如何設定
Windows DHCP log

V012

2024/10/22

版權聲明

商標

目錄

前言

本文件描述 N-Reporter 使用者如何使用 Open Source 工具 NXLog 方式設定 Windows DHCP 記錄。

NXLog 工具將 Windows DHCP 記錄轉成 syslog，再轉發到 N-Reporter 做正規化、稽核與分析。

此文件適用於作業系統的 Windows Server 2003 / 2008 / 2012 / 2016 / 2019 / 2022 版本。

註：本文件僅做為如何將日誌吐出的設定參考，建議您仍應聯繫設備或是軟體原廠尋求日誌輸出方式之協助。

1 NXLog

1.1 NXLog 安裝

(1) 下載 NXLog CE(Community Edition

前往網址 https://nxlog.co/products/nxlog-community-edition/download

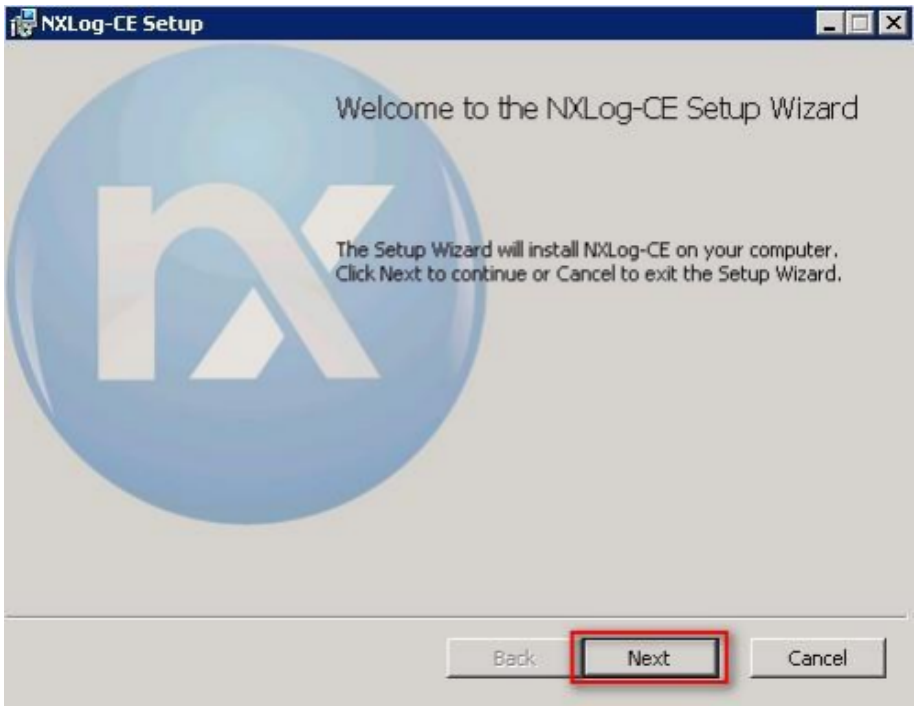
下載網址最新版 nxlog-ce-x.x.xxxx.msi，範例: nxlog-ce-3.0.2272.msi

註：若需要下載 NXLog 32bit 版本，請與我們連繫。

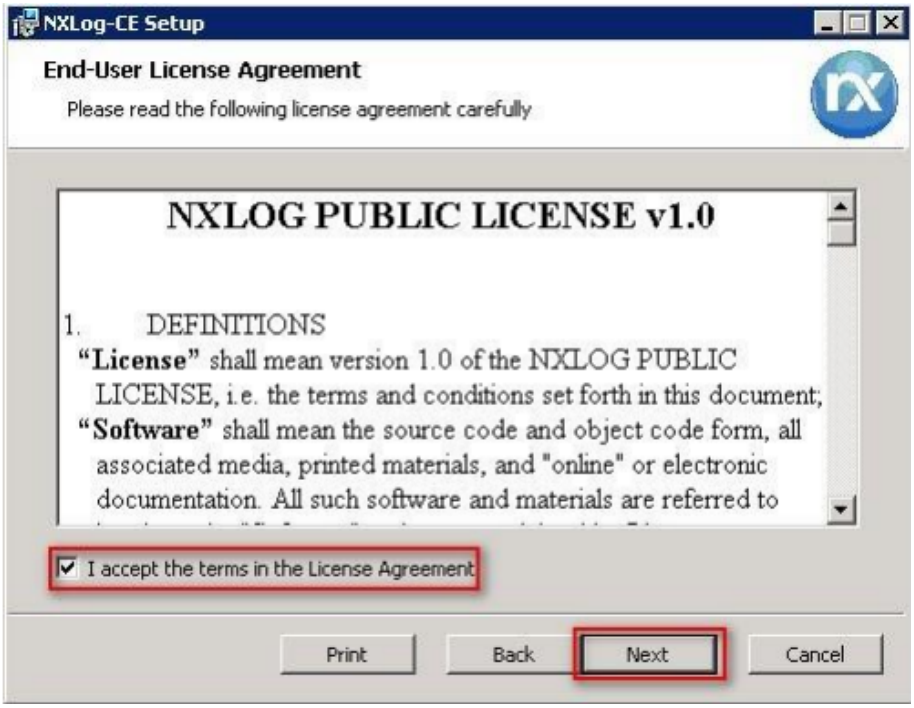
(2) 安裝 NXLog

<2.1> Windows 2008 或之後版本作業系統

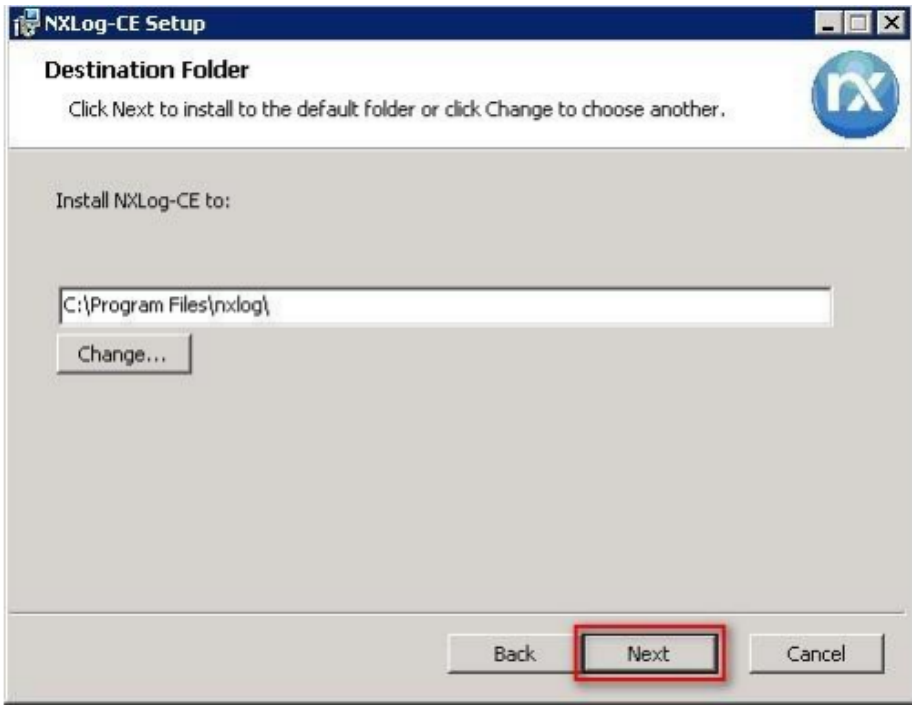
點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Next].



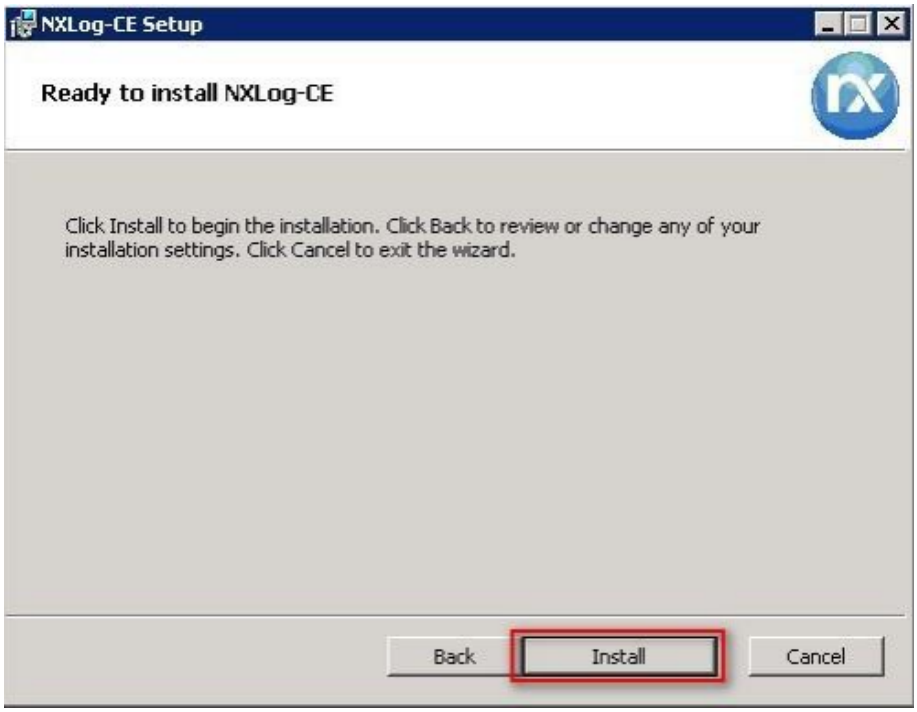
-> 勾選 [I accept the terms in the License Agreement], 按 [Next] .



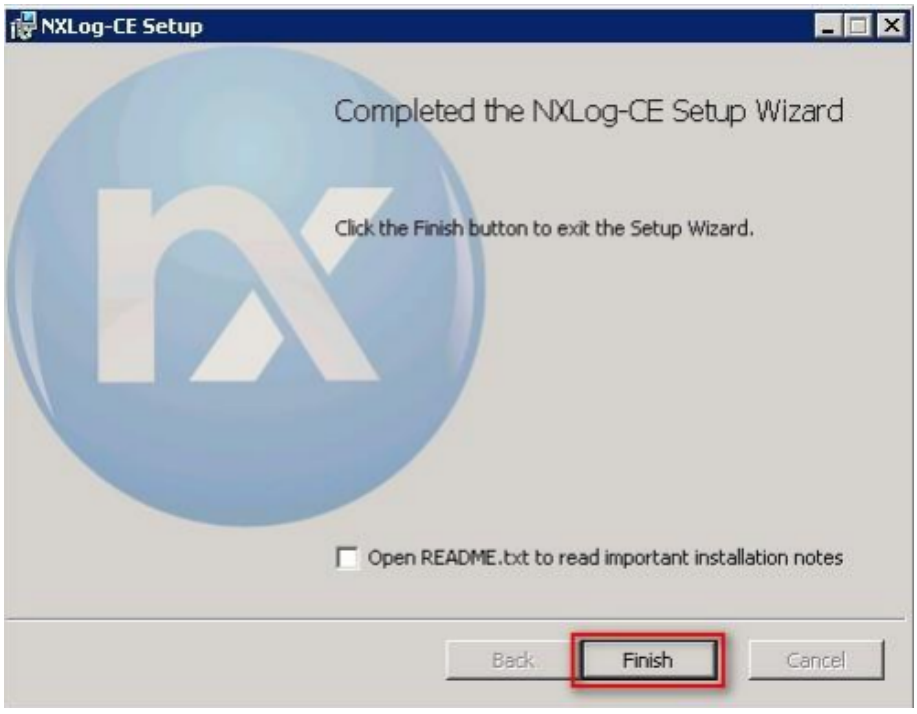
-> 按 [Next]. (預設安裝路徑為 C:\Program Files\nxlog\)



-> 按 [Install].

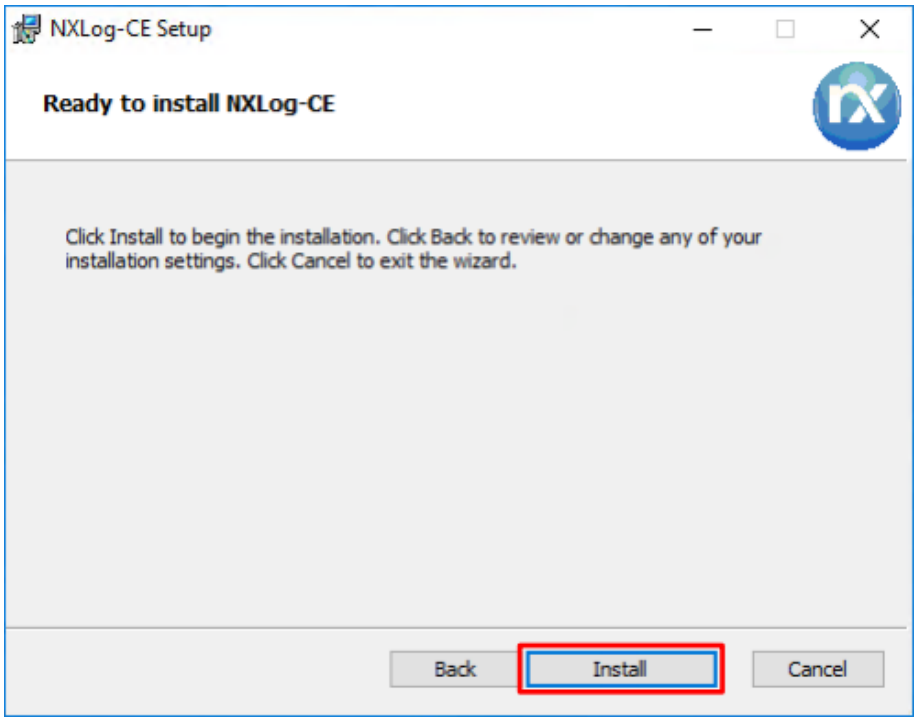


-> 按 [Finish].



<2.2> Windows 2003

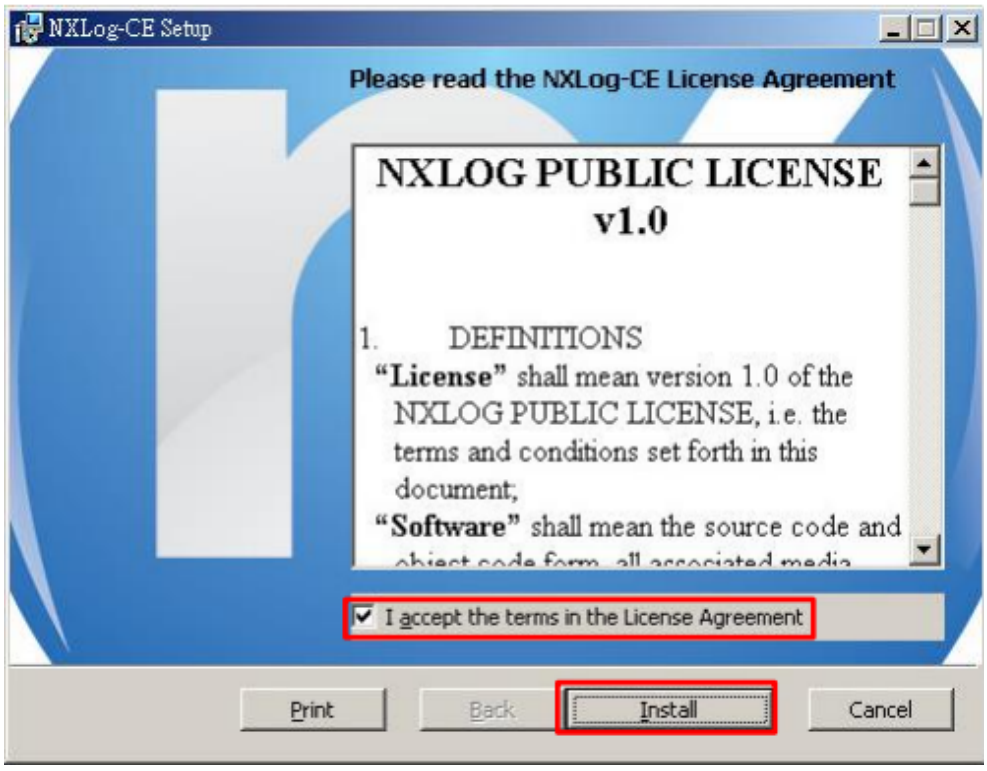
點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Install] 到 [Finish].



<2.3> Windows 2000

前往 NXLog CE 舊版網址 https://sourceforge.net/projects/nxlog-ce/ , 左點 [See All Activity] , 下載 NXLOG CE 支援 Windows2000 版本 nxlog-ce-2.8.1248.msi.

點擊 [nxlog-ce-2.8.1248.msi] -> 勾選 [I accept the terms in the License Agreement] -> 按 [Install] 到 [Finish].



1.2 NXLog 設定檔下載

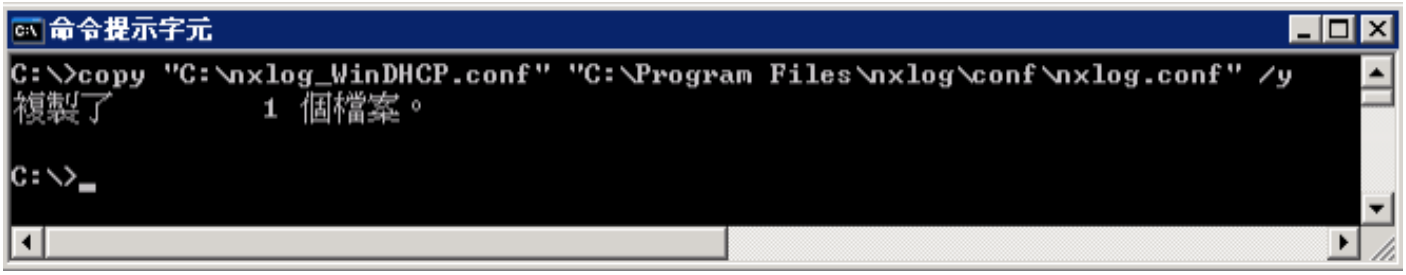
1.2.1 Windows 2003 或之前版本作業系統

(1) 開啟 [命令提示字元]

(2) 下載 NXLog DHCP 設定檔並覆蓋 Windows 系統 NXLog 設定檔。

下載連結：http://www.npartnertech.com/download/tech/nxlog_WinDHCP.conf

```
PS C:\> copy "C:\nxlog_WinDHCP.conf" "C:\Program Files\nxlog\conf\nxlog.conf" /y
```



本文件範例是 64 位元作業系統，若作業系統是 32 位元，紅色文字部位請改以下設定 'C:\Program Files (x86)\nxlog\conf\nxlog.conf'

1.2.2 Windows 2008 或之後版本作業系統

(1) 開啟 [Windows PowerShell]

(2) 下載 NXLog DHCP 設定檔並覆蓋 Windows 系統 NXLog 設定檔。

下載連結：http://www.npartnertech.com/download/tech/nxlog_WinDHCP.conf

```
PS C:\>  Invoke-WebRequest -Uri`http://www.npartnertech.com/download/tech/nxlog_WinDHCP.conf'
-OutFile 'C:\Program Files\nxlog\conf\nxlog.conf'
```

本文件範例是 64 位元作業系統，若作業系統是 32 位元，紅色文字部位請改以下設定 'C:\Program Files (x86)\nxlog\conf\nxlog.conf'

1.3 NXLog 設定檔

```
## Please set the ROOT to the folder your nxlog was installed into, otherwise it will not start.
define NCloud  192.168.3.88
define DhcpPath  C:\Windows\System32\LogFiles\DHCP
define ROOT  C:\Program Files\nxlog
define CERTDIR %ROOT%\cert
define CONFDIR %ROOT%\conf
define LOGDIR %ROOT%\data
define LOGFILE %LOGDIR%\nxlog.log
LogFile %LOGFILE%

Moduledir %ROOT%\modules
CacheDir %ROOT%\data
Pidfile %ROOT%\data\nxlog.pid

## Load the modules needed by the outputs
<Extension syslog>
    Module    xm_syslog
</Extension>

## For DHCP log file use the following:
<Input in_dhcplog>
    Module    im_file
    File    '%DhcpPath%\Dhcp*.log'
    SavePos    TRUE
    ReadFromLast    TRUE
</Input>

<Output out_dhcplog>
    Module    om_udp
    Host    %NCloud%
    Port    514
    Exec    $SyslogFacilityValue = 20;
    Exec    to_syslog_bsd();
</Output>

<Route dhcplog>
    Path    in_dhcplog => out_dhcplog
</Route>
```

藍色文字部位請輸入 N-Reporter 系統 IP address

```
define NCloud  192.168.3.88
```

本文件範例環境為 64bit 作業系統，若作業系統環境為 32bit 請改為以下設定

```
define ROOT  C:\Program Files (x86)\nxlog
```

若 NXLog 無法讀取 System32 資料夾路徑時，請輸入 Sysnative，Sysnative 是重定向資料夾

```
define ROOT  C:\Windows\Sysnative\LogFiles\DHCP
```

藍色文字部位請輸入 DHCP 檔名

```
File        '%DhcpPath%\Dhcp*.log'
```

修改設定檔內容後需” 另存新檔” 覆蓋原本檔案，1. 存檔類型請選擇” 所有檔案 (*.*)”，2. 編碼請選擇”UTF-8” 以免編碼錯誤造成服務無法正常開啟。

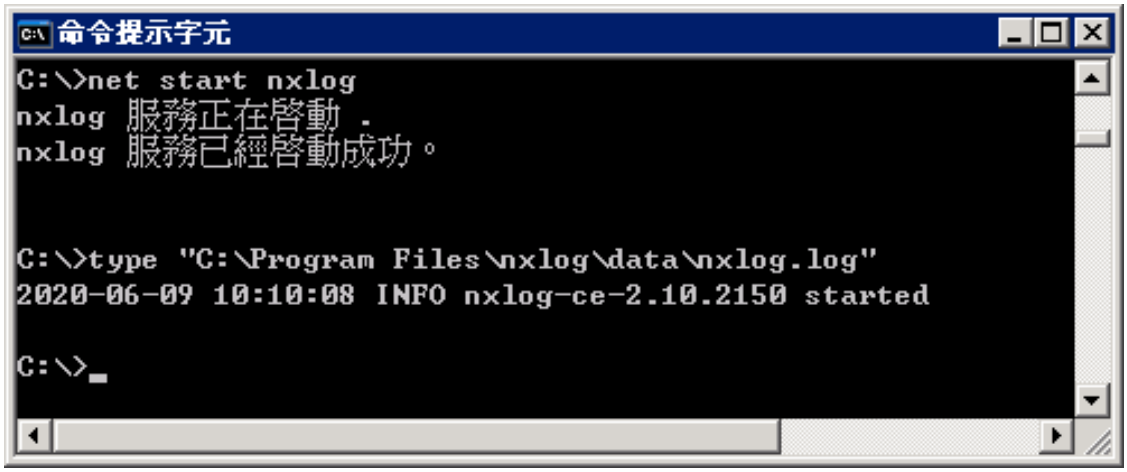
1.4 NXLog 啟動服務

1.4.1 Windows 2003 或之前版本作業系統

(1) 開啟 [命令提示字元]

(2) 啟動 NXLog 服務和確認 NXLog 沒有錯誤訊息

```
PS C:\> net start nxlog
PS C:\> type "C:\Program Files\nxlog\data\nxlog.log"
```

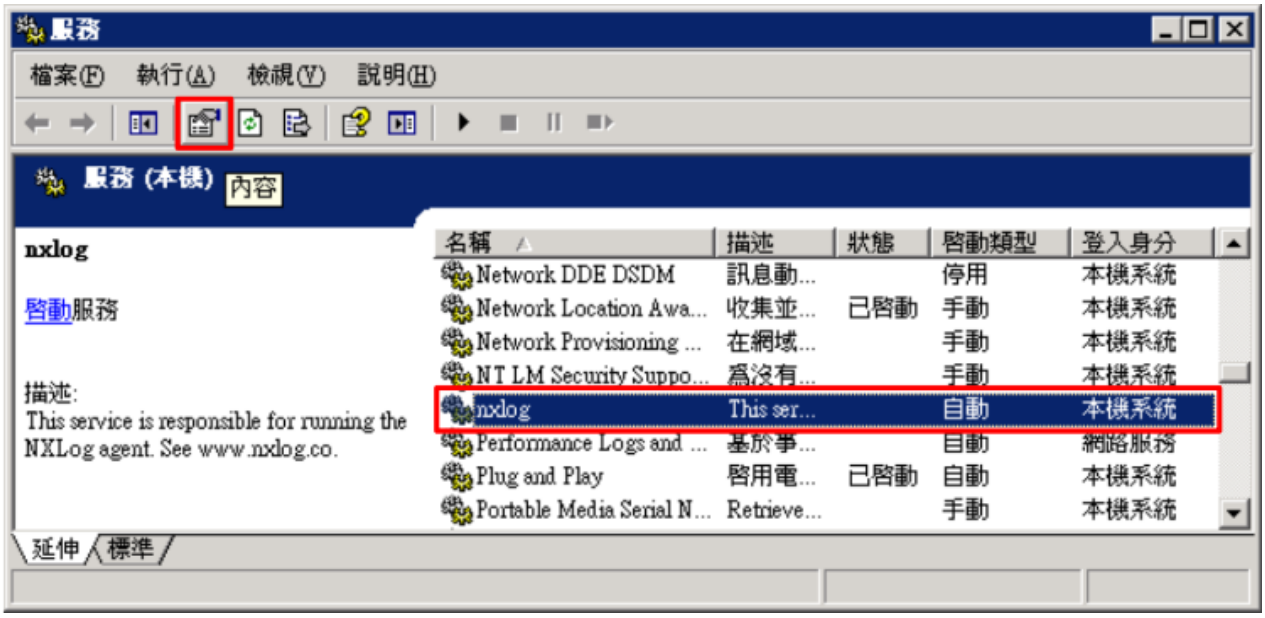


(3) 開啟 [服務] 功能

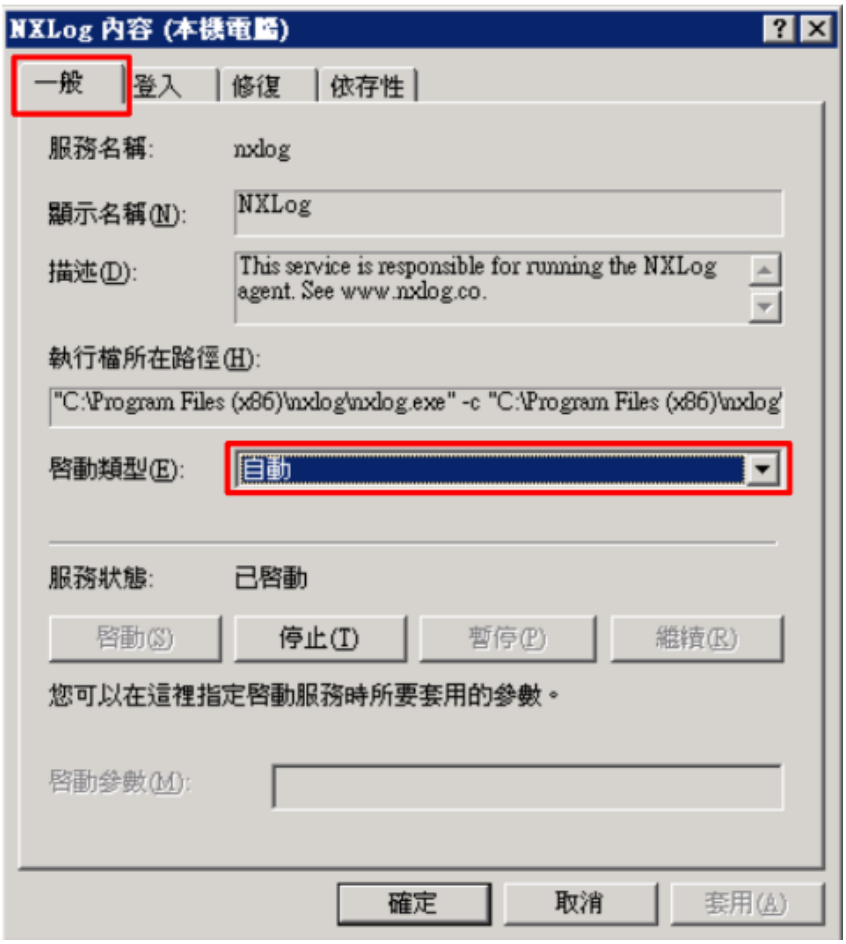
```
PS C:\>  Services.msc
```

(4) 開啟 NXLog 服務內容

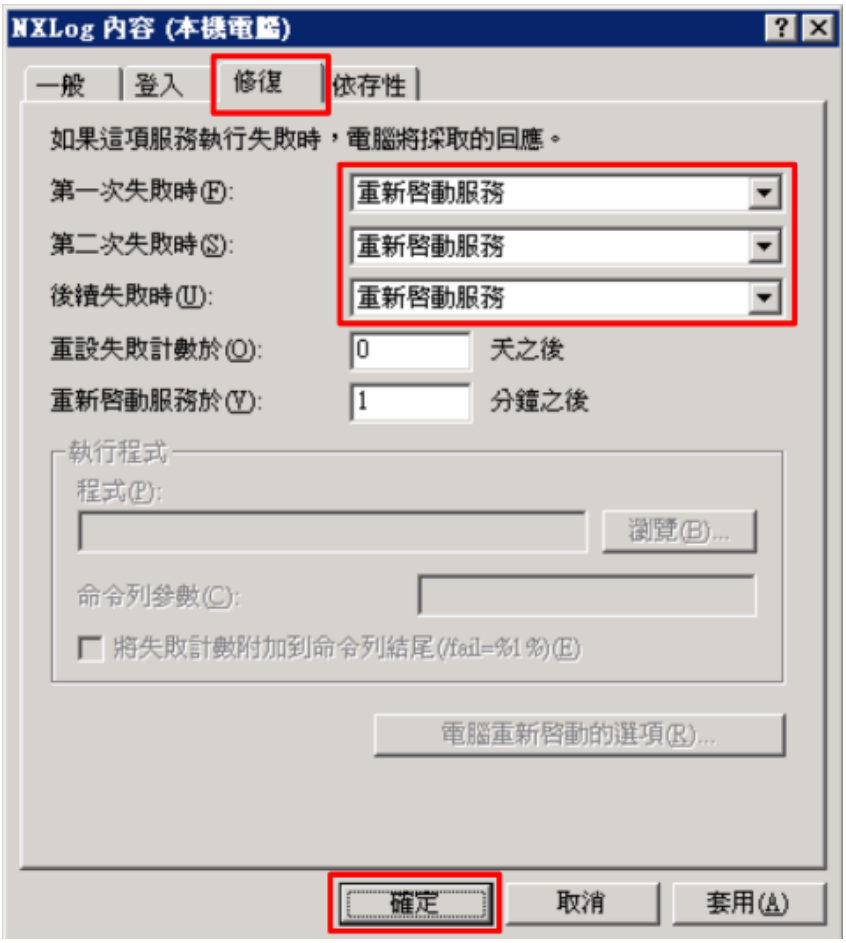
選擇 [NXLog] -> 點選 [內容]



(5) [一般] 頁面 -> 確認；啟動類型: [自動]



(6) [修復] 頁面 -> 確認；第一次失敗時: 和第二次失敗時: 和後續失敗時: [重新啟動服務] -> 按 [確定]

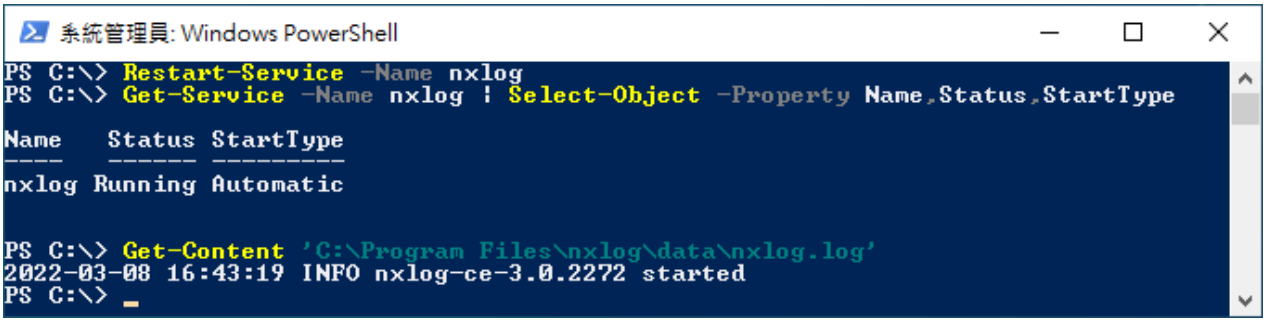


1.4.2 Windows 2008 或之後版本作業系統

(1) 開啟 [Windows PowerShell]

(2) 重新啟動 NXLog 服務，檢查 NXLog 服務和確認 NXLog 沒有錯誤訊息

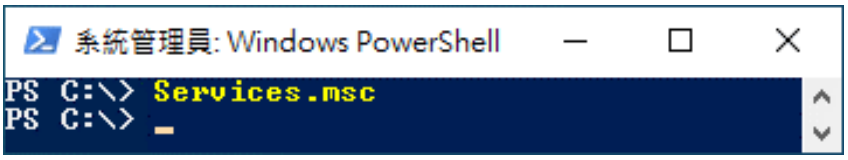
```
PS C:\> Restart-Service -Name nxlog
PS C:\> Get-Service -Name nxlog | Select-Object -Property Name,Status,StartType
PS C:\> Get-Content 'C:\Program Files\nxlog\data\nxlog.log'
```



本文件範例是 NXLog 64bit 版本，若是 NXLog 32bit 版本，紅色文字部位請改以下設定 `'C:\Program Files (x86)\nxlog\conf\nxlog.conf'`

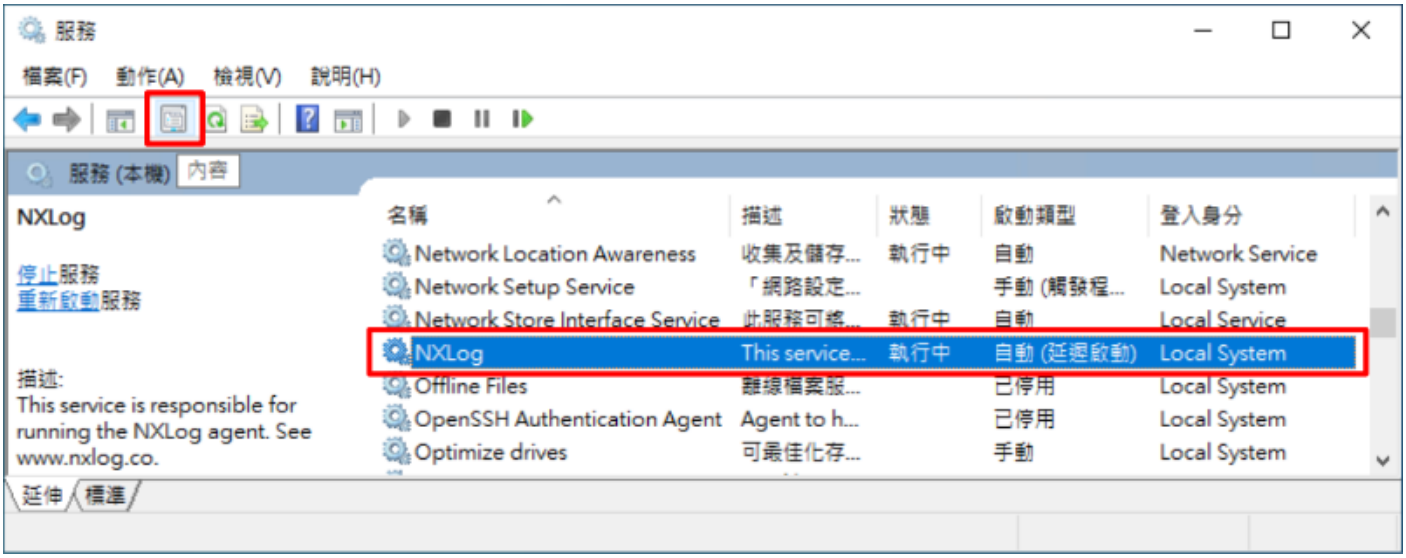
(3) 開啟 [服務] 功能

```
PS C:\> Services.msc
```

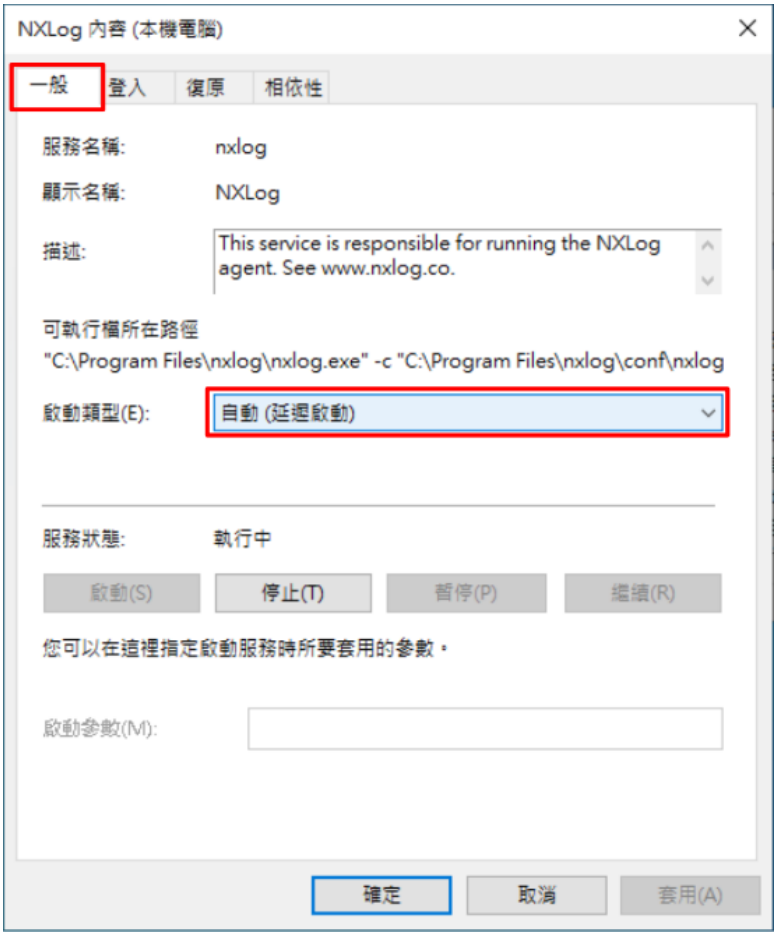


(4) 開啟 NXLog 服務內容

選擇 [NXLog] -> 點選 [內容]



(5) [一般] 頁面 -> 確認；啟動類型: [自動 (延遲啟動)]



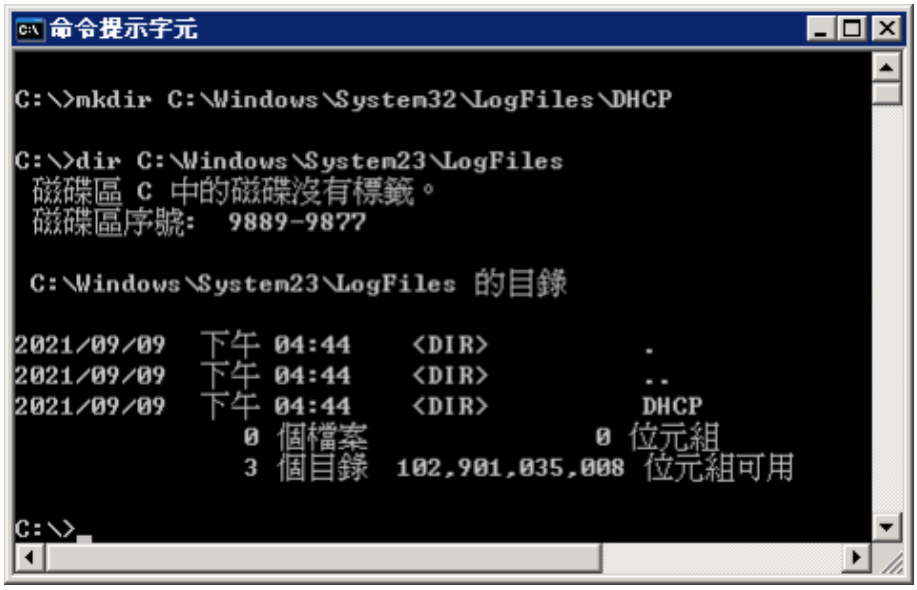
(6) [復原] 頁面 -> 確認；第一次失敗時: 和第二次失敗時: 和後續失敗時: [重新啟動服務] -> 按 [確定]

2 Windows 2003

(1) 開啟 [命令提示字元]

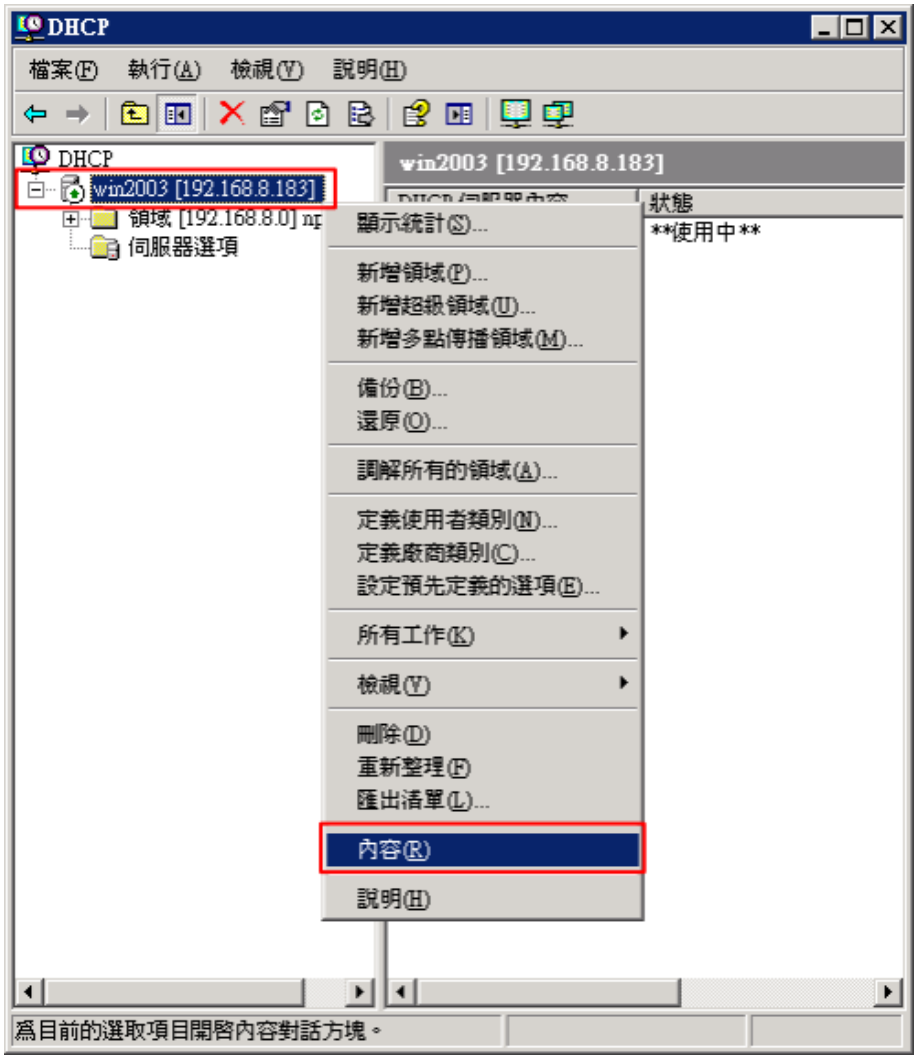
(2) 新增 DHCP log 資料夾

```
PS C:\> mkdir C:\Windows\System32\LogFiles\DHCP
PS C:\> dir C:\Windows\System32\LogFiles
```

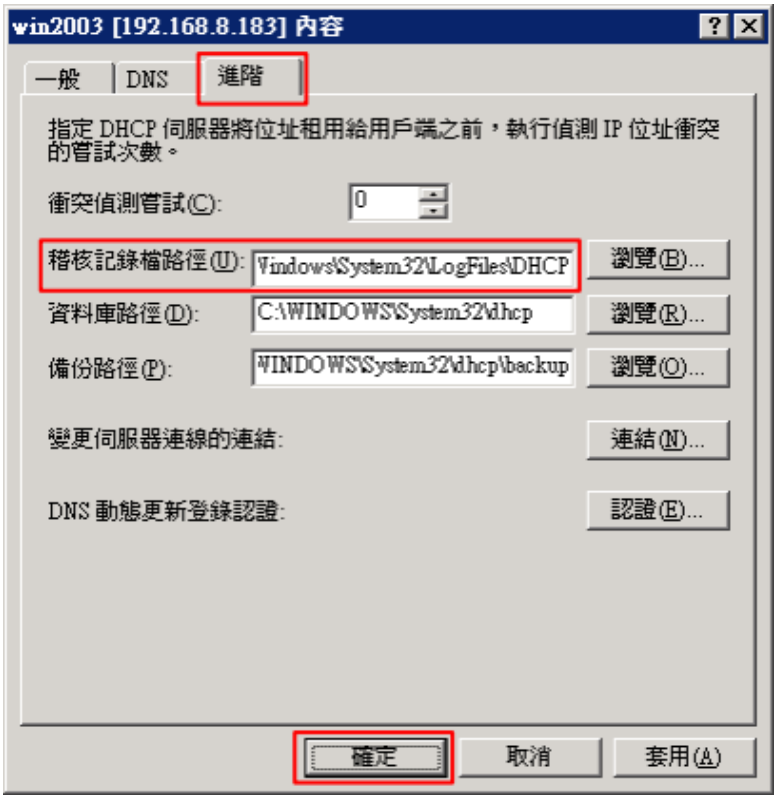


(3) 開啟 [DHCP]

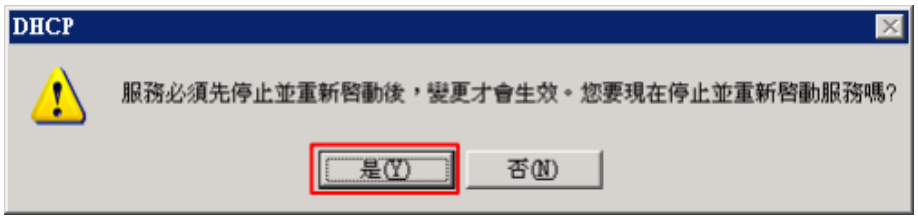
(4) 在 [DHCP 伺服器] 上按滑鼠右鍵 -> 選擇 [內容]



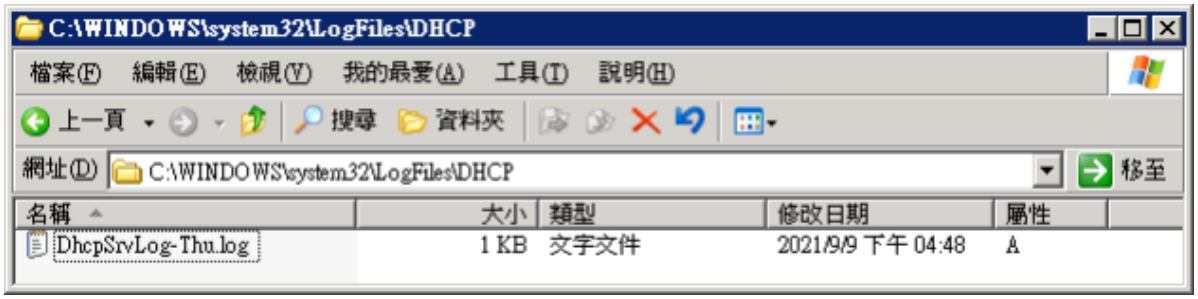
(5) [進階] 頁面 -> 輸入稽核記錄檔路徑: C:\Windows\System32\LogFiles\DHCP -> 按 [確定]



(6) 按 [是] (重啟 DHCP server 服務)



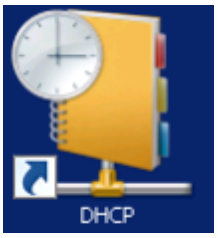
(7) 確認有產生 DHCP.log 檔案



3 Windows 2008

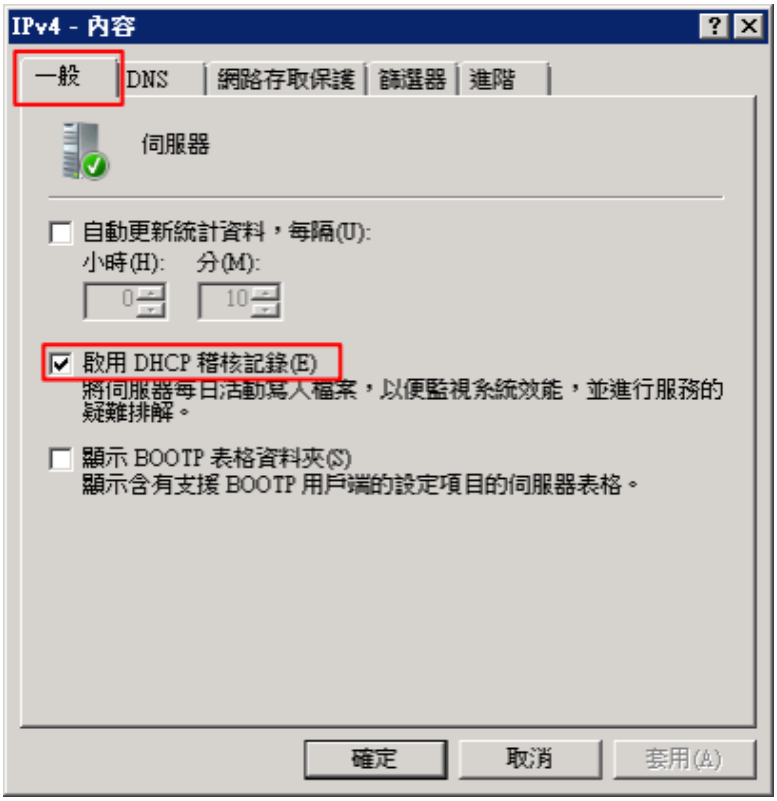
3.1 DHCP IPv4

(1) 開啟 [DHCP]

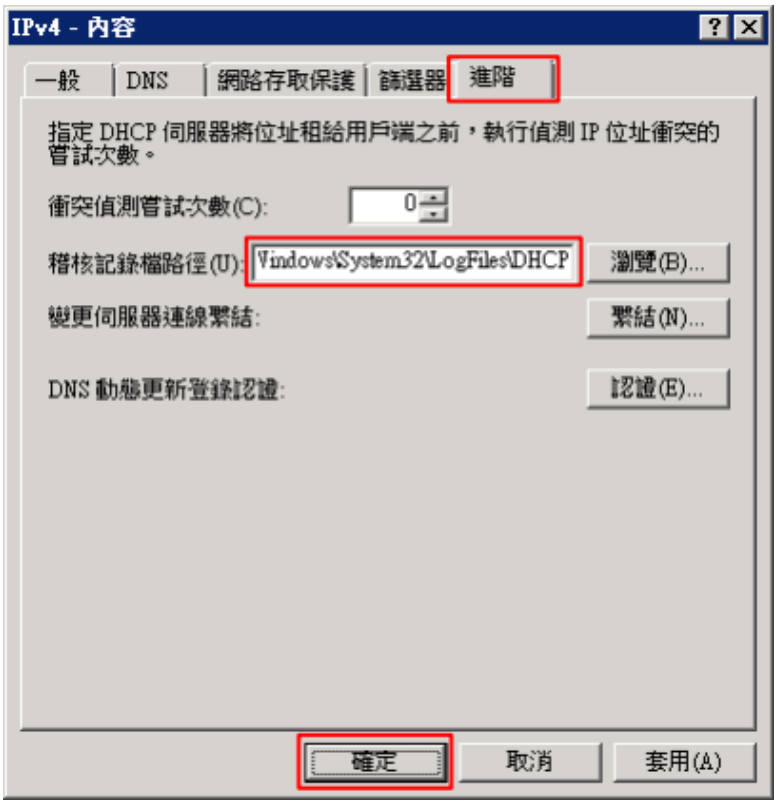


(2) 在 [IPv4] 按滑鼠右鍵 -> 選擇 [內容]

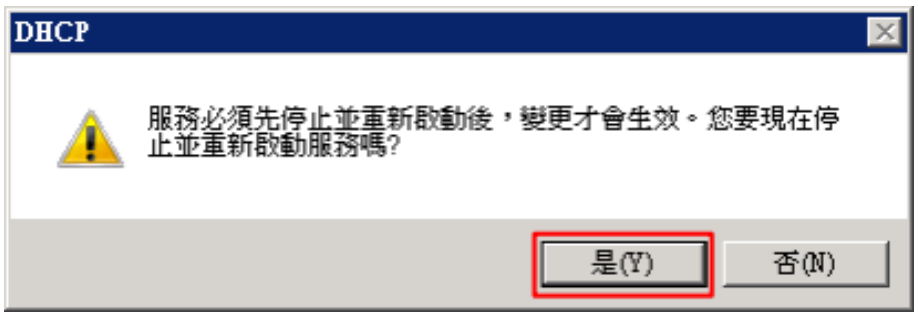
(3) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



(4) [進階] 頁面 -> 輸入稽核記錄檔路徑: C:\Windows\System32\LogFiles\DHCP -> 按 [確定]

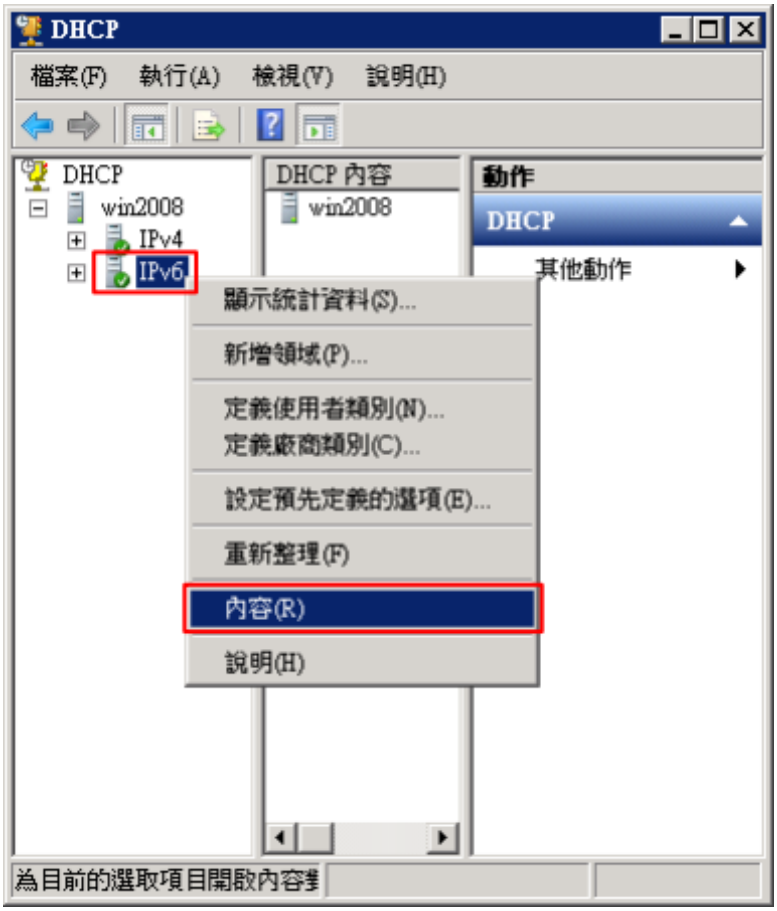


(5)　按 [是] (重啟 DHCP server 服務)

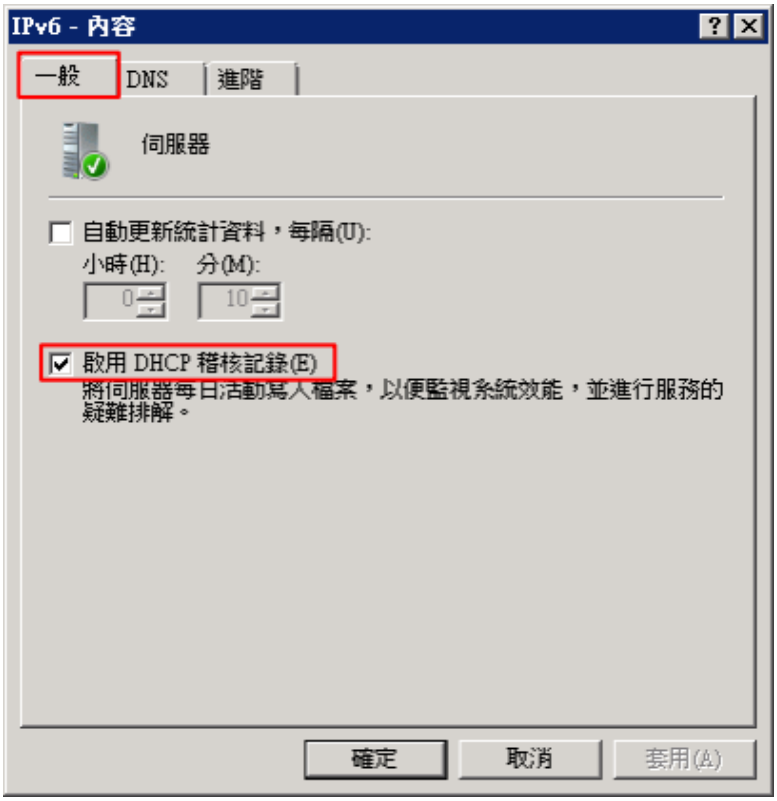


3.2 DHCP IPv6

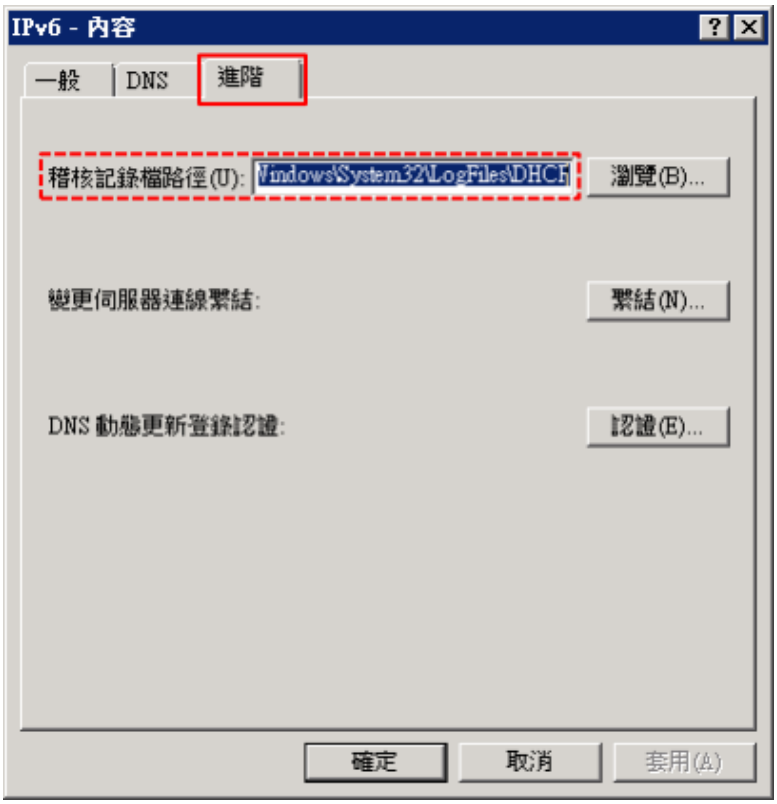
(1) 在 [IPv6] 按滑鼠右鍵 -> 選擇 [內容]



(2) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



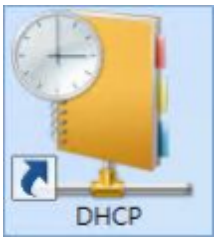
(3) [進階] 頁面 -> 輸入稽核記錄檔路徑: C:\Windows\System32\LogFiles\DHCP -> 按 [確定]



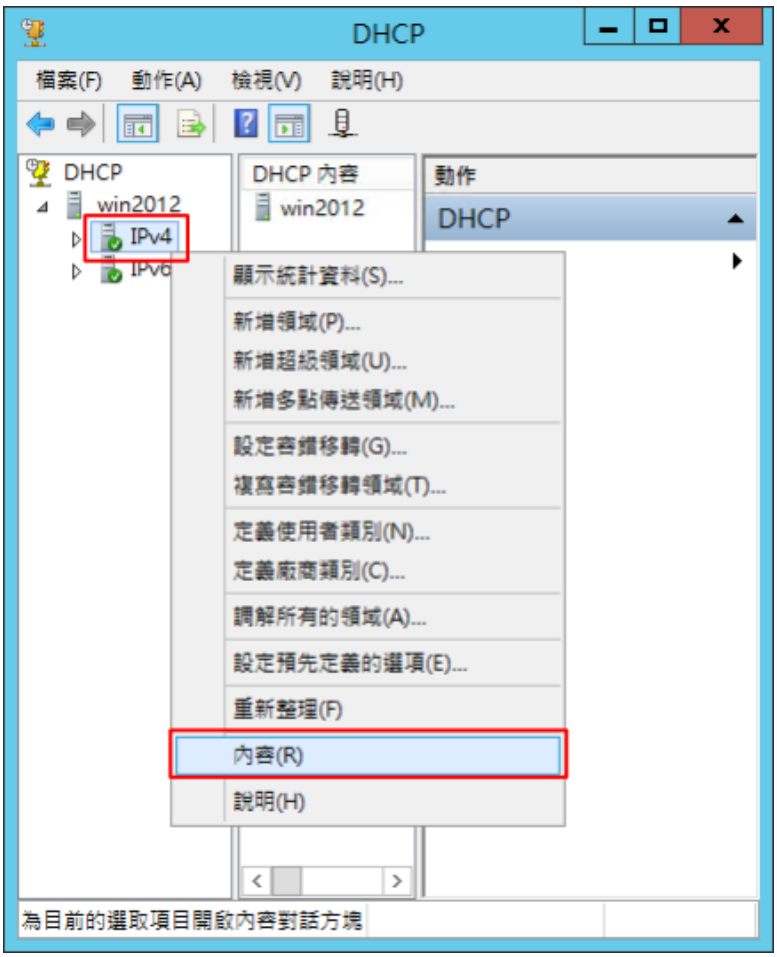
4 Windows 2012

4.1 DHCP IPv4

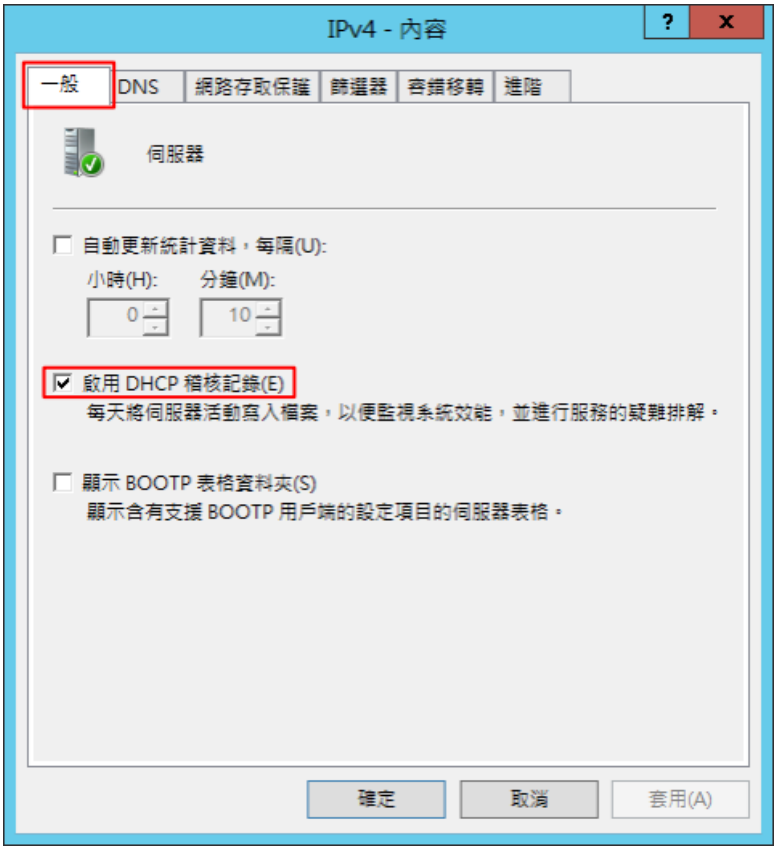
(1) 開啟 [DHCP]



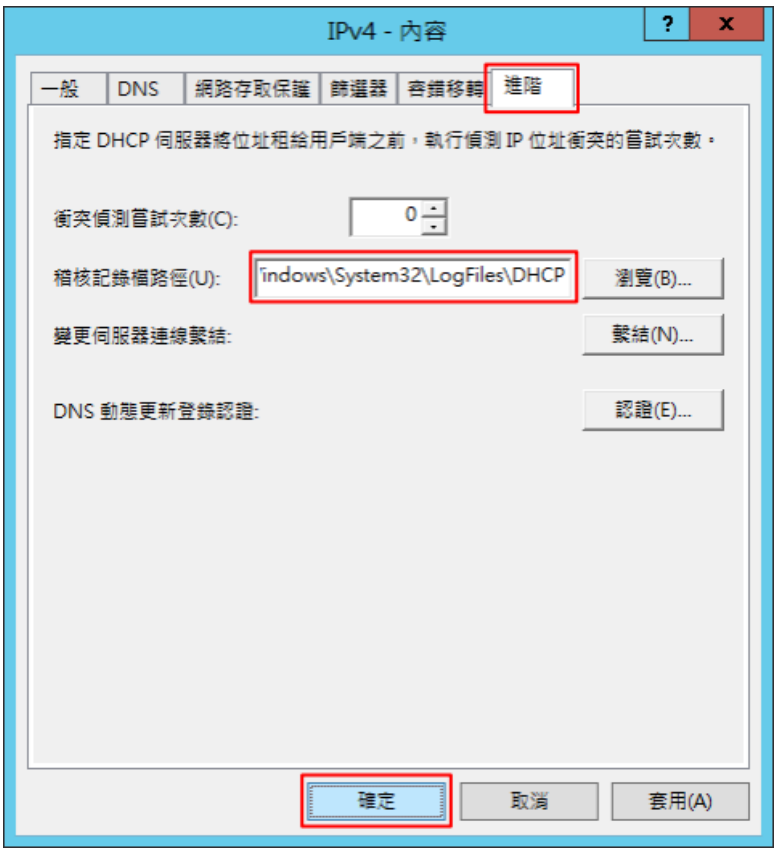
(2) 在 [IPv4] 按滑鼠右鍵 -> 選擇 [內容]



(3) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



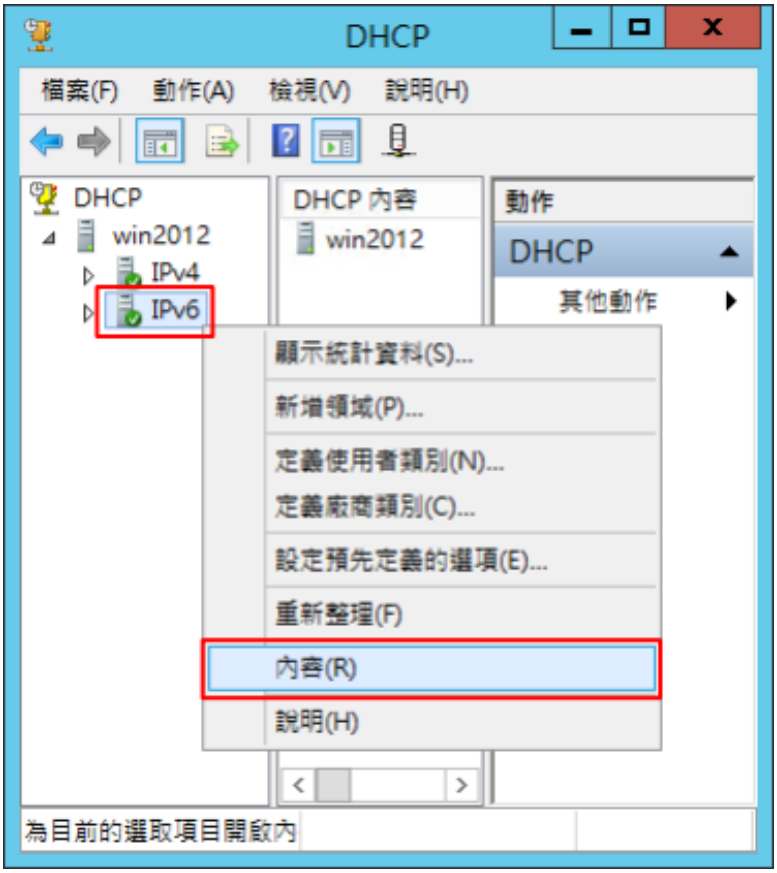
(4) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]



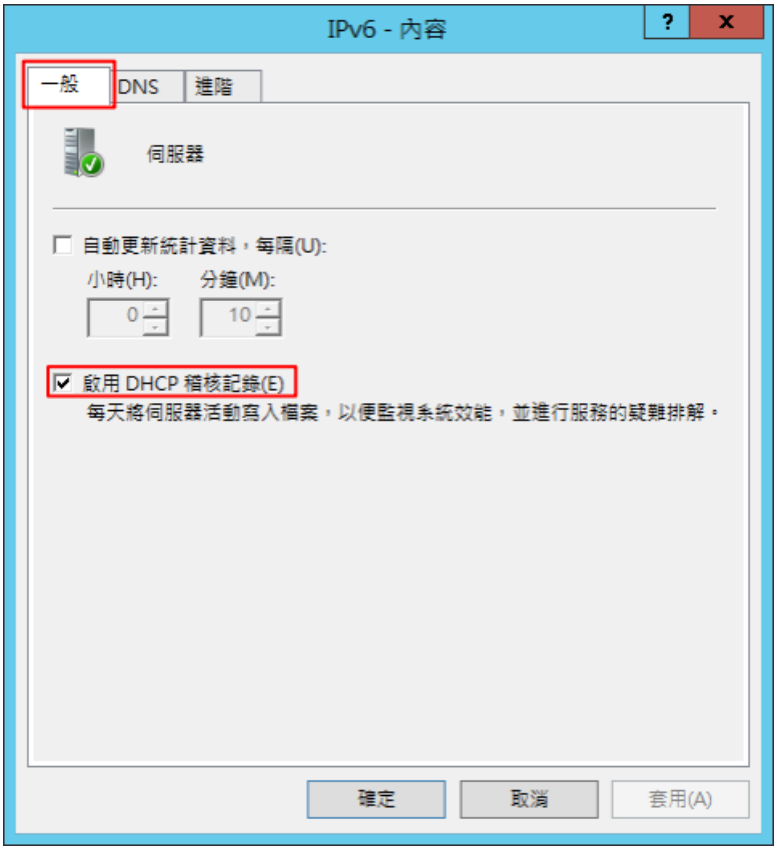
(5)　按 [是] (重啟 DHCP server 服務)

4.2 DHCP IPv6

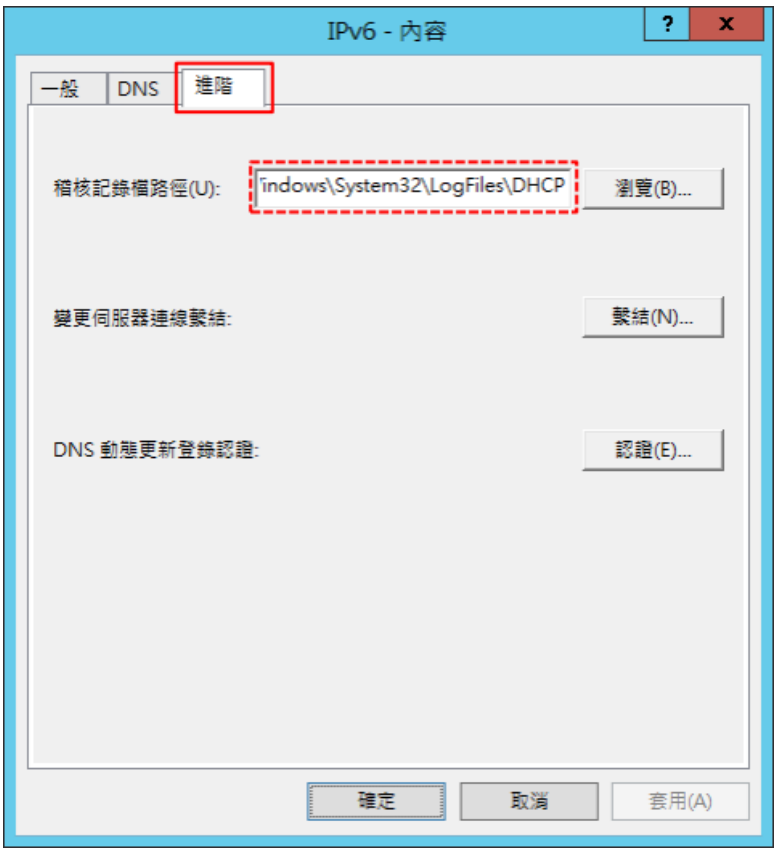
(1) 在 [IPv6] 按滑鼠右鍵 -> 選擇 [內容]



(2) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



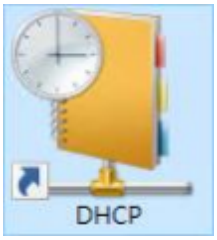
(3) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]



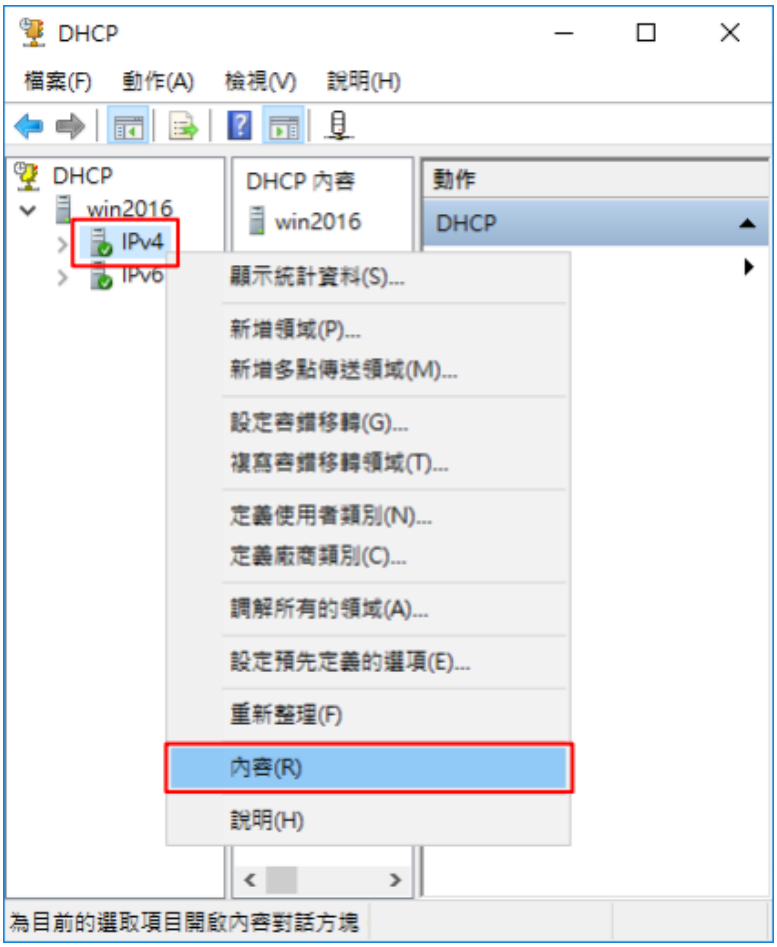
5 Windows 2016

5.1 DHCP IPv4

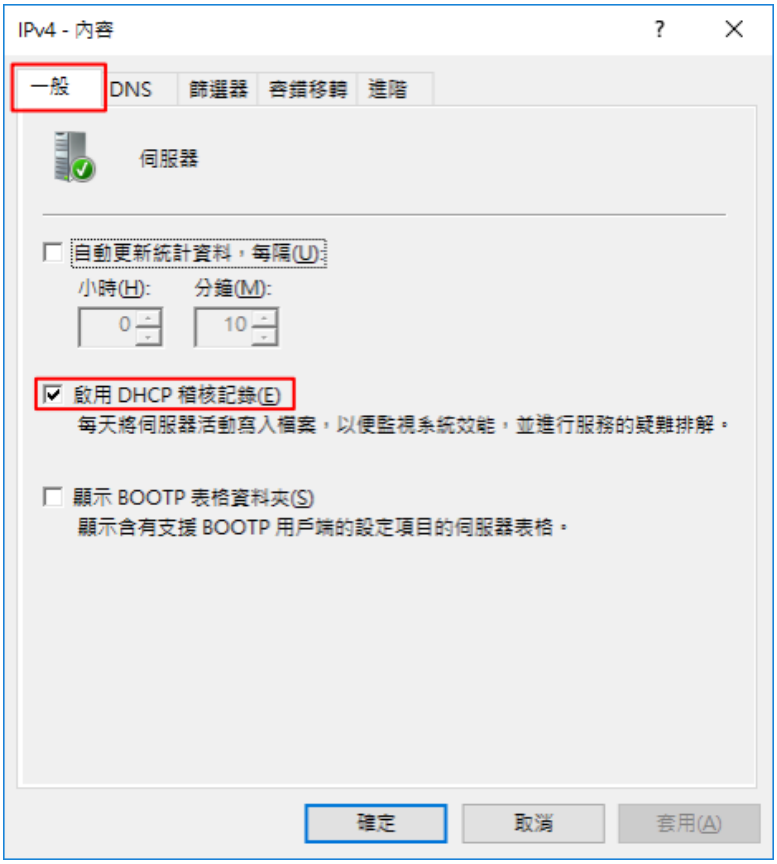
(1) 開啟 [DHCP]



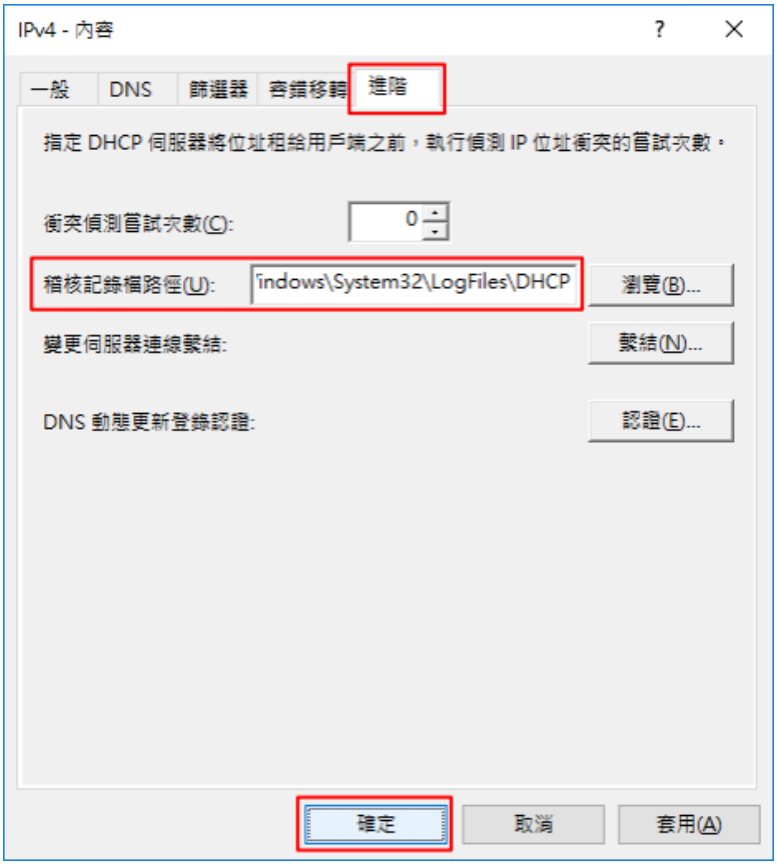
(2) 在 [IPv4] 按滑鼠右鍵 -> 選擇 [內容]



(3) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



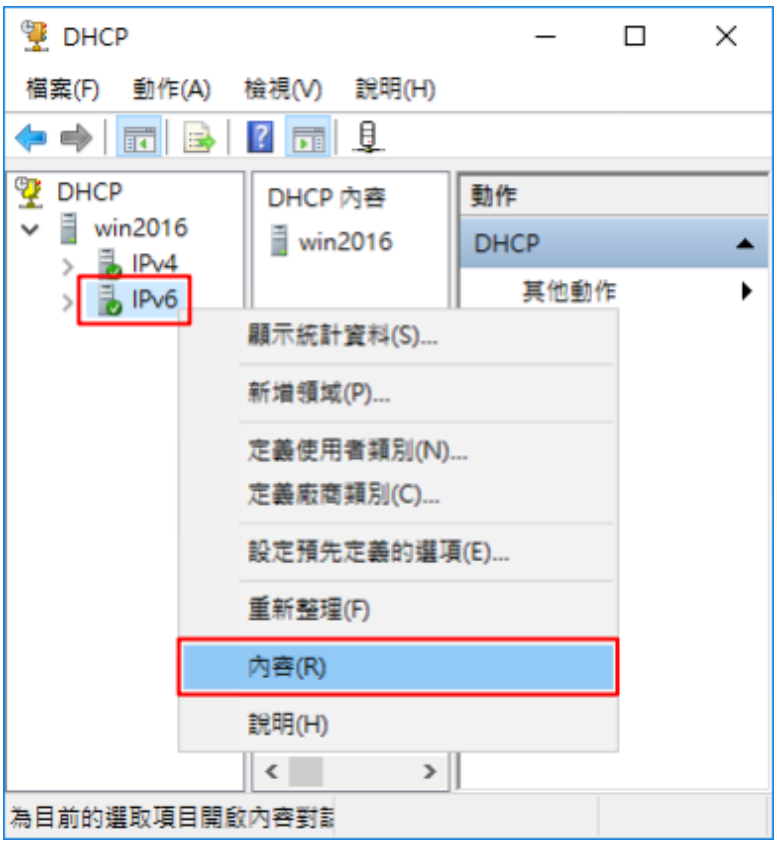
(4) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]



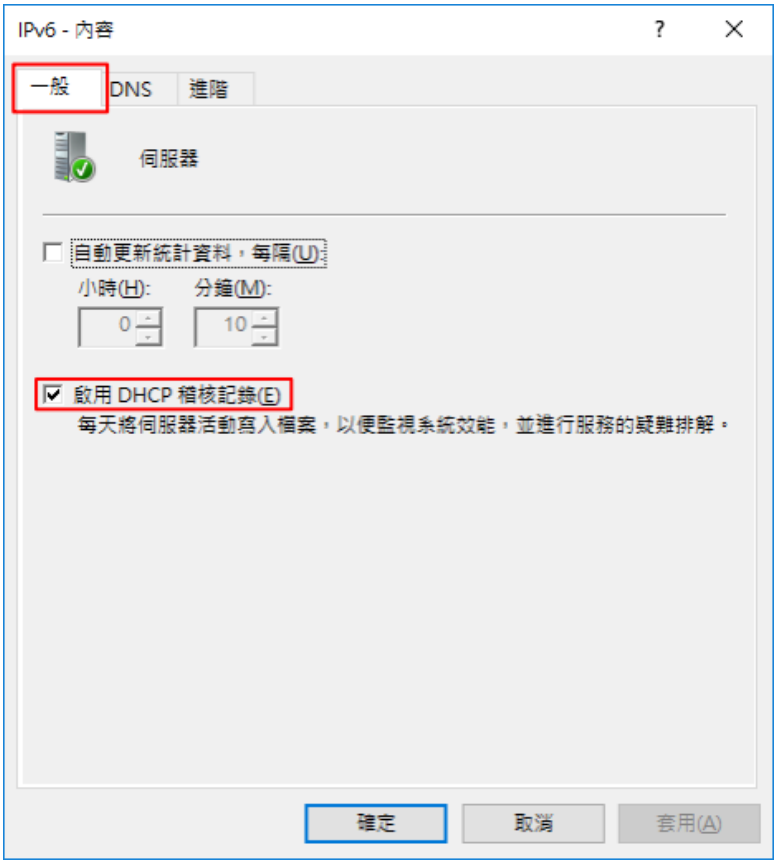
(5)　按 [是] (重啟 DHCP server 服務)

5.2 DHCP IPv6

(1) 在 [IPv6] 按滑鼠右鍵 -> 選擇 [內容]



(2) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]

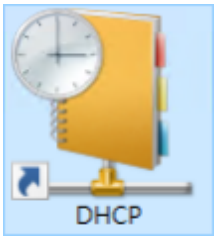


(3) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]

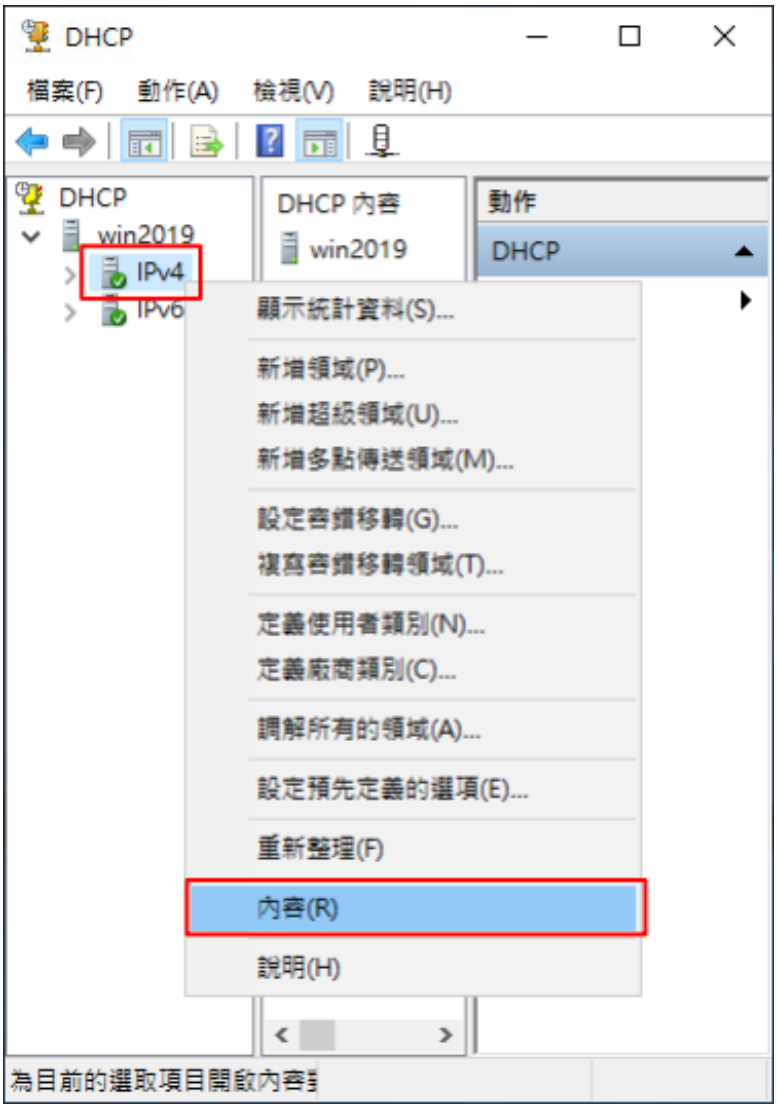
6 Windows 2019

6.1 DHCP IPv4

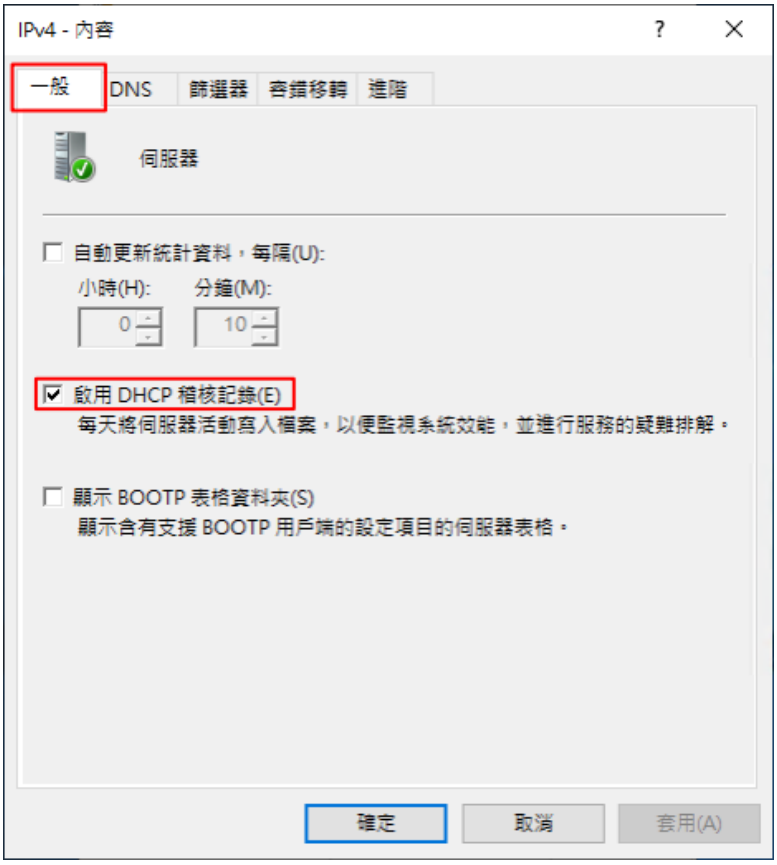
(1) 開啟 [DHCP]



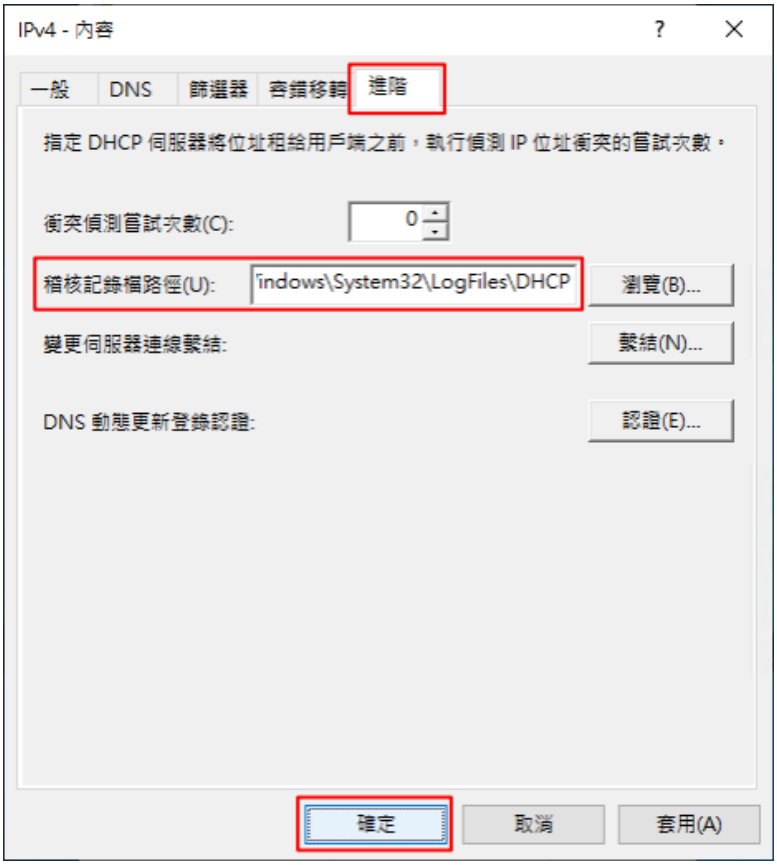
(2) 在 [IPv4] 按滑鼠右鍵 -> 選擇 [內容]



(3) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



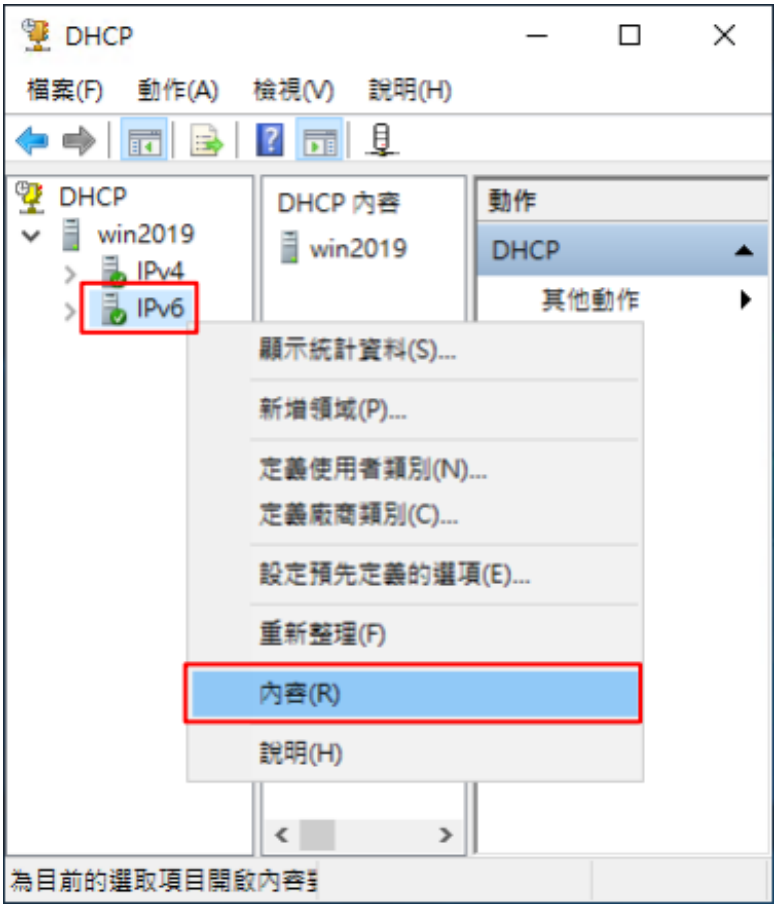
(4) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]



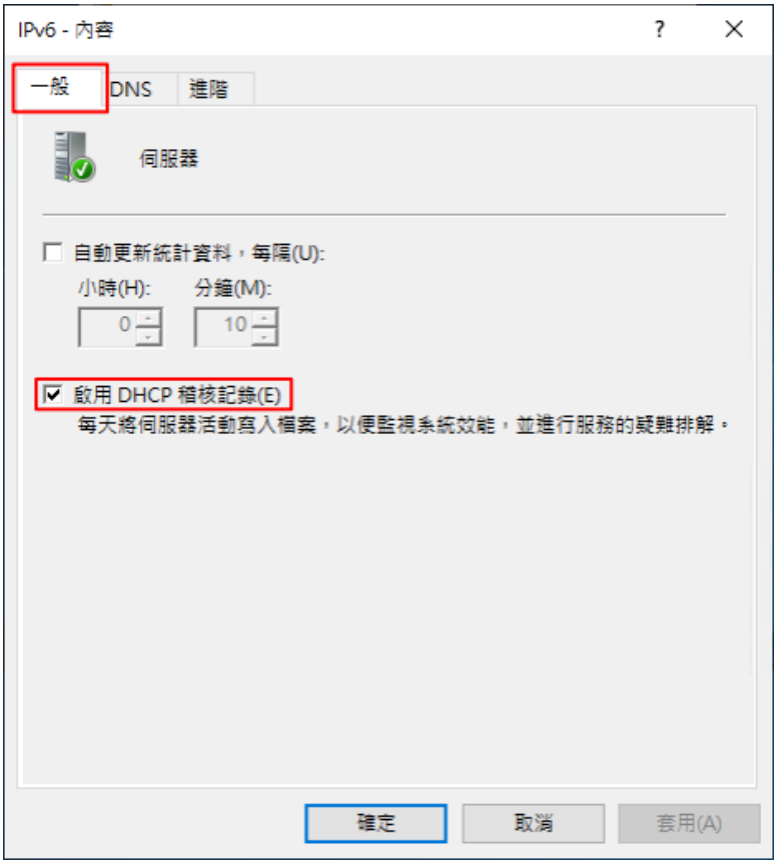
(5)　按 [是] (重啟 DHCP server 服務)

6.2 DHCP IPv6

(1) 在 [IPv6] 按滑鼠右鍵 -> 選擇 [內容]



(2)　[一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]

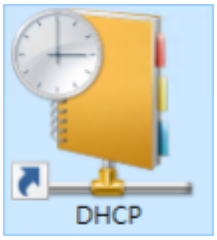


(3)　[進階] 頁面 -> 輸入稽核記錄檔路徑:　C:\Windows\System32\LogFiles\DHCP　-> 按 [確定]

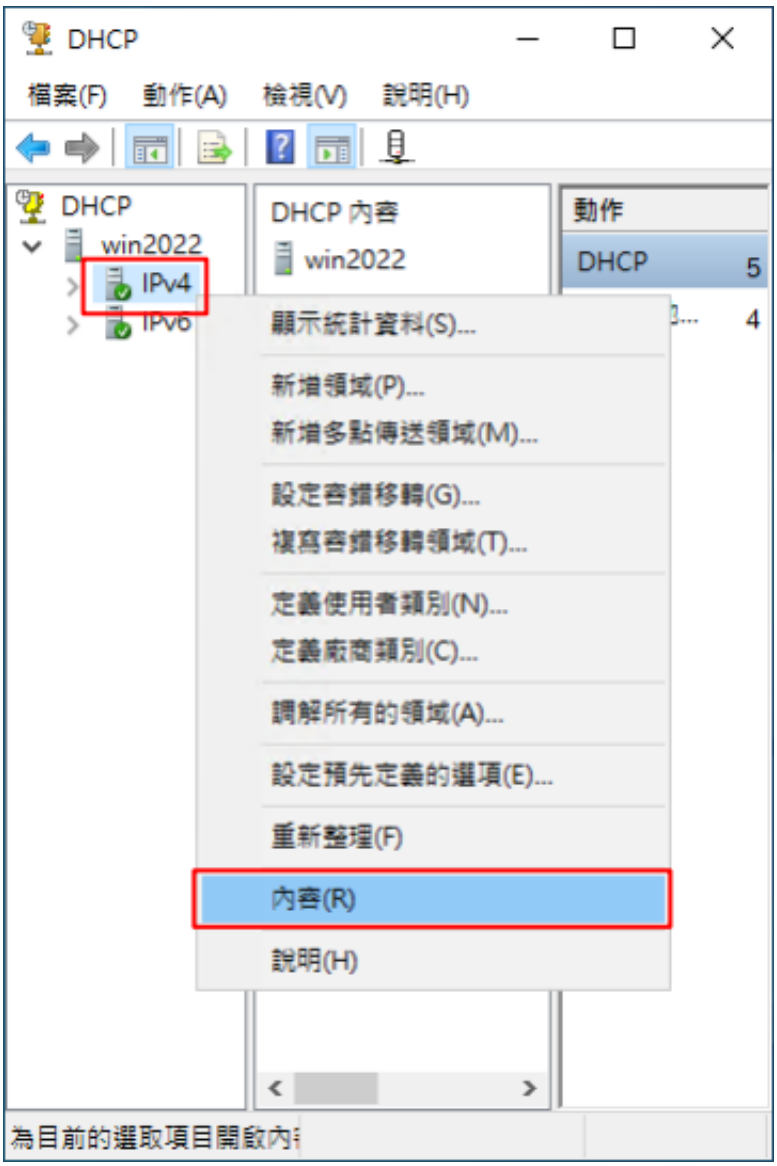
7 Windows 2022

7.1 DHCP IPv4

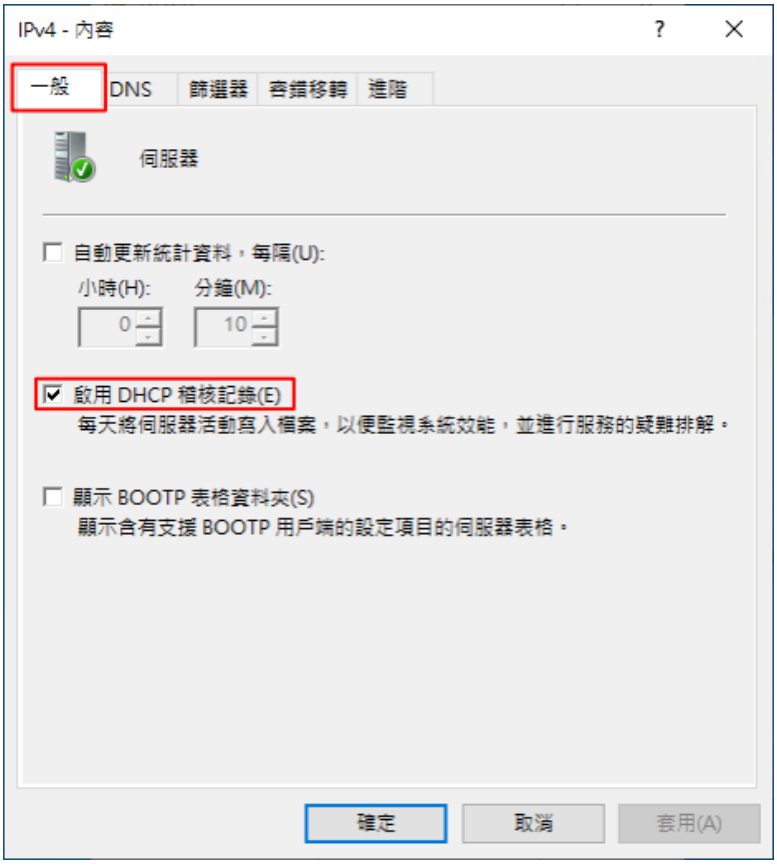
(1) 開啟 [DHCP]



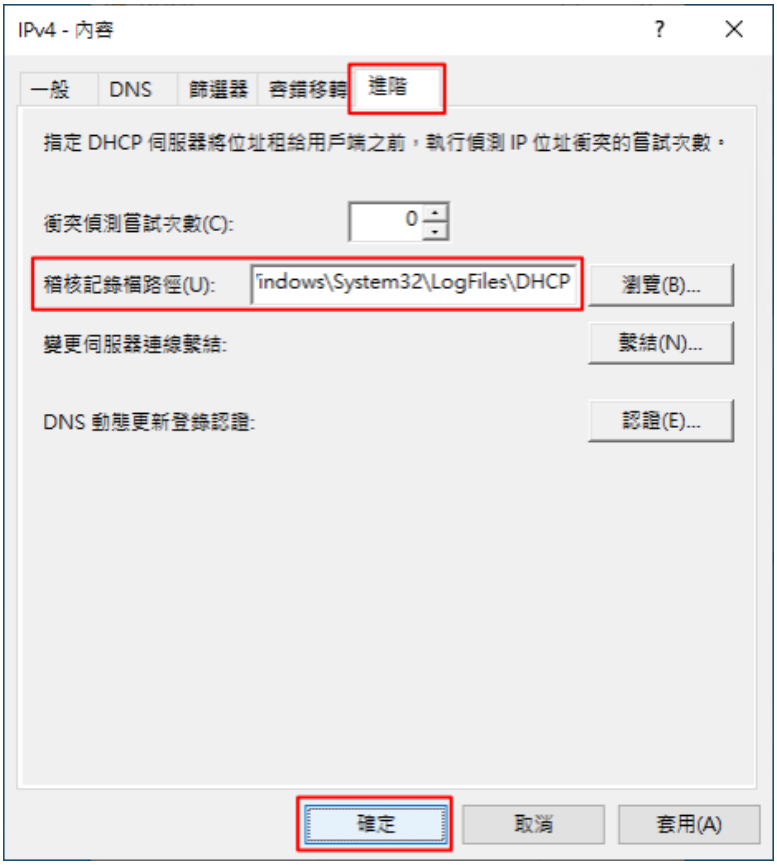
(2) 在 [IPv4] 按滑鼠右鍵 -> 選擇 [內容]



(3) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]



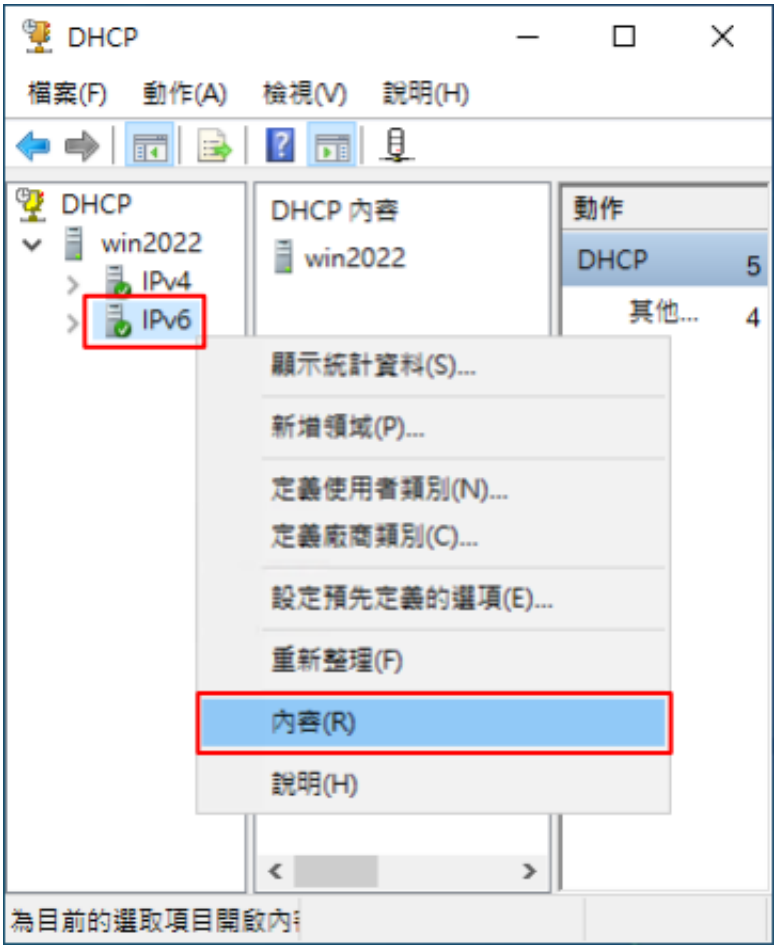
(4) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]



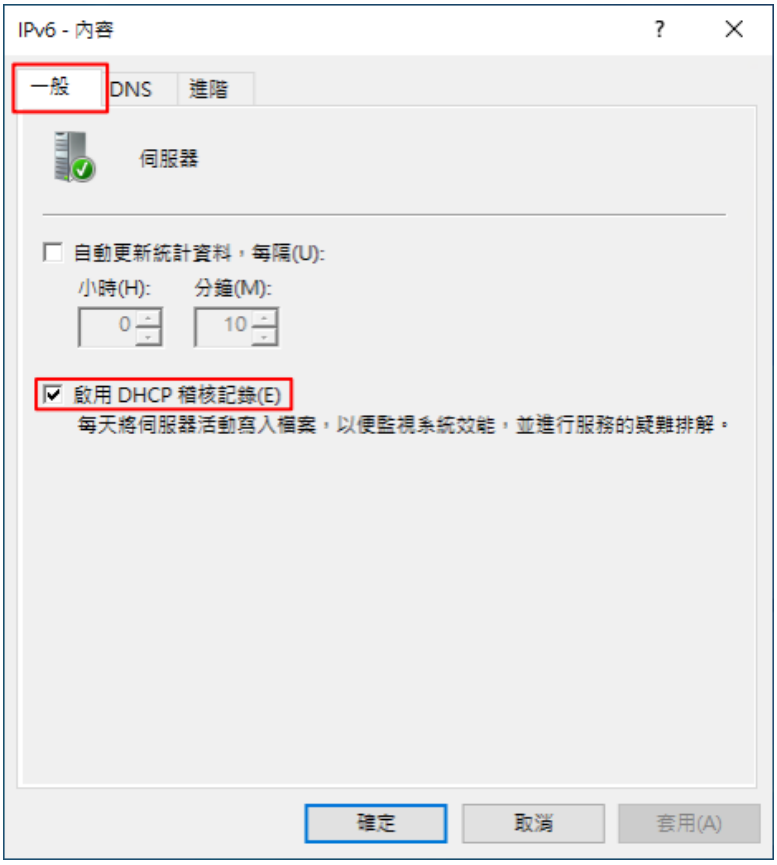
(5)　按 [是] (重啟 DHCP server 服務)

7.2 DHCP IPv6

(1) 在 [IPv6] 按滑鼠右鍵 -> 選擇 [內容]



(2) [一般] 頁面 -> 確認 [啟用 DHCP 稽核記錄]

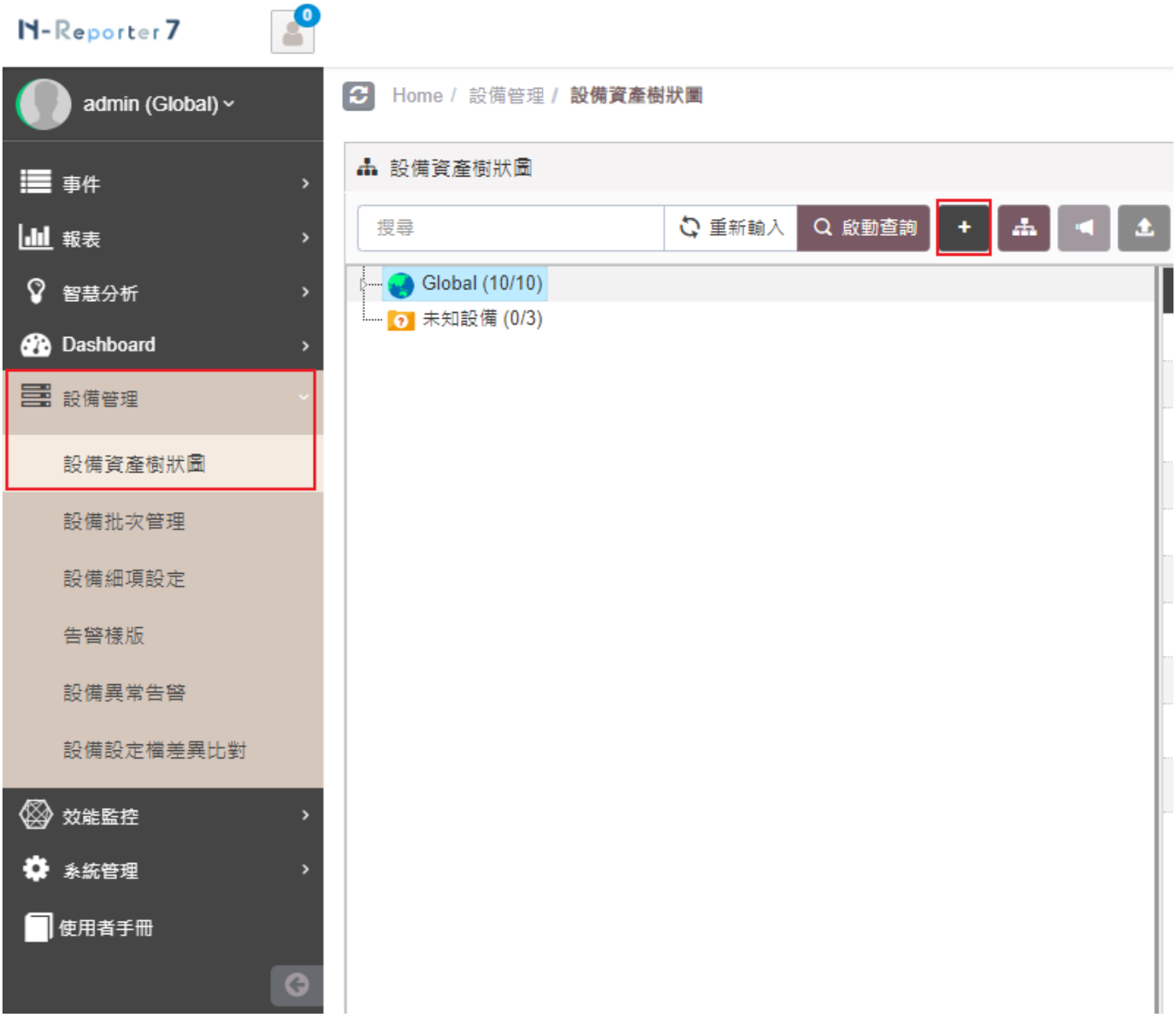


(3) [進階] 頁面 -> 輸入稽核記錄檔路徑: `C:\Windows\System32\LogFiles\DHCP` -> 按 [確定]

8 N-Reporter

(1) 新增 Windows DHCP 設備

[設備管理] -> [設備樹狀圖] -> 點選 [新增]



(2) 選擇設備種類

選擇 [Application/DB/OS/Server]-> 點選 [引導模式]

8.1 Windows 2003 或之前版本作業系統

(1) 設備基本設定

輸入設備名稱和IP->Syslog 資料格式選擇 [Windows DHCP]-> 點選 [下一步]

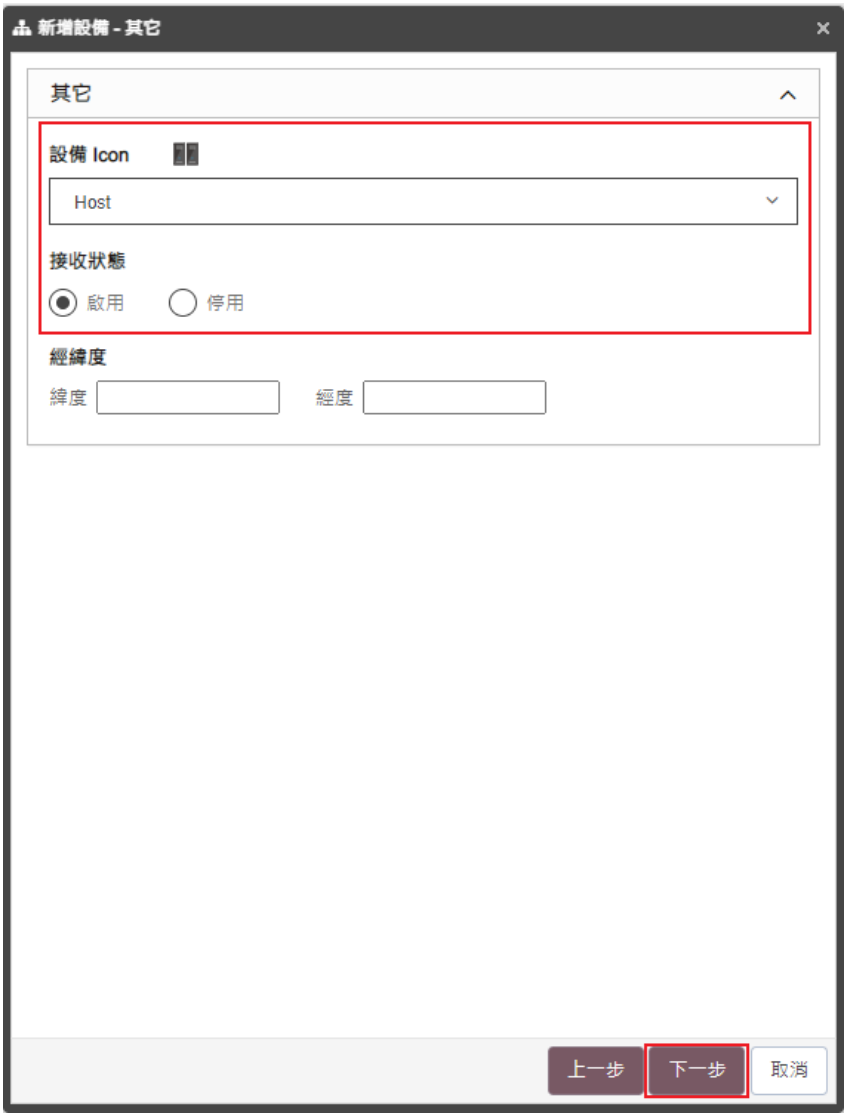
(2) Syslog 相關設定

Facility 選擇 [(20) local use 4 (local4)] 和編碼方式: [BIG 5] -> 點選 [下一步]

(若勾選 [Raw Data 保留]，則 [事件查詢] 顯示 Raw Data 資訊)

(3) 其他

設備 Icon 選擇 [Host]-> 接收狀態選擇 [啟用]-> 點選 [下一步]->[確認]



是否啟用預設報表，將套用置相同廠牌型號設備-> 點擊 [否]

8.2 Windows 2008 或之後版本作業系統

(1) 設備基本設定

輸入設備名稱和IP->Syslog 資料格式選擇 [Windows DHCP]-> 點選 [下一步]

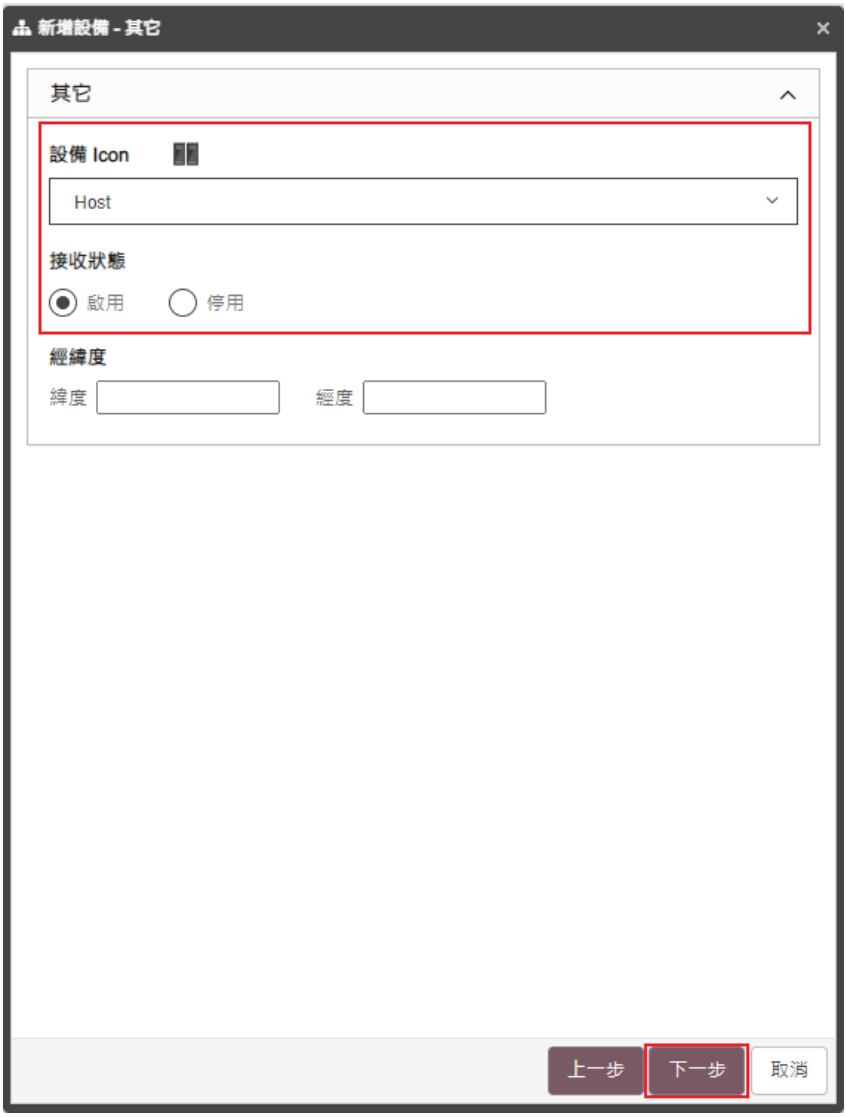
(2) Syslog 相關設定

Facility 選擇 [(20) local use 4 (local4)] 和編碼方式: [UTF-8] -> 點選 [下一步]

(若勾選 [Raw Data 保留]，則 [事件查詢] 顯示 Raw Data 資訊)

(3) 其他

設備 Icon 選擇 [Host]-> 接收狀態選擇 [啟用]-> 點選 [下一步]->[確認]



是否啟用預設報表，將套用置相同廠牌型號設備-> 點擊 [否]

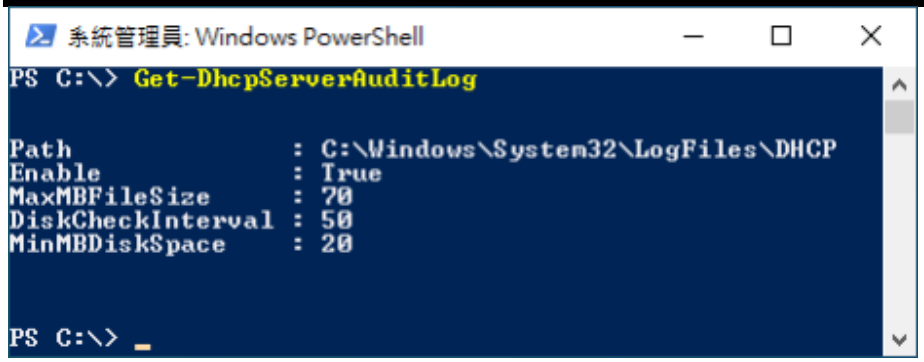
9 問題排除

9.1 調整 DHCP 記錄檔案大小

(1) 開啟 [Windows PowerShell]

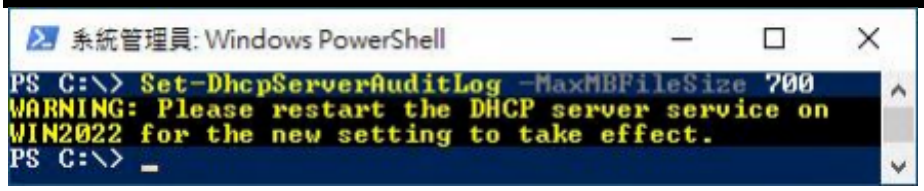
(2) 查看 DHCP Server 稽核 Log 設定

```
PS C:\> Get-DhcpServerAuditLog
```



(3) 設定 DHCP Log 檔案大小

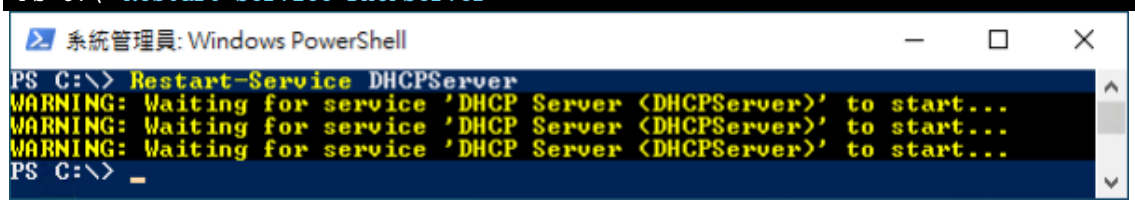
```
PS C:\> Set-DhcpServerAuditLog -MaxMBFileSize 700
```



參數 -MaxMBFileSize 700，700MB 除以 7 天等於單檔最大 100MB

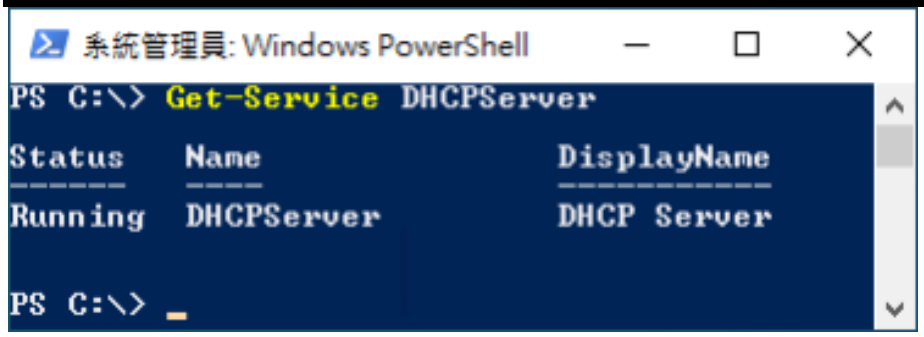
(4) 重啟 DHCP Server 服務

```
PS C:\> Restart-Service DHCPServer
```



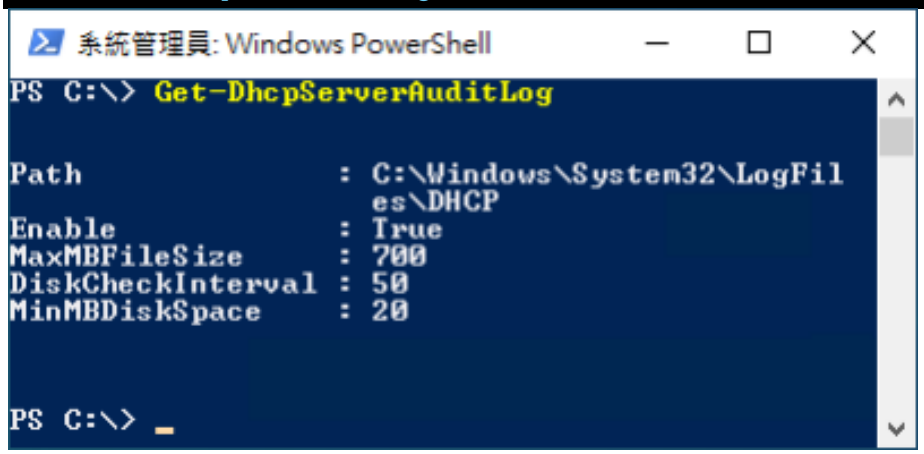
(5) 查看 DHCP Server 服務

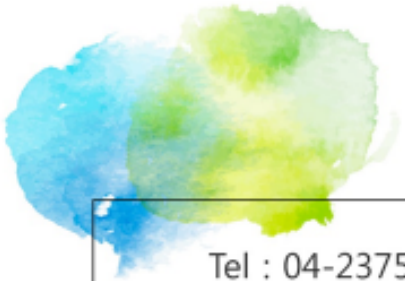
```
PS C:\> Get-Service DHCPServer
```



(6) 查看 DHCP Server 稽核 Log 設定

```
PS C:\> Get-DhcpServerAuditLog
```





Tel：04-23752865　Fax：04-23757458
業務詢問：sales@npartner.com
技術詢問：support@npartner.com