以下設定將回復至預設值：</p> <ul style="list-style-type: none"> 系統管理員密碼：預設密碼為第一個 MAC 位址（不包含特殊字元）。例如，若第一個 MAC 位址為 00-08-9B-F6-15-75，則 admin 密碼為 00089BF61575。 <p> 注意 您可以透過 Qfinder Pro 或者裝置標籤上列為 MAC1 處找到第一個 MAC 地址。</p> <ul style="list-style-type: none"> 系統會自動啟用 admin 帳戶
系統進階重設	按住按鈕 10 秒。	回復為出廠預設值。

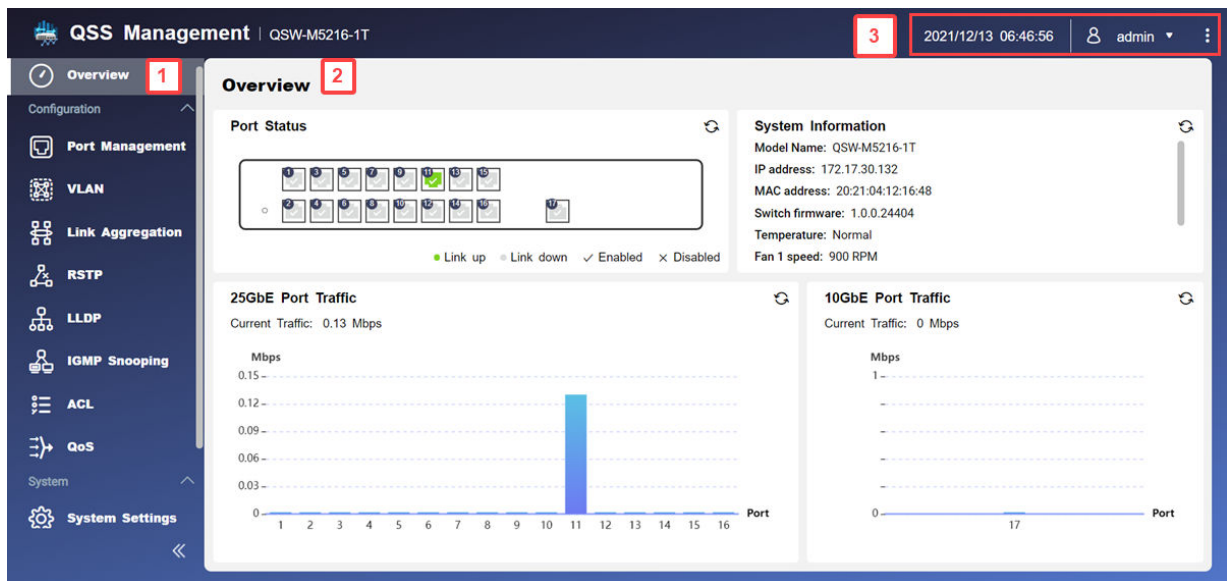
5. QSS




關於 QSS

QSS 為託管 QNAP 交換器裝置的集中管理工具。

使用者介面元件

QSS 使用者介面包含三個主要區域。



標籤	區域	說明
1	選單	選單有兩個區段：設定和系統 按一下  或  以展開或收合選單。
2	主面板	主面板顯示所選取的畫面。
3	工具列	工具列包含下列資訊： <ul style="list-style-type: none"> 在 [系統設定] > [時間] 中設定的日期和時間。 [USER_NAME]：按一下以存取 [登出] 按鈕。 ：按一下可檢視下列資訊： <ul style="list-style-type: none"> [重新啟動交換器]：重新啟動交換器 語言：開啟支援語言清單，您也可變更作業系統的語言 關於：顯示下列資訊： <ul style="list-style-type: none"> 硬體模式 版本號碼

開始使用

1. 請以管理員身分登入交換器。
預設管理員帳戶為 `admin`。
如需詳細資訊，請參見：[交換器存取](#)。
2. 編輯系統設定。
如需詳細資訊，請參見：[系統設定](#)。
3. 編輯連接埠設定和其他網路設定。
如需詳細資訊，請參見：[網路管理](#)。

6. 網路管理

本節說明如何使用 QSS 網路設定來設置交換器。交換器的基本網路設置包括連接埠管理、VLAN 設置、各種通訊協定的設置，以及透過服務品質 (QoS) 和存取控制清單 (ACL) 的流量管理。


儀表板

儀表板會於 QSS 的設置區域開啟。按一下儀表板中的下拉式選單，即可檢視所有連接埠的連接埠狀態、VLAN 狀態、連結彙總狀態以及連接埠流量。

您也可以刪除使用者編輯的網路設定，並監視交換器的網路設定。

編輯連接埠設定

1. 登入 QSS。
2. 前往 [設定] > [連接埠管理]。
3. 前往 [連接埠設定]。
4. 找出連接埠。
5. 編輯設定。

設定	說明
狀態	控制連接埠的運行模式
速度	指定連接埠運行的最大速度。
流量控制	控制連接埠的流量控制狀態
	 重要 當連接埠速度設定為 HDX 時，不支援「流量控制」。

6. 按一下 [儲存]。

QSS 隨即儲存設定。

新增 VLAN

虛擬 LAN (VLAN) 隨即將多個網路裝置群組在一起，並限制其廣播網域。VLAN 的各成員間會互相隔離，且網路流量只會在群組成員間互相傳送。

每個 VLAN 會被指派特定的 VLAN 識別碼。**VLAN** 畫面會顯示現有 VLAN 的相關資訊，並提供 VLAN 設置選項的存取權。


1. 登入 QSS。
2. 前往 [設定] > [VLAN]。
3. 按一下 [新增]。
[新增 VLAN] 視窗隨即開啟。
4. 指定 VLAN ID。
5. 選擇要納入 VLAN 的連接埠。
只有標出的連接埠可屬於多個 VLAN。
6. 按一下 [儲存]。


QSS 隨即新增 VLAN。

設定連結彙總群組 (LAG)

連結彙總控制通訊協定 (LACP) 可讓您將多個網路介面卡結合成單一邏輯網路介面。這可確保提高輸送量並提供備援。如果發生連接埠故障，流量會經由剩下的連接埠繼續執行。

連結彙總頁面會顯示現有連結彙總群組的相關資訊，並提供設置選項的存取權。

1. 登入 QSS。
2. 前往 [設定] > [連結彙總]。
3. 找出群組。
4. 按一下 。
[編輯群組] 視窗隨即開啟。
5. 編輯群組設定。

設定	說明
模式	控制群組的連結彙總模式  重要 將網路線連接到交換器前，請先啟用連結彙總，以避免資料迴圈。
連接埠設定	指定哪些連接埠要納入至群組  注意 群組中最多可以加入四個連接埠。

6. 按一下 [儲存]。

QSS 隨即更新該群組設定。

管理快速跨距樹狀目錄通訊協定 (RSTP) 設定

RSTP 提供跨距樹狀目錄的快速聚合，組建交換器網路的無迴圈拓撲。當使用中的連結失敗時，RSTP 允許您啟用備份連結。





注意

- RSTP 預設為停用。
- 交換器的預設橋接優先順序為 32768。

設定 RSTP 狀態

1. 登入 QSS。
2. 前往 [設定] > [RSTP]。
3. 變更 RSTP 控制狀態。

切換設定	說明
	啟用 RSTP 功能
	停用 RSTP 功能

4. 按一下 **【儲存】**。

QSS 隨即儲存設定。

設定橋接器優先順序

您可以在 RSTP 設置欄位中設置交換器的 RSTP 橋接優先順序。

1. 登入 QSS。
2. 前往 **【設定】 > 【RSTP】 > 【RSTP 設定】**。
3. 啟用 RSTP。



注意

如需詳細資訊，請參見：[設定 RSTP 狀態](#)。

4. 從下拉式清單選擇 RSTP 橋接器優先順序。



注意

預設優先順序為 32768，建議您將根橋接器優先順序設定為 0。

5. 按一下 **【儲存】**。



QSS 隨即更新 RSTP 橋接器優先順序

設定 LLDP 狀態

連結層探索通訊協定 (LLDP) 會使用定期廣播，將裝置資訊通告給整個網路，並探索相鄰的裝置。此通訊協定的運作方式是建立分佈式資訊庫，並從通過網路連結的相鄰連接埠來收集資訊。

LLDP 頁面會針對偵測到的裝置顯示相關資訊，並允許您啟用和停用 LLDP。

1. 登入 QSS。
2. 前往 **【設定】 > 【LLDP】**。
3. 變更 LLDP 控制狀態。

切換設定	說明
	啟用 LLDP 功能
	停用 LLDP 功能

4. 按一下 **【儲存】**。

QSS 隨即儲存設定。

新增靜態 MAC 位址

MAC 位址表用以追蹤 MAC 位址，並透過特定通訊埠來轉送相關的單點傳播流量。

1. 登入 QSS。
2. 前往 [設定] > [LLDP] > [MAC 位址表]。
3. 指定 MAC 位址表的留存時間。



注意

您可以設定項目保留在 MAC 位址表中的時間長度。


4. 按一下 [新增]。
[新增靜態 MAC 位址] 視窗隨即開啟。
5. 編輯 MAC 位址設定。
 - a. 指定 VLAN ID。
 - b. 指定 MAC 位址。
 - c. 選擇至少一個連接埠。
6. 按一下 [儲存]。
[新增靜態 MAC 位址] 視窗隨即關閉。

QSS 隨即新增 MAC 位址。

設置 IGMP Snooping

網際網路群體管理協定 (IGMP) 可管理 IP 多點傳播群組的成員資格。IP 主機和相鄰的多點傳送路由器使用 IGMP 建立多點傳送群組成員身份。

IGMP Snooping 頁面會針對偵測到的 IGMP 群組顯示相關資訊，並提供對於 IGMP snooping 設置選項的存取權。

1. 登入 QSS。
2. 前往 [設定] > [IGMP Snooping]。
3. 按一下 。
QSS 隨即啟用 IGMP Snooping。
4. 編輯 IGMP 設定。

設定	說明
多點傳播泛濫封鎖	封鎖來自不明來源的多點傳播泛濫
路由器連接埠	指定要將哪些連接埠當成 VLAN 的路由器連接埠 接收 IGMP 封包後，QSS 將會透過選定的路由器連接埠轉送流量。
快速離開	指定支援 IGMP v2 「快速離開」功能的連接埠 接收 IGMP 離開訊息後，QSS 會停止將多點傳送流量轉送至選取的「快速離開」連接埠。

5. 按一下 [儲存]。

QSS 隨即儲存 IGMP 設定。

管理存取控制清單 (ACL) 項目

存取控制清單可透過使用受控的規則集來處理交換器的網路流量。每個 ACL 規則都專用於一組使用者建立的條件，資料封包必須滿足該條件才能符合規則。資料封包在沒有可相符的 ACL 規則的情況下，交換器會套用預設規則。或者，交換器會比對資料封包與規則，以便允許或拒絕封包。

您可以利用 ACL 控制主機對於網路不同部分的存取，或在交換器層級上控制流量的轉送或封鎖。

新增基於 IP 位址的 ACL 規則

1. 登入 QSS。
2. 前往 [設定] > [ACL] > [依 IP 位址]。
3. 按一下 [新增]。
[新增 ACL—IP 位址] 視窗隨即開啟。
4. 編輯 ACL 設定。

設定	使用者操作
ACL 號碼	指定介於 1 到 255 之間的數字
來源	
IP 位址	指定來源 IP 位址
子網路遮罩	指定來源子網路遮罩
目的地	
IP 位址	指定目的地 IP 位址
子網路遮罩	指定目的地子網路遮罩
通訊埠	選取 [全部] 以便選取所有連接埠，或按一下連接埠核取方塊，以在特定連接埠上設置基於 IP 位址的 ACL 規則。
權限	選擇下列其中一個選項： <ul style="list-style-type: none"> • 允許 • 拒絕

5. 按一下 [儲存]。

QSS 將會新增基於 IP 位址的 ACL 規則。

新增基於 MAC 位址的 ACL 規則

1. 登入 QSS。
2. 前往 [設定] > [ACL] > [依 MAC 位址]。
3. 按一下 [新增]。
[新增 ACL—MAC 位址] 視窗隨即開啟。
4. 編輯 ACL 設定。

設定	使用者操作
ACL 號碼	指定介於 1 到 255 之間的數字
來源	

設定	使用者操作
MAC 位址	指定來源 MAC 位址
目的地	
MAC 位址	指定目的地 MAC 位址
通訊埠	選取 【全部】 以便選取所有連接埠，或按一下連接埠核取方塊，以在特定連接埠上設置基於 IP 位址的 ACL 規則。
權限	選擇下列其中一個選項： <ul style="list-style-type: none"> • 允許 • 拒絕

- 按一下 **【儲存】**。

QSS 將會新增基於 MAC 位址的 ACL 規則。

編輯 QoS 設定

服務品質 (QoS) 可對不同的網路裝置及封包進行分類並決定優先順序，以改善網路流量的分配。

- 登入 QSS。
- 前往 **【設定】 > 【QoS】**。
- 選擇 QoS 模式。

模式	說明
以連接埠為基礎	優先處理各個連接埠的流量
以 VLAN 為基礎	優先處理各個 VLAN 的流量

- 設定優先順序。



注意


數字越大，優先順序也越高。

- 按一下 **【儲存】**。

QSS 隨即更新 QoS 設定。

設置 QoS 的 CoS 優先順序

CoS (服務類別) 是框架乙太網路標頭中的 3 位元欄位。CoS 值會根據 CoS 值 (0-7) 決定將流量轉送至哪個佇列。

- 登入 QSS。
- 前往 **【設定】 > 【QoS】**。
- 找出連接埠。
- 按一下 **【CoS 檢查】** 下的 。
QSS 會在連接埠上啟用 CoS 檢查。
- 按一下 **【編輯 CoS 檢查】**。

6. 在 1 到 8 之間指定 CoS 優先順序值。
7. 按一下 **【儲存】**。
QSS 會更新 CoS 值的優先順序佇列。
8. 按一下 **【儲存】**。

QSS 會更新 QoS 資訊。

設置 QoS 的 DSCP 優先順序

DSCP（區別服務代碼點）是封包 IP 標頭中的 6 位元欄位，用來分類封包。DSCP 值會根據指派給 DSCP 值 (0-63) 的優先順序決定將封包轉送至某個佇列。

1. 登入 QSS。
2. 前往 **【設定】** > **【QoS】**。
3. 找出連接埠。
4. 按一下 **【DSCP 檢查】** 下的 。
QSS 會在連接埠啟用 DSCP 檢查。
5. 按一下 **【編輯 DSCP 檢查】**。
6. 在 1 到 8 之間指定 DSCP 優先順序值。
7. 按一下 **【儲存】**。
QSS 會更新 DSCP 值的優先順序佇列。
8. 按一下 **【儲存】**。

QSS 會更新 QoS 資訊。


刪除網路設定

1. 登入 QSS。
2. 前往 **【設定】**。
3. 選取網路設定。



注意

刪除網路設定僅適用於 ACL 規則、連結彙總群組、靜態 MAC 位址和 VLAN。

4. 按一下 。
確認訊息隨即顯示。
5. 按一下 **【刪除】**。

QSS 隨即刪除網路設定。

監視網路設定

您可以在 **【設定】** 區段監視下列網路設定。這些設定可用來監視和診斷切換器作業。

1. 登入 QSS。

2. 前往 **[設定]**。
3. 選取網路設定。

設定	說明
IGMP Snooping 統計資料	前往 [IGMP Snooping] > [IGMP Snooping 統計資料] 。 針對偵測到的 IGMP 群組顯示相關統計資訊。
LLDP 遠端裝置	前往 [LLDP] > [LLDP 遠端裝置] 。 顯示啟用的 LLDP 連接埠資訊，包括系統功能及遠端管理 IP 位址。 可能的系統功能包括： <ul style="list-style-type: none"> • 橋接器 • DOCSIS 纜線裝置 • 中繼器 • 已保留 • 路由器 • 僅限站台 • 電話 • WLAN 存取點 • 其他
連接埠狀態	前往 [連接埠管理] > [連接埠狀態] 以檢視下列連接埠狀態資訊： <ul style="list-style-type: none"> • 連接埠號碼 • 連接埠連結狀態 • 連接埠狀態 • 連接埠速度 • 流量控制
連接埠統計資料	<p>a. 前往 [連接埠管理] > [連接埠統計資料] 以檢視網路的連接埠統計資料：</p> <p>b.  按一下  可將檢視選項變更為清單檢視。</p>



7. 系統管理

[系統] 區段提供存取裝置的設定選項。

系統設定

[系統設定] 選單包含系統設定選項，例如交換器的系統資訊、IP 資訊、密碼設定、安全連線設定以及時間設定。


變更交換器名稱

1. 登入 QSS。
2. 前往 **[系統]** > **[系統設定]** > **[系統資訊]**。
3. 按一下 .
4. 指定裝置名稱：
必備條件：
 - 長度：1-14 個字元
 - 有效字元：A-Z、a-z、0-9
 - 有效特殊字元：連字號 (-)
5. 按一下  以確認裝置名稱。

QSS 將會更新交換器名稱。

設定交換器 IP 資訊

1. 登入 QSS。
2. 前往 **[系統]** > **[系統設定]** > **[IP]**。
3. 選取網路設置設定。

設定	說明
自動取得 IP 與 DNS	如果網路支援 DHCP，介面卡會自動取得 IP 位址和網路設定。
手動設定 IP 與 DNS	<p>手動指定固定 IP 位址。您必須設定下列資訊：</p> <ul style="list-style-type: none"> • 固定 IP 位址 • 子網路遮罩 • 預設閘道 <p> 注意 交換器的預設閘道 IP 位址為選用。</p>

4. 按一下 **[儲存]**。
確認訊息隨即顯示。
5. 按一下 **[是]**。

QSS 隨即更新 IP 資訊。



注意
利用 Qfinder Pro 找到交換器並登入 QSS。

更新交換器密碼

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [密碼]。
3. 設定新密碼。



提示
按一下 可顯示您輸入的密碼。

設定	使用者操作
目前密碼	指定裝置目前密碼
新密碼	設定包含 8 到 20 個 ASCII 字元的密碼
確認新密碼	重新輸入新密碼

4. 按一下 [儲存]。

QSS 會將您登出交換器介面。您可以使用新密碼存取交換器。

編輯時間設定



注意
您必須正確設定時間，以免發生下列問題。

- 使用網頁瀏覽器連線裝置或儲存檔案時，動作的顯示時間不正確。
- 事件記錄不符合事件發生的實際時間。
- 排定任務在錯誤的時間執行。

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [時間]。
3. 指定時區。
4. 指定時間設定。

設定	說明
手動設定	指定日期和時間。
與網際網路時間伺服器同步	確認您的裝置已連接網際網路，然後指定下列資訊： 伺服器 ：網路時間通訊協定 (NTP) 伺服器名稱 範例：time.nist.gov、time.windows.com

5. 按一下 [儲存]。

QSS 隨即更新時間設定。

備份系統設定

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [備份與還原]。
3. 按一下 [備份]。

該裝置隨即將系統設定以 BIN 檔案匯出並下載到您的電腦。

還原系統設定



警告

如果所選的備份檔案含有裝置中已存在的使用者或使用者群組資訊，則系統將覆寫現有的資訊。


1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [備份與還原]。
檔案總管視窗隨即開啟。
3. 按一下 [瀏覽]。
4. 選擇包含裝置系統設定的有效 BIN 檔案。
5. 按一下 [還原]。

QSS 將會還原交換器設定。

重設交換器密碼

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [備份與還原]。
3. 前往 [系統] > [系統設定] > [備份與還原]。
4. 按一下 [密碼重設]。

QSS 隨即重設交換器。

預設使用者名稱	預設密碼
admin	交換器映像的 MAC 位址，請刪去所有標點符號，並將所有字母大寫。  提示 例如，如果 MAC 位址為 00:0a:0b:0c:00:01，預設密碼則為 000A0B0C0001。 您可以透過 Qfinder Pro 找到 MAC 位址，也可在裝置上的貼紙找到「MAC」字樣。

將交換器重設至出廠設定

重設交換器將會刪除此裝置儲存的資料，並將交換器還原至出廠預設值。



提示

您也可按住實體重設按鈕 10 秒鐘，將交換器還原至出廠預設值。

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [備份與還原]。
3. 按一下 [重設成出廠預設值]。
確認訊息隨即顯示。
4. 按一下 [是]。

QSS 隨即將交換器重設為出廠設定。

預設使用者名稱	預設密碼
admin	交換器映像的 MAC 位址，請刪去所有標點符號，並將所有字母大寫。  提示 例如，如果 MAC 位址為 00:0a:0b:0c:00:01，預設密碼則為 000A0B0C0001。 您可以透過 Qfinder Pro 找到 MAC 位址，也可在裝置上的貼紙找到「MAC」字樣。

啟用安全連線 (HTTPS)

1. 登入 QSS。
2. 前往 [系統] > [系統設定] > [HTTPS]。
3. 選擇 [啟用安全連線]。
4. 選擇 TLS 版本。



注意

選擇最新版本的 TLS 以盡可能提高系統安全性。確保您的系統滿足 TLS 要求，以避免相容性問題。

5. 選擇性: 選擇 [強制只使用安全連線]。




注意

在啟用此設定後，您只能透過 HTTPS 存取網頁管理頁面。

6. 按一下 [儲存]。

QSS 隨即儲存安全連線設定。

重新啟動交換器

1. 登入 QSS。
2. 按一下位於頁面右上角的 ：
3. 按一下 [重新啟動交換器]。
確認訊息隨即顯示。
4. 按一下 [是]。

QSS 隨即重新啟動交換器。

檢視交換器資訊

若要檢視交換器的硬體和系統資訊，請前往 **[系統]** > **[系統資訊]**。

畫面隨即提供下列資訊。

資訊	說明
交換器名稱	顯示裝置的預設名稱或已修改名稱
型號名稱	顯示交換器的型號名稱
MAC 位址	顯示交換器映像檔的 MAC 地址
IP 位址	顯示交換器的 DHCP 或靜態 IP 地址
系統開機累計時間	顯示系統運行的時間
目前韌體版本	顯示交換器的韌體映像檔版本

韌體更新



QNAP 建議隨時更新裝置韌體。如此可確保裝置享有最新 QSS 軟體功能、安全性更新、增強工具和錯誤修正所帶來的益處。

您可以使用下列其中一種方式更新 NAS 韌體。

更新方式	說明
使用 即時更新	QSS 會自動偵測韌體更新，並安裝在裝置上。 如需詳細資訊，請參見： 檢查即時更新 。
透過 韌體更新	您可以在 QNAP 網站 上查看是否有最新的裝置韌體更新、將韌體更新下載至電腦，然後手動將韌體更新安裝到您的裝置上。 如需詳細資訊，請參見： 手動更新韌體 。

韌體需求

裝置應符合以下需求以便執行韌體更新：

設定	需求
硬體設定	<ul style="list-style-type: none"> 電腦 <ul style="list-style-type: none">  注意 電腦需要手動或透過 Qfinder Pro 來更新韌體。 乙太網路線 <ul style="list-style-type: none">  注意 QNAP 建議使用有線乙太網路連線來更新韌體，確保在韌體更新期間可穩定地連上網路。
備份系統設定	QNAP 建議您在更新韌體前，先備份系統設定至電腦。 如需詳細資訊，請參見： 備份系統設定 。
管理員權限	您必須是交換器管理員或具備管理員權限才能更新韌體。
停止交換器作業	QNAP 建議您在更新韌體前停止所有其他交換器作業。交換器必須重新啟動，該韌體更新才會生效。在這過程中可能會中斷執行中的交換器服務或作業。

設定	需求
裝置型號	請確認交換器型號正確無誤。您可以使用下列方法找到交換器型號： <ul style="list-style-type: none"> 在裝置底部或背面的貼紙上找到型號。 登入裝置來尋找型號。
韌體版本	如果您透過 韌體更新 或 Qfinder Pro 更新韌體，請確認所選取的韌體版本適用於裝置的型號。

檢查即時更新



警告

- 為避免資料遺失，QNAP 建議您在更新韌體前先備份裝置上的所有資料。如需有關資料備份的詳細資訊，請參閱：[備份系統設定](#)。
- 請勿在韌體更新過程中關閉裝置。



重要

- 在更新韌體之前，請務必閱讀：[韌體需求](#)。
- 視硬體設置和網路連線能力而定，更新過程可能需要數分鐘或更長時間。

- 登入 QSS。
- 前往 **[系統]** > **[韌體更新]** > **[即時更新]**。
- 按一下 **[檢查更新]**。
QSS 隨即檢查可用的韌體更新。如有可用的更新，您可以選擇更新 QSS。
- 按一下 **[更新系統]**。
確認訊息隨即顯示。
- 按一下 **[更新]**。

QSS 將會更新韌體。

手動更新韌體



警告

- 為避免資料遺失，QNAP 建議您在更新韌體前先備份裝置上的所有資料。如需有關資料備份的詳細資訊，請參閱：[備份系統設定](#)。
- 請勿在韌體更新過程中關閉裝置。



重要

- 在更新韌體之前，請務必閱讀：[韌體需求](#)。
- 視硬體設置和網路連線能力而定，更新過程可能需要數分鐘或更長時間。

- 下載裝置韌體。
 - 前往 <http://www.qnap.com/download>。

- b. 選擇產品類型。
- c. 選擇裝置型號。
- d. 閱讀版本說明並確認以下事項：
 - 裝置型號符合韌體版本。
 - 韌體已取得必要更新。
 - 檢查是否有其他韌體更新設定說明。

2. 確認產品型號和韌體正確無誤。
3. 根據您的位置選取下載伺服器。
4. 下載韌體套件。
5. 按一下 [瀏覽] 。
6. 選擇資料夾。
7. 儲存下載的韌體套件。
8. 將韌體映像檔解壓縮。
9. 登入 QSS 。
10. 前往 [系統] > [韌體更新] > [韌體更新] 。
11. 按一下 [瀏覽] ，然後選擇解壓縮後的韌體映像檔。
12. 按一下 [更新系統] 。
- 確認訊息視窗隨即出現。
13. 按一下 [更新] 。

裝置立即重新啟動。

8. 支援和其他資源

QNAP 提供下列資源：

資源	URL
文件	https://docs.qnap.com
服務入口網站	https://service.qnap.com
下載	https://download.qnap.com
社群論壇	https://forum.qnap.com

9. 詞彙

myQNAPcloud

提供各種遠端存取服務，例如 DDNS 與 myQNAPcloud Link

Qfinder Pro

QNAP 應用工具可讓您定位和存取區域網路內的 QNAP NAS 裝置

QSS

QNAP 交換器管理應用程式

QuNetSwitch

執行 QTS 作業系統的 QNAP 交換器管理應用程式

10. 聲明

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Version 3, 29 June 2007

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- b. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c. Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d. Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to

find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

- e. Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

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