如何設定
Windows DNS log

V009

2024/07/11

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 DNS 記錄。

NXLog 工具將 Windows DNS 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 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

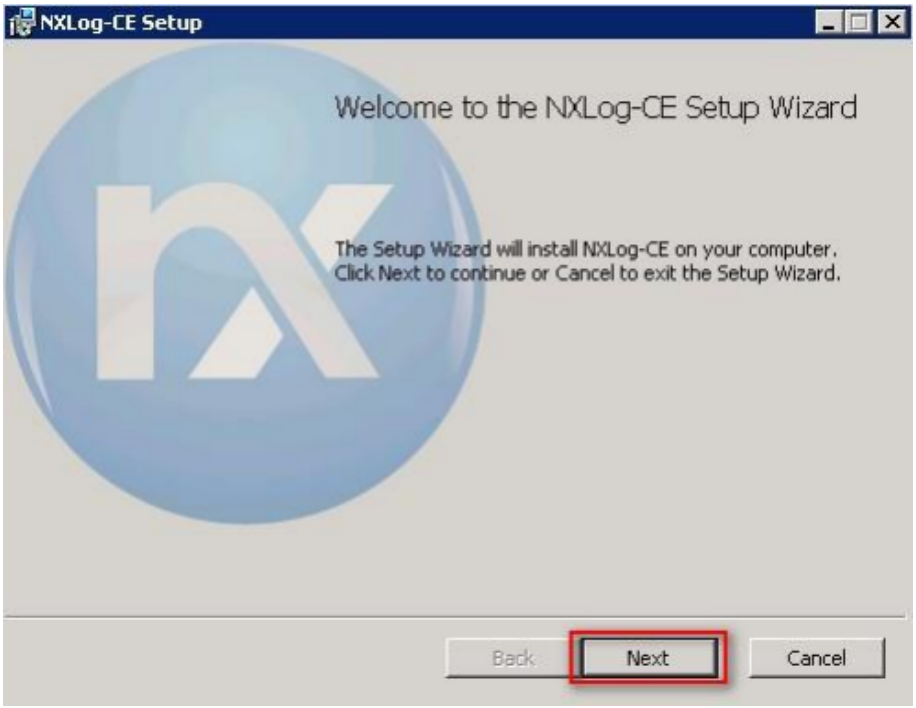
下載網址最新版 nxlog-ce-x.x.xxxx.msi，範例: nxlog-ce-3.0.2272.msi

註：若需要下載 NXLog 32bit 版本，請與我們連繫。

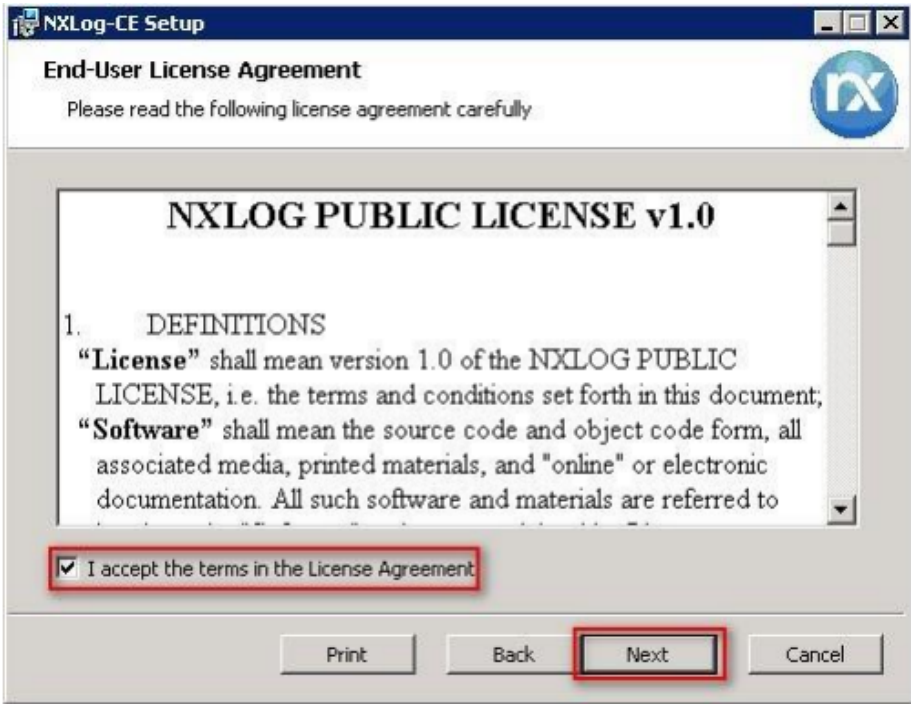
(2) 安裝 NXLog

<2.1> Windows 2008 或之後版本作業系統

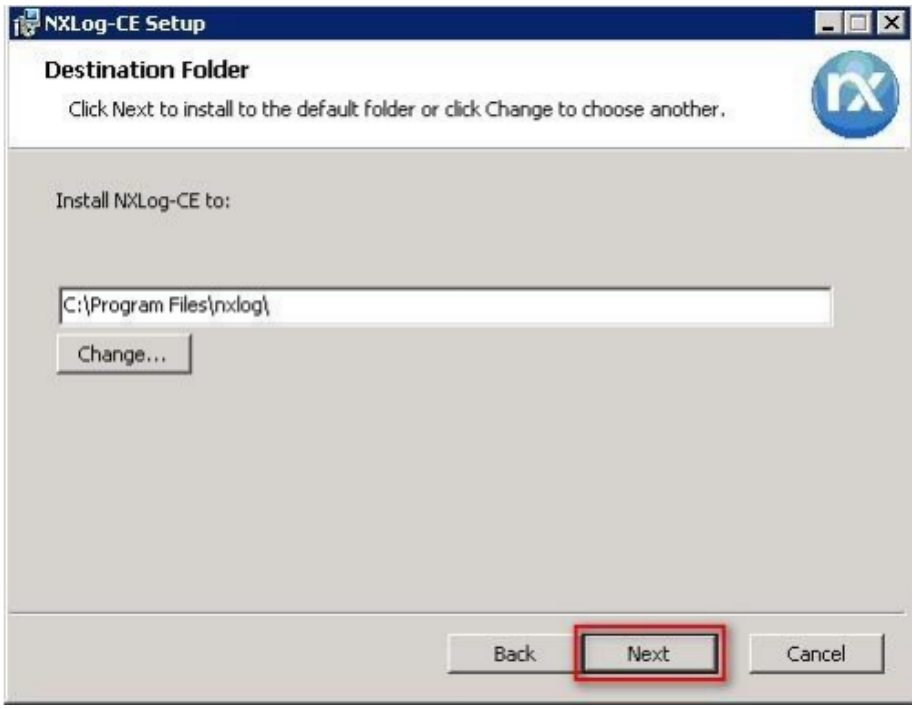
點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Next].



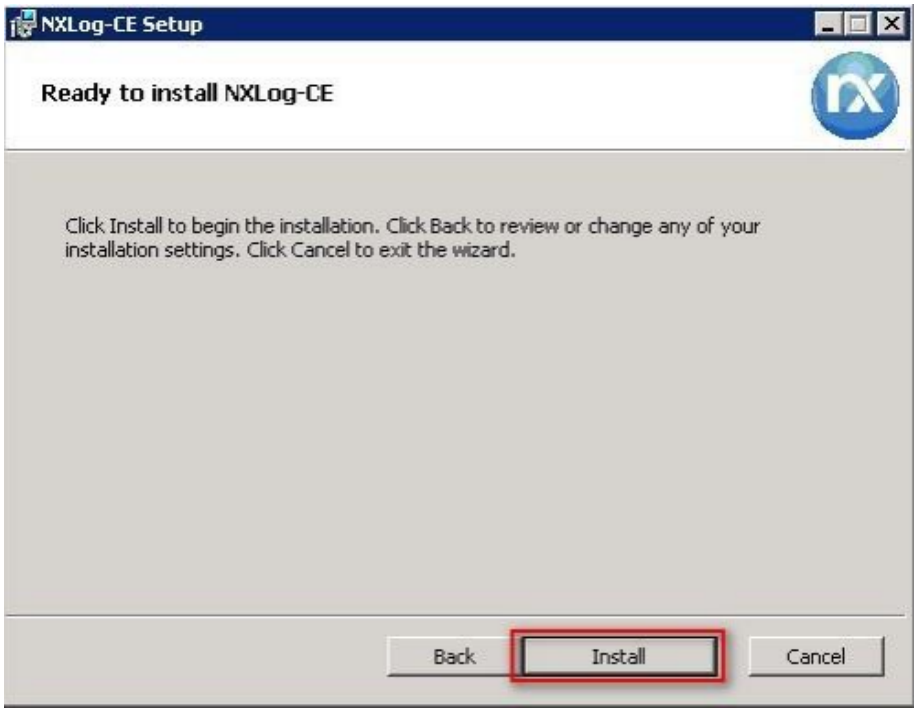
-> 勾選 [I accept the terms in the License Agreement], 按 [Next] .



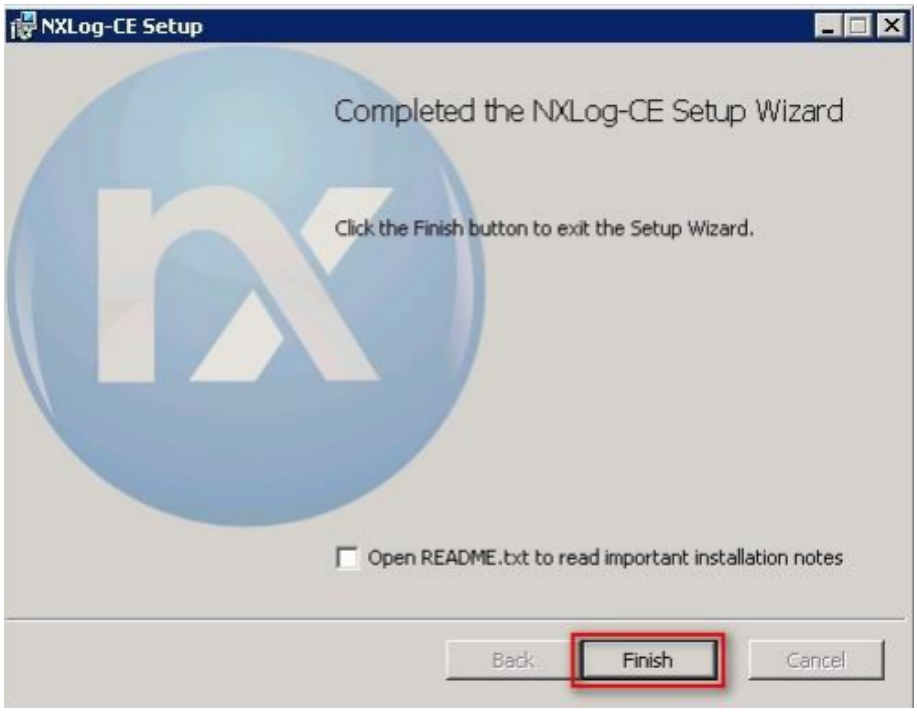
-> 按 [Next]. (預設安裝路徑為 C:\Program Files\nxlog\)



-> 按 [Install].

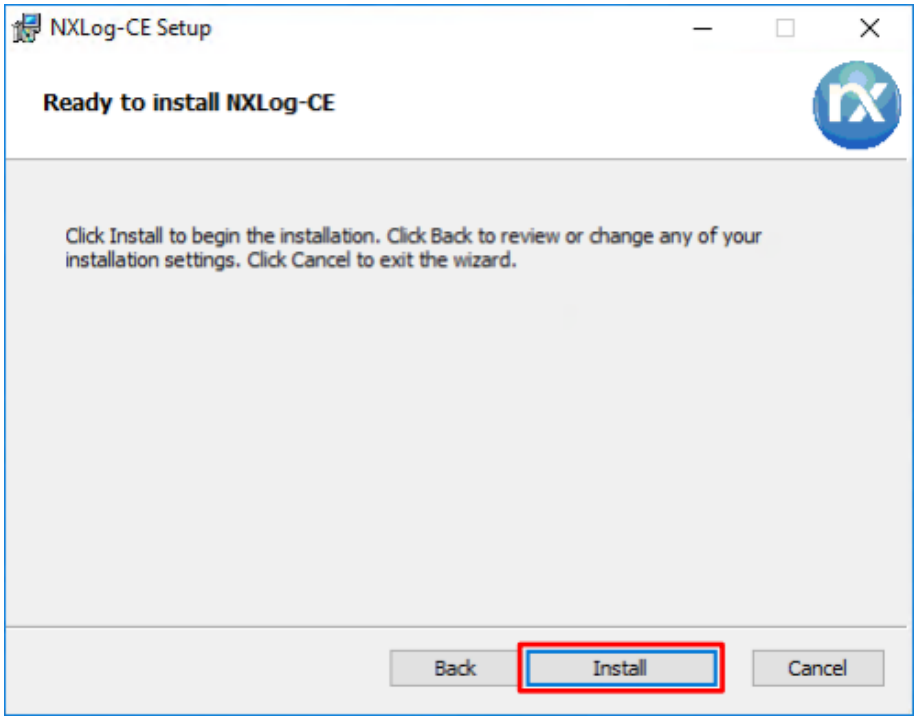


-> 按 [Finish].



<2.2> Windows 2003

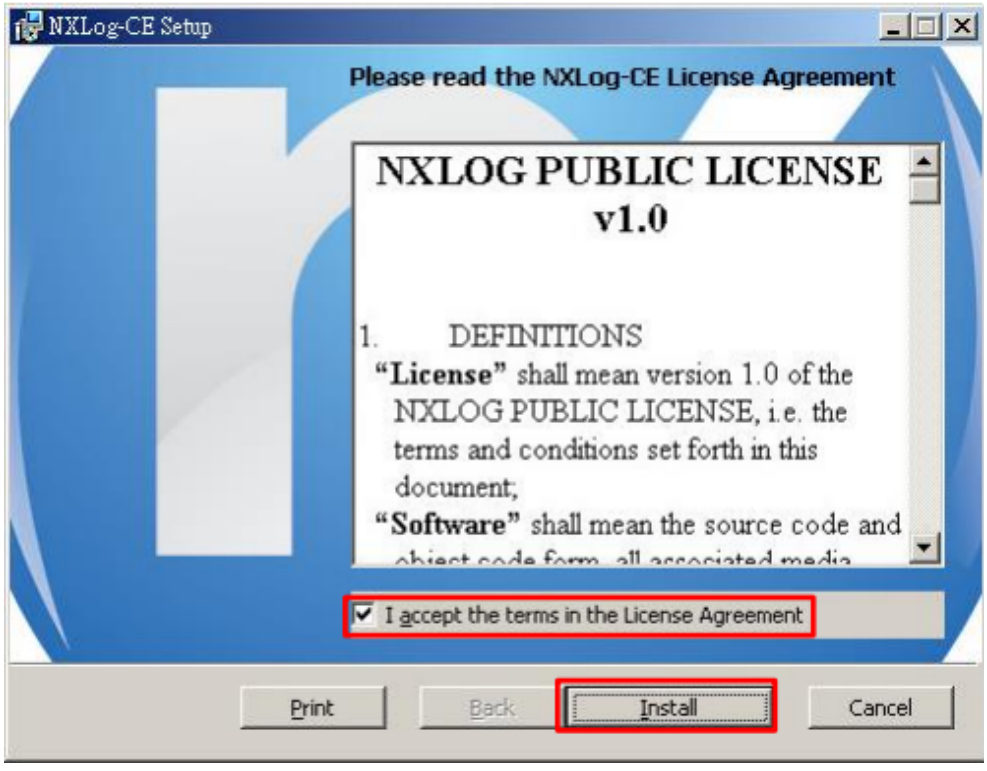
點擊 [nxlog-ce-3.2.2329.msi] -> 按 [Install] 到 [Finish].



<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].



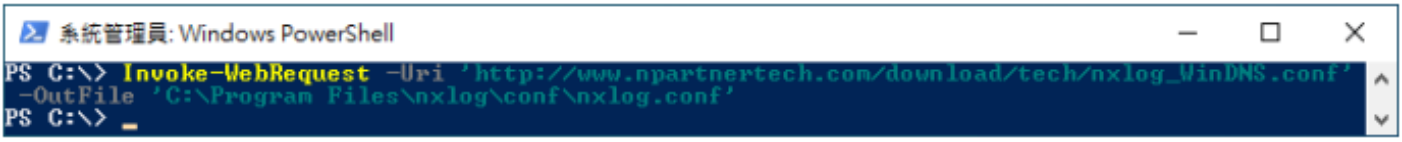
1.2 NXLog 設定檔下載

(1) 開啟 [Windows PowerShell]

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

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

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



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'

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  192.168.8.4
define DnsPath  C:\Windows\System32\LogFiles\DNS
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 DNS log file use the following:
<Input in_dnslog>
    Module    im_file
    File    '%DnsPath%\dns.log'
    SavePos    TRUE
    ReadFromLast    TRUE
</Input>

<Output out_dnslog>
    Module    om_udp
    Host    %NCloud%
    Port    514
    Exec    $SyslogFacilityValue = 19;
    Exec    if $raw_event =~ /^(\d+\/\d+\/\d+)\s(上午\s)(\d+\:\d+\:\d+\s)(.+)/ $raw_event = $1 + ' ' + $3 + 'AM ' + $4;
    Exec    if $raw_event =~ /^(\d+\/\d+\/\d+)\s(下午\s)(\d+\:\d+\:\d+\s)(.+)/ $raw_event = $1 + ' ' + $3 + 'PM ' + $4;
    Exec    $raw_event = "WinDNS [Info]:  " + $raw_event ;
    Exec    to_syslog_bsd();
</Output>

<Route dnslog>
    Path    in_dnslog => out_dnslog
</Route>
```

藍色文字部位請輸入 N-Reporter 系統 IP address

```
define NCloud  192.168.8.4
```

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 DnsPath  C:\Windows\Sysnative\LogFiles\DNS
```

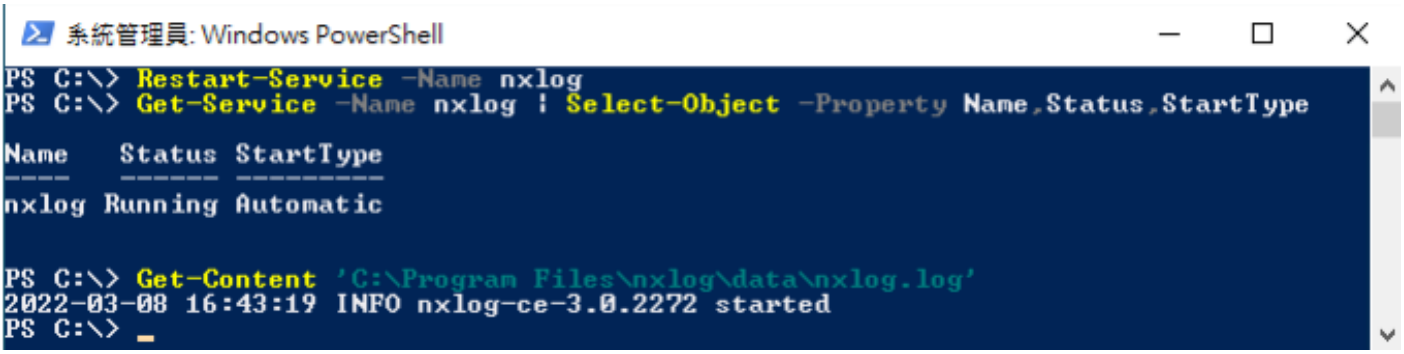
修改設定檔內容後需” 另存新檔” 覆蓋原本檔案，1. 存檔類型請選擇” 所有檔案 (*.*)”，2. 編碼請選擇”UTF-8” 以免編碼錯誤造成服務無法正常開啟。

1.4 NXLog 啟動服務

(1) 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'
```



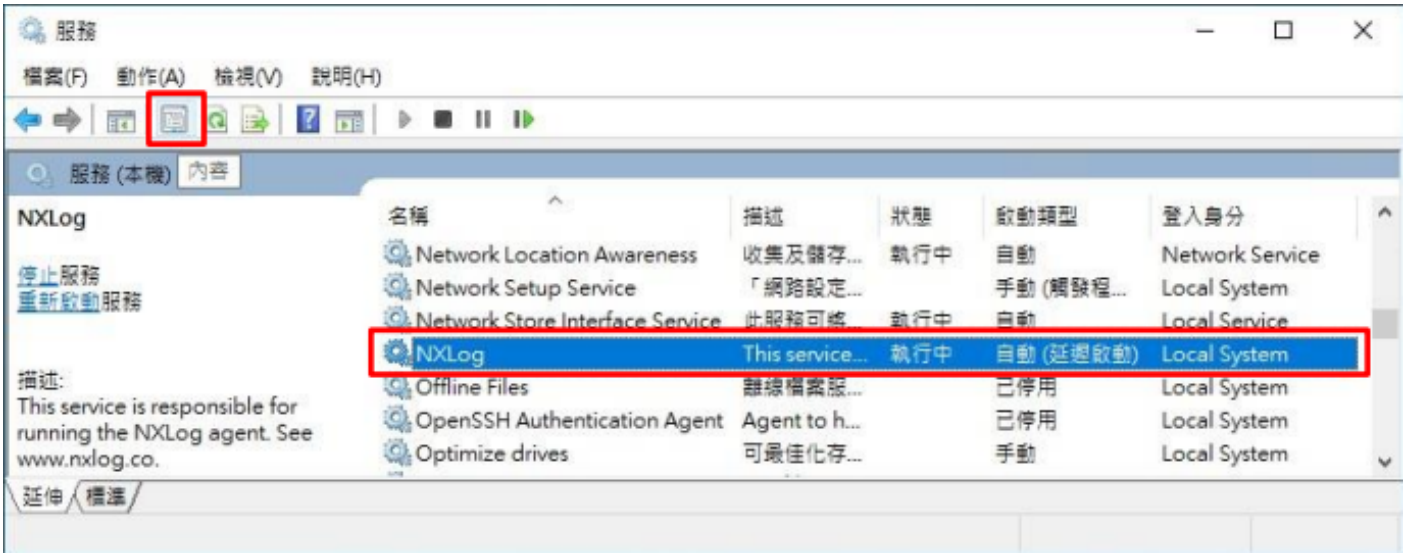
本文件範例是 NXLog 64bit 版本，若是 NXLog 32bit 版本，紅色文字部位請改以下設定 `C:\Program Files (x86)\nxlog\conf\nxlog.conf'

(3) 開啟 [服務] 功能

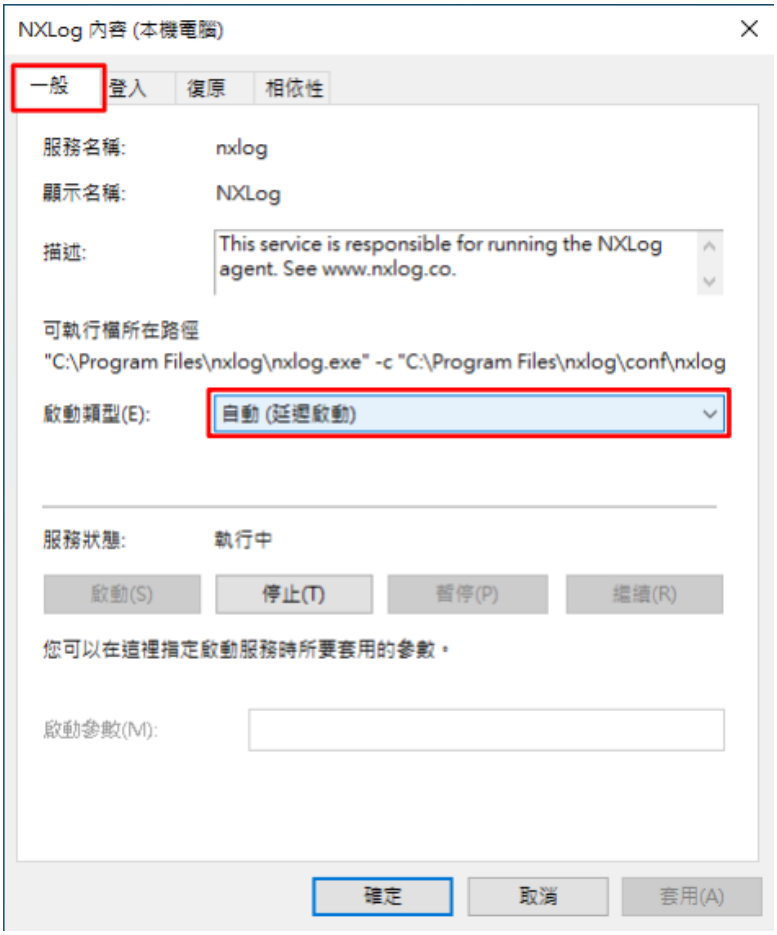
```
PS C:\> Services.msc
```

(4) 開啟 NXLog 服務內容

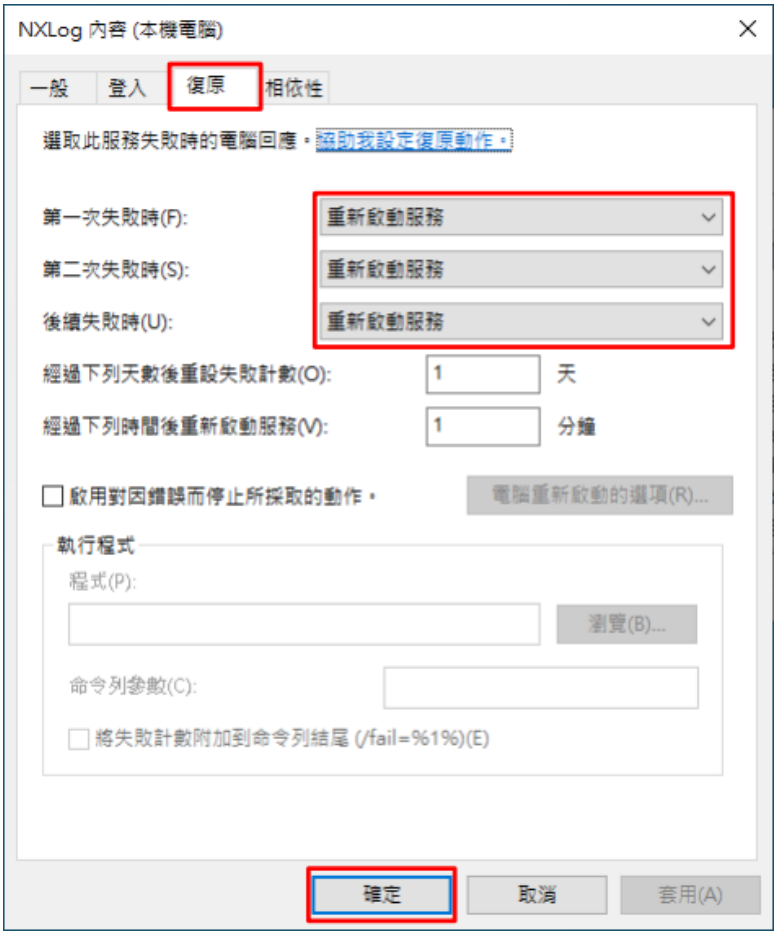
選擇 [NXLog] -> 點選 [內容]



(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]

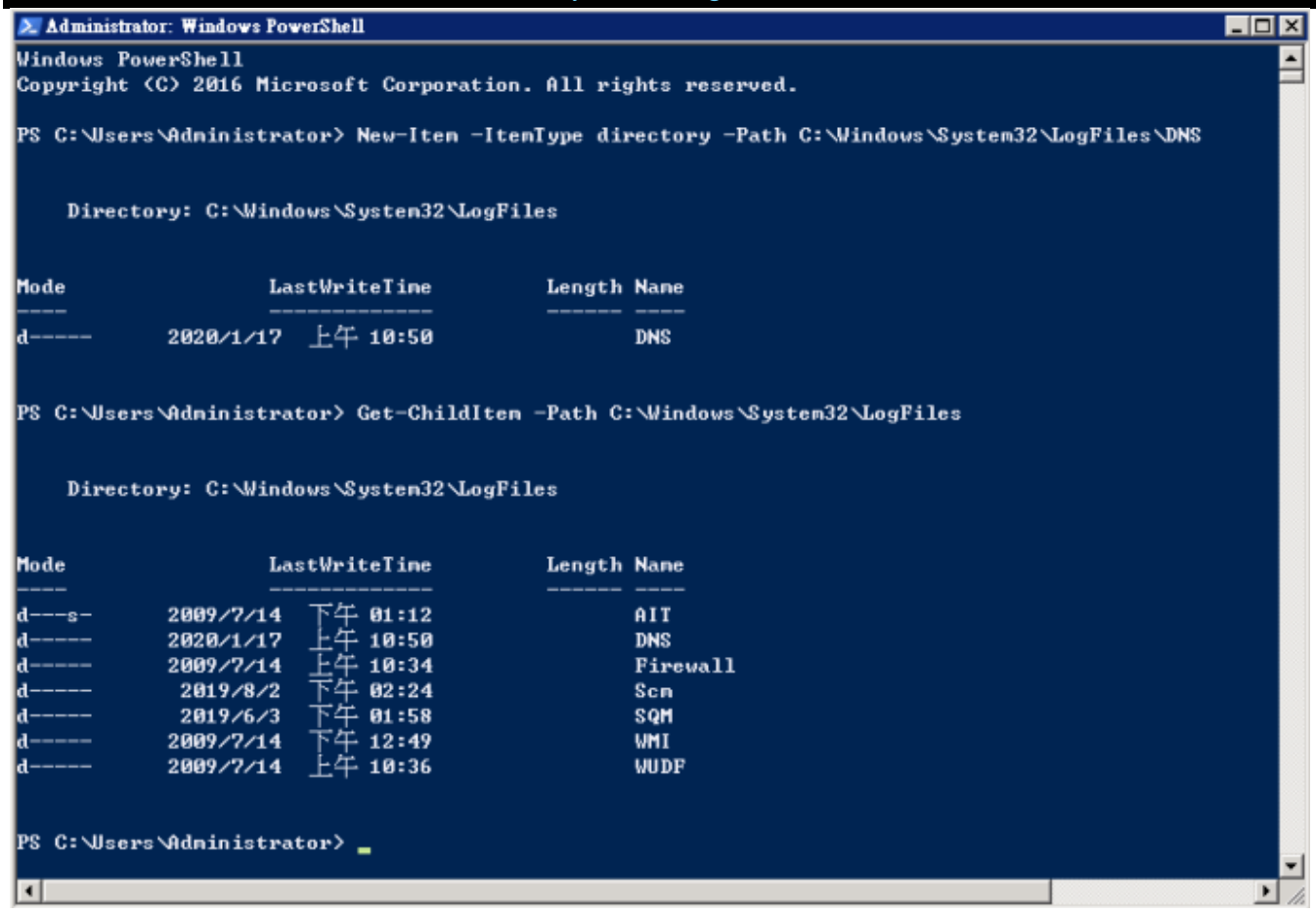


2 Windows 2008

(1) 開啟 [Windows PowerShell]

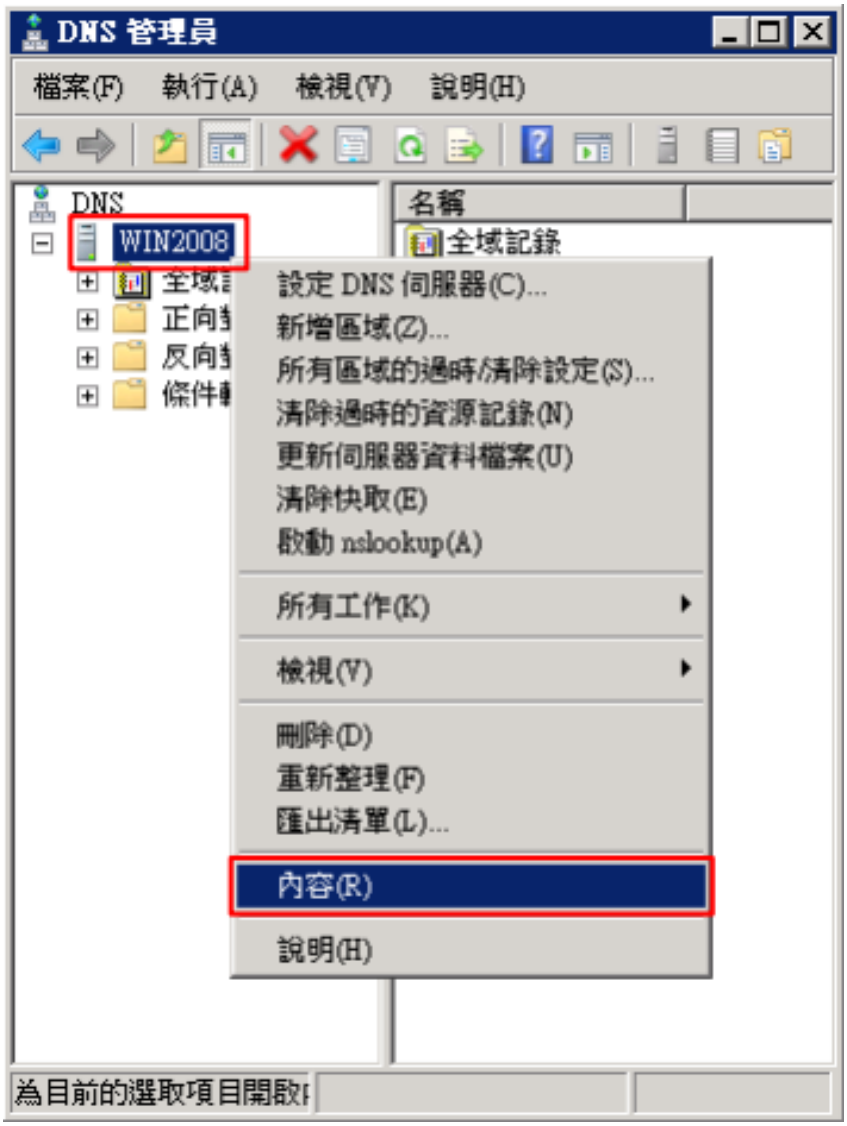
(2) 新增 DNS log 資料夾

```
PS C:\>  New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS
PS C:\>  Get-ChildItem -Path C:\Windows\System32\LogFiles
```



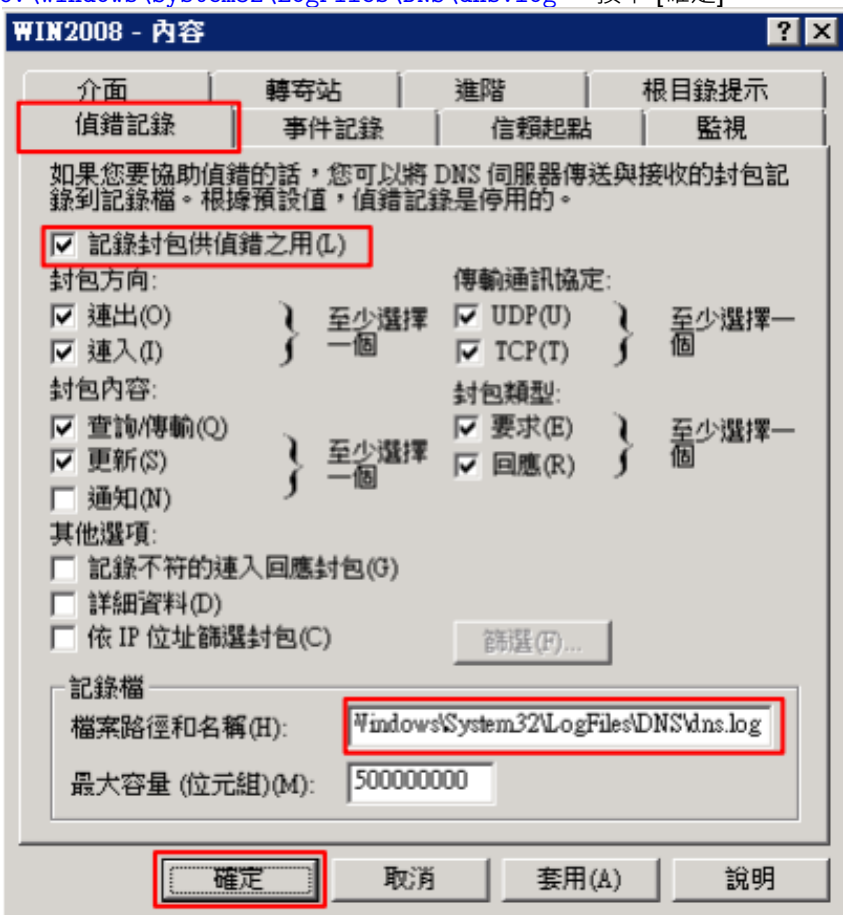
(3) 開啟 DNS

(4)　在 DNS 伺服器 [Win2008] 按滑鼠右鍵 -> 點選 [內容]



(5) [偵錯記錄] 頁面 -> 勾選 [記錄封包供偵錯之用] -> 輸入檔案路徑和名稱

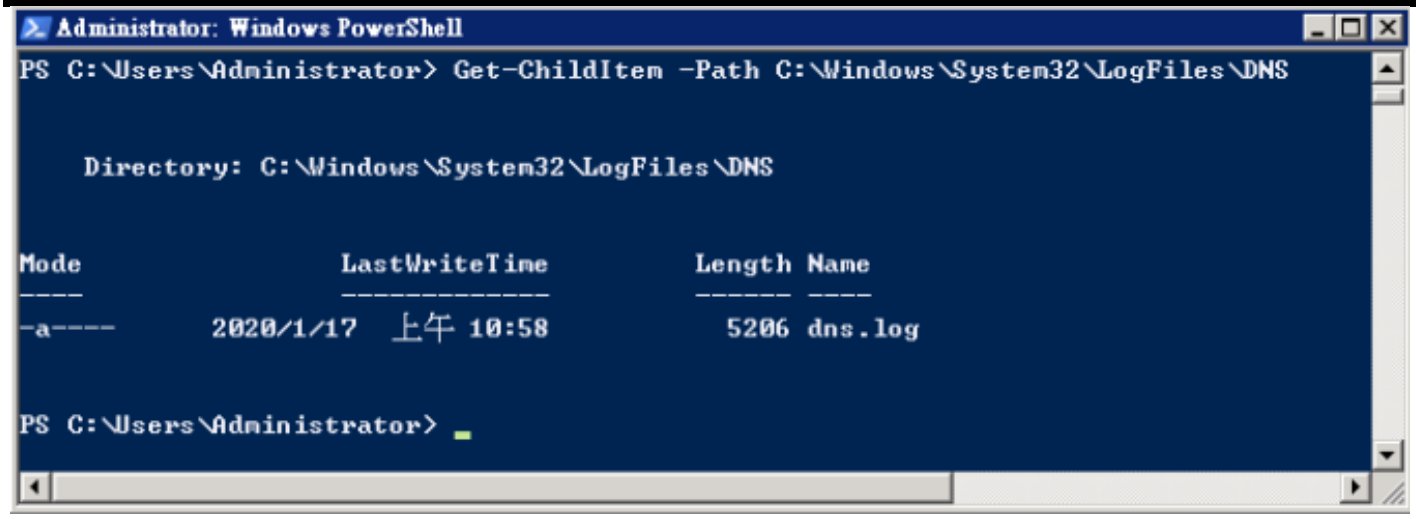
C:\Windows\System32\LogFiles\DNS\dns.log -> 按下 [確定]



(6) 開啟 [Windows PowerShell]

(7) 確認有產生 dns.log 檔案

```
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles\DNS
```



3 Windows 2012

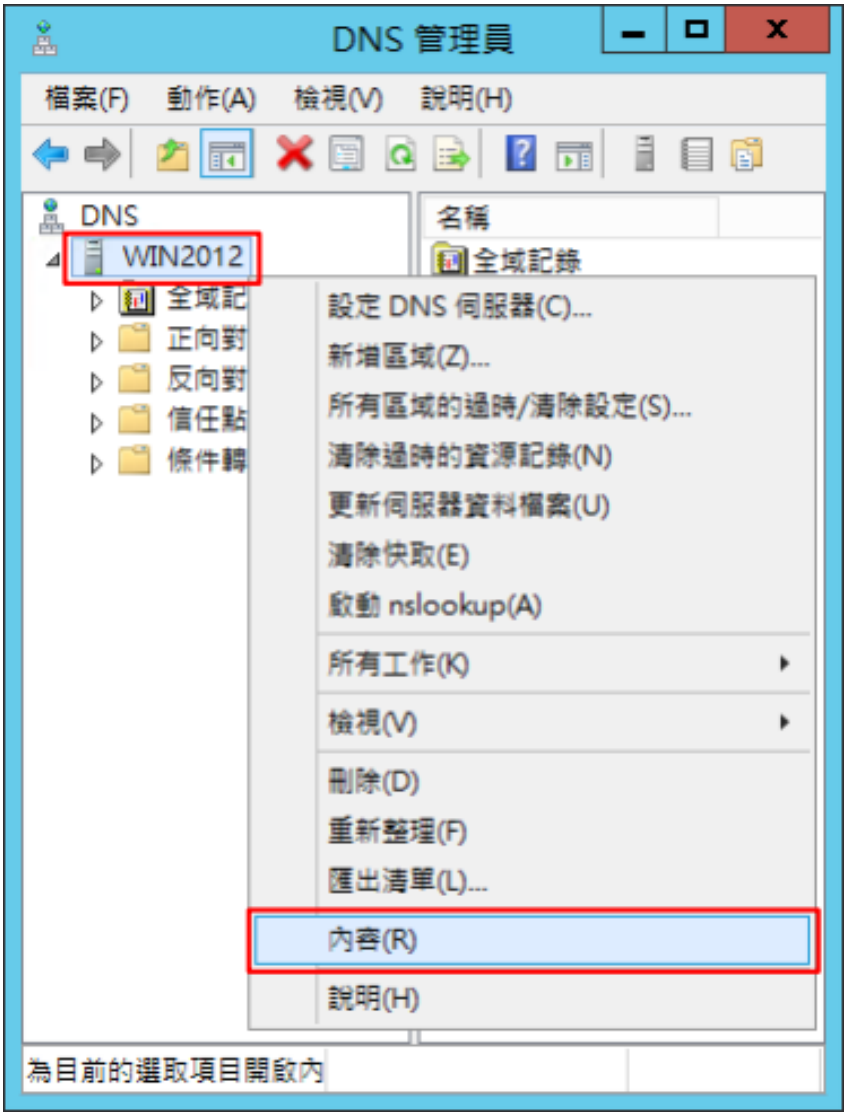
(1) 開啟 [Windows PowerShell]

(2) 新增 DNS log 資料夾

```
PS C:\> New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles
```

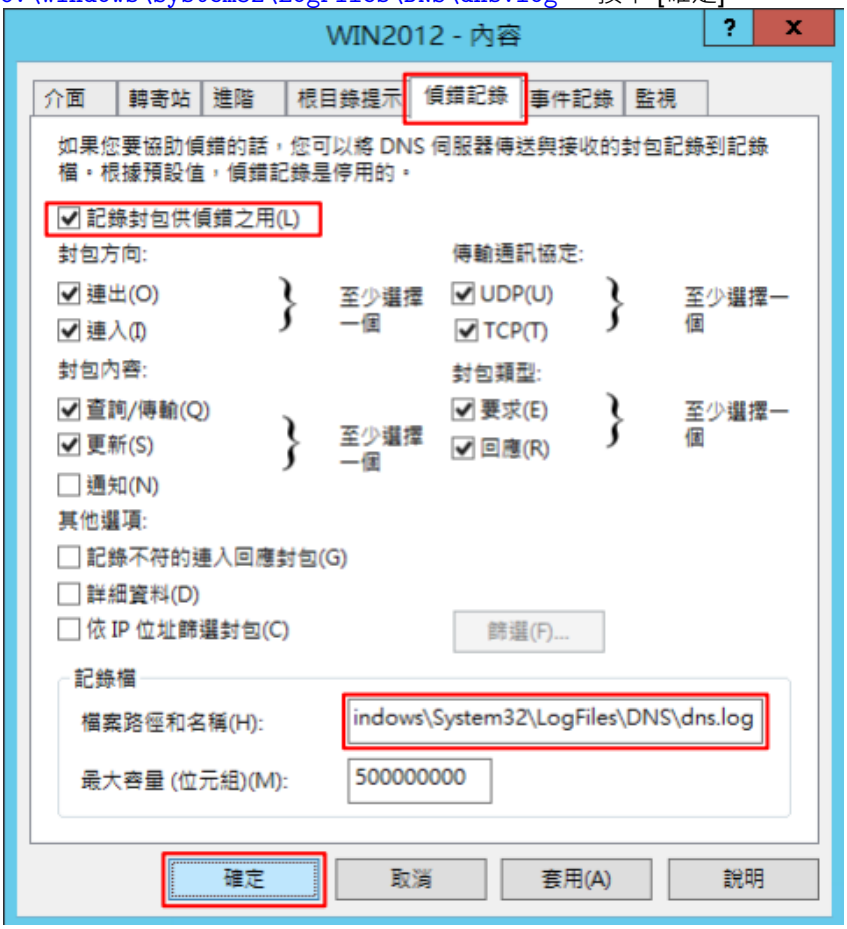
(3) 開啟 DNS

(4)　在 DNS 伺服器 [Win2012] 按滑鼠右鍵 -> 點選 [內容]



(5) [偵錯記錄] 頁面 -> 勾選 [記錄封包供偵錯之用] -> 輸入檔案路徑和名稱

C:\Windows\System32\LogFiles\DNS\dns.log -> 按下 [確定]



(6) 開啟 [Windows PowerShell]

(7) 確認有產生 dns.log 檔案

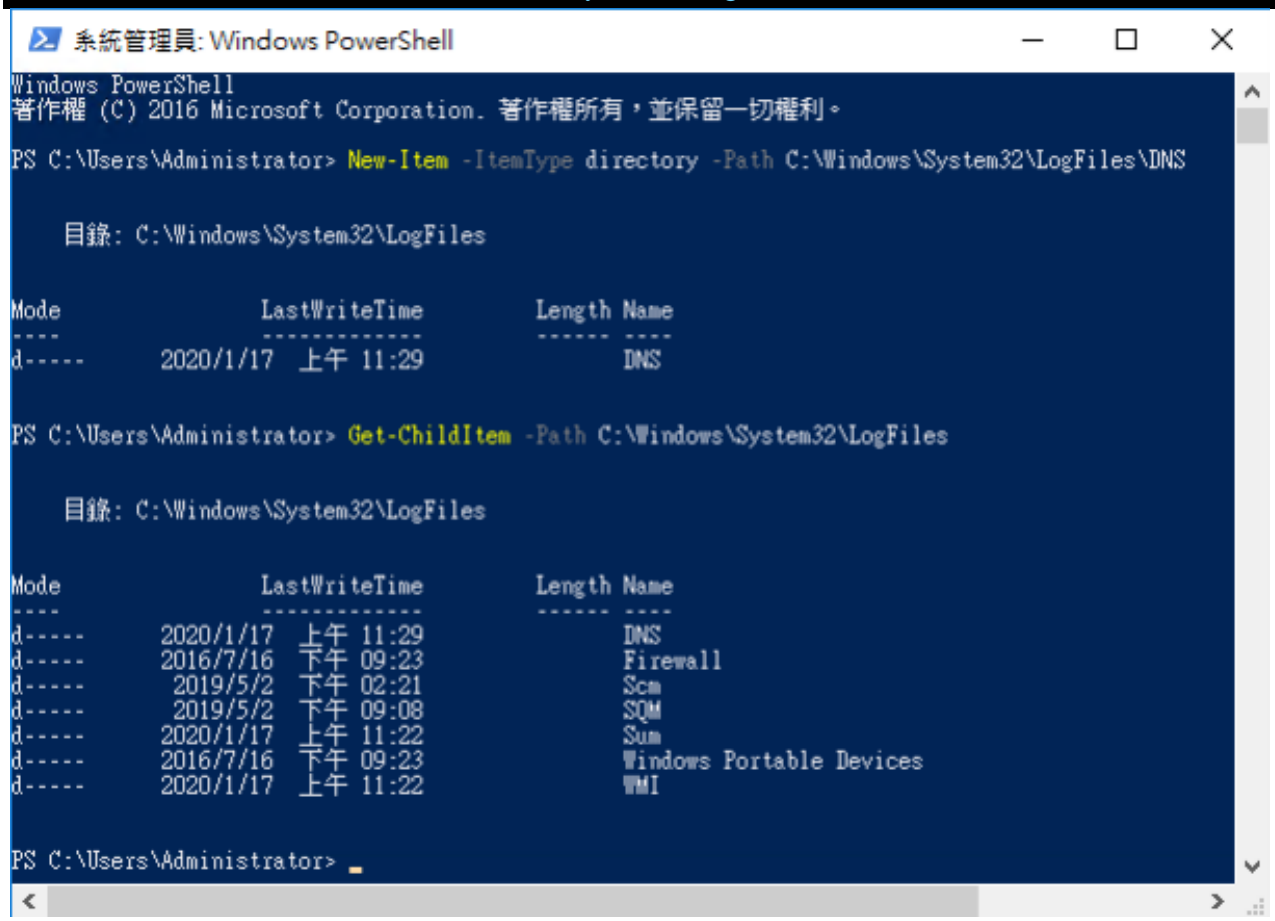
```
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles\DNS
```

4 Windows 2016

(1) 開啟 [Windows PowerShell]

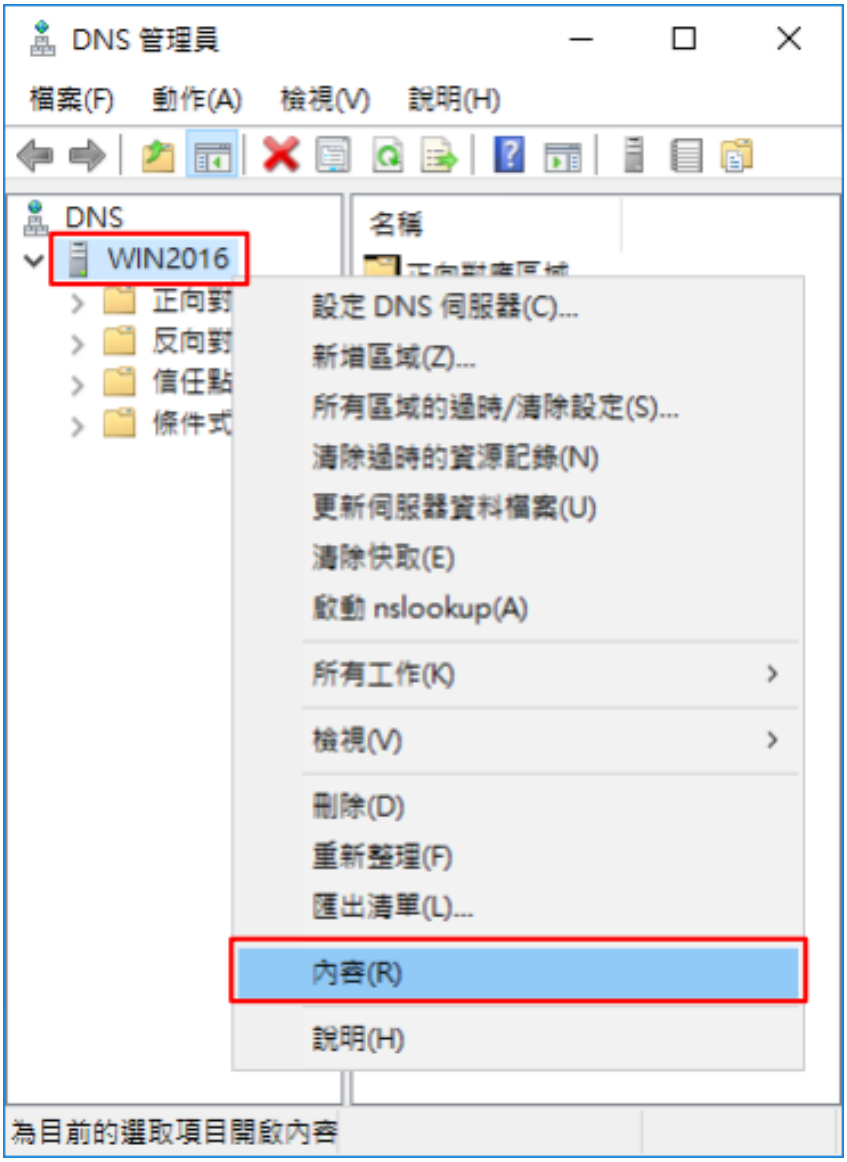
(2) 新增 DNS log 資料夾

```
PS C:\> New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles
```



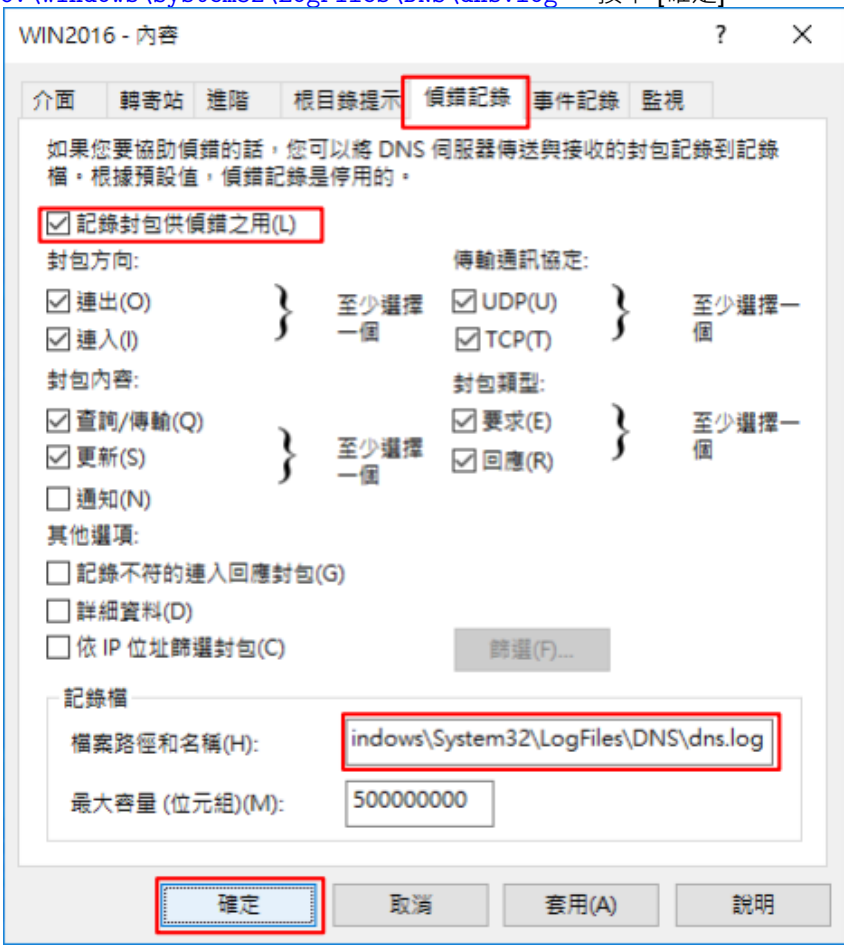
(3) 開啟 DNS

(4) 在 DNS 伺服器 [Win2016] 按滑鼠右鍵 -> 點選 [內容]



(5) [偵錯記錄] 頁面 -> 勾選 [記錄封包供偵錯之用] -> 輸入檔案路徑和名稱

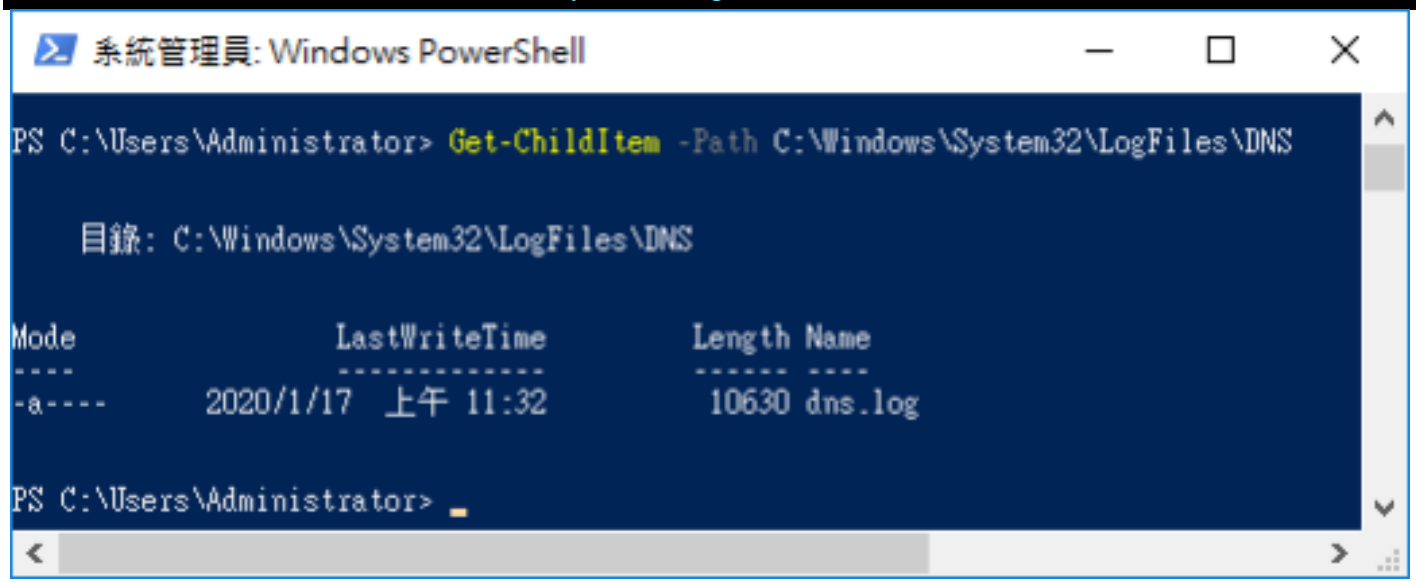
C:\Windows\System32\LogFiles\DNS\dns.log -> 按下 [確定]



(6) 開啟 [Windows PowerShell]

(7) 確認有產生 dns.log 檔案

```
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles\DNS
```

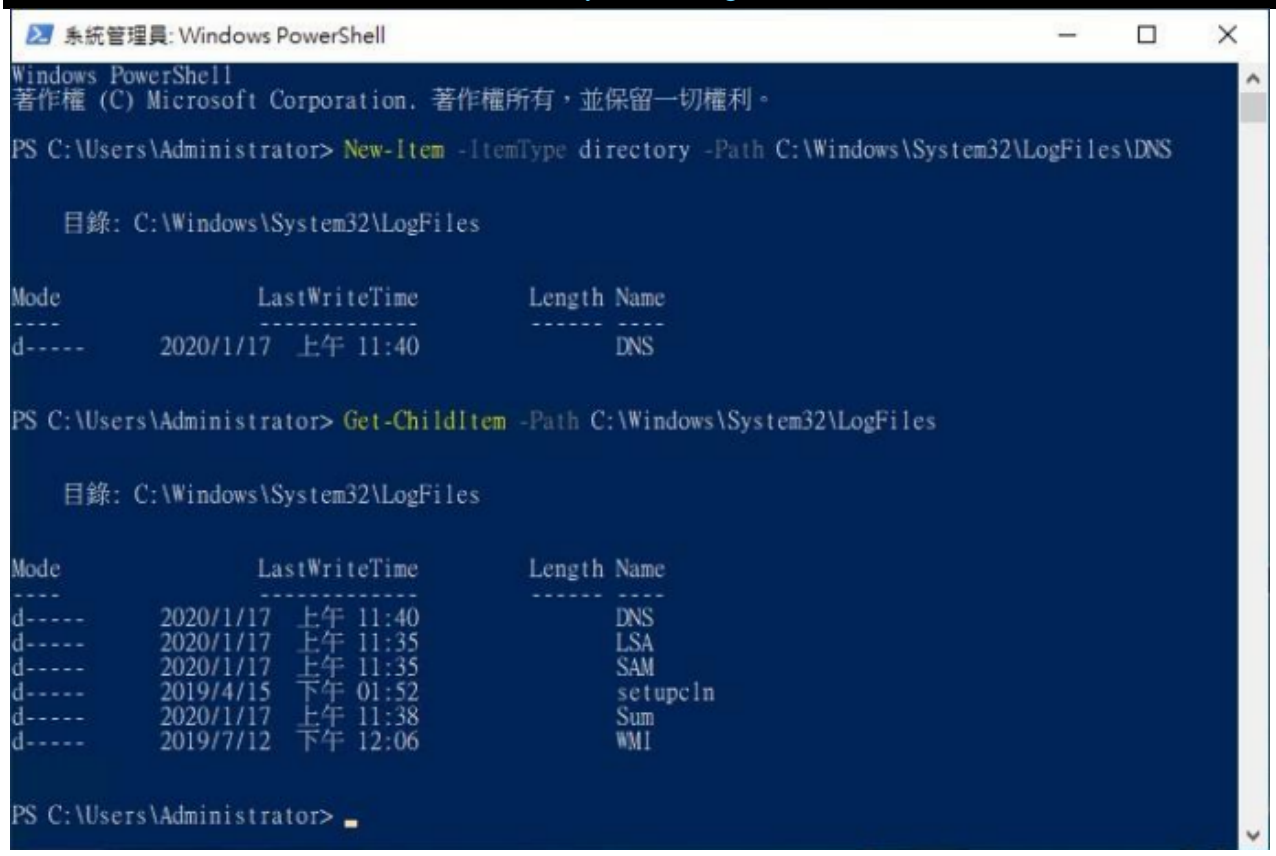


5 Windows 2019

(1) 開啟 [Windows PowerShell]

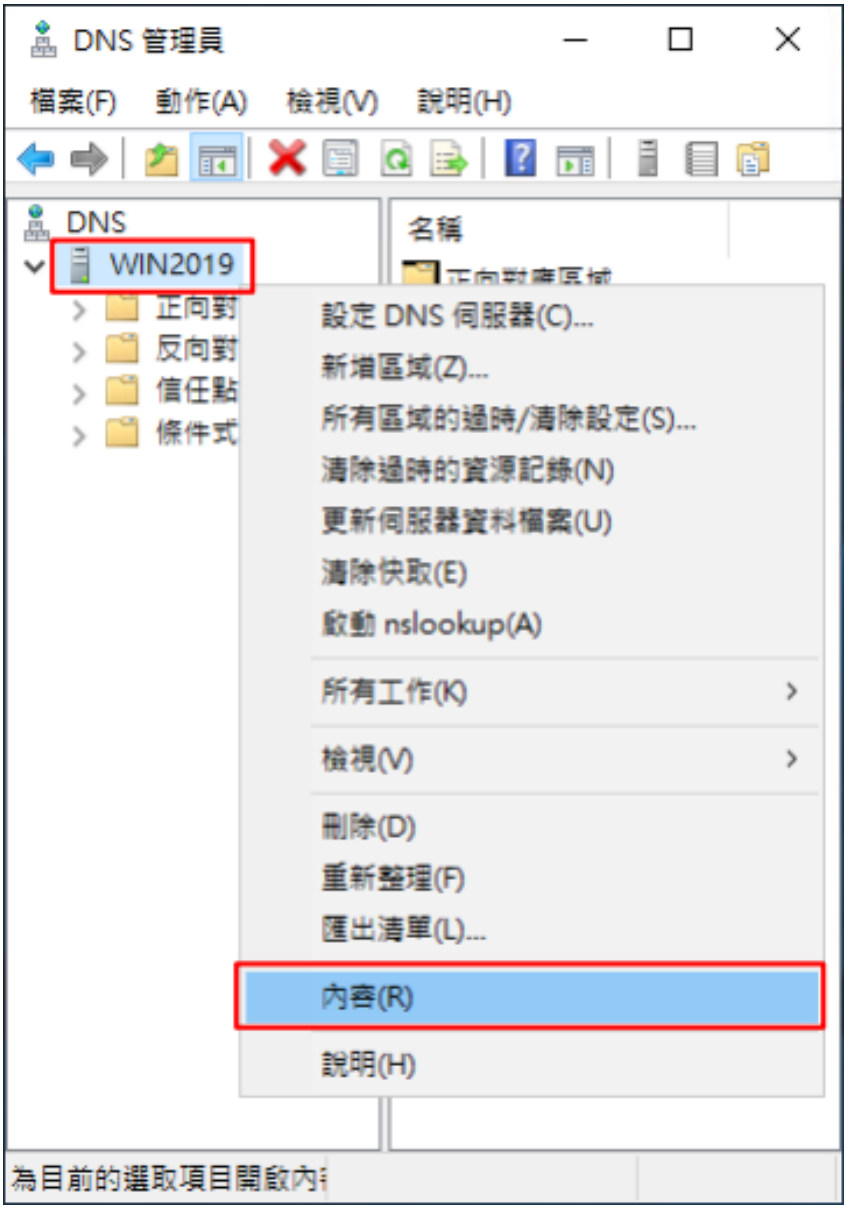
(2) 新增 DNS log 資料夾

```
PS C:\> New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles
```



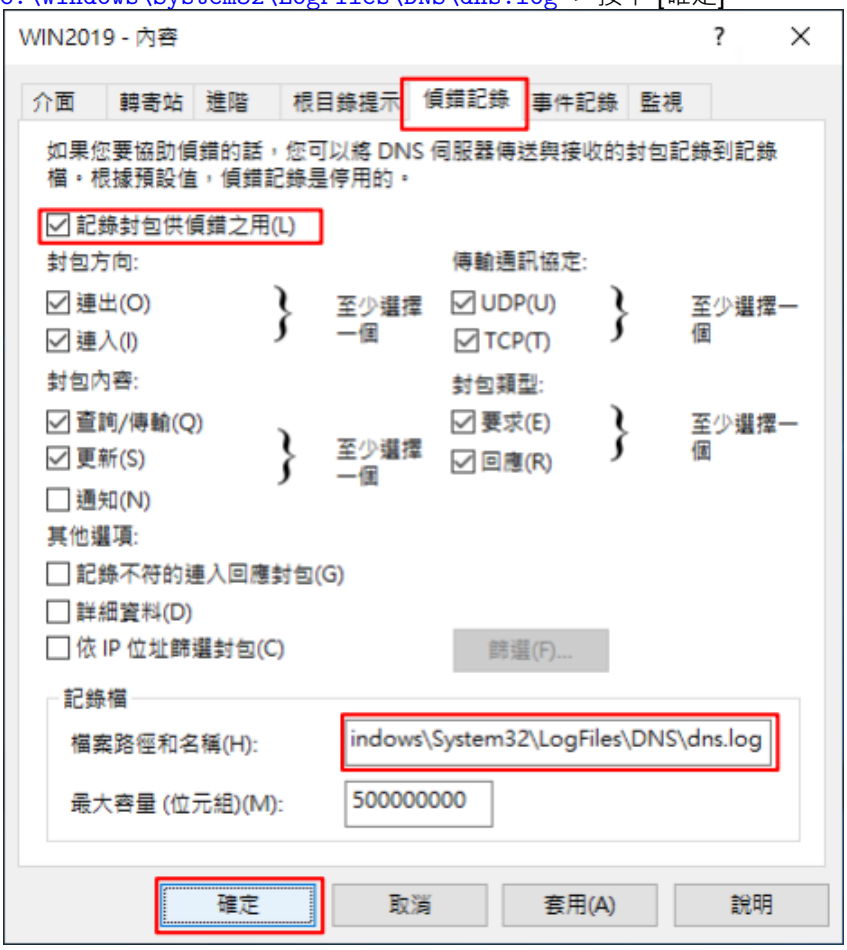
(3) 開啟 DNS

(4)　在 DNS 伺服器 [Win2019] 按滑鼠右鍵 -> 點選 [內容]



(5) [偵錯記錄] 頁面 -> 勾選 [記錄封包供偵錯之用] -> 輸入檔案路徑和名稱

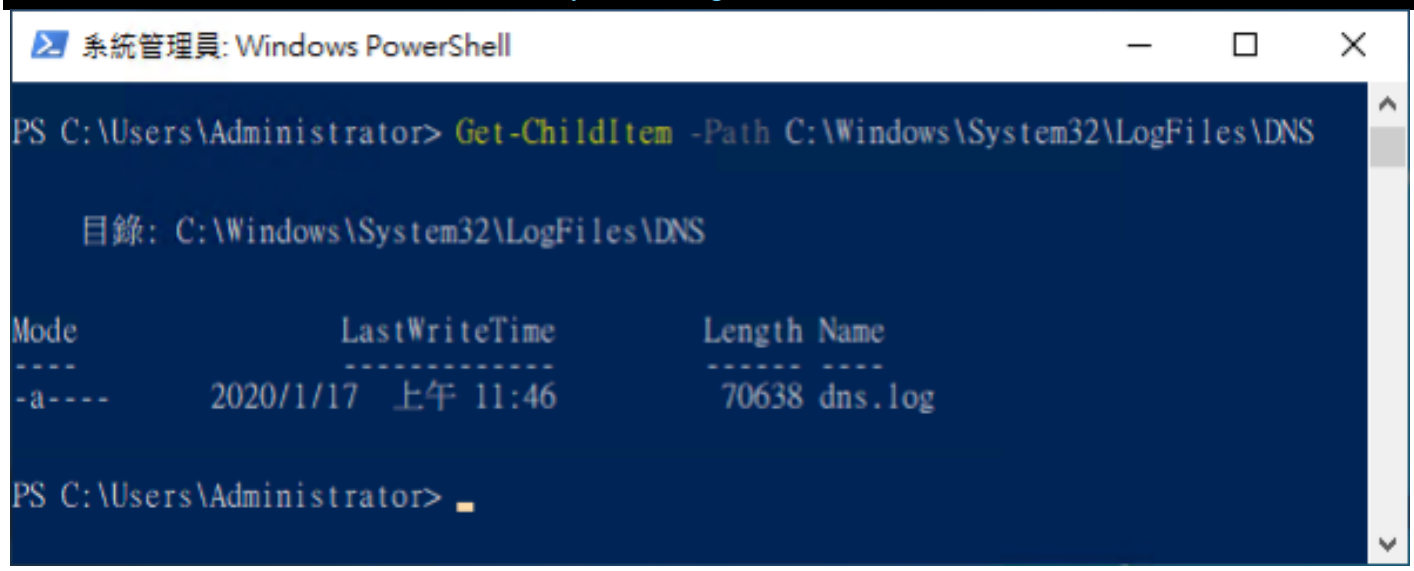
C:\Windows\System32\LogFiles\DNS\dns.log -> 按下 [確定]



(6) 開啟 [Windows PowerShell]

(7) 確認有產生 dns.log 檔案

```
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles\DNS
```



6 Windows 2022

(1) 開啟 [Windows PowerShell]

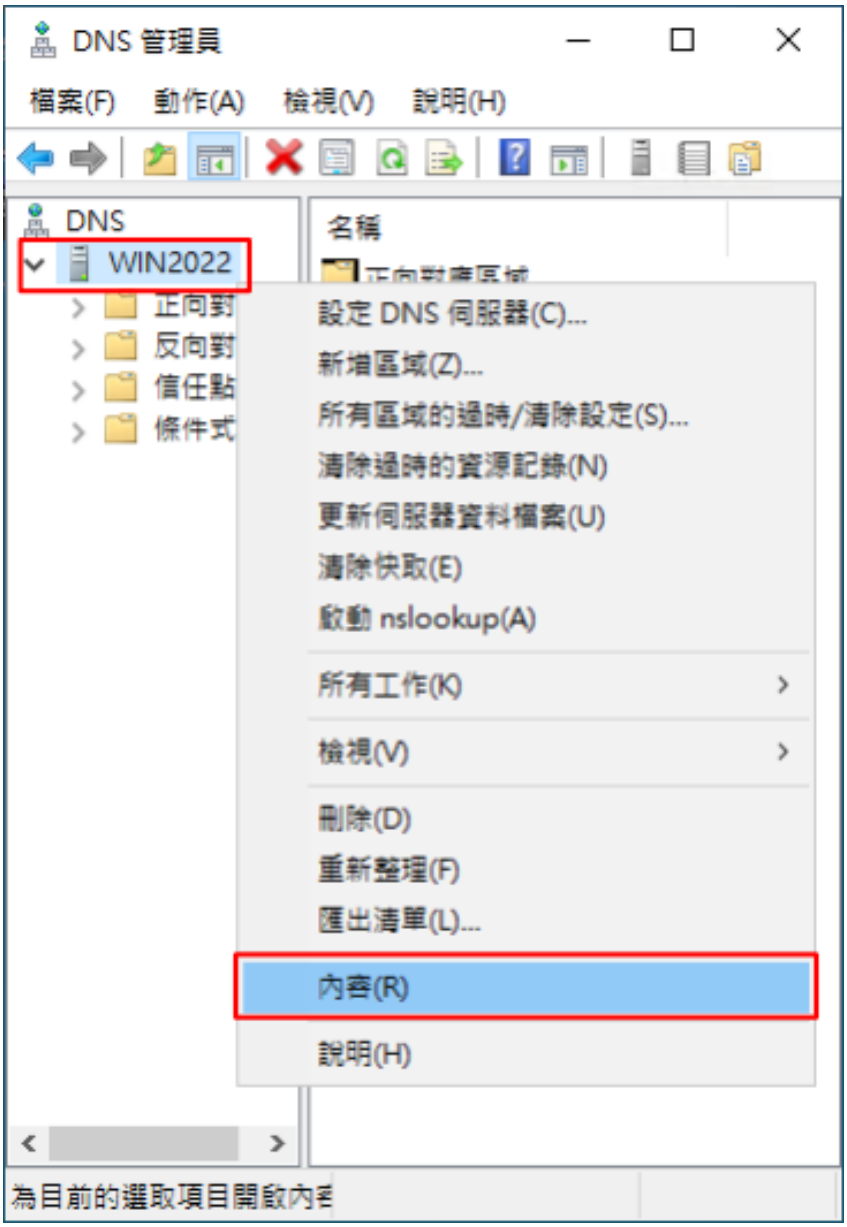
(2) 新增 DNS log 資料夾

```
PS C:\> New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles
```

```
系統管理員: Windows PowerShell
PS C:\> New-Item -ItemType directory -Path C:\Windows\System32\LogFiles\DNS

    Directory: C:\Windows\System32\LogFiles

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----         2022/3/14  下午 01:46                DNS


PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles

    Directory: C:\Windows\System32\LogFiles

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----          2021/5/8  下午 04:20                CloudFiles
d-----         2022/3/14  下午 01:46                DNS
d-----          2021/5/8  下午 04:20                Firewall
d-----         2022/3/14  下午 01:44                LSA
d-----         2022/3/14  下午 01:44                SAM
d-----          2022/3/8  上午 10:16                Scm
d-----          2022/3/8  上午 10:30                setupcln
d-----          2022/3/8  下午 06:08                Sum
d-----          2021/5/8  下午 04:20                Windows Portable Devices
d-----         2022/3/14  下午 01:44                WMI


PS C:\> _
```

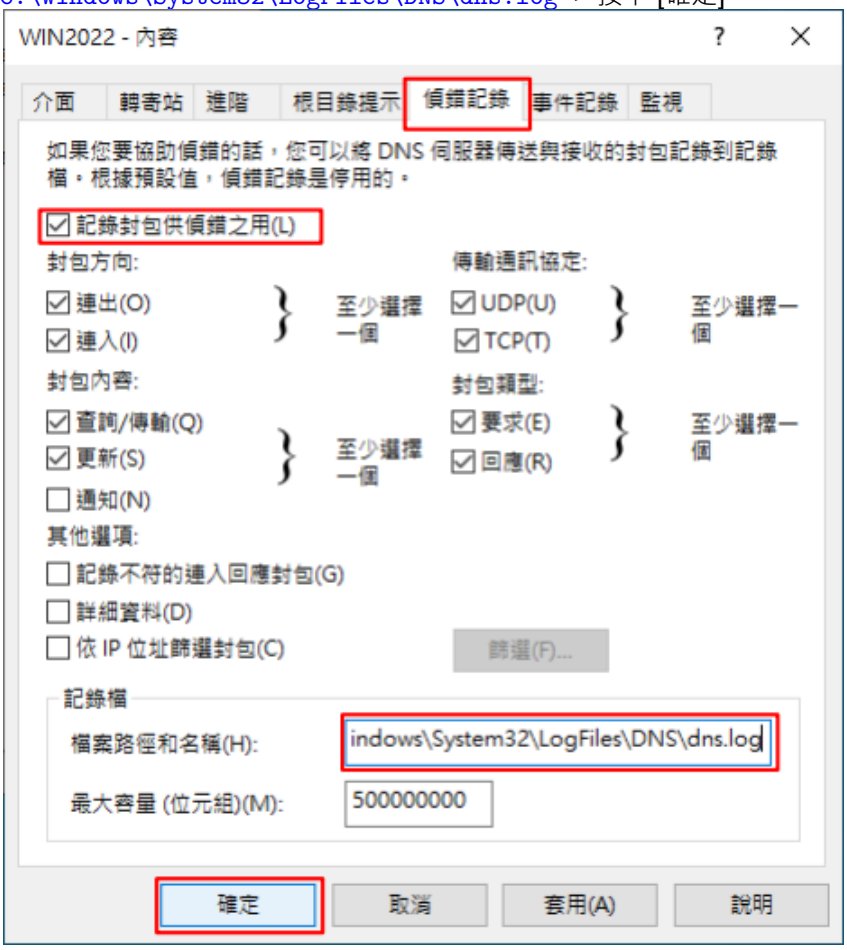
(3) 開啟 DNS

(4) 在 DNS 伺服器 [Win2022] 按滑鼠右鍵 -> 點選 [內容]



(5) [偵錯記錄] 頁面 -> 勾選 [記錄封包供偵錯之用] -> 輸入檔案路徑和名稱

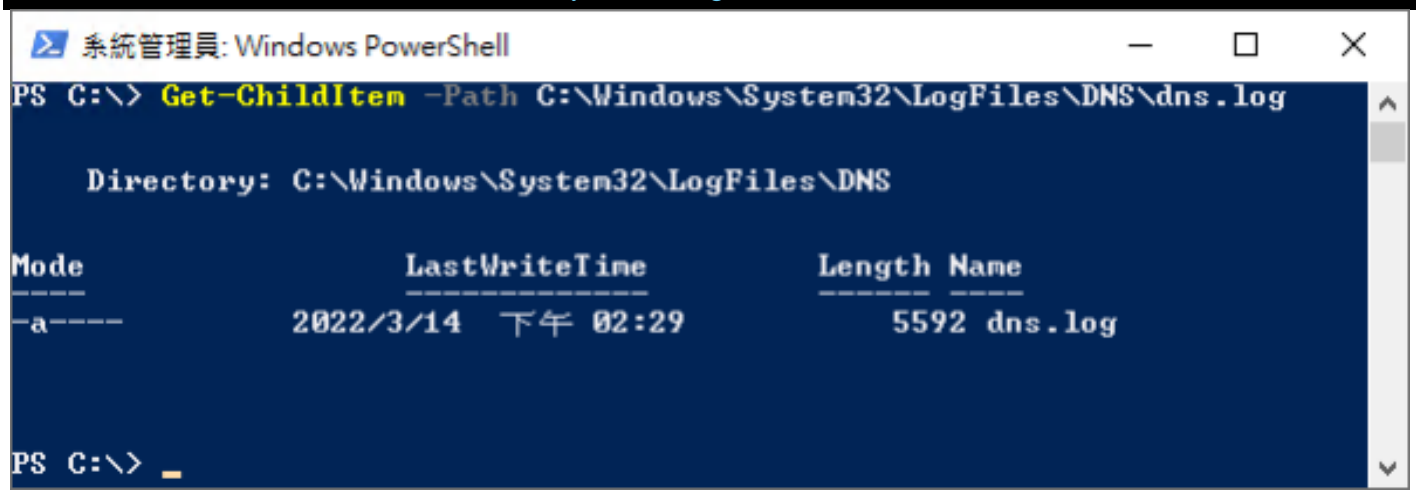
C:\Windows\System32\LogFiles\DNS\dns.log -> 按下 [確定]



(6) 開啟 [Windows PowerShell]

(7) 確認有產生 dns.log 檔案

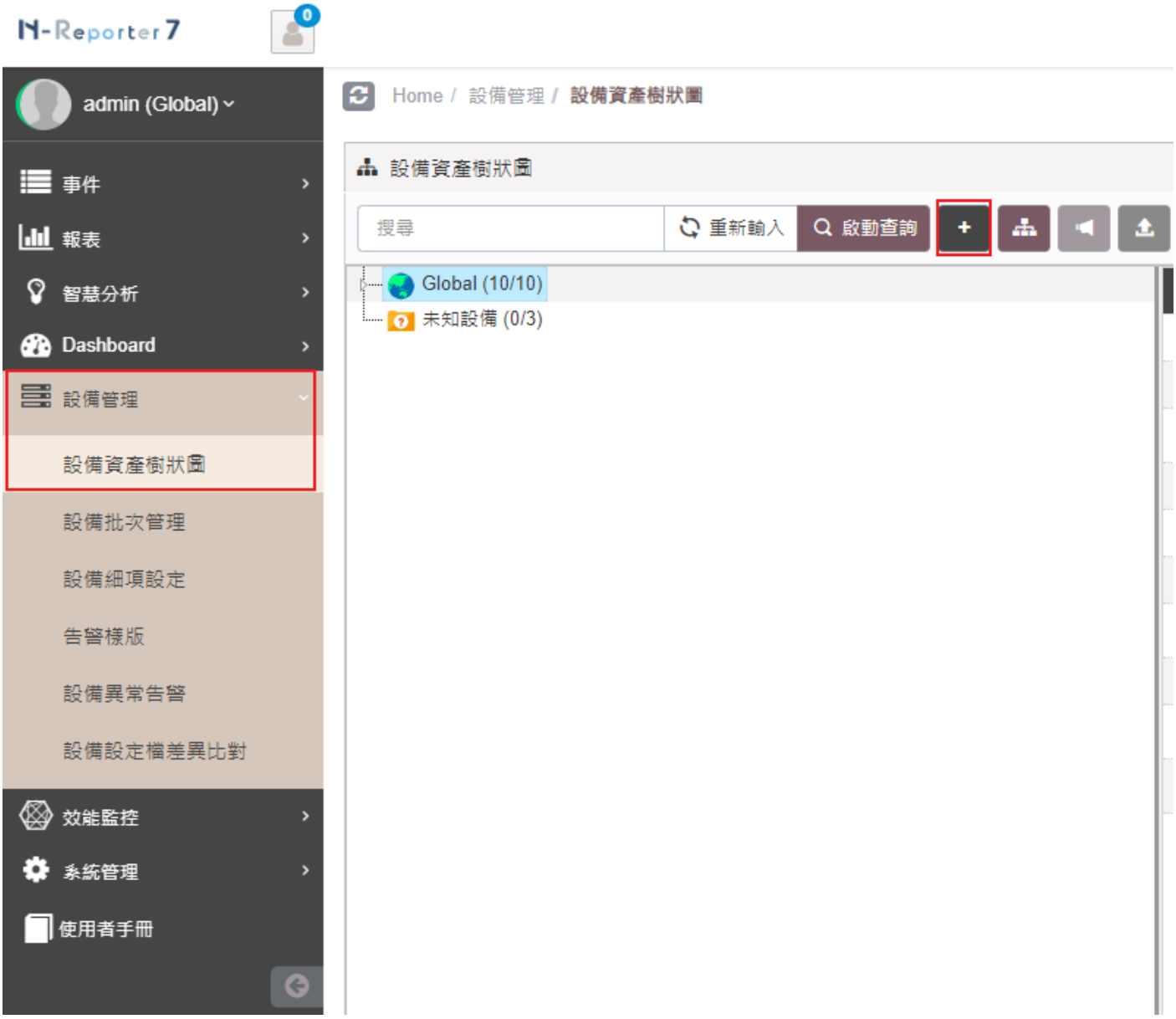
```
PS C:\> Get-ChildItem -Path C:\Windows\System32\LogFiles\DNS
```



7 N-Reporter

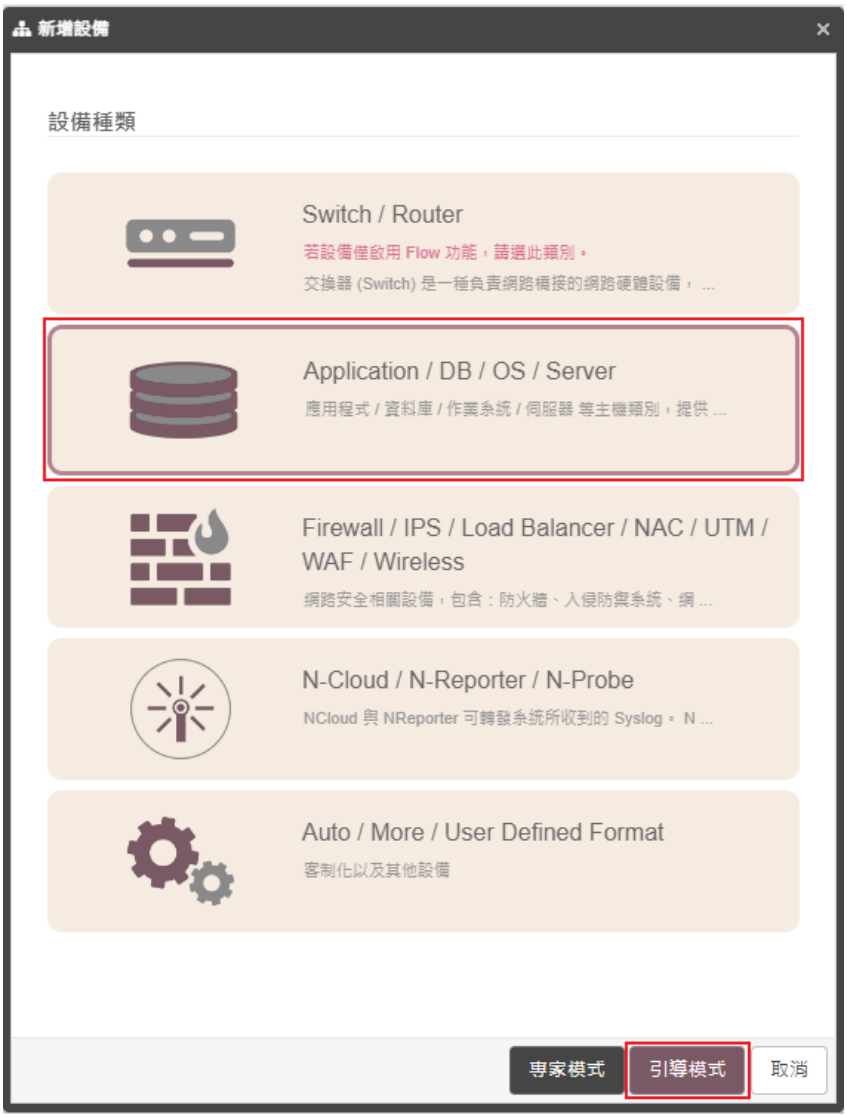
(1) 新增 Windows DNS 設備

[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]



(3) 設備基本設定

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

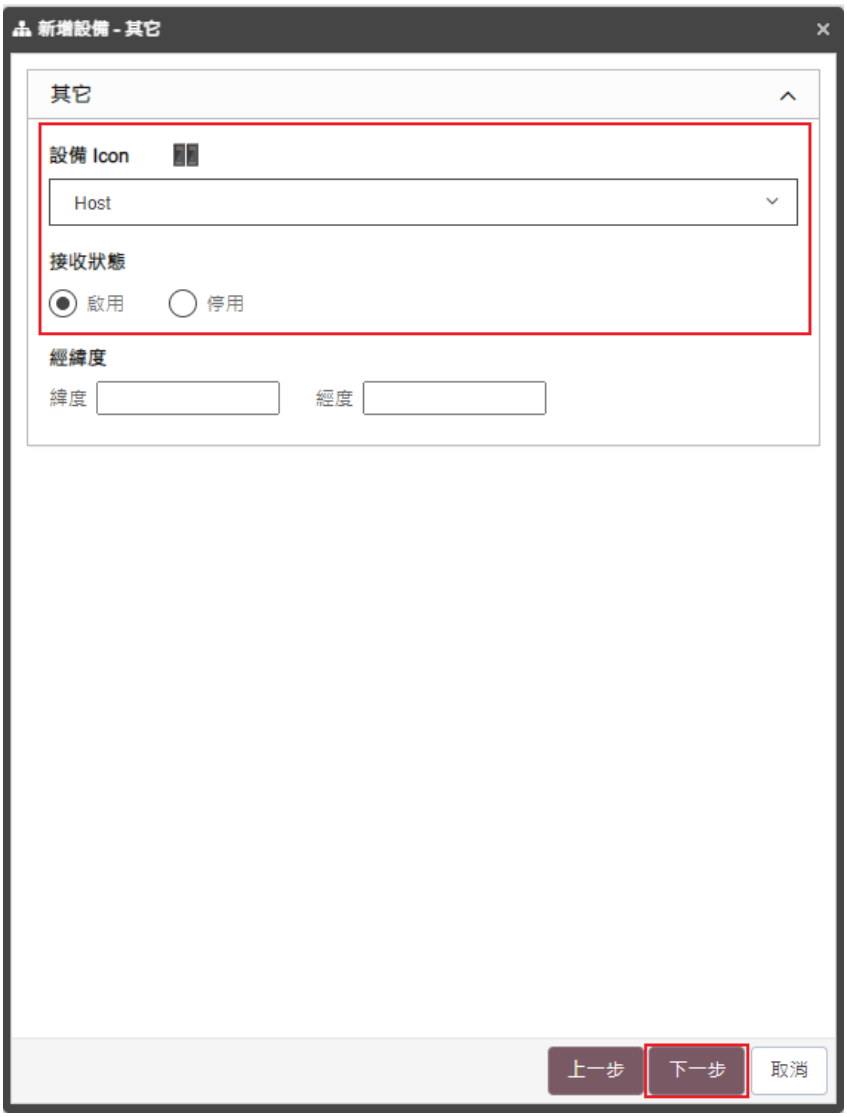
(4) Syslog 相關設定

Facility 選擇 [(19) local use 3 (local3)]-> 點選 [下一步]

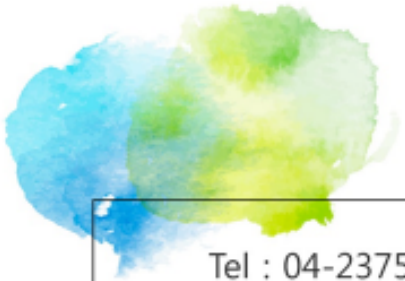
(若勾選 [Raw Data 保留]，則 [事件查詢] 顯示 Raw Data 資訊)

(5) 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]



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