

PartnEr

如何部屬

N-Probe/External Receiver VM v021

2024/04/02



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目錄

前言.....	2
1. 前置準備	3
2. 下載 N-Probe/External Receiver VMware image	4
3. 安裝流程	5
3.1 vSphere Client.....	5
3.1.2 Import N-Probe VM	10
3.2 vSphere Web Client	22
3.3 VMware Workstation.....	36
3.4 Proxmox VE 7.....	43
4. 更新流程	64
4.1 License upload	64
4.2 Firmware upgrade.....	70
5. N-Probe 設定.....	73
5.1 N-Probe	73
5.2 N-Cloud/N-Reporter.....	74
5.3 N-Probe join N-Cloud/N-Reporter.....	79
6. External Receiver 設定.....	84
6.1 External Receiver	84
6.2 N-Cloud/N-Reporter.....	85
7. 問題排除	91
7.1 恢復預設密碼	91

前言

本文件描述在 VMware ESXi / VMware Workstation / Proxmox VE 部署及設定 N-Probe 環境。

※ 因異動 N-Probe 系統將影響到授權，因此在進行重新部署或運用 vMotion / Live Migration 進行移轉，請先通知 N-Partner Support 遠端協助。

1. 前置準備

1.1 請準備一台 Server，建議規格如下：

- ✓ CPU 建議 E-2334 (8M 快取記憶體，3.40 GHz) 以上。
 - ✓ RAM 記憶體 48GB 以上。
 - ✓ 硬碟空間 500G 以上，請依實際需求決定。
 - ✓ 安裝 VMware ESXi 6.0 或以上的版本。
 - ✓ 安裝 Proxmox VE 7.0 或以上的版本。
- 1.2 N-Probe 運行時，若要達到最佳效能，至少需要 32G RAM 記憶體空間。
- 1.3 請準備一台 Windows 電腦，用於管理 VMware / Proxmox VE。
- 1.4 請準備 N-Cloud/N-Reporter 系統，接收 N-Probe/External Receiver 送來的 Flow 或 Syslog 流量。

2. 下載 N-Probe/External Receiver VMware image

N-Probe 硬碟空間使用量，預設包含 500G 資料儲存空間與 128G 系統儲存空間，共需要有 628G 的硬碟使用空間。

VMware 的版本 N-Probe/External Receiver Image 下載地址如下

壓縮檔

https://www.npartner.com/download/vm/N-Probe7_500G.zip

註 1：若發生 VMware 配置 OVF 檔完畢後卻無法開機，編輯 N-Reporter VM 設定檔，勾選 Force BIOS (或開機時按 F2) 進入 BIOS，配置 Hard Drive(0:0) 為第一優先開機裝置。

註2：壓縮檔內含有 (VMware OVA 檔) 跟 OVA 檔的 (MD5 驗證碼檔)。請將下載的 zip 壓縮檔用解壓縮程式 (例如 7-Zip) 解壓縮。

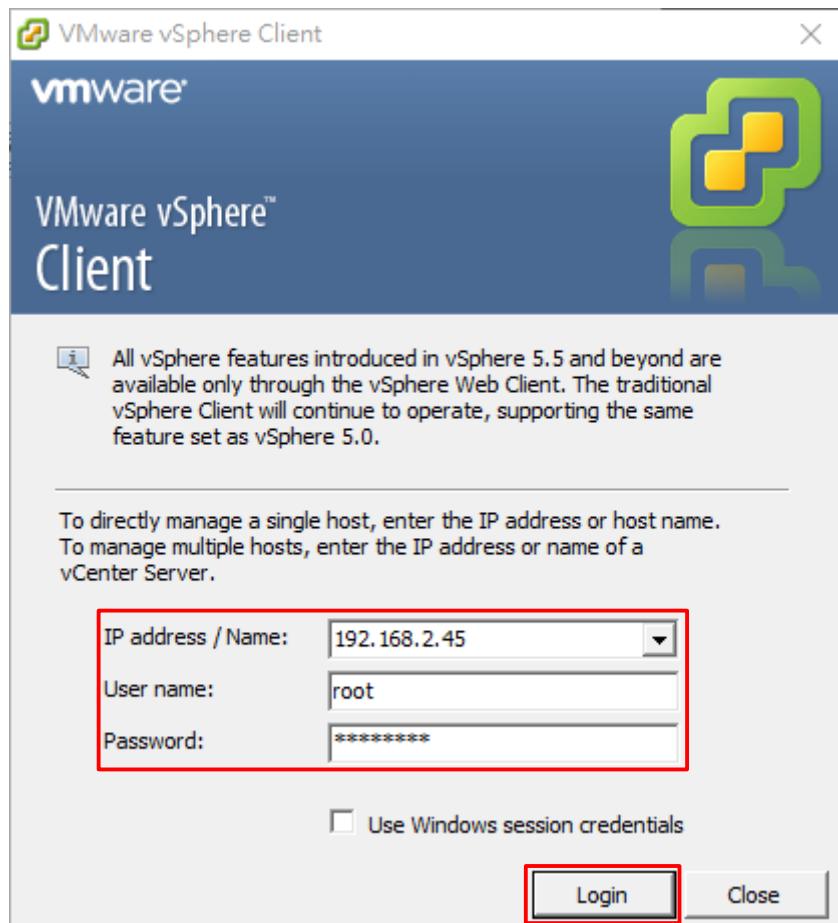
3. 安裝流程

3.1 vSphere Client

3.1.1 vSwitch Promiscuous Mode

(1) 登入 VMware ESXi

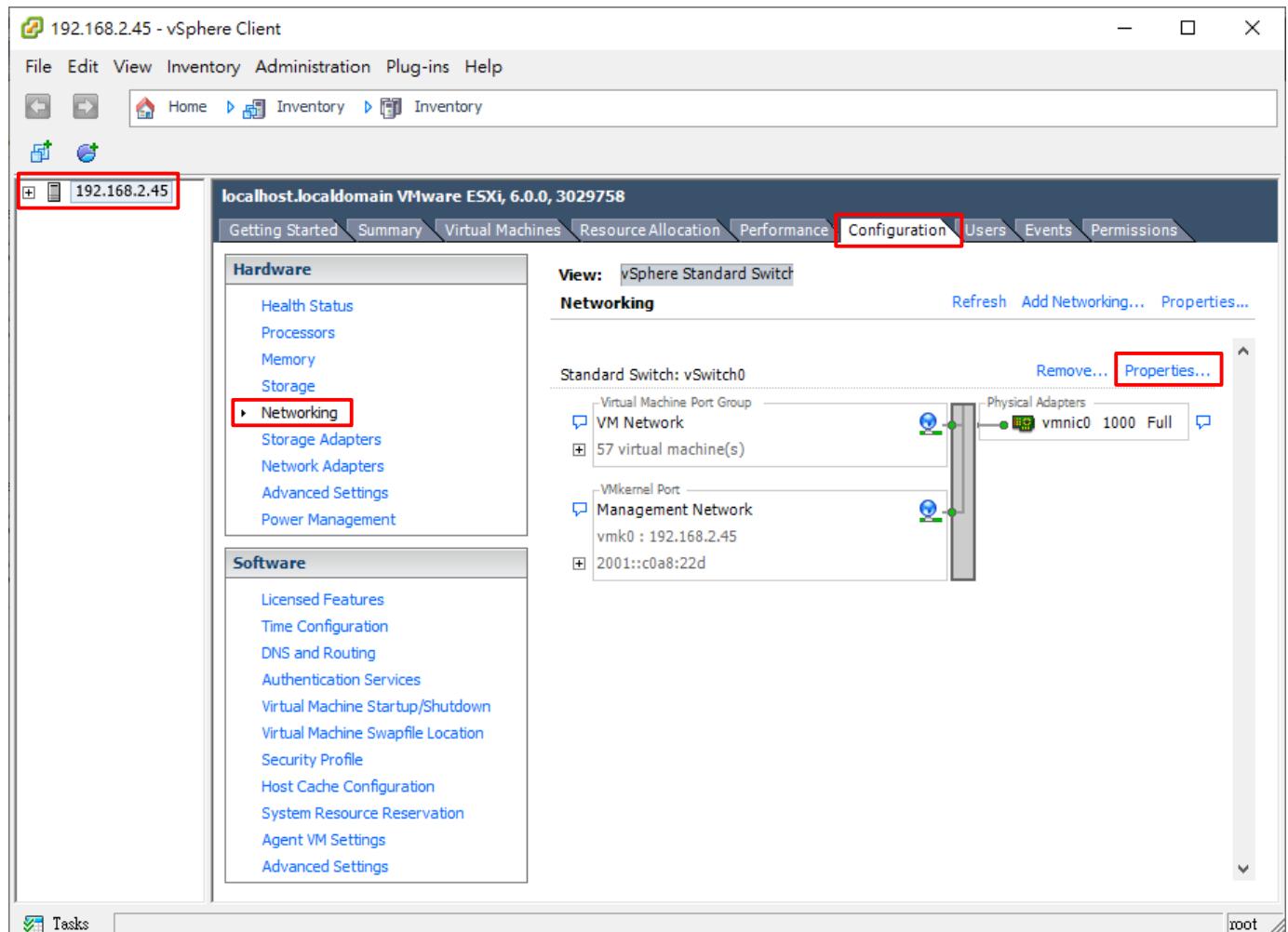
開啟 [VMware vSphere Client] -> 輸入 VMware IP address、User name、Password -> 按 [Login]



(2) 開啟虛擬交換器

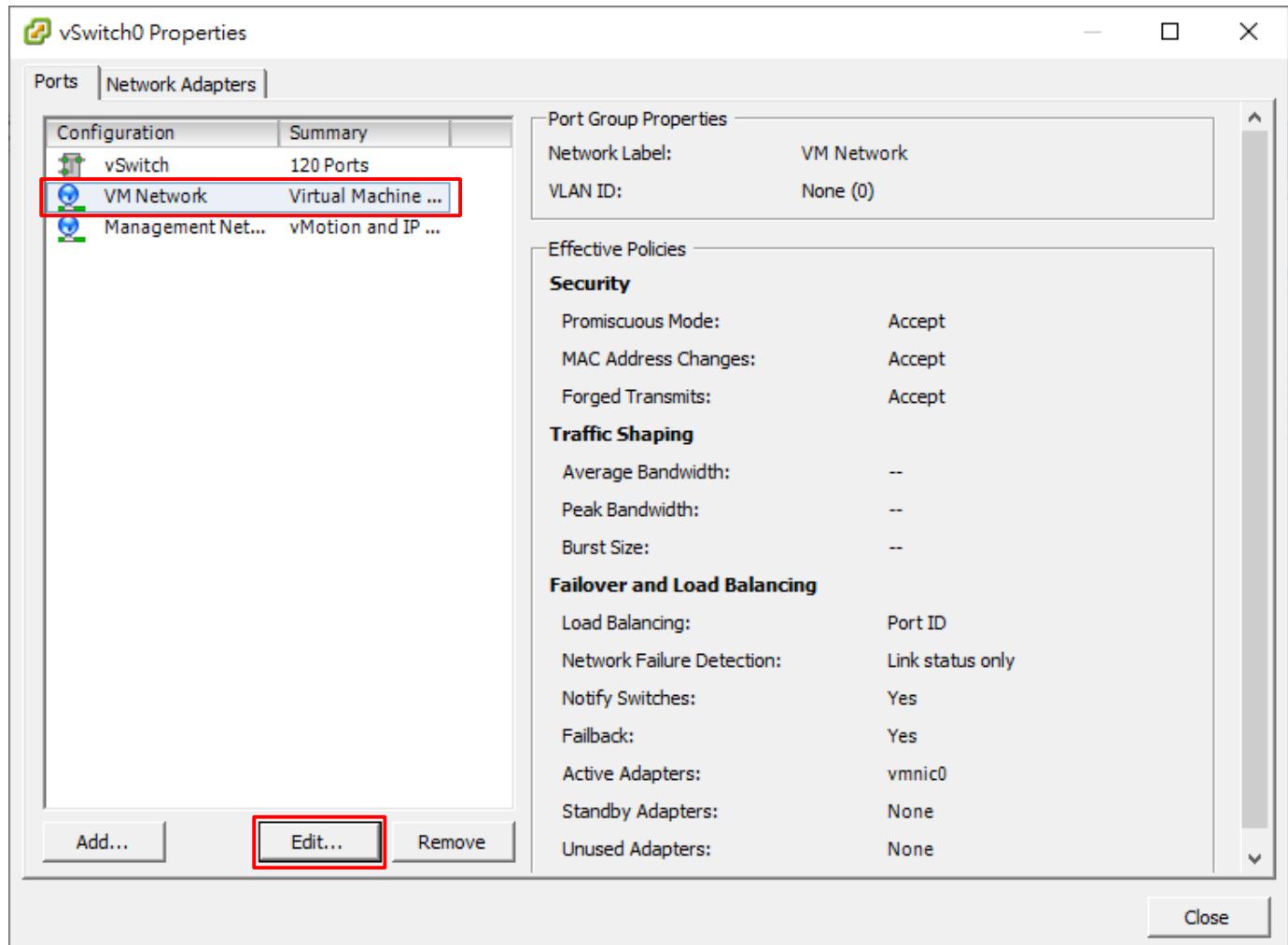
[VMware ESXi host] -> [Configuration] 頁面 -> [Networking] 項目 -> 點選 N-Probe eth1 的 vSwitch: [Properties]

註：請依客戶環境選擇 vSwitch



(3) 編輯網路設定

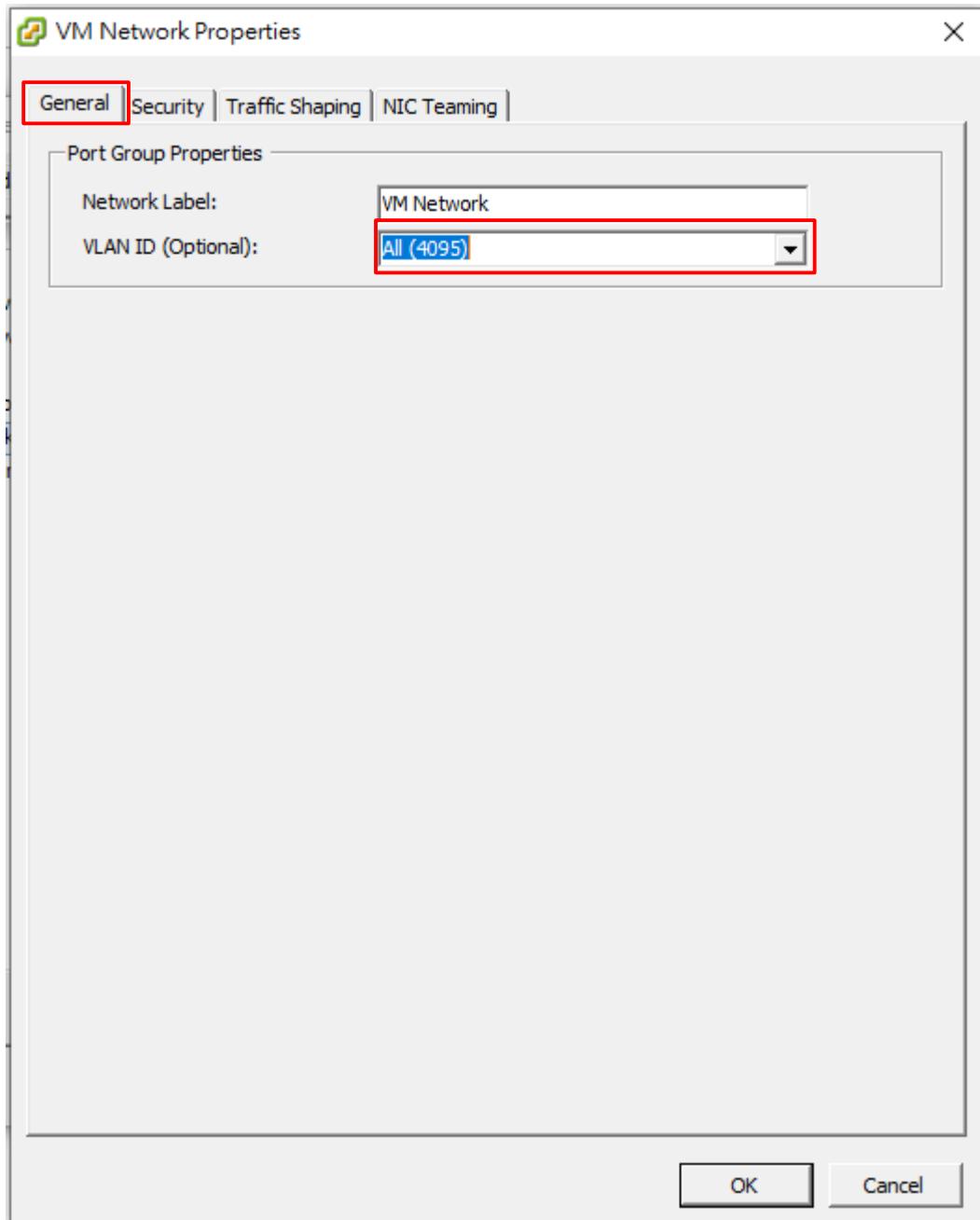
選擇 [VM Network] -> 按 [Edit]



(4) 啟用 VGT 模式

將接收 Mirror Port 的 vSwitch 網路 VLAN ID 設為 [4095]

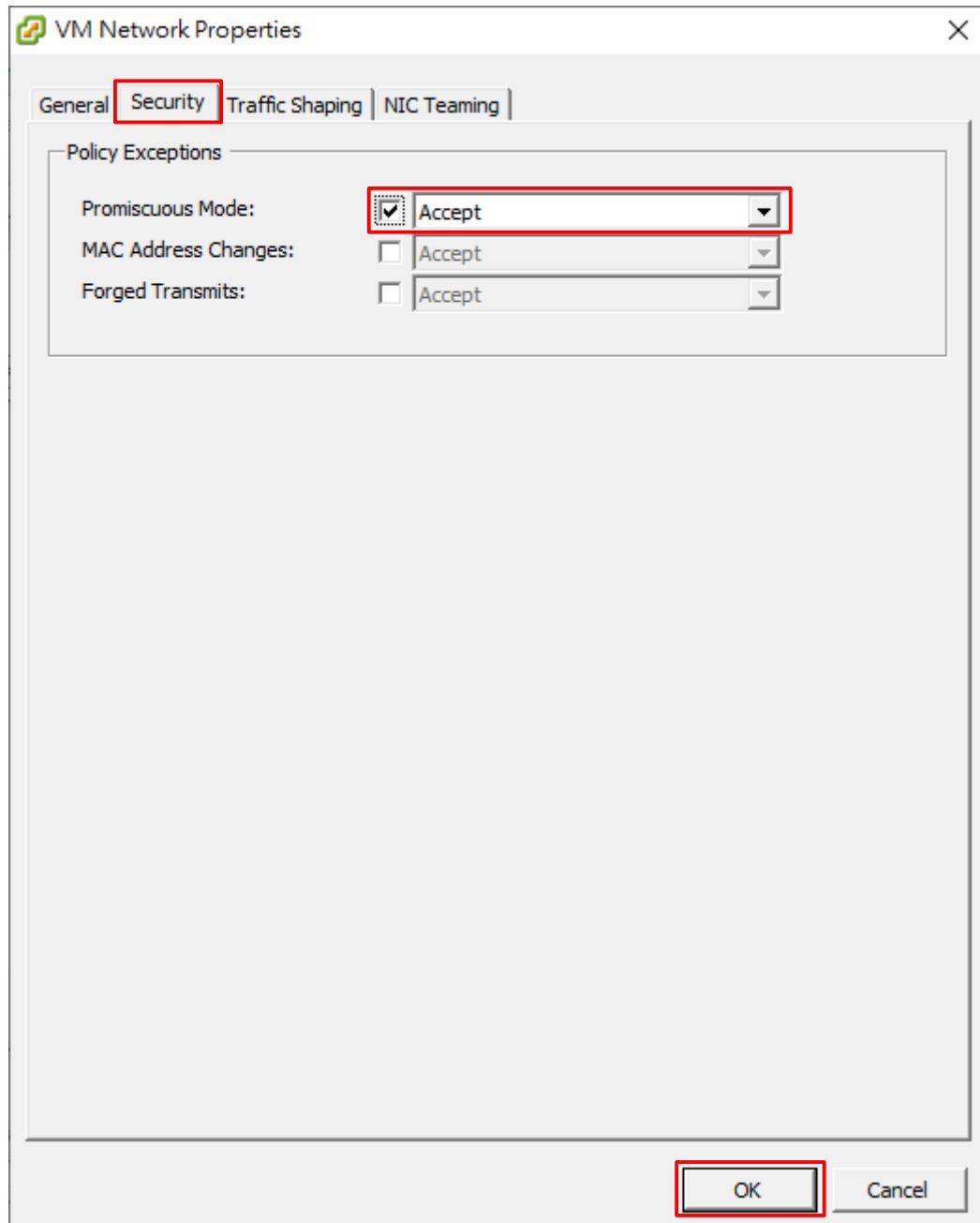
[General] 頁面 -> [VLAN ID (Optional):] 選擇 [All (4095)]



註: 若 Mirror 過來的封包有帶VLAN ID , 則需要輸入對應的ID ; 若 Mirror 過來的封包帶有多個VLAN ID , 則要輸入 4095 (代表 All) 才會看到全部VLAN ID 的流量

(5) 啟用混合模式

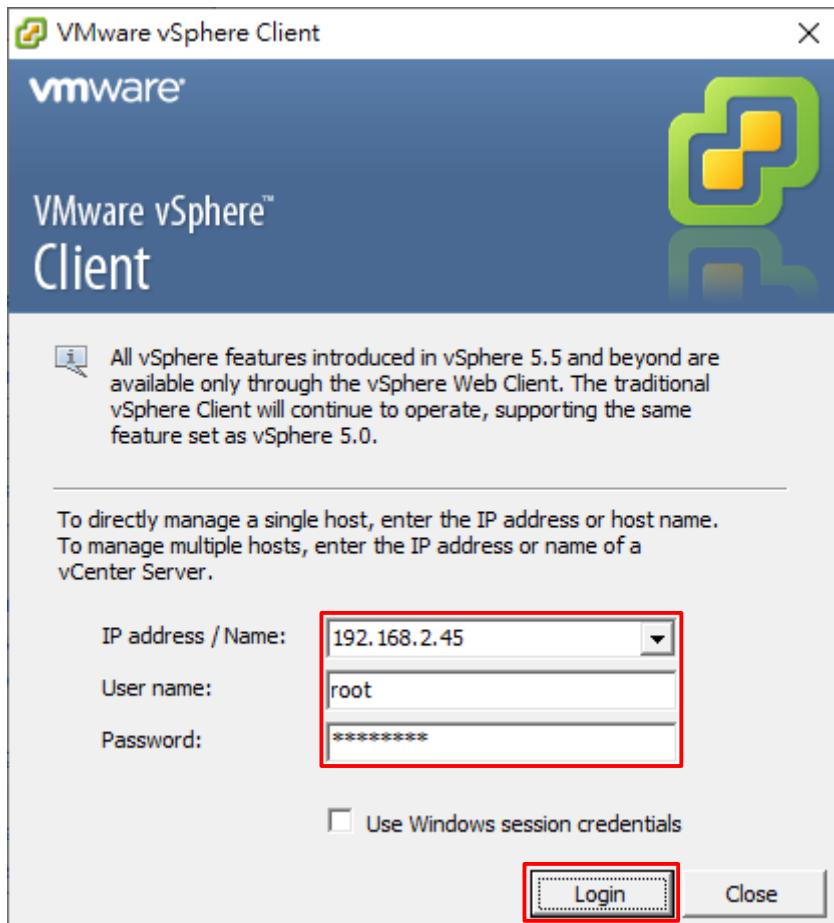
點選 [Security] 頁面 -> 勾選 [Promiscuous Mode:] 選擇 [Accept] -> 按 [OK]



3.1.2 Import N-Probe VM

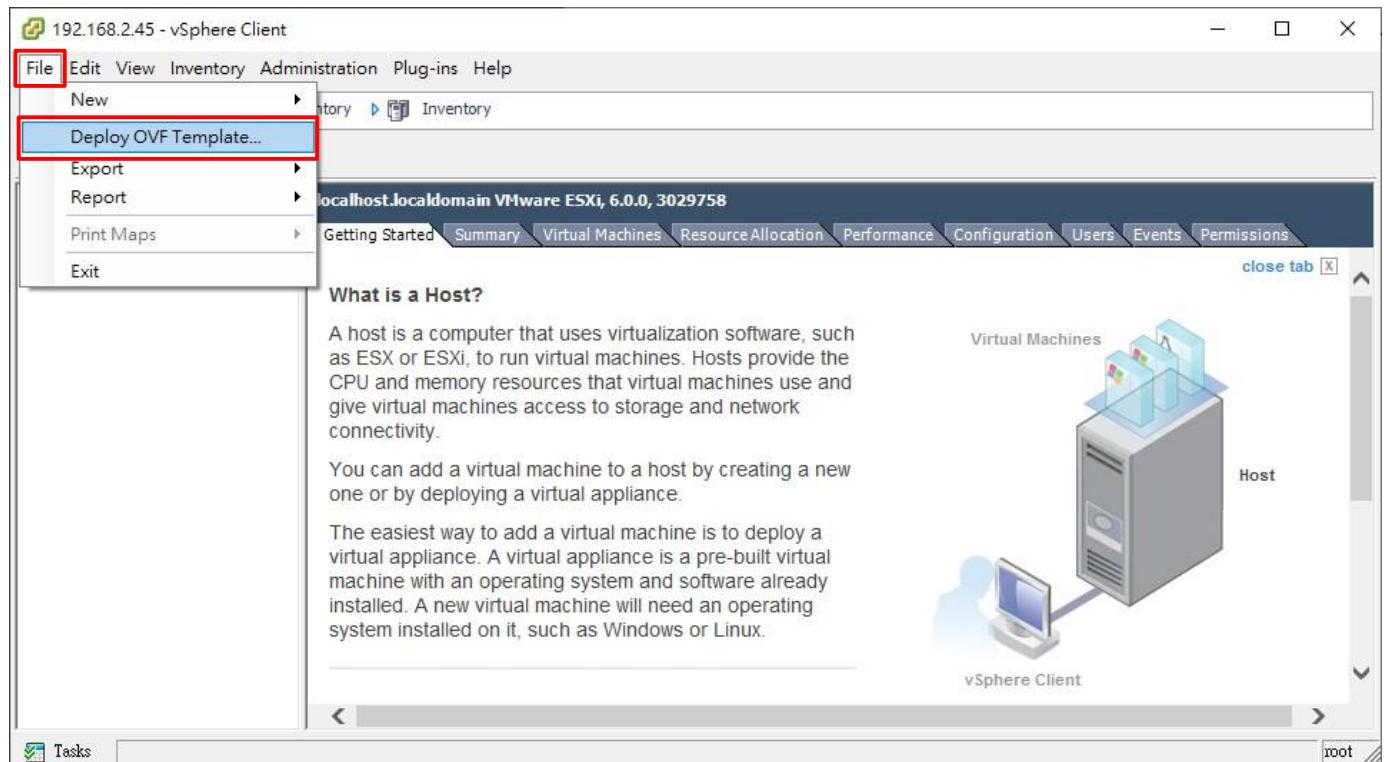
(1) 登入 VMware ESXi

開啟 [VMware vSphere Client] -> 輸入 VMware IP address、User name、Password -> 按 [Login]



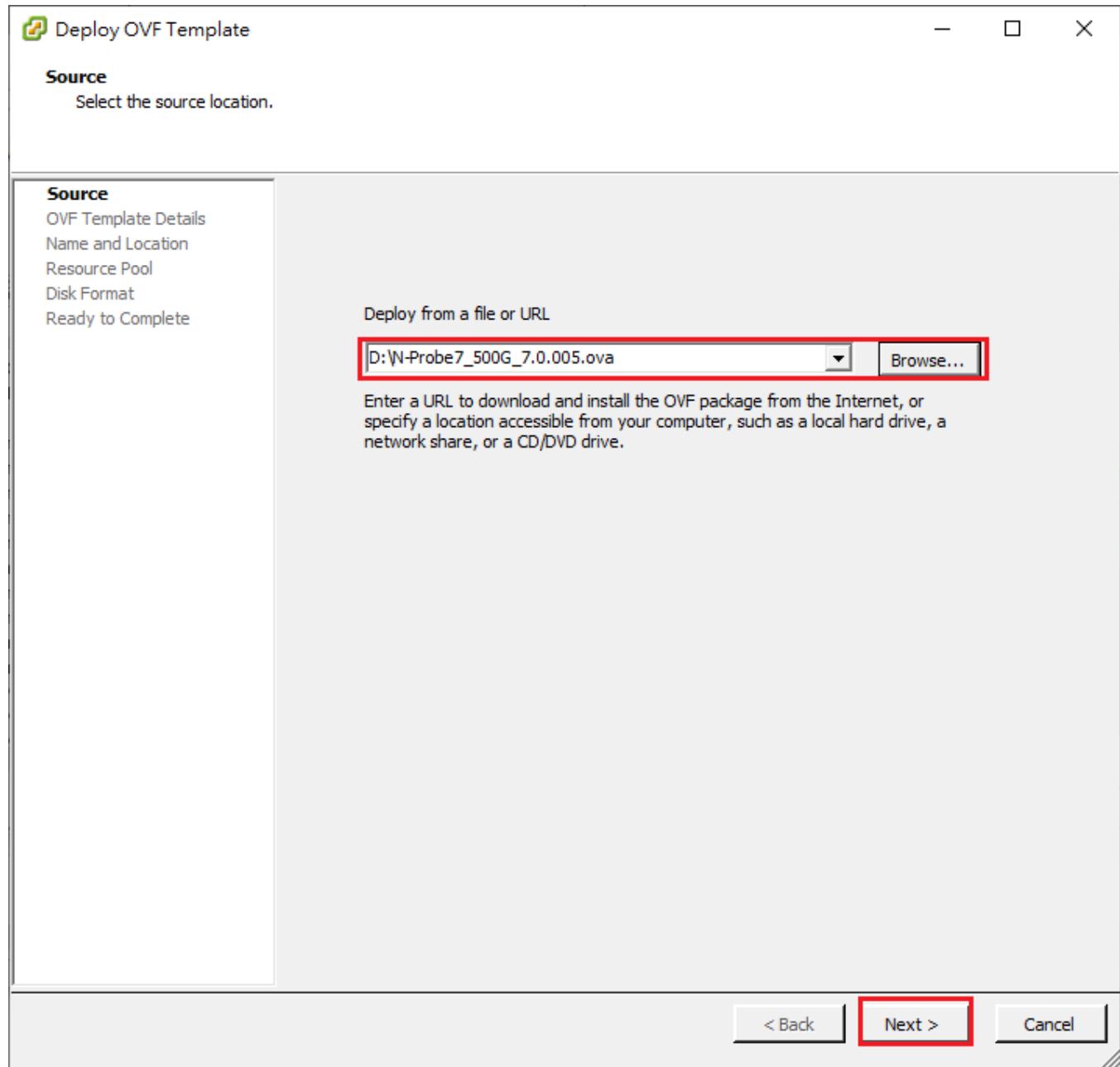
(2) 部署 N-Probe/External Receiver

點選左上角 [File] -> [Deploy OVF Template...]



(3) 選擇來源 OVA

按 [Browse] 選擇匯入 [N-Probe/External Receiver OVA] 檔案 -> 按 [Next]



(4) OVF 範本詳細資料

確認匯入 [N-Probe/External Receiver] 資訊 -> 按 [Next]

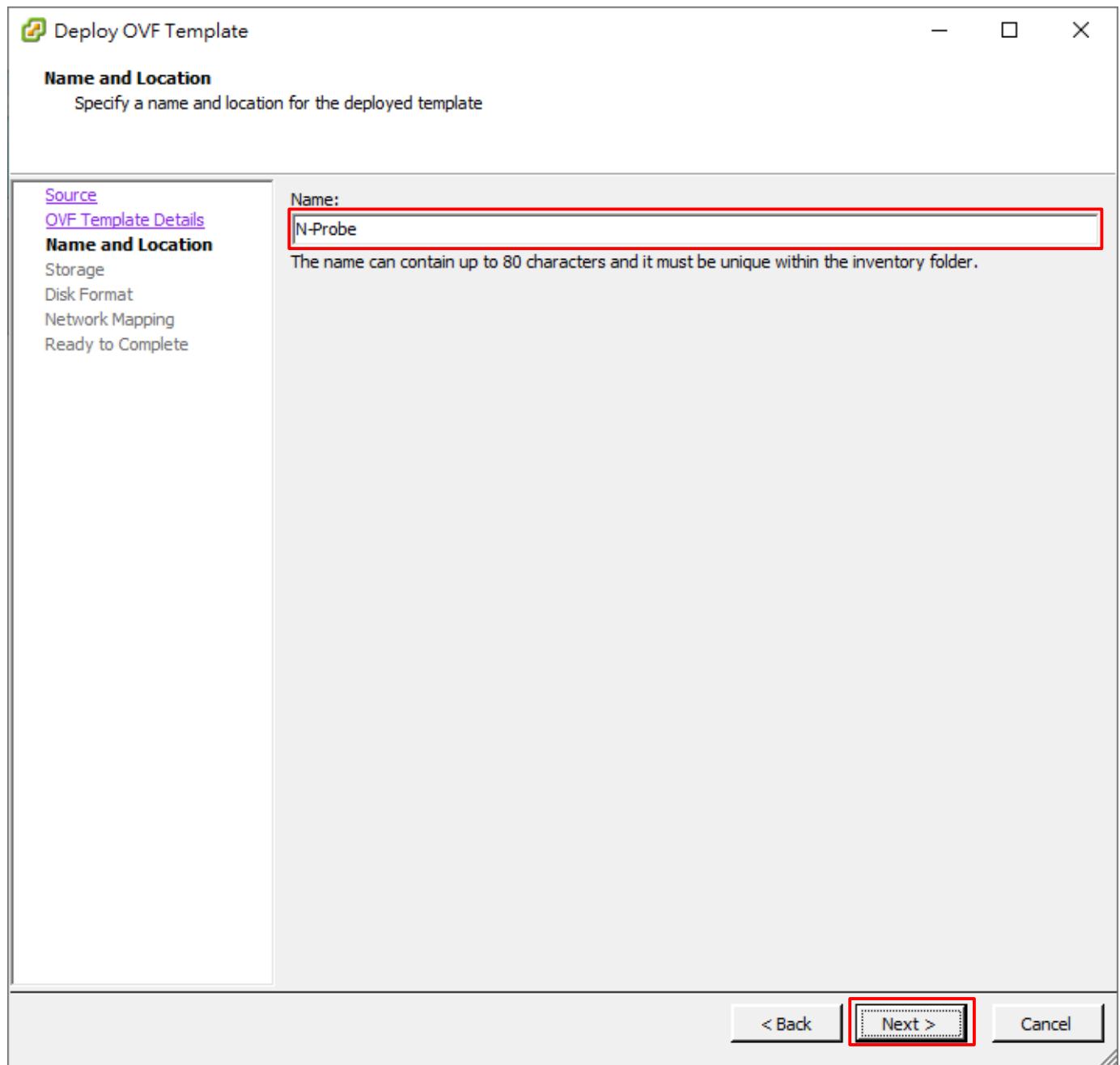
The screenshot shows the 'Deploy OVF Template' wizard with the title 'OVF Template Details'. On the left, there's a sidebar with 'Source' selected, followed by 'OVF Template Details', 'Name and Location', 'Resource Pool', 'Disk Format', 'Network Mapping', and 'Ready to Complete'. The main area displays the following details:

Product:	N-Probe7
Version:	
Vendor:	
Publisher:	No certificate present
Download size:	3.6 GB
Size on disk:	4.0 GB (thin provisioned) 628.0 GB (thick provisioned)
Description:	

At the bottom, there are three buttons: '< Back' (disabled), 'Next >' (highlighted with a red box), and 'Cancel'.

(5) 名稱和位置

輸入 N-Probe/External Receiver 虛擬機器名稱 -> 按 [Next]



(6) 選擇儲存區

選擇 [datastore] -> 按 [Next]

Deploy OVF Template

Storage
Where do you want to store the virtual machine files?

Select a destination storage for the virtual machine files:

Name	Drive Type	Capacity	Provisioned	Free	Type	Thin Pro
datastore1 (6)	Non-SSD	5.45 TB	8.28 TB	166.03 GB	VMFS5	Support
datastore2	Non-SSD	5.46 TB	5.28 TB	597.84 GB	VMFS5	Support

Disable Storage DRS for this virtual machine

Select a datastore:

Name	Drive Type	Capacity	Provisioned	Free	Type	Thin Pro

Compatibility:

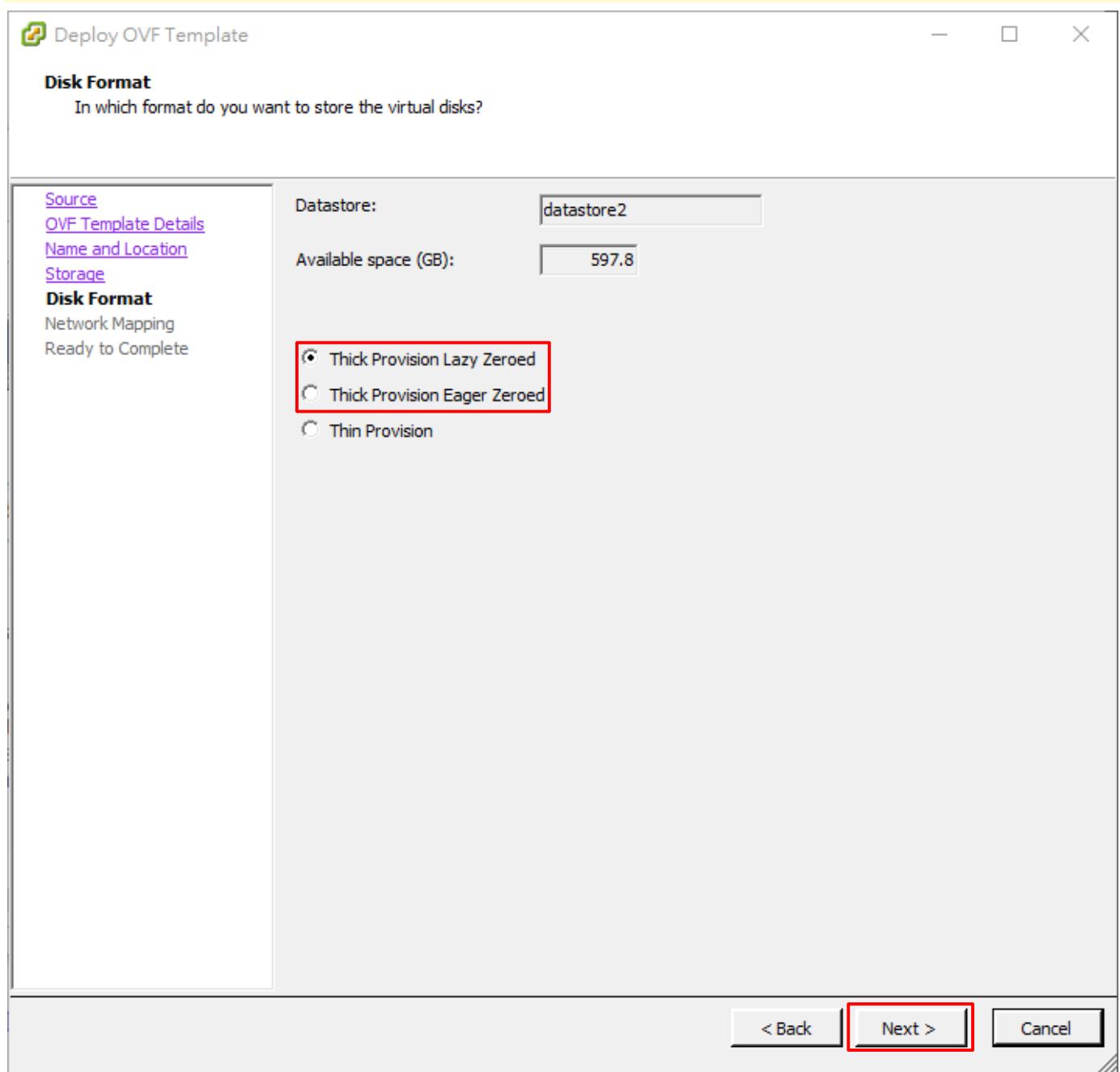
< Back **Next >** Cancel

(7) 磁碟格式

選擇 [Thick Provision Lazy Zeroed(完整佈建消極式歸零)] / [Thick Provision Eager Zeroed(完整佈建積極式歸零)]->

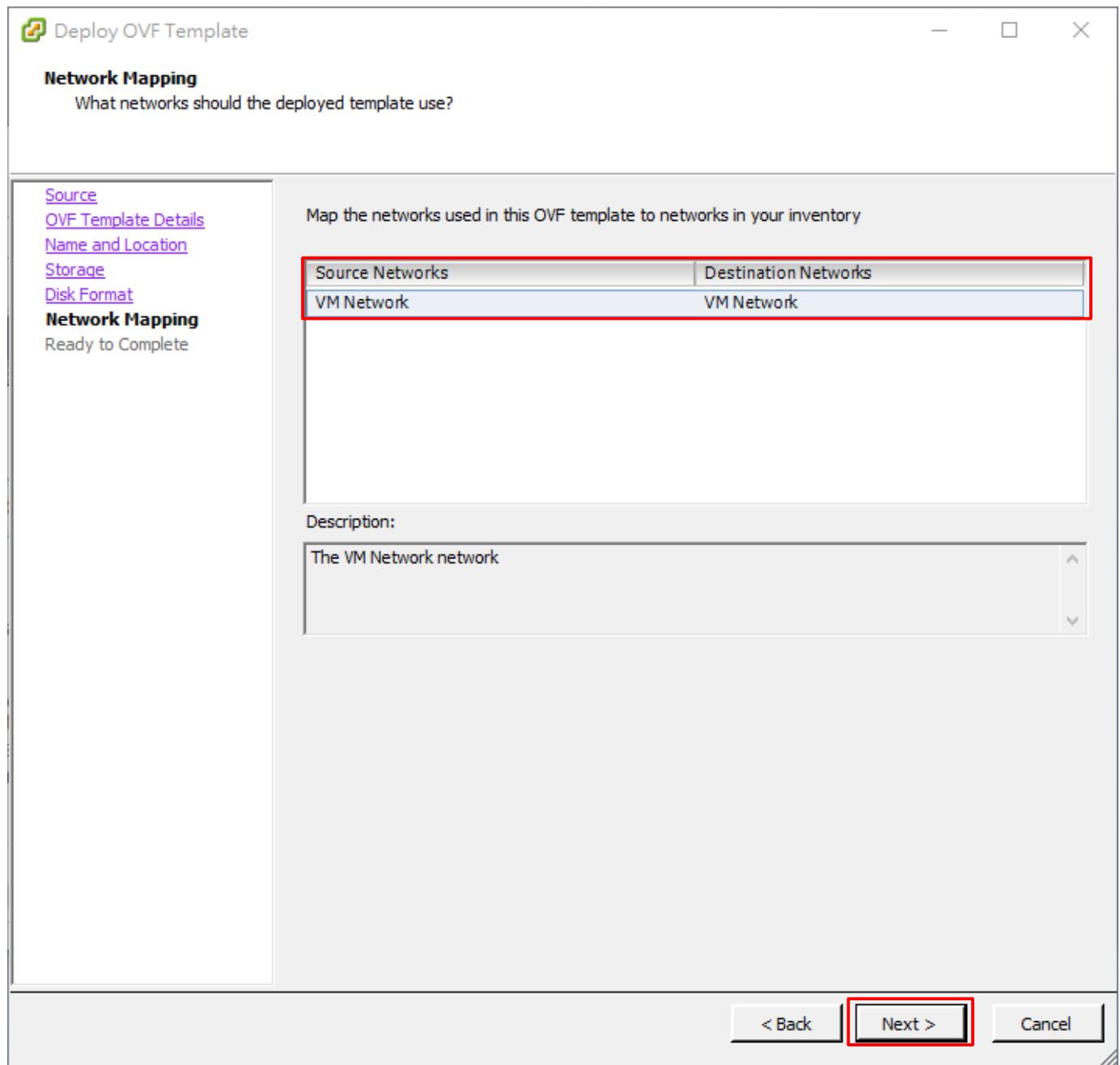
按 [Next]

註: Thick Provision Lazy Zeroed(完整佈建消極式歸零) 或 Thick Provision Eager Zeroed(完整佈建積極式歸零) 會給足硬碟完整大小



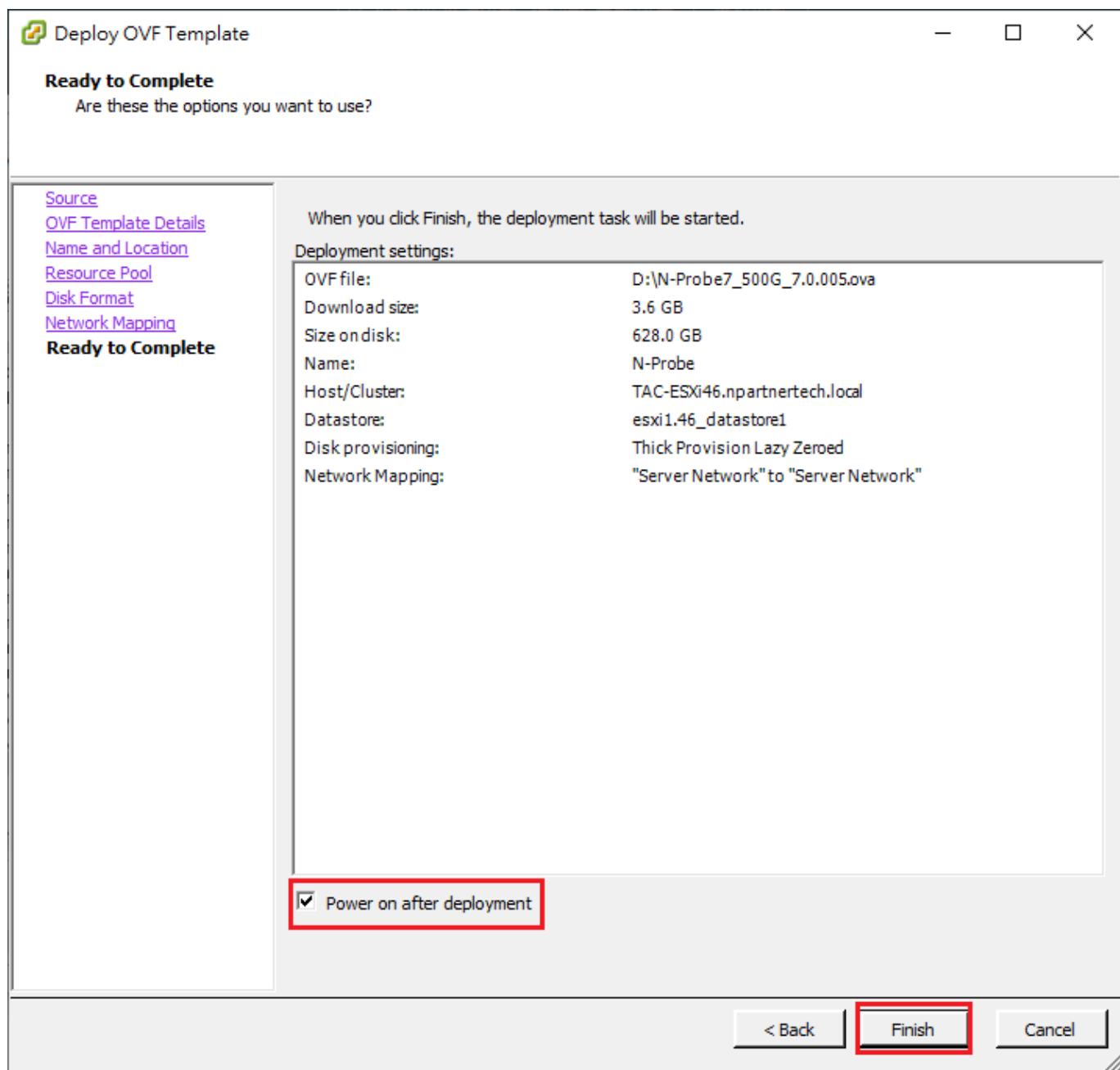
(8) 網路對應

選擇 [Network Mapping] -> 按 [Next]



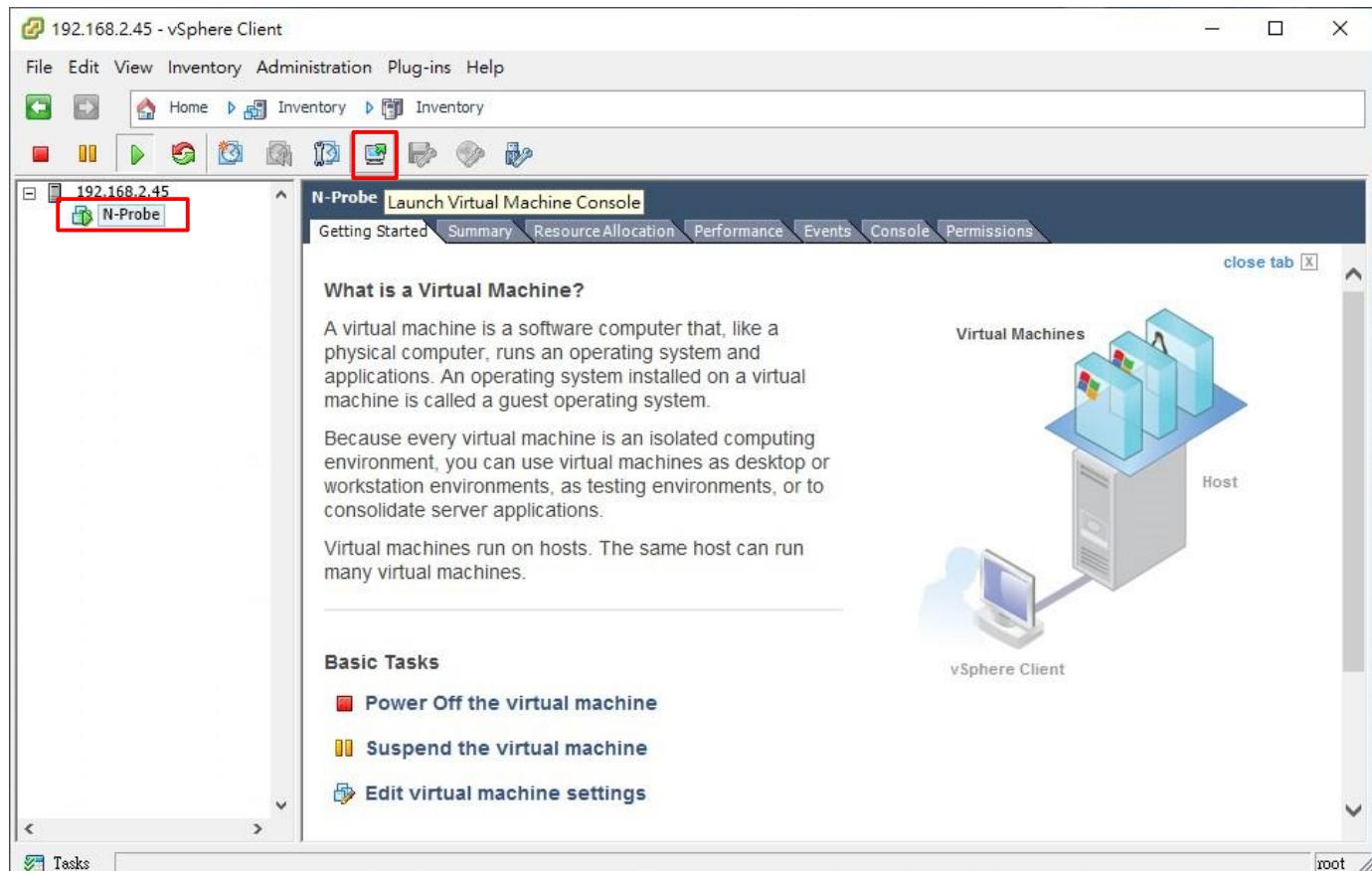
(9) 即將完成

確認匯入資訊是否正確，勾選 [Power on after deployment(部署後開啟電源)] -> 按 [Finish] 開始部署虛擬機器



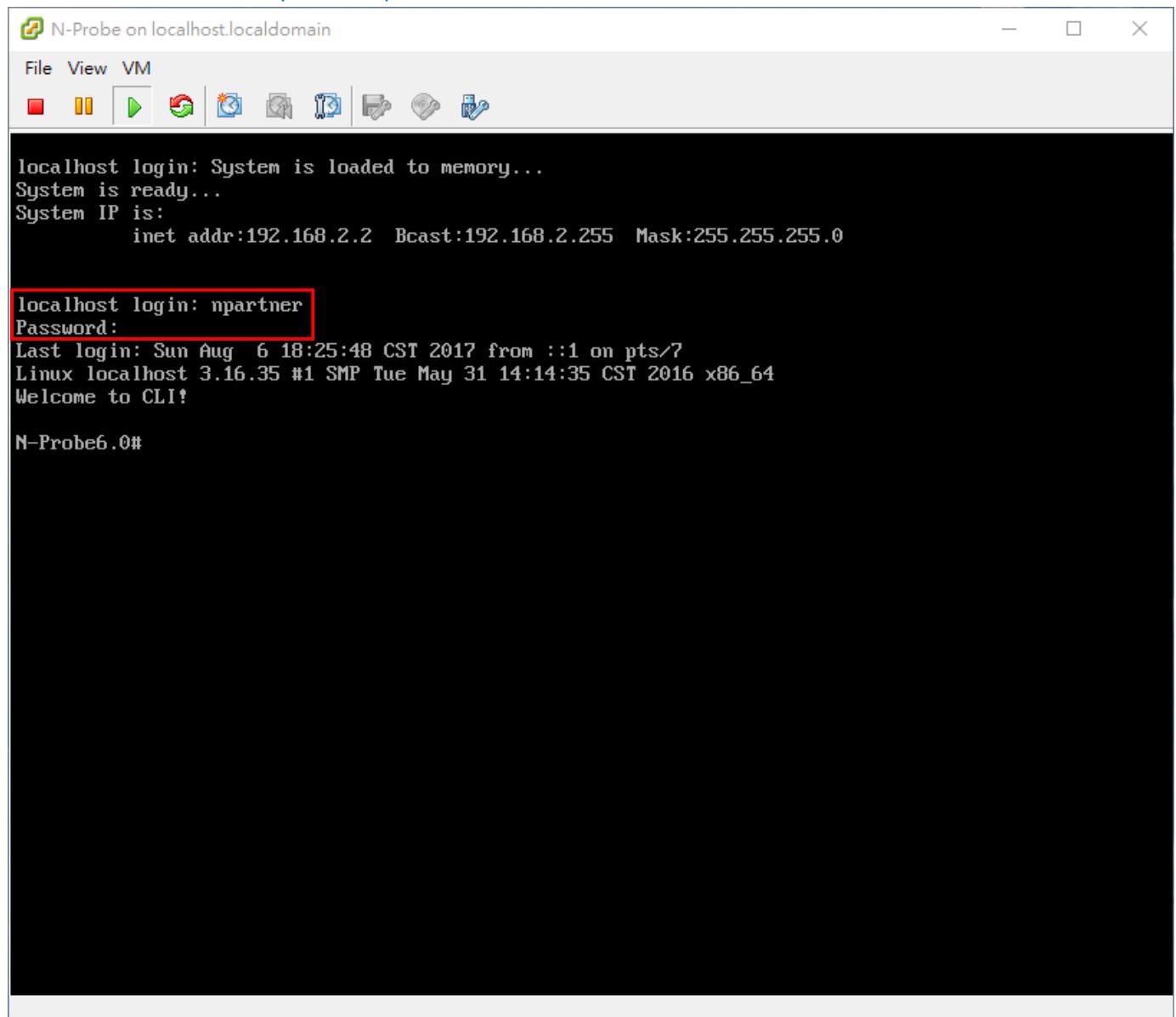
(10) 開啟主控台

匯入完成後點選 [N-Probe/External Receiver 虛擬機器] -> 按 [Launch Virtual Machine Console(啟動虛擬機器主控台)]



(11) 登入 N-Probe/External Receiver

預設 CLI 登入帳號密碼：[npartner / npartner](#)



N-Probe on localhost.localdomain

File View VM

localhost login: System is loaded to memory...
System is ready...
System IP is:
inet addr:192.168.2.2 Bcast:192.168.2.255 Mask:255.255.255.0

localhost login: **npartner**
Password:

Last login: Sun Aug 6 18:25:48 CST 2017 from ::1 on pts/7
Linux localhost 3.16.35 #1 SMP Tue May 31 14:14:35 CST 2016 x86_64
Welcome to CLI!

N-Probe6.0#

(12) 查看 N-Probe/External Receiver 設定

```
N-Probe# show configure
```

```
N-Probe(config)# show configure
#####
 Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.2.2 255.255.254.0 gw 192.168.3.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
 End #####
N-Probe(config)#

```

(13) 變更 N-Probe/External Receiver IP address

```
N-Probe# configure terminal
```

IP 設定方式: interface eth0 <N-Probe_IP> <subnet_mask> gw <gateway_IP>

```
N-Probe(config)# interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
```

```
N-Probe(config)# exit
```

```
N-Probe# show configure
```

```
N-Probe# configure terminal
N-Probe(config)# interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
Update register information to N-Cloud/N-Reporter is successful
N-Probe(config)# exit
N-Probe# show configure
#####
 Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
 End #####
N-Probe#
```

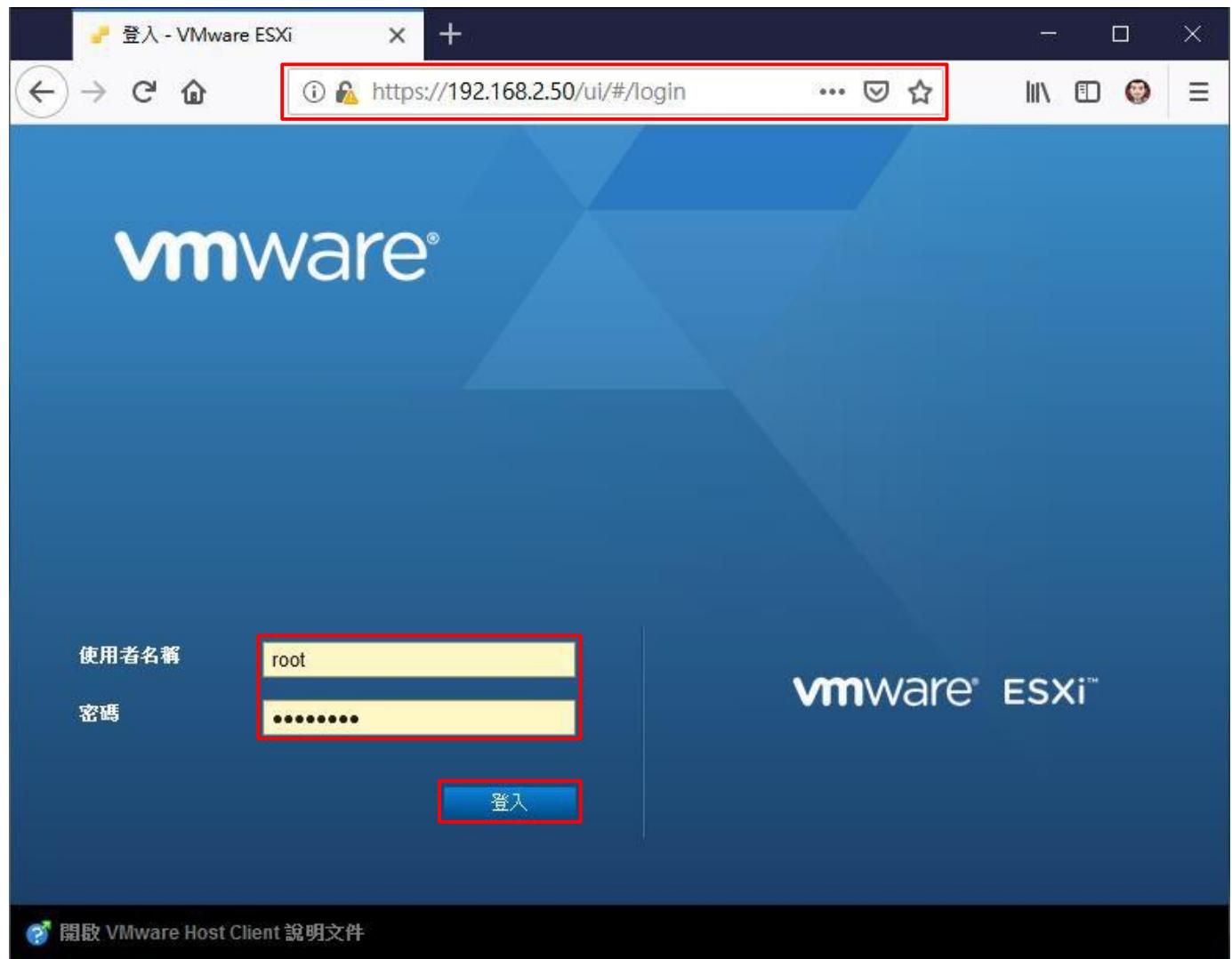
註: 紅色文字部位請輸入 N-Probe/External Receiver IP address

3.2 vSphere Web Client

3.2.1 vSwitch Promiscuous Mode

(1) 登入 VMware ESXi

開啟 [瀏覽器] -> URL 輸入 [https://<VMware IP>/ui/#/login](https://192.168.2.50/ui/#/login) -> 輸入使用者名稱和密碼 -> 按 [登入]



(2) 編輯網路設定

點選 [網路] -> [連接埠群組] 頁面 -> 選擇 N-Probe eth1 的 連接埠群組 註：請依客戶環境選擇連接埠群組 -> 點選 [編輯設定]

The screenshot shows the VMware ESXi interface for managing network port groups. The left sidebar has '導覽器' (Navigator) with '主機' (Host) expanded, showing '虛擬機器' (Virtual Machines) with 17 items, '儲存區' (Storage) with 1 item, and '網路' (Network) selected, which is highlighted with a red box. The main content area is titled 'localhost.localdomain - 網路' (Network). A red box highlights the '連接埠群組' (Port Group) tab. Below it, there are buttons for '新增連接埠群組' (Create Port Group), '編輯設定' (Edit Settings) (which is also highlighted with a red box), '重新整理' (Refresh), and '動作' (Actions). A search bar is also present. A table lists two port groups:

名稱	作用中	編輯此連接埠群組	型	vSwitch	虛擬機器
VM Network	13		標準連接埠群組	vSwitch0	17
Management Net...	1		標準連接埠群組	vSwitch0	不適用

Below the table, a section titled 'VM Network' provides detailed information about the selected port group:

VM Network

可存取:	是
虛擬機器:	17
虛擬交換器:	vSwitch0
VLAN識別碼:	0
作用中的連接埠:	13

At the bottom left, there is a link to 'https://192.168.2.50/ui/'.

(3) 啟用 VGT 模式

將接收 Mirror Port 的 vSwitch 網路 VLAN 識別碼設為 [4095]

編輯連接埠群組 - VM Network

名稱	VM Network
VLAN 識別碼	4095
虛擬交換器	vSwitch0
▼ 安全性	
混合模式	<input checked="" type="radio"/> 接受 <input type="radio"/> 拒絕 <input type="radio"/> 從 vSwitch 繼承
MAC 位址變更	<input type="radio"/> 接受 <input checked="" type="radio"/> 拒絕 <input type="radio"/> 從 vSwitch 繼承
偽造的傳輸	<input type="radio"/> 接受 <input checked="" type="radio"/> 拒絕 <input type="radio"/> 從 vSwitch 繼承
► NIC 整併	按一下以展開
► 流量控管	按一下以展開

儲存 **取消**

註: 若 Mirror 過來的封包有帶VLAN ID , 則需要輸入對應的ID ; 若 Mirror 過來的封包帶有多個VLAN ID , 則要輸入 4095 (代表 All) 才會看到全部VLAN ID 的流量

(4) 啟用混合模式

展開 [安全性] -> 點選混合模式: [接受] -> 按 [儲存]

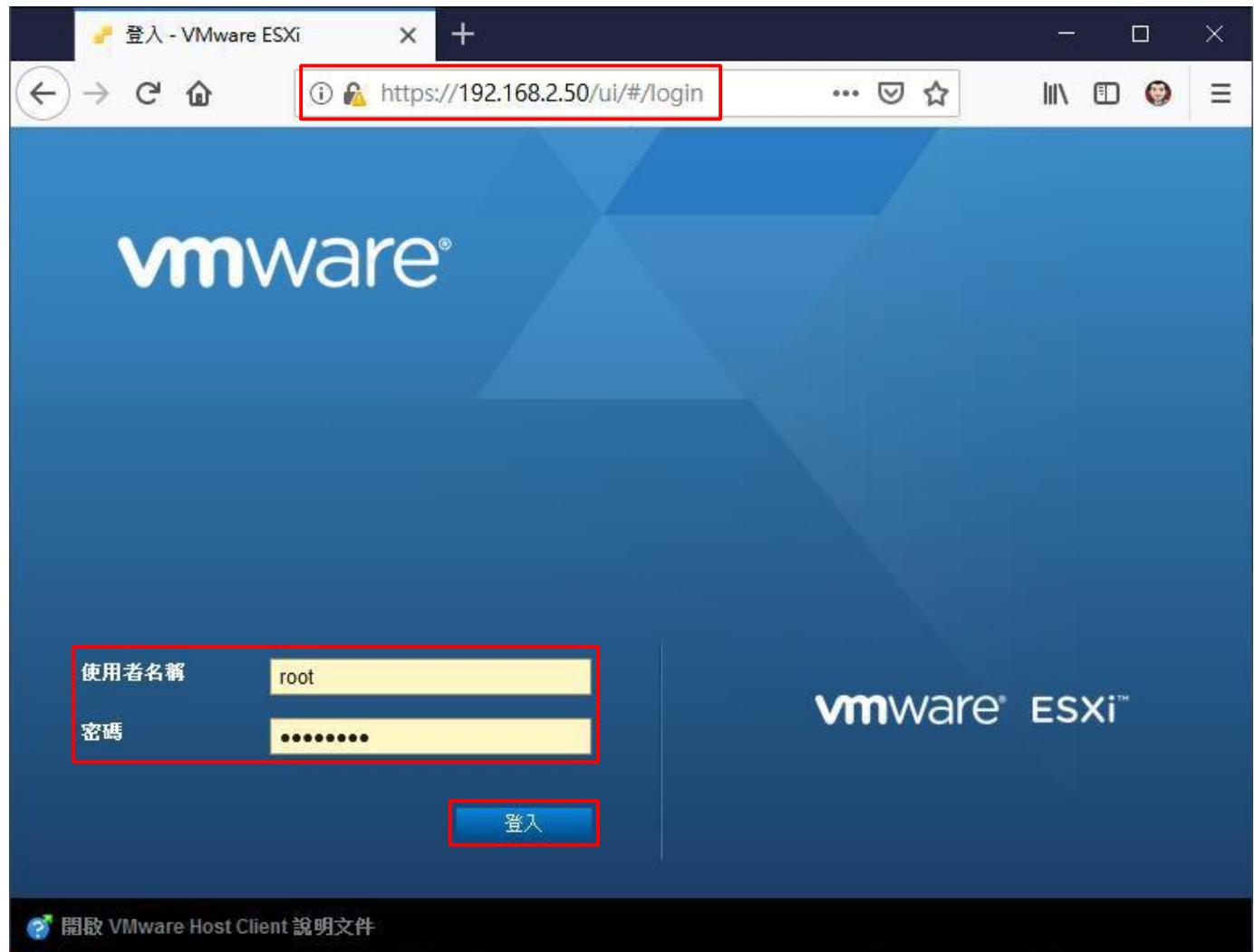
編輯連接埠群組 - VM Network

名稱	VM Network
VLAN 識別碼	4095
虛擬交換器	vSwitch0 ▾
安全性	
混合模式	<input checked="" type="radio"/> 接受 <input type="radio"/> 拒絕 <input type="radio"/> 從 vSwitch 繼承
MAC 位址變更	<input type="radio"/> 接受 <input type="radio"/> 拒絕 <input checked="" type="radio"/> 從 vSwitch 繼承
偽造的傳輸	<input type="radio"/> 接受 <input type="radio"/> 拒絕 <input checked="" type="radio"/> 從 vSwitch 繼承
► NIC 整併	按一下以展開
► 流量控管	按一下以展開
<input type="button" value="儲存"/> <input type="button" value="取消"/>	

3.2.2 Import N-Probe VM

(1) 登入 VMware ESXi

開啟 [瀏覽器] -> URL 輸入 <https://192.168.2.50/ui/#/login> -> 輸入使用者名稱和密碼 -> 按 [登入]



(2) 部署虛擬機器

點選 [建立/登錄虛擬機器]

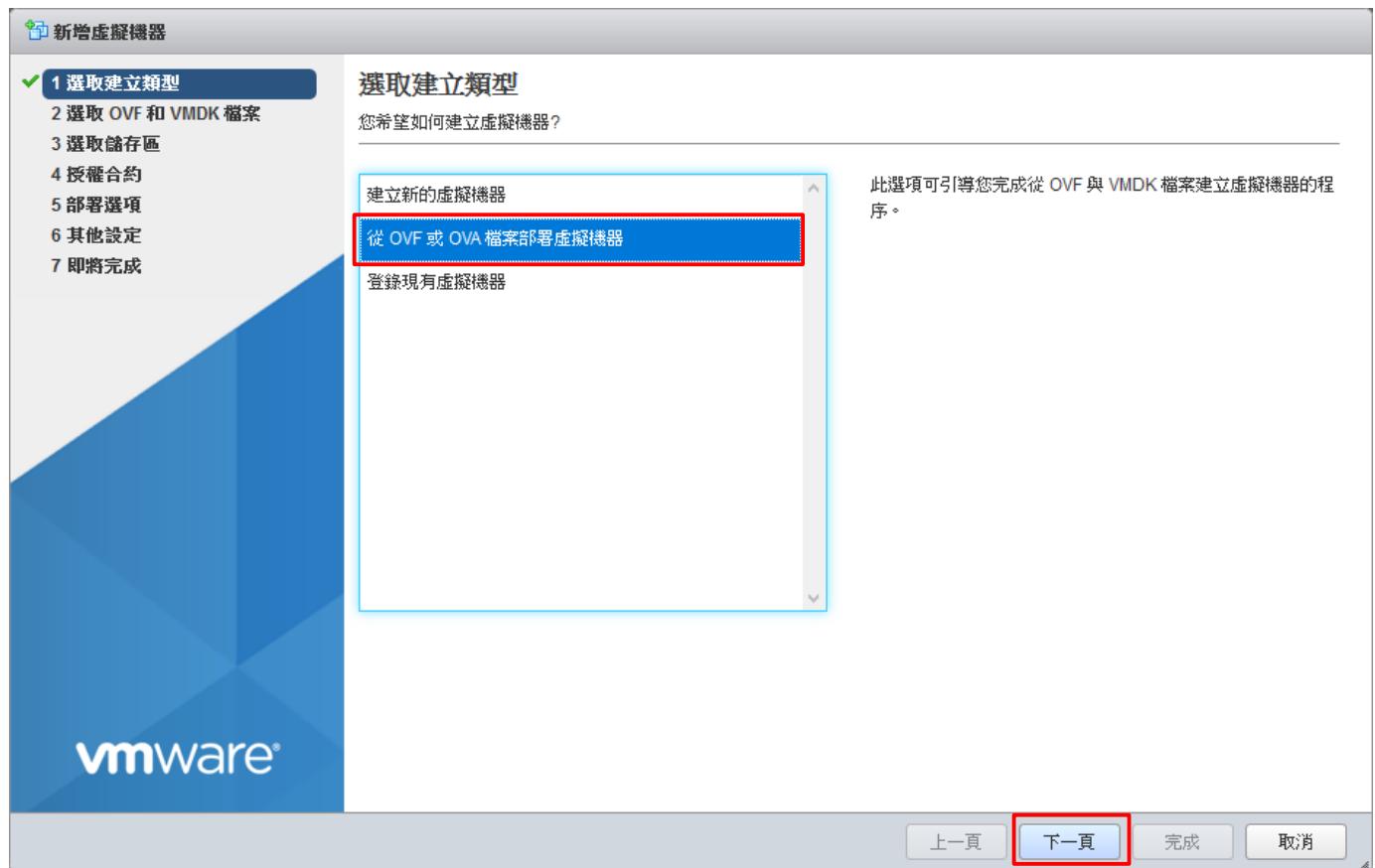
The screenshot shows the VMware ESXi host interface. On the left, the navigation bar includes '導覽器' (Navigator), '主機' (Host), '管理' (Management), '監控' (Monitoring), '虛擬機器' (Virtual Machines) with 17 items, '儲存區' (Storage) with 1 item, and '網路' (Network) with 2 items. The main panel displays the host configuration for 'localhost.localdomain'. Key details shown include:

- 版本:** 6.5.0 (Build 4887370)
- 狀態:** 正常 (未連線到任何 vCenter Server)
- 運作時間:** 70.1 天變更一次
- 硬體:**
 - 製造商: Supermicro
 - 型號: Super Server
 - CPU: 4 CPUs x Intel(R) Xeon(R) CPU E5-1620 v4 @ 3.50GHz
 - 記憶體: 255.89 GB
 - 虛擬 Flash: 0 B 已使用, 0 B 容量

The '建立/登錄虛擬機器' (Create/Register VM) button is highlighted with a red box. The URL in the browser is https://192.168.2.50/ui/#/host.

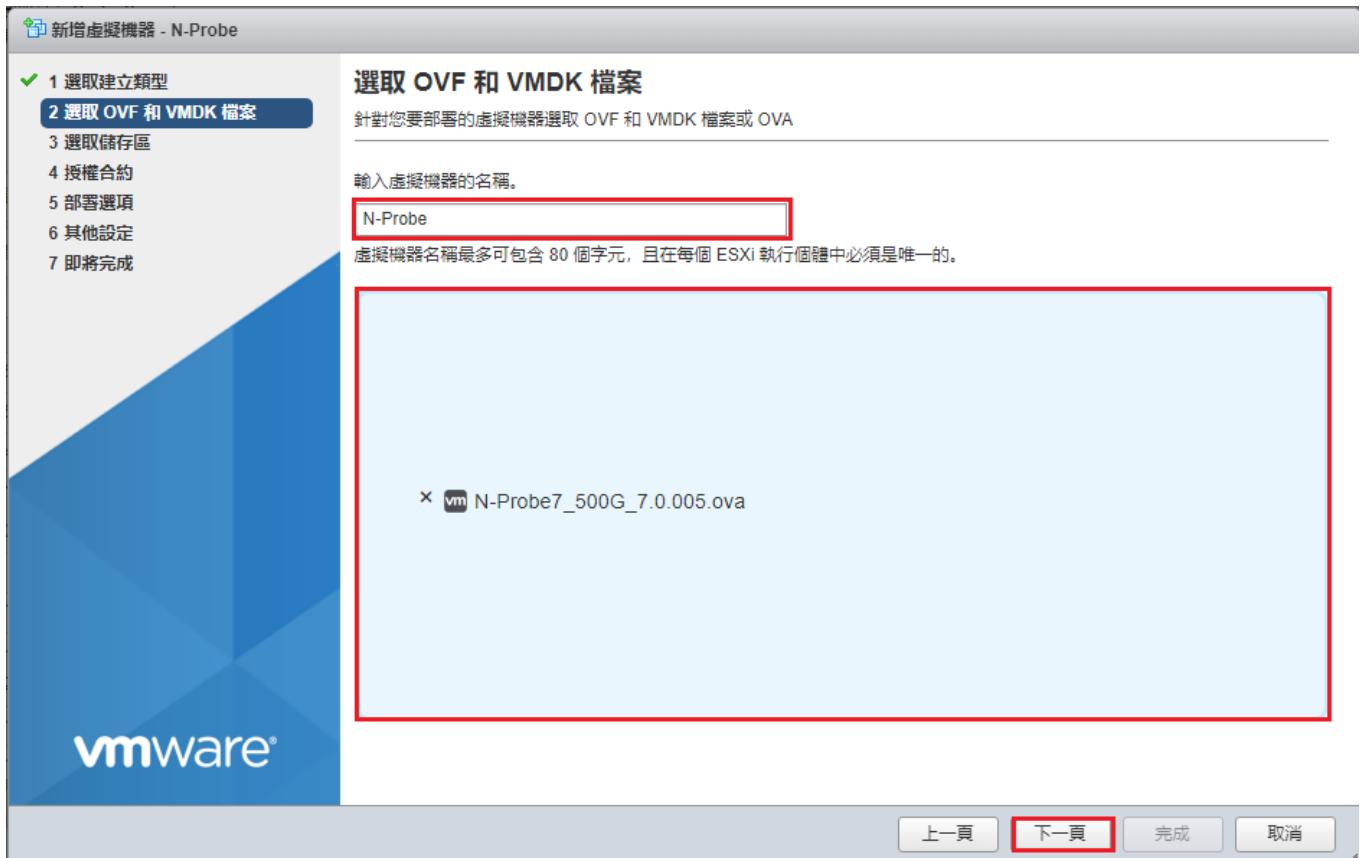
(3) 選取建立類型

選擇 [從 OVF 或 OVA 檔案部署虛擬機器] -> 按 [下一页]



(4) 選取 OVF 和 VMDK 檔案

輸入 N-Probe/External Receiver 虛擬機器名稱 -> 選取或拖放 [N-Probe/External Receiver OVA] 檔案 -> 按 [下一页]



(5) 選取儲存區

選擇 [存放空間] -> 按 [下一页]

新增虛擬機器 - N-Probe

選取儲存區

選取要在其中儲存組態和磁碟檔案的資料存放區。

下列資料存放區可從您選取的目的地資源存取。請為虛擬機器組態檔和所有虛擬磁碟選取目的地資料存放區。

名稱	容量	可用	類型	精簡佈建	存取
ESXi_2.50 datastore1	21.82 TB	19.41 TB	VMFS5	受支援	單一

1項目

vmware

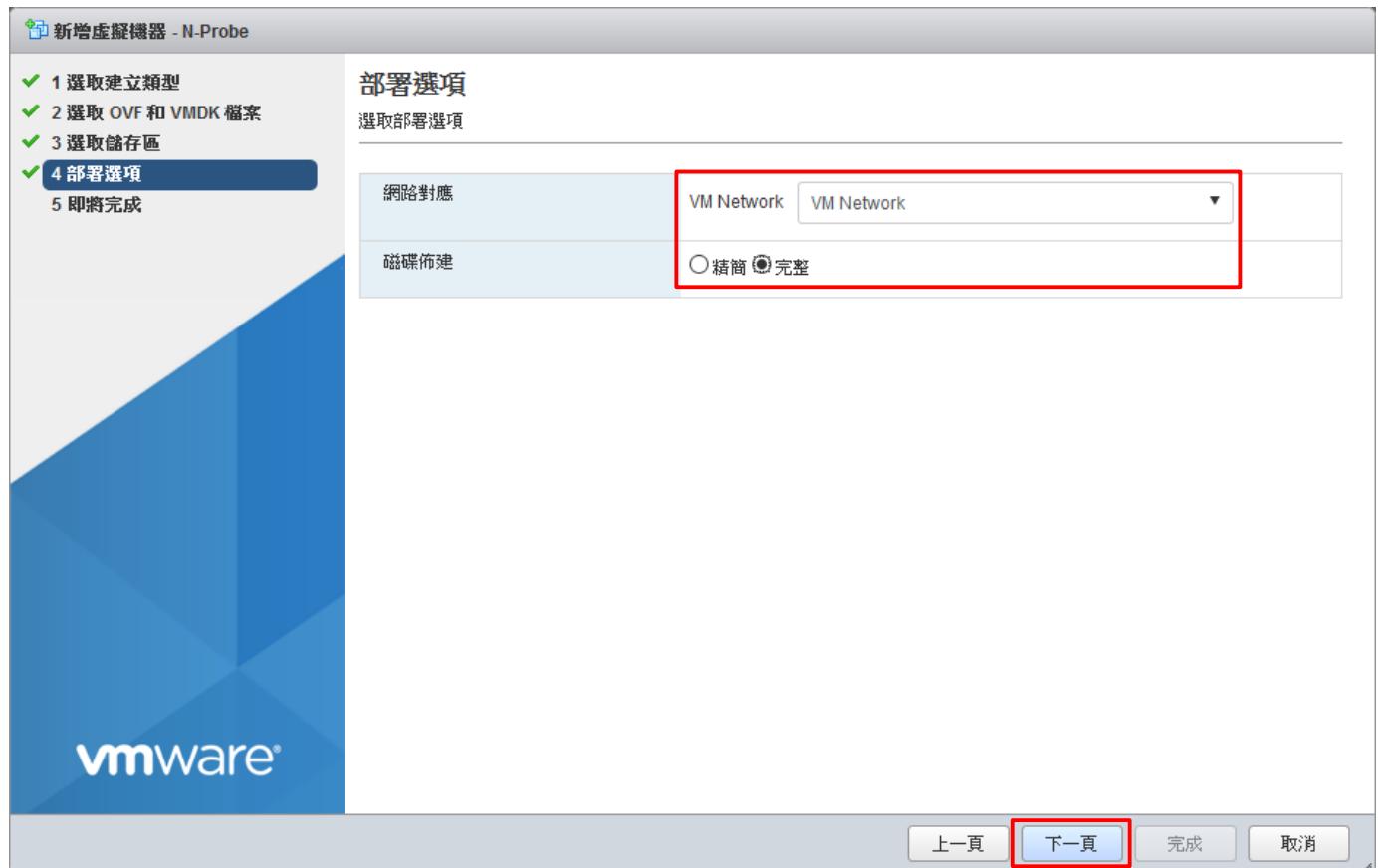
上一頁 下一頁 完成 取消

The screenshot shows the 'Select Storage' step of the VMware N-Probe wizard. The sidebar on the left lists steps 1 through 7. Step 3, 'Select Storage', is highlighted with a blue background. The main window displays a table of storage options. A single row is selected, indicated by a red border around the entire row. The selected row contains the following information: Name: ESXi_2.50 datastore1, Capacity: 21.82 TB, Available: 19.41 TB, Type: VMFS5, Sparse Provisioning: Supported, and Access Mode: Single. At the bottom of the window, there are navigation buttons: 'Previous Page', 'Next Page' (which is highlighted with a red box), 'Finish', and 'Cancel'.

(6) 部署選項

選擇 [對應的網路] -> 磁碟佈建點選 [完整(Thick)] -> 按 [下一頁]。

註: 完整(Thick)會給足硬碟完整大小。



(7) 即將完成

確認匯入資訊是否正確，按 [完成]。開始部署虛擬機器

新增虛擬機器 - N-Probe

即將完成
請檢閱設定選擇後再完成精靈

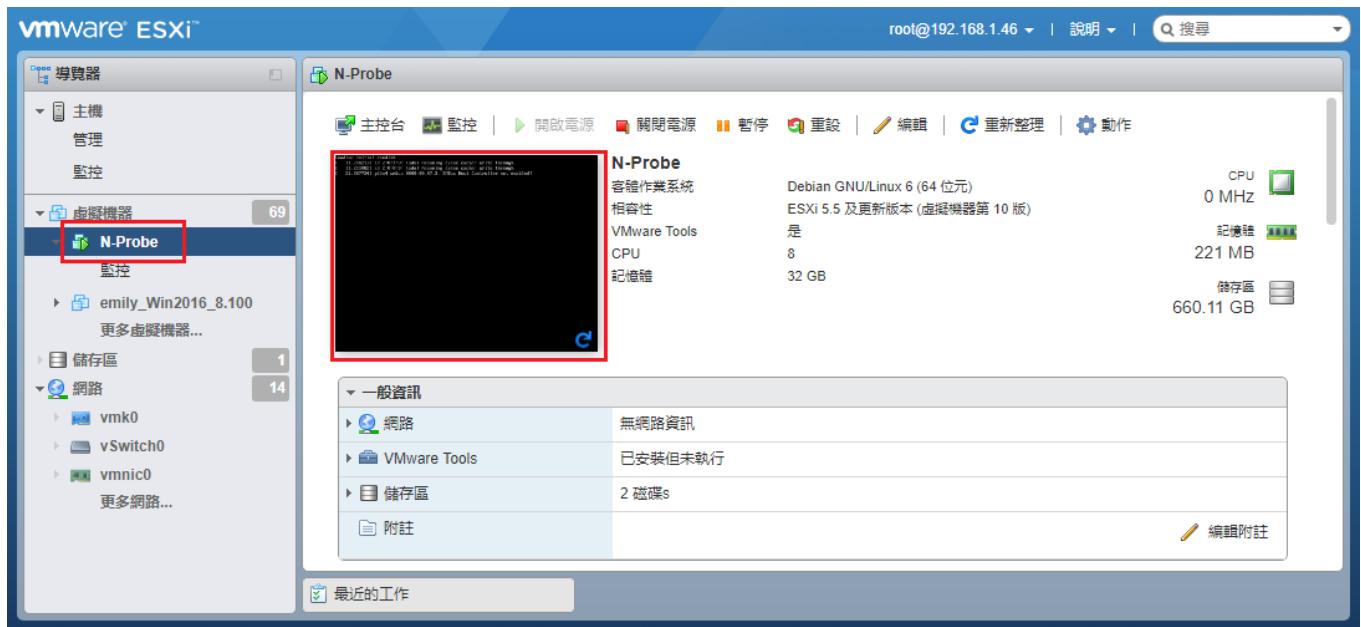
產品	N-Probe7
虛擬機器名稱	N-Probe
磁碟	N-Probe7_500G_7.0.005-disk1.vmdk,N-Probe7_500G_7.0.005-disk2.vmdk
資料存放區	esxi1.46_datastore1
佈建類型	完整
網路對應	Server Network: 10 Network
客體作業系統名稱	未知

 部署虛擬機器時請勿重新整理瀏覽器。

上一頁 下一頁 完成 取消

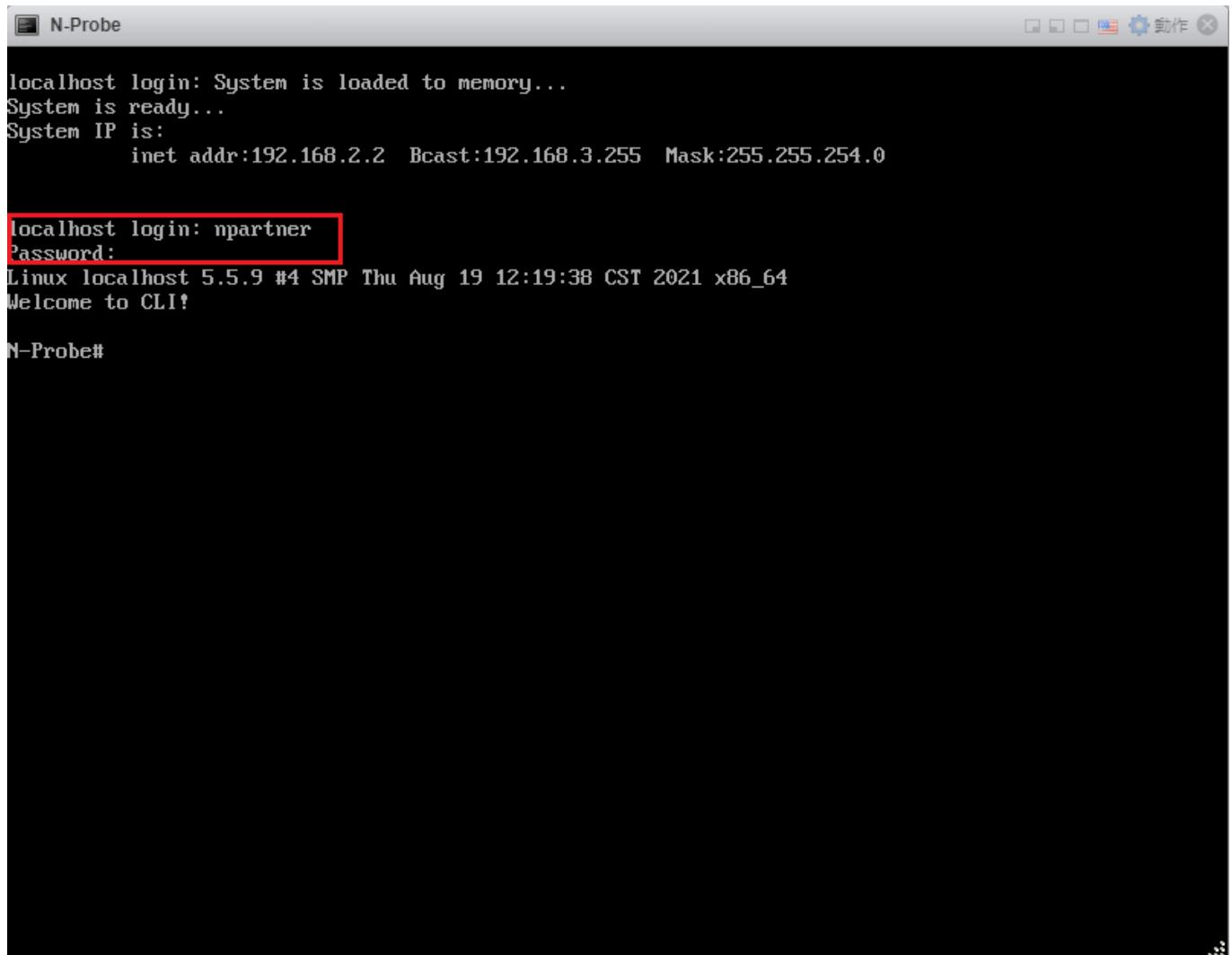
(8) 開啟主控台

匯入完成後，點選 [N-Probe/External Receiver 虛擬機器] -> [按一下以開啟此虛擬機器的瀏覽器主控台]



(9) 登入 N-Probe/External Receiver

預設 CLI 登入帳號密碼：[npartner / npartner](#)



```
N-Probe

localhost login: System is loaded to memory...
System is ready...
System IP is:
    inet addr:192.168.2.2  Bcast:192.168.3.255  Mask:255.255.254.0

localhost login: npartner
Password:
Linux localhost 5.5.9 #4 SMP Thu Aug 19 12:19:38 CST 2021 x86_64
Welcome to CLI!

N-Probe#
```

(10) 查看 N-Probe/External Receiver 設定

[N-Probe# show configure](#)

```
N-Probe# show configure
#####
# Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.2.2 255.255.254.0 gw 192.168.3.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
# End #####
N-Probe#
```

(11) 變更 N-Probe/External Receiver IP address

```
N-Probe# configure terminal  
IP 設定方式: interface eth0 <N-Probe_IP> <subnet_mask> gw <gateway_IP>
```

```
N-Probe(config)# interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
```

```
N-Probe(config)# exit
```

```
N-Probe# show configure
```

```
N-Probe# configure terminal  
N-Probe(config)# int eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5  
N-Probe(config)# exit  
N-Probe# show configure  
##### Current configuration #####  
flow-cache timeout active 30  
flow-sampling 1  
hostname N-Probe  
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5  
ip dns1 8.8.8.8  
ntp server on tock.stdtime.gov.tw  
##### End #####  
N-Probe#
```

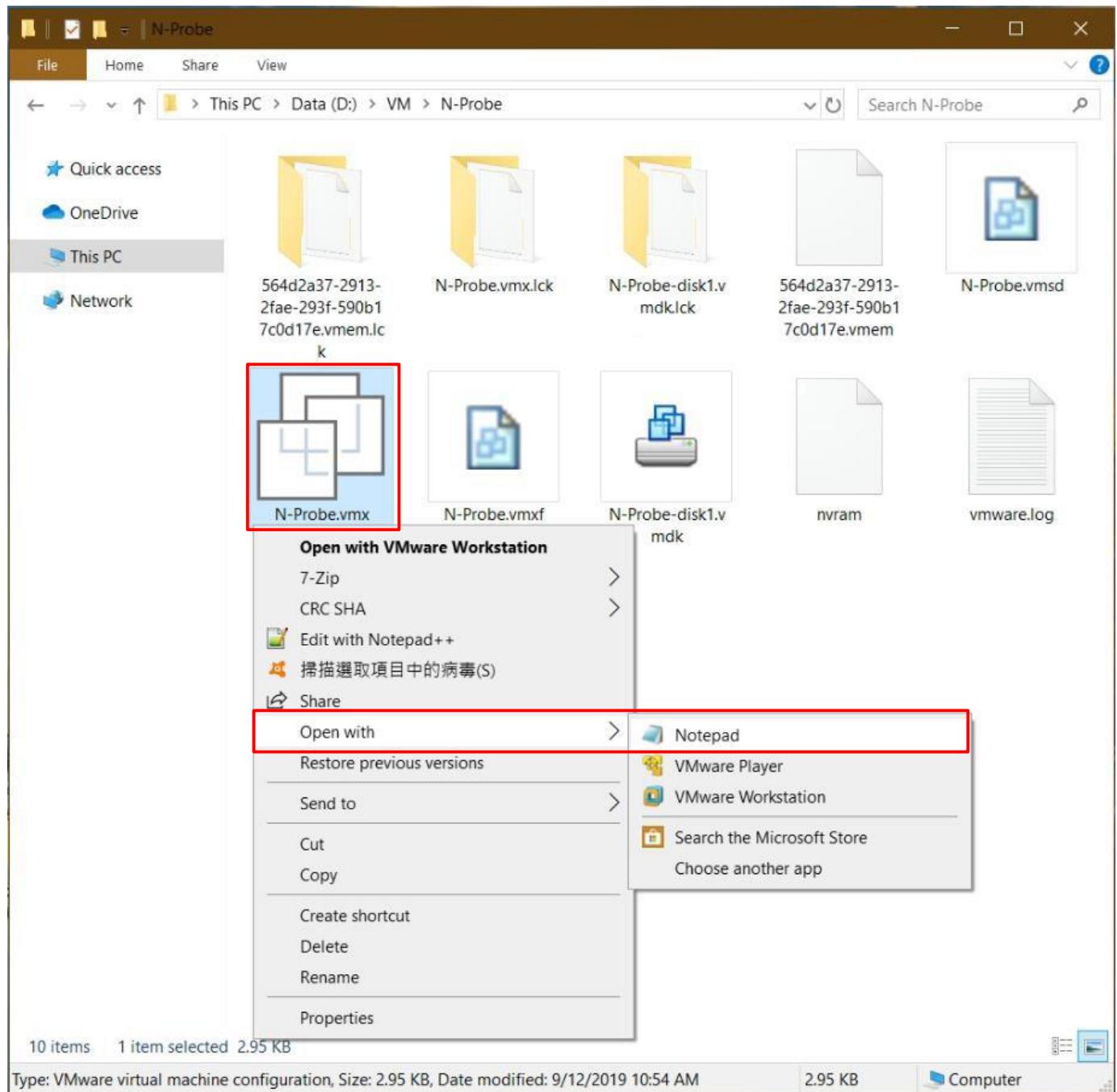
註: 紅色文字部位請輸入 N-Probe/External Receiver IP address

3.3 VMware Workstation

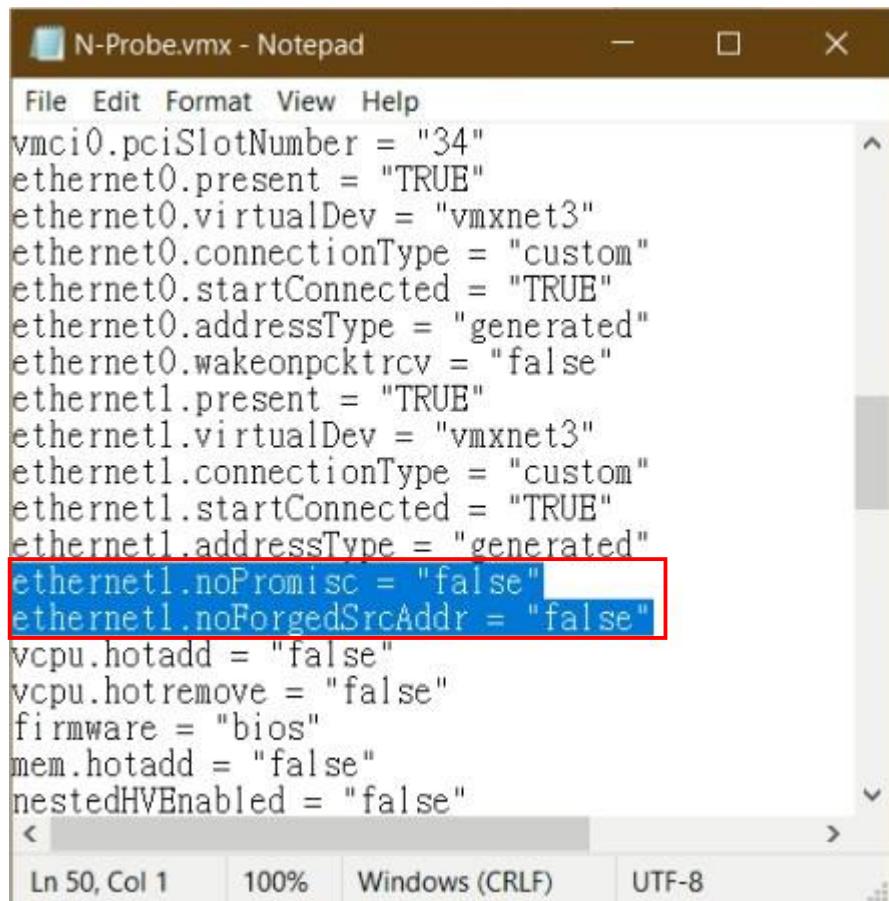
3.3.1 vSwitch Promiscuous Mode

(1) 編輯 N-Probe.vmx 檔案

在 [N-Probe.vmx] 檔案上，按滑鼠右鍵 -> 開啟方式選擇用 [Notepad(記事本)]



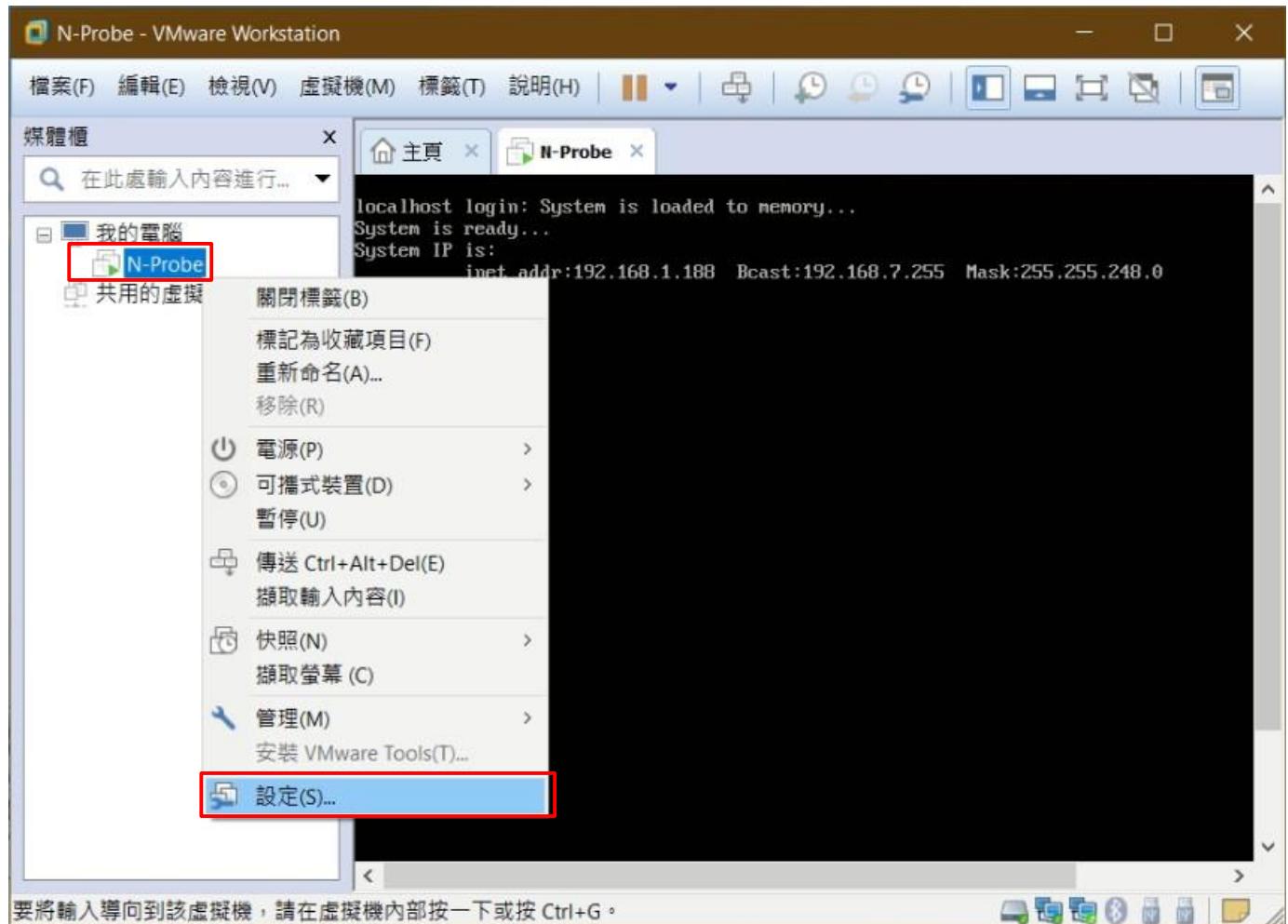
(2) 新增 ethernet1.noPromisc = "false" 和 ethernet1.noForgedSrcAddr = "false" -> 存檔離開



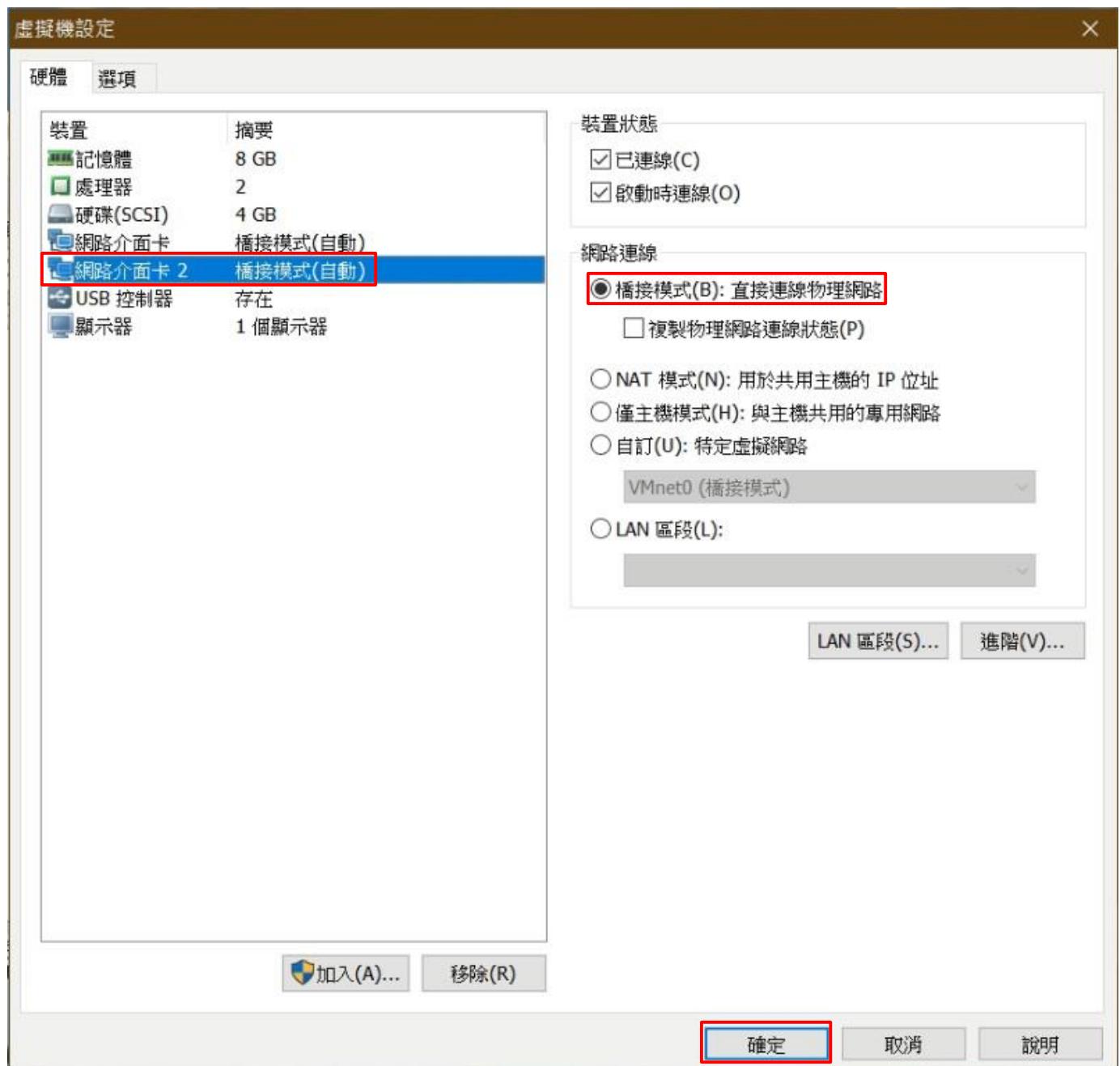
```
N-Probe.vmx - Notepad
File Edit Format View Help
vmci0.pciSlotNumber = "34"
ethernet0.present = "TRUE"
ethernet0.virtualDev = "vmxnet3"
ethernet0.connectionType = "custom"
ethernet0.startConnected = "TRUE"
ethernet0.addressType = "generated"
ethernet0.wakeonpcktrcv = "false"
ethernet1.present = "TRUE"
ethernet1.virtualDev = "vmxnet3"
ethernet1.connectionType = "custom"
ethernet1.startConnected = "TRUE"
ethernet1.addressType = "generated"
ethernet1.noPromisc = "false"
ethernet1.noForgedSrcAddr = "false"
vcpu.hotadd = "false"
vcpu.hotremove = "false"
firmware = "bios"
mem.hotadd = "false"
nestedHVEEnabled = "false"
< >
Ln 50, Col 1 100% Windows (CRLF) UTF-8
```

(3) 設定 N-Probe 網路介面卡橋接模式

在 [N-Probe] 上按滑鼠右鍵 -> 點選 [設定]

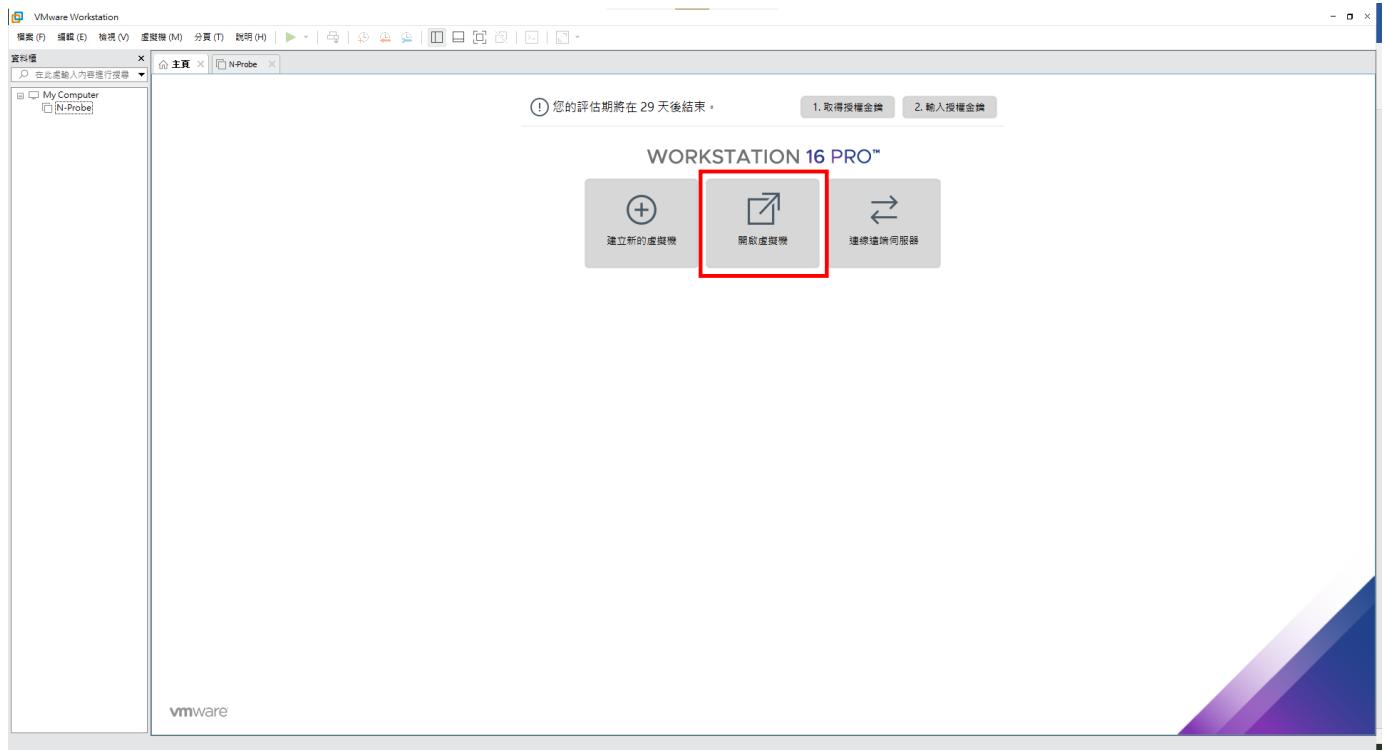


(4) 將 [網路介面卡 2(etherent1)] 設定 [橋接模式] -> 按下 [確定]

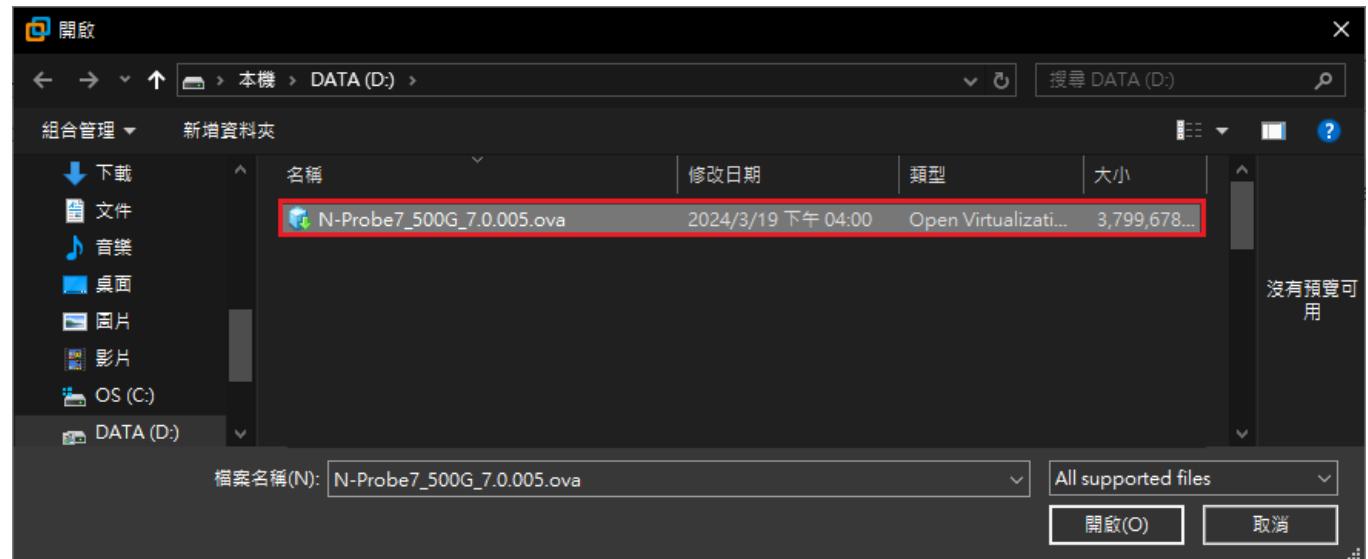


3.3.2 Import N-Probe VM

(1) 啟動 Worstation -> 點選 [開啟虛擬機]



(2) 選擇 N-Probe -> 按下 [開啟]

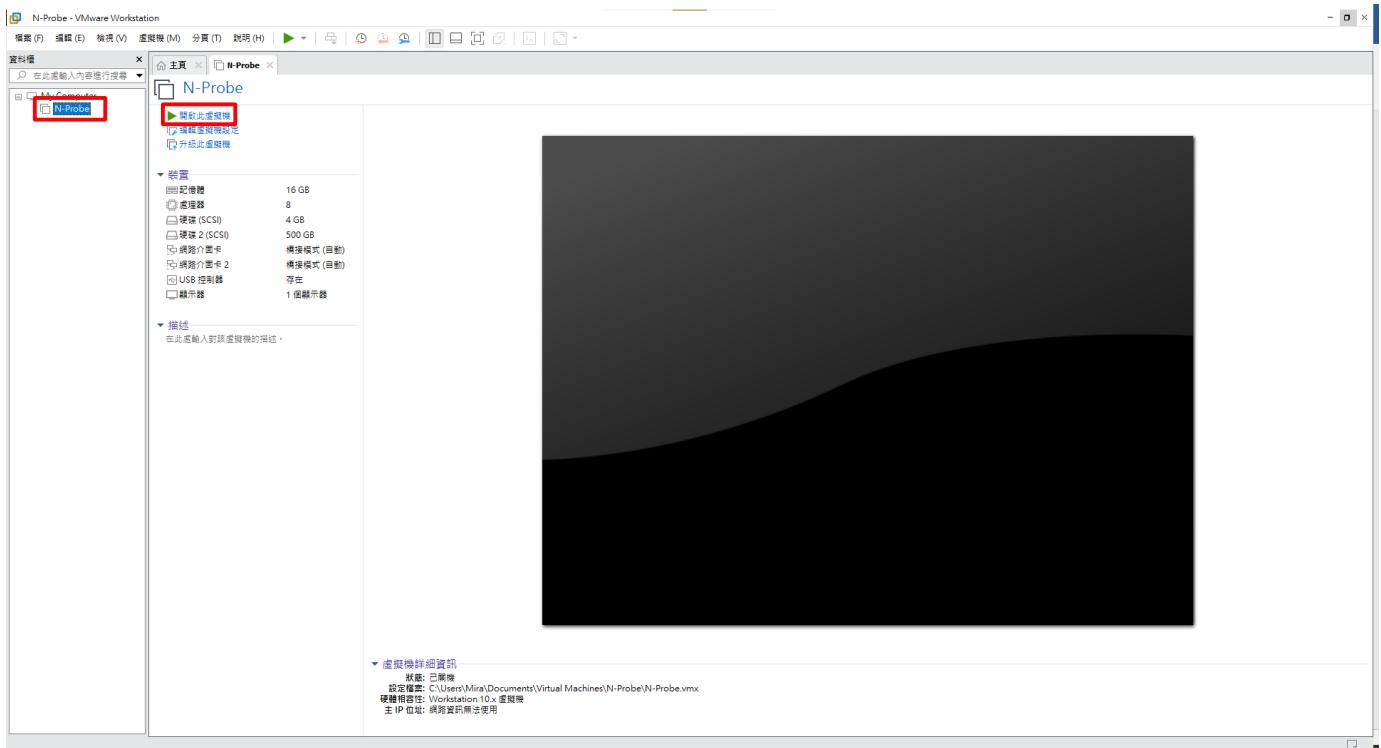


(3) 設定虛擬機名稱 -> 選擇存放路徑 -> 按下 [匯入]



(4) 開起虛擬機

匯入完成後，點選 [開啟此虛擬機]



(5) 登入 N-Probe/External Receiver

預設 CLI 登入帳號密碼：[npartner / npartner](#)

```
localhost login: System is loaded to memory...
System is ready...
System IP is:
    inet addr:192.168.2.2  Bcast:192.168.3.255  Mask:255.255.254.0

localhost login: npartner
Password:
Linux localhost 5.5.9 #4 SMP Thu Aug 19 12:19:38 CST 2021 x86_64
Welcome to CLI!

N-Probe#
```

(6) 查看 N-Probe/External Receiver 設定

```
N-Probe# show configure
N-Probe# show configure
#####
Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.2.2 255.255.254.0 gw 192.168.3.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
End #####
N-Probe#
```

(7) 變更 N-Probe/External Receiver IP address

```
N-Probe# configure terminal
IP 設定方式: interface eth0 <N-Probe_IP> <subnet_mask> gw <gateway_IP>
N-Probe(config)# interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
N-Probe(config)# exit
N-Probe# show configure
N-Probe# configure terminal
N-Probe(config)# int eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
N-Probe(config)# exit
N-Probe# show configure
#####
Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
End #####
N-Probe#
```

註：紅色文字部位請輸入 N-Probe/External Receiver IP address

3.4 Proxmox VE 7

3.4.1 Mirror Bridge

(1) 點選 [PVE node] -> [System] -> [Network] -> [Create] -> [Linux Bridge]

The screenshot shows the Proxmox VE 7.2-3 interface. In the left sidebar, under 'Datacenter' for node 'pve', the 'Network' item is selected and highlighted with a red box. In the main content area, the 'Create' button is also highlighted with a red box. A dropdown menu is open, showing options: 'Search', 'Linux Bridge' (which is also highlighted with a red box), 'Linux Bond', 'Linux VLAN', 'OVS Bridge', 'OVS Bond', and 'OVS IntPort'. Below the dropdown, there are columns for 'Device', 'Active', 'Autostart', 'VLAN aware', and 'Ports/Slaves'. The 'Linux Bridge' row shows 'Device' as 'eno2', 'Active' as 'Yes', 'Autostart' as 'No', 'VLAN aware' as 'No', and 'Ports/Slaves' as 'eno1'. At the bottom left, the URL 'https://192.168.12.99:8005/#' is visible.

(2) 輸入 Bridge port: eno2 ※請依客戶環境輸入未使用 Interface Port -> 輸入註解: Port Mirror -> 按 [Create]

The dialog box for creating a Linux Bridge has the following fields:

- Name: vmbr1
- IPv4/CIDR: (empty)
- Gateway (IPv4): (empty)
- IPv6/CIDR: (empty)
- Gateway (IPv6): (empty)
- Autostart:
- VLAN aware:
- Bridge ports: eno2
- Comment: Port Mirror

At the bottom right, the 'Create' button is highlighted with a red box.

(3) 按 [Apply Configuration]

The screenshot shows the Proxmox VE interface. On the left, the tree view shows 'Datacenter' and 'pve'. Under 'pve', there are two local storage options: 'local (pve)' and 'local-zfs (pve)'. The main panel is titled 'Node 'pve'' and shows a table of network interfaces. The table includes columns for Name, Type, Active, Autostart, VLAN aware, Ports/Slaves, Bond Mode, CIDR, Gateway, and Comment. The table lists four entries: eno1 (Network Device, Active Yes, Autostart No), eno2 (Network Device, Active No, Autostart No), vmbr0 (Linux Bridge, Active Yes, Autostart Yes, Ports/Slaves eno1, CIDR 192.168.12.89..., Gateway 192.168.13.254), and vmbr1 (Linux Bridge, Active No, Autostart Yes, Ports/Slaves eno2). Below the table, a message says 'Pending changes (Either reboot or use 'Apply Configuration' (needs ifupdown2) to activate)'. At the top right, there are buttons for Reboot, Shutdown, Shell, Bulk Actions, and Help. A red box highlights the 'Apply Configuration' button.

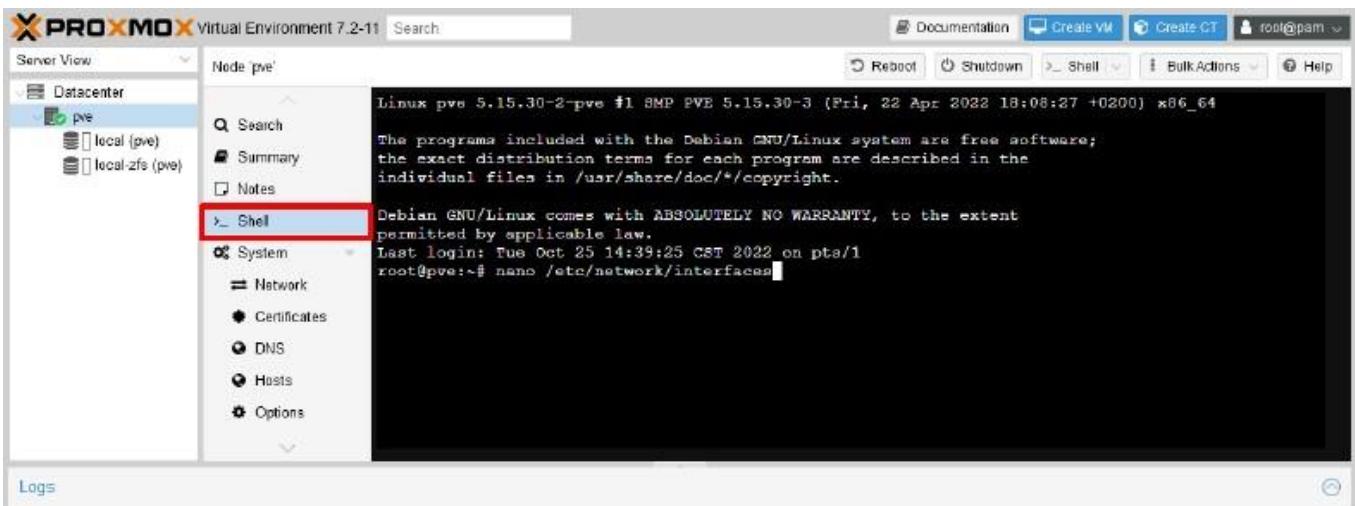
(4) 按 [Yes]



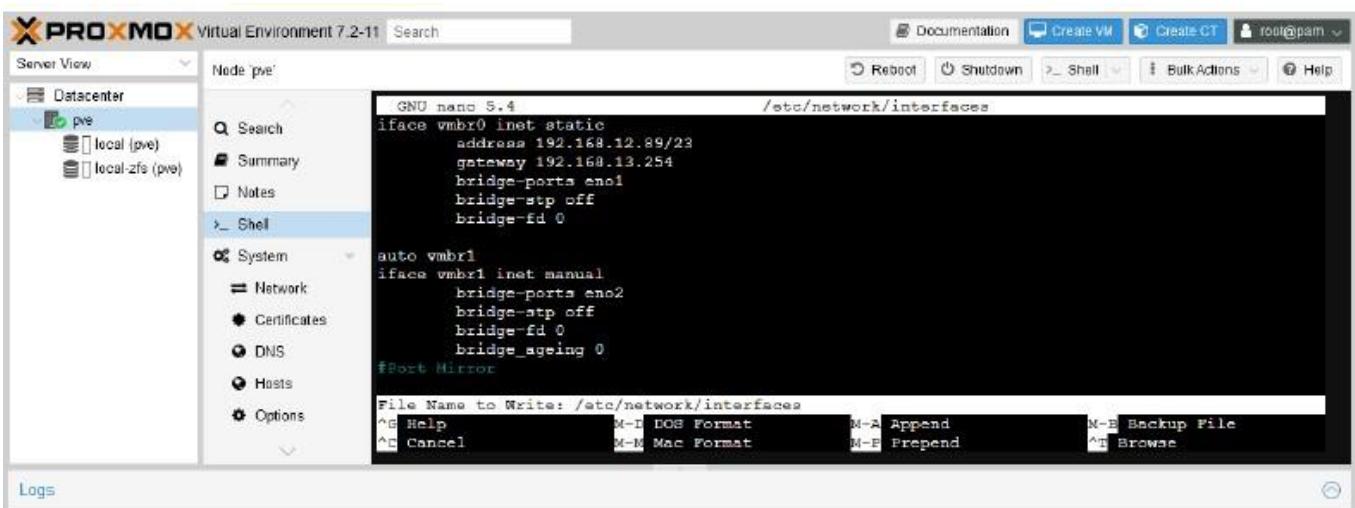
(5) 顯示 VM Bridge 套用情形

The screenshot shows the same Proxmox VE interface as before, but now the table in the main panel shows the configuration for vmbr1. The 'vmbr1' row is highlighted with a blue selection bar. The table now includes a 'Port Mirror' column, which is marked with a checkmark for vmbr1. The rest of the table remains the same, showing eno1, eno2, vmbr0, and vmbr1 entries.

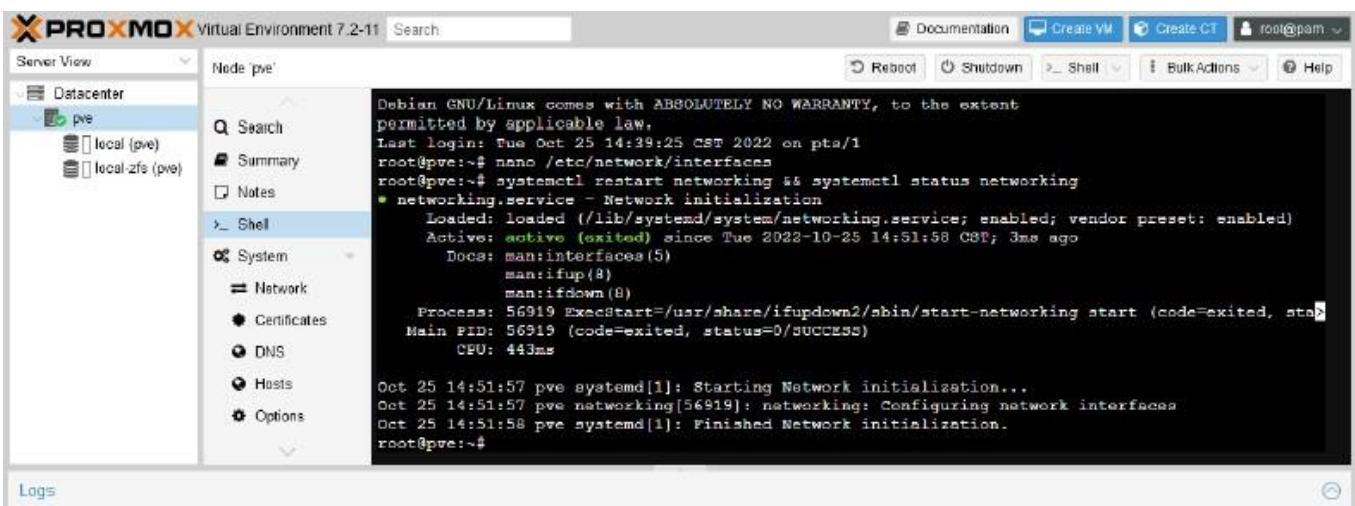
(6) 切換到 [>_ Shell] -> 編輯 interface 輸入 nano /etc/network/interfaces



(7) 在 iface vmbr1 ※請依據客戶環境 新增一行 bridge_aging 0 -> 按 [Ctrl] + [O] 存檔 -> 再按 [Ctrl] + [X] 離開



(8) ※重啟網卡可能會影響 PVE 設備網路 . 輸入 systemctl restart networking && systemctl status networking



3.4.2 Import N-Probe VM

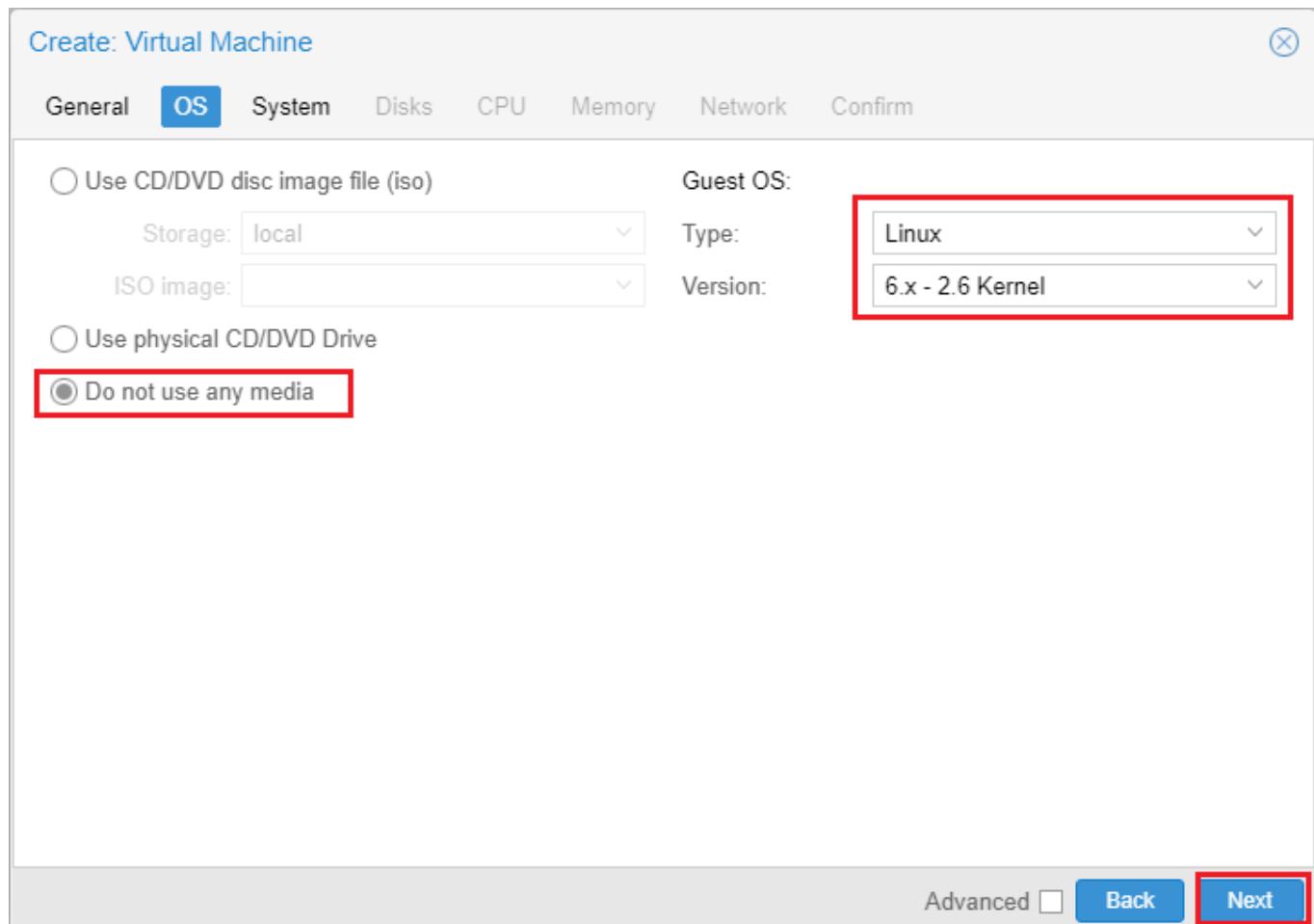
(1) 按 [Create VM]

The screenshot shows the Proxmox VE 7.2-11 interface. On the left, there's a tree view of the Datacenter containing nodes 'local (pve)' and 'local-zfs (pve)'. The main panel is titled 'Node 'pve'' and shows a 'Summary' section with various system metrics: CPU usage (0.23% of 8 CPU(s)), IO delay (0.00, 0.01, 0.04), RAM usage (8.43% of 2.64 GiB of 31.31 GiB), HD space (0.04% of 1.51 GiB of 3.51 TiB), and Swap usage (0 B). It also displays the kernel version (Linux 5.15.30-2-pve #1 SMP PVE 5.15.30-3 (Fri, 22 Apr 2022 10:06:27 +0200)), PVE Manager Version (pve-manager/7.2-11/b76d3178), and Repository Status (Praxmax VE updates, Non production-ready repository enabled). The top right has buttons for Documentation, Create VM (highlighted with a red box), Create CT, and Help. Below the summary are sections for Shell, System, Updates, Firewall, Disks, Ceph, Replication, Task History, and Subscription.

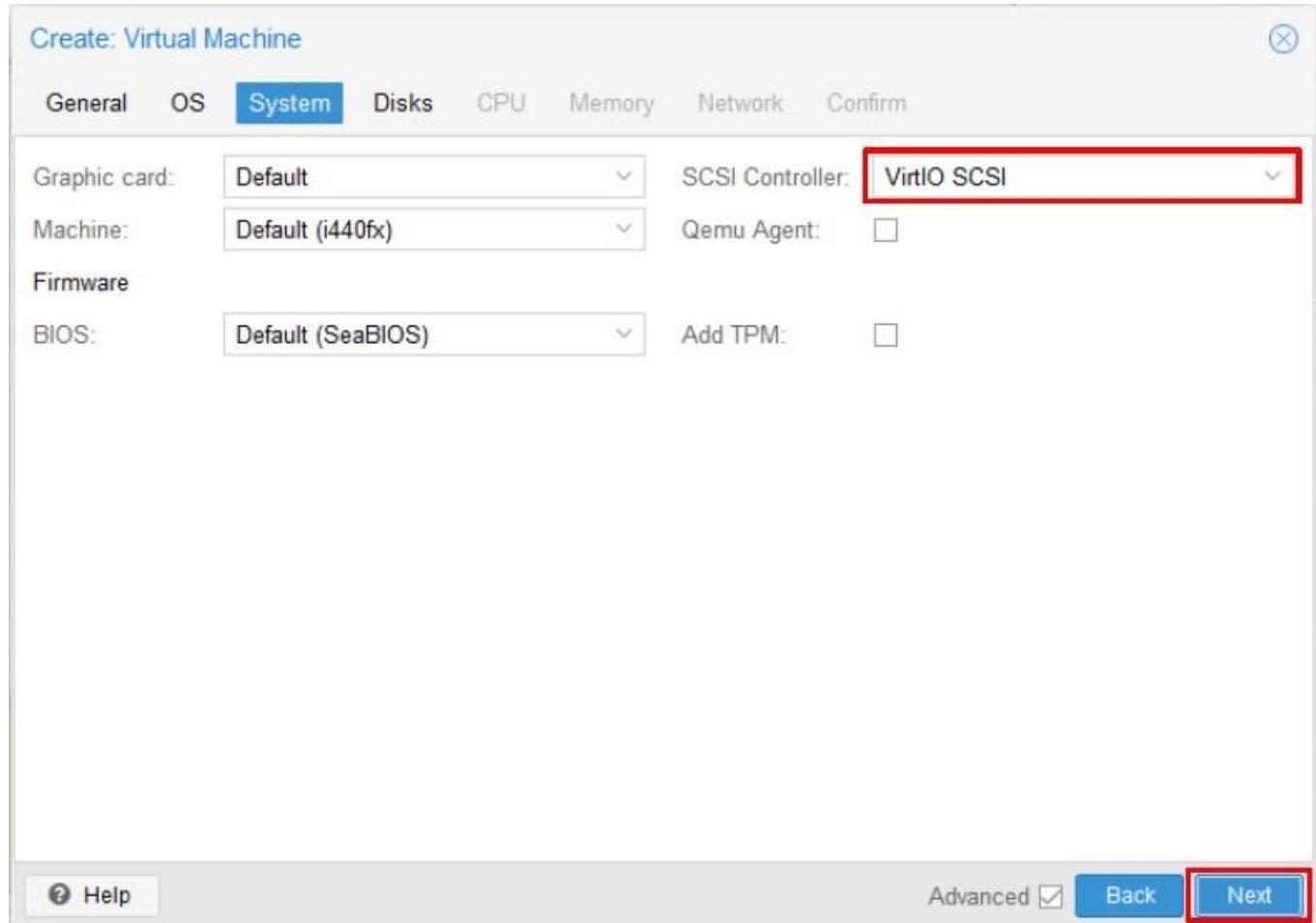
(2) [General] 頁面；選擇[PVE Node] -> 輸入 VM ID: 和 VM Name: N-Probe -> 按[Next]

The screenshot shows the 'Create: Virtual Machine' dialog on the 'General' tab. It includes fields for 'Node' (set to 'pve'), 'VM ID' (set to '100'), and 'Name' ('N-Probe'). Other settings include 'Start at boot' (unchecked), 'Resource Pool' (empty dropdown), 'Start/Shutdown order' (set to 'any'), 'Startup delay' (set to 'default'), and 'Shutdown timeout' (set to 'default'). At the bottom, there are 'Help', 'Advanced' (checkbox checked), 'Back', and 'Next' buttons, with 'Next' highlighted with a red box.

(3) [OS] 頁面；點選[Do not use any media] -> 選擇 Guest OS Type: [Linux] -> Version: [6.x - 2.6 Kernel] -> 按 [Next]



(4) [System] 頁面；選擇SCSI Controller: [VirtIO SCSI] -> 按[Next]



(5) [Disk] 頁面；選擇Bus/Device: [SCSI] -> 按[Next]

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

scsi0 Delete Disk Bandwidth

Bus/Device:	SCSI	0	Cache:	Default (No cache)
SCSI Controller:	VirtIO SCSI	Discard:	<input type="checkbox"/>	
Storage:	local	IO thread:	<input type="checkbox"/>	
Disk size (GiB):	32	Format:	QEMU image format	
SSD emulation:	<input type="checkbox"/>	Backup:	<input checked="" type="checkbox"/>	
Read-only:	<input type="checkbox"/>	Skip replication:	<input type="checkbox"/>	
		Async IO:	Default (io_uring)	

+ Add

Help Advanced Back Next

(6) [CPU] 頁面；輸入 Sockets: 和 Cores: 8 ※核心總數 8 以上 -> 按[Next]

Create: Virtual Machine

CPU

Sockets: 1 Type: Default (kvm64)
Cores: 8 Total cores: 8

VCPUs: 8 CPU units: 100
CPU limit: unlimited Enable NUMA:

CPU Affinity: All Cores

Extra CPU Flags:

Default	- ○○○ +	md-clear	Required to let the guest OS know if MDS is mitigated correctly
Default	- ○○○ +	pcid	Meltdown fix cost reduction on Westmere, Sandy-, and IvyBridge Intel CPUs
Default	- ○○○ +	spec-ctrl	Allows improved Spectre mitigation with Intel CPUs
Default	- ○○○ +	ssbd	Protection for "Speculative Store Bypass" for Intel models
Default	- ○○○ +	ibpb	Allows improved Spectre mitigation with AMD CPUs

Help Advanced Back Next

(7) [Memory] 頁面；輸入 Memory (MiB): 32768 ※至少 32GiB 以上 -> Ballooning裝置取消勾選 -> 按[Next]

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

Memory (MiB):

Minimum memory (MiB):

Shares:

Ballooning Device:

? Help Advanced Back Next

(8) [Network] 頁面；選擇Bridge: [vmbr0] ※請依客戶環境選擇 N-Probe 管理介面 -> Model: [Intel E1000] -> 按 [Next]

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

No network device

Bridge: **vmbr0** Model: **Intel E1000**

VLAN Tag: no VLAN MAC address: auto

Firewall:

Disconnect: Rate limit (MB/s): unlimited

Multiqueue:

Help Advanced Back **Next**

(9) [Confirm] 頁面；查看N-Probe VM 配置-> 按[Finish]

Create: Virtual Machine

General OS System Disks CPU Memory Network **Confirm**

Key ↑	Value
balloon	0
cores	8
ide2	none,media=cdrom
memory	32768
name	N-Probe
net0	e1000,bridge=vmbr0,firewall=1
nodename	pve
numa	0
ostype	l26
scsi0	local:32,format=qcow2
scsihw	virtio-scsi-pci
sockets	1
vmid	134

Start after created

Advanced Back **Finish**

(10) 刪除硬碟；點選[N-Probe VM] -> [Hardware] -> [Hard Disk] -> 按[Detach]

< Virtual Machine 134 (N-Probe) on node 'pve' No Tags More >

<input type="checkbox"/> Summary	<input type="button" value="Add"/> <input style="border: 2px solid red;" type="button" value="Detach"/> <input type="button" value="Edit"/> <input type="button" value="Disk Action"/> <input type="button" value="Revert"/>
<input type="checkbox"/> Console	Memory 32.00 GiB [balloon=0]
<input type="checkbox"/> Hardware	<input type="checkbox"/> Processors 8 (1 sockets, 8 cores)
<input type="checkbox"/> Cloud-Init	<input type="checkbox"/> BIOS Default (SeaBIOS)
<input type="checkbox"/> Options	<input type="checkbox"/> Display Default
<input type="checkbox"/> Task History	<input type="checkbox"/> Machine Default (i440fx)
<input type="checkbox"/> Monitor	<input type="checkbox"/> SCSI Controller VirtIO SCSI
<input type="checkbox"/> Backup	<input type="checkbox"/> CD/DVD Drive (ide2) none,media=cdrom
<input type="checkbox"/> Replication	<input type="checkbox"/> Hard Disk (scsi0) local:134/vm-134-disk-0.qcow2,size=32G
<input type="checkbox"/> Snapshots	
<input type="checkbox"/> Firewall	<input type="checkbox"/> Network Device (net0) e1000=8A:B5:3F:CC:FC:72,bridge=vmbr0,firewall=1
<input type="checkbox"/> Permissions	

(11) 按[Yes]



(12) 點選[Unused Disk] -> 按[Remove]

Screenshot of the Proxmox VE interface showing the configuration of a virtual machine. The left sidebar lists various settings: Summary, Console, Hardware, Cloud-Init, Options, Task History, Monitor, Backup, Replication, Snapshots, Firewall, and Permissions. The "Hardware" tab is selected. In the main pane, there are several configuration items:

Add	Remove	Edit	Disk Action	Revert
Memory	32.00 GiB [balloon=0]			
Processors	8 (1 sockets, 8 cores)			
BIOS	Default (SeaBIOS)			
Display	Default			
Machine	Default (i440fx)			
SCSI Controller	VirtIO SCSI			
CD/DVD Drive (ide2)	none,media=cdrom			
Network Device (net0)	e1000=8A:B5:3F:CC:72,bridge=vmbr0,firewall=1			
Unused Disk 0	local:134/vm-134-disk-0.qcow2			

The "Unused Disk 0" entry is highlighted with a red box.

(13) 按[Yes]



(14) 移除光碟機；點選[CD/DVD Drive] -> 按[Remove]

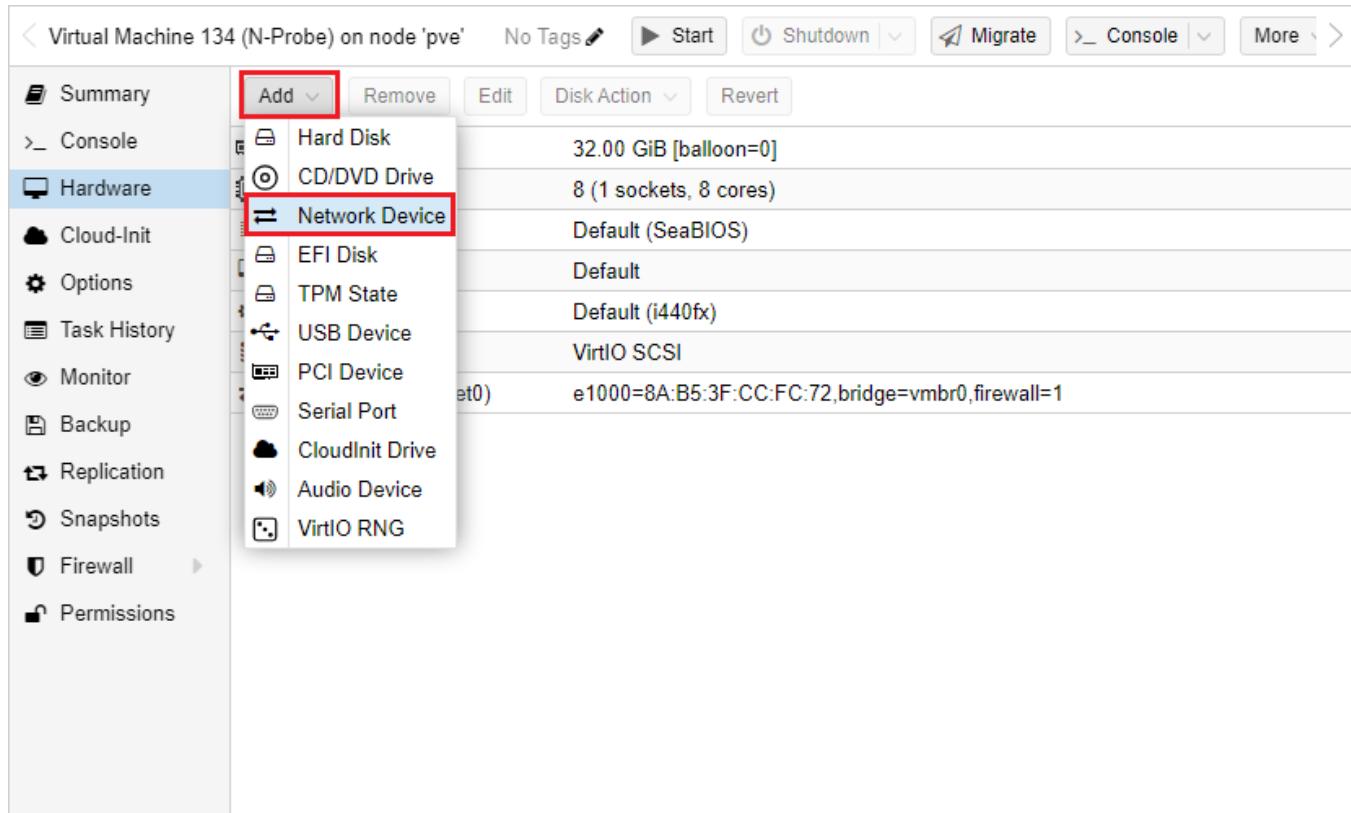
Virtual Machine 134 (N-Probe) on node 'pve' No Tags Start Shutdown Migrate Console More >

Summary	Add	Remove	Edit	Disk Action	Revert
_ Console	Memory	32.00 GiB [balloon=0]			
Hardware	Processors	8 (1 sockets, 8 cores)			
Cloud-Init	BIOS	Default (SeaBIOS)			
Options	Display	Default			
Task History	Machine	Default (i440fx)			
Monitor	SCSI Controller	VirtIO SCSI			
Backup	CD/DVD Drive (ide2)	none,media=cdrom			
Replication	Network Device (net0)	e1000=8A:B5:3F:CC:FC:72,bridge=vmbr0,firewall=1			

(15) 按[Yes]



(16) 新增 Mirror Bridge; [Hardware] 項目-> 按[Add] -> 點選[Network Device]



(17) 選擇 Mirror Bridge: [vmbr1] ※請依客戶環境選擇 mirror Bridge -> Model: [Intel E1000] -> 按[Add]

Add: Network Device

Bridge:	vmbr1	Model:	Intel E1000
VLAN Tag:	no VLAN	MAC address:	auto
Firewall:	<input checked="" type="checkbox"/>		
Disconnect:	<input type="checkbox"/>	Rate limit (MB/s):	unlimited
		Multiqueue:	
<input type="checkbox"/> Help		Advanced <input checked="" type="checkbox"/>	<input type="button" value="Add"/>

(18) 顯示N-Reporter VM 硬體訊息

The screenshot shows the Proxmox VE web interface for managing virtual machines. The top navigation bar includes options like 'Start', 'Shutdown', 'Migrate', 'Console', and 'More'. On the left, a sidebar lists various management tabs: Summary, Console, Hardware, Cloud-Init, Options, Task History, Monitor, Backup, Replication, Snapshots, Firewall, and Permissions. The 'Hardware' tab is currently selected. The main content area displays the hardware configuration for VM 134, including memory (32.00 GiB), processors (8 cores), BIOS, display, machine type (Default i440fx), SCSI controller (VirtIO SCSI), and two network devices (net0 and net1) with their respective MAC addresses and bridge configurations.

使用解壓縮軟體將 N-Probe OVA 解開，並將 N-Probe disk1.vmdk disk2.vmdk 檔案傳送到 Proxmox VE

(15) 查看 KVM 版本

```
# qemu-img --version
```

```
root@pve:~# qemu-img --version
qemu-img version 7.0.0 (pve-qemu-kvm_7.0.0-4)
Copyright (c) 2003-2022 Fabrice Bellard and the QEMU Project developers
root@pve:~#
```

(16) 將 N-Probe vmdk disk1 檔轉換成 qcow2 檔

```
# qemu-img convert -f vmdk N-Probe7_500G_7.0.005-disk1.vmdk -O qcow2 N-Probe7-disk1.qcow2
```

```
root@pve:/mnt/pve/nas1/images# qemu-img convert -f vmdk N-Probe7_500G_7.0.005-disk1.vmdk -O qcow2 N-Probe7-disk1.qcow2
root@pve:/mnt/pve/nas1/images#
```

(17) 將 N-Probe vmdk disk1 檔轉換成 qcow2 檔

```
# qemu-img convert -f vmdk N-Probe7_500G_7.0.005-disk2.vmdk -O qcow2 N-Probe7-disk2.qcow2
```

```
root@pve:/mnt/pve/nas1/images# qemu-img convert -f vmdk N-Probe7_500G_7.0.005-disk2.vmdk -O qcow2 N-Probe7-disk2.qcow2
root@pve:/mnt/pve/nas1/images#
```

(18) 查看轉換 qcow2 檔案格式

```
# qemu-img info N-Probe7-disk1.qcow2
```

```
root@pve:/mnt/pve/nas1/images# qemu-img info N-Probe7-disk1.qcow2
image: N-Probe7-disk1.qcow2
file format: qcow2
virtual size: 128 GiB (137438953472 bytes)
disk size: 3.98 GiB
cluster_size: 65536
Format specific information:
  compat: 1.1
  compression type: zlib
  lazy refcounts: false
  refcount bits: 16
  corrupt: false
  extended l2: false
root@pve:/mnt/pve/nas1/images#
```

```
# qemu-img info N-Probe7-disk2.qcow2
```

```
root@pve:/mnt/pve/nas1/images# qemu-img info N-Probe7-disk2.qcow2
image: N-Probe7-disk2.qcow2
file format: qcow2
virtual size: 500 GiB (536870912000 bytes)
disk size: 41.1 MiB
cluster_size: 65536
Format specific information:
  compat: 1.1
  compression type: zlib
  lazy refcounts: false
  refcount bits: 16
  corrupt: false
  extended l2: false
root@pve:/mnt/pve/nas1/images#
```

(19) 匯入 QCOW2 磁碟至 N-Probe 虛擬機器

```
# qm importdisk 134 N-Probe-disk1.qcow2 local-zfs -format qcow2
```

```
root@pve:/mnt/pve/nas1/images# qm importdisk 134 N-Probe7-disk1.qcow2 zfs_pool -format qcow2
importing disk 'N-Probe7-disk1.qcow2' to VM 134 ...
transferred 0.0 B of 128.0 GiB (0.00%)
transferred 128.0 GiB of 128.0 GiB (100.00%)
Successfully imported disk as 'unused0:zfs_pool:vm-134-disk-0'
root@pve:/mnt/pve/nas1/images#
```

```
# qm importdisk 134 N-Probe-disk1.qcow2 local-zfs -format qcow2
```

```
root@pve:/mnt/pve/nas1/images# qm importdisk 134 N-Probe7-disk2.qcow2 zfs_pool -format qcow2
importing disk 'N-Probe7-disk2.qcow2' to VM 134 ...
transferred 0.0 B of 500.0 GiB (0.00%)
transferred 500.0 GiB of 500.0 GiB (100.00%)
Successfully imported disk as 'unused1:zfs_pool:vm-134-disk-1'
root@pve:/mnt/pve/nas1/images#
```

```
qm importdisk <vmid> <source> <storage> --format qcow2
```

(20) 選擇[N-Probe VM] -> 點選[Hardware] -> [Unused Disk 0] -> [Edit]

The screenshot shows the 'Virtual Machine 134 (N-Probe)' configuration screen. The 'Hardware' tab is selected. A red box highlights the 'Edit' button at the top of the hardware list. Another red box highlights the 'Unused Disk 0' entry, which is currently selected.

Hardware	Description	Value
Unused Disk 0	zfs_pool:vm-134-disk-0	
Unused Disk 1	zfs_pool:vm-134-disk-1	

(21) [Disk] 頁面；點選Bus/Device: [SCSI] -> 查看[Disk image] 存放位置-> 按[Add]

The screenshot shows the 'Add: Unused Disk' dialog. The 'Disk' tab is selected. A red box highlights the 'SCSI' dropdown under 'Bus/Device'. Another red box highlights the 'zfs_pool:vm-134-disk-0' dropdown under 'Disk image'. At the bottom right, a red box highlights the 'Add' button.

Bus/Device:	SCSI	Cache:	
SCSI Controller:	VirtIO SCSI	Discard:	
Disk image:	zfs_pool:vm-134-disk-0	IO thread:	
SSD emulation:	<input type="checkbox"/>	Backup:	<input checked="" type="checkbox"/>
Read-only:	<input type="checkbox"/>	Skip replication:	<input type="checkbox"/>
		Async IO:	Default (io_uring)

(22) 選擇[N-Probe VM] -> 點選[Hardware] -> [Unused Disk 1] -> [Edit]

The screenshot shows the 'Virtual Machine 134 (N-Probe)' configuration screen. The 'Hardware' tab is selected. A red box highlights the 'Edit' button at the top of the hardware list. Another red box highlights the 'Unused Disk 1' entry, which is currently selected.

Hardware	Description	Value
Hard Disk (scsi0)	zfs_pool:vm-134-disk-0	size=128G
Network Device (net0)	e1000=8A:B5:3F:CC:72	bridge=vmbr0,firewall=1
Network Device (net1)	e1000=CA:AA:E4:DF:2B:45	bridge=vmbr1,firewall=1
Unused Disk 1	zfs_pool:vm-134-disk-1	

(23) [Disk] 頁面；點選Bus/Device: [SCSI] -> 查看[Disk image] 存放位置-> 按[Add]

Add: Unused Disk

Disk Bandwidth

Bus/Device: SCSI 1 Cache: Default (No cache)

SCSI Controller: VirtIO SCSI

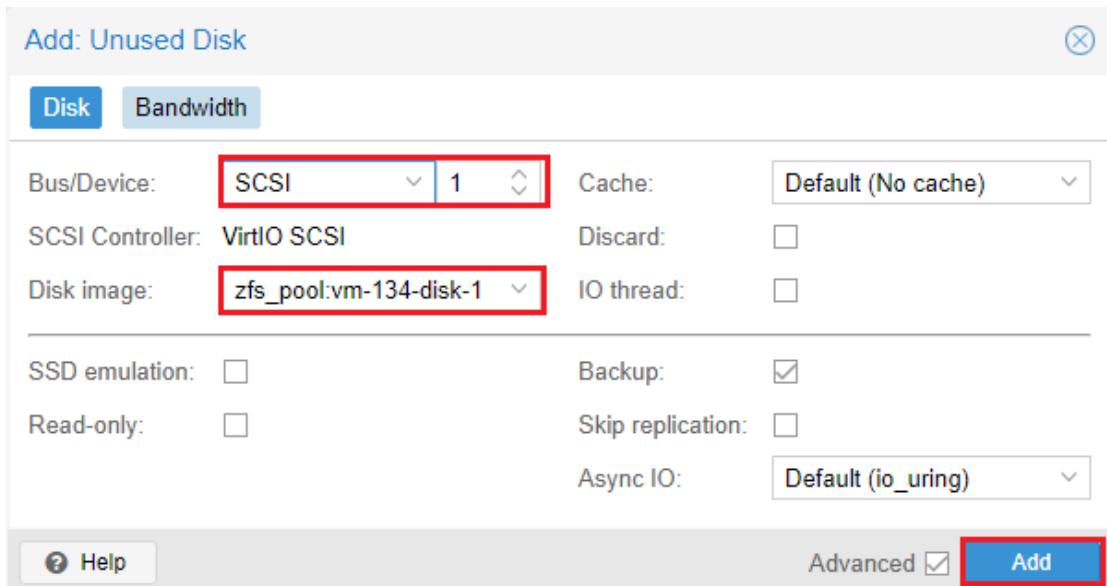
Disk image: zfs_pool:vm-134-disk-1

SSD emulation: Backup:

Read-only: Skip replication:

Async IO: Default (io_uring)

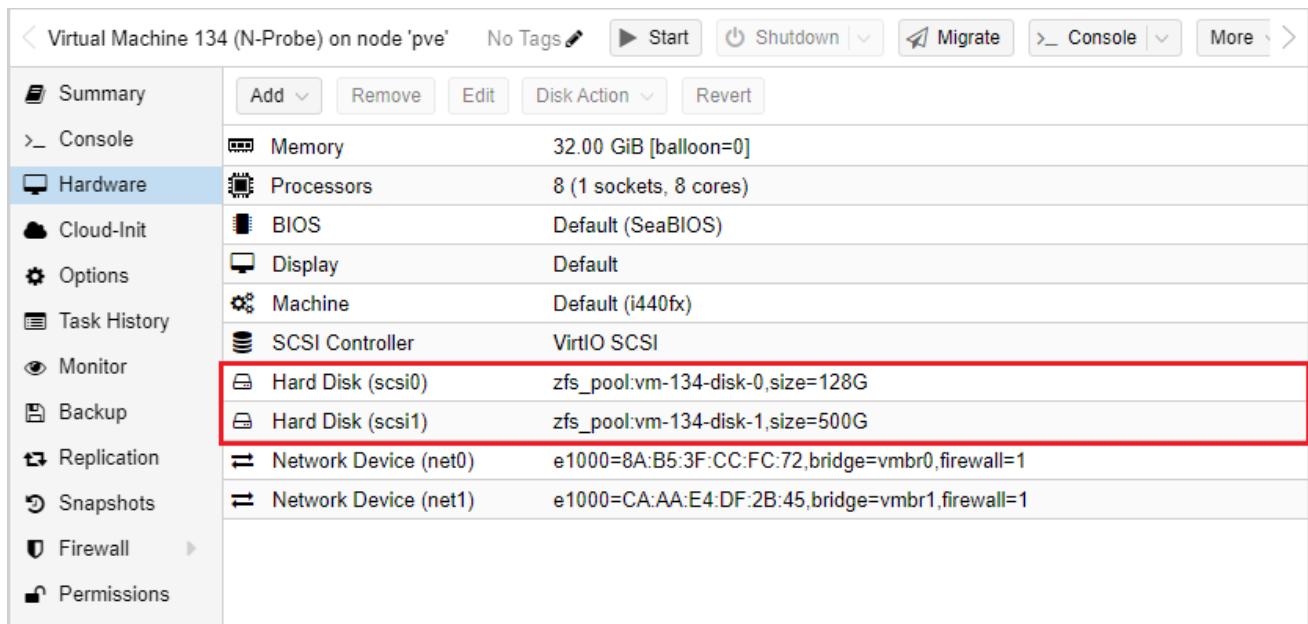
Help Advanced Add



(24) 硬體詳細資訊

確認disk 0(128G)為系統硬碟 · disk1為資料硬碟。

< Virtual Machine 134 (N-Probe) on node 'pve'		No Tags	Start	Shutdown	Migrate	Console	More
Summary		Add	Remove	Edit	Disk Action	Revert	
Console		Memory	32.00 GiB [balloon=0]				
Hardware		Processors	8 (1 sockets, 8 cores)				
Cloud-Init		BIOS	Default (SeaBIOS)				
Options		Display	Default				
Task History		Machine	Default (i440fx)				
Monitor		SCSI Controller	VirtIO SCSI				
Backup		Hard Disk (scsi0)	zfs_pool:vm-134-disk-0,size=128G				
Replication		Hard Disk (scsi1)	zfs_pool:vm-134-disk-1,size=500G				
Snapshots		Network Device (net0)	e1000=8A:B5:3F:CC:72,bridge=vmbr0,firewall=1				
Firewall		Network Device (net1)	e1000=CA:AA:E4:DF:2B:45,bridge=vmbr1,firewall=1				
Permissions							



(25) 點選[Option] -> [Boot Order] -> [Edit]

The screenshot shows the 'Virtual Machine 134 (N-Probe) on node 'pve'' configuration screen. The left sidebar has 'Options' selected. The main area shows various settings: Name (N-Probe), Start at boot (No), Start/Shutdown order (order=any), OS Type (Linux 6.x - 2.6 Kernel), Boot Order (net0), and several other options like Use tablet for pointer (Yes), Hotplug (Disk, Network, USB), and ACPI support (Yes). The 'Boot Order' row is highlighted with a red box.

(26) 勾選[Enabled Device N-Probe disk1] 移動到最上層-> 按[OK]

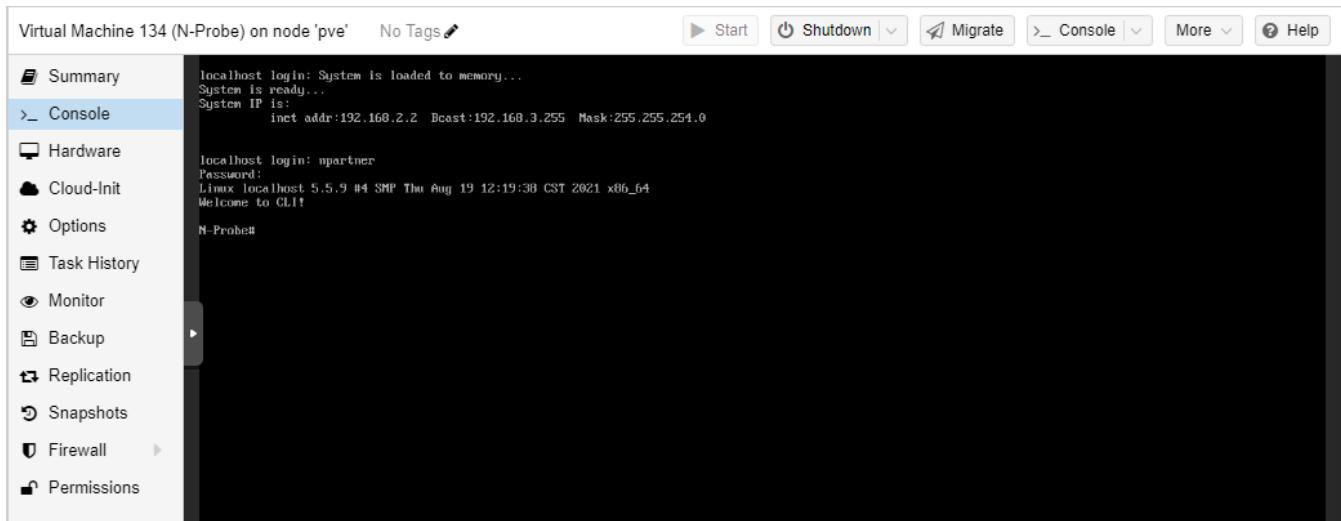
The screenshot shows the 'Edit: Boot Order' dialog. It contains a table with columns: #, Enabled, Device, and Description. The rows are: 1 (Enabled checked, scsi0, zfs_pool:vm-134-disk-0,size=128G), 2 (Enabled unchecked, scsi1, zfs_pool:vm-134-disk-1,size=500G), 3 (Enabled unchecked, net0, e1000=8A:B5:3F:CC:FC:72,bridge=vmbr0,firewall=1), 4 (Enabled unchecked, net1, e1000=CA:AA:E4:DF:2B:45,bridge=vmbr1,firewall=1). A note below says 'Drag and drop to reorder'. The 'Enabled' checkbox for the first row is checked and highlighted with a red box. The 'OK' button is also highlighted with a red box.

(27) 點選[>_ Console] -> 按[Start Now]

The screenshot shows the 'Virtual Machine 134 (N-Probe) on node 'pve'' configuration screen with the 'Console' tab selected. On the right, there's a VNC viewer window showing a black screen with the text 'Guest not running'. Below the VNC viewer is a large red box highlighting the 'Start Now' button, which has a power icon and the text 'Start Now'.

(28) 登入N-Probe/External Receiver

預設CLI 登入帳號密碼：[npartner / npartner](#)



(29) 查看 N-Probe/External Receiver 設定

N-Probe# [show configure](#)

```
N-Probe# show configure
##### Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.2.2 255.255.254.0 gw 192.168.3.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
##### End #####
N-Probe#
```

(30) 變更 N-Probe/External Receiver IP address

```
N-Probe# configure terminal
```

IP 設定方式: interface eth0 <N-Probe_IP> <subnet_mask> gw <gateway_IP>

```
N-Probe(config)# interface eth0 192.168.9.91 255.255.254.0 gw 192.168.9.254
```

```
N-Probe(config)# exit
```

```
N-Probe# show configure
```

```
N-Probe# configure terminal
N-Probe(config)# interface eth0 192.168.9.91 255.255.254.0 gw 192.168.9.254
N-Probe(config)# exit
N-Probe# show configure
#####
Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.9.91 255.255.254.0 gw 192.168.9.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
End #####
N-Probe#
```

註: 紅色文字部位請輸入 N-Probe/External Receiver IP address

4. 更新流程

4.1 License upload

(1) 下載 machine.dat 檔案

開啟 [瀏覽器] -> URL 輸入 <https://<N-Probe/External Receiver IP>> -> 連上 N-Probe/External Receiver License 頁面 -> 按 [Get Machine Key]

此N-Reporter尚未取得合法授權，請依照以下步驟處理:
(1)按「Get Machine Key」按鈕 下載「Machine Key file」
(2)將檔案及您的申請資料寄給 [N-Reporter原廠](#)以取得License。
(3)按「Upload License」按鈕 上傳取得的「License file」

如果沒有自動跳轉到登入畫面，請按 [這裡](#)

N-Reporter start-up fail due to illegal license, please follow these steps:
(1) Press "Get Machine Key" button to download "machine key file"
(2) Send machine key file and your registration information [to us](#)
(3) Press "Upload License" to upload license file

If not auto re-direct to Login Page, please press [here](#)

[Get Machine Key](#) [Upload License](#)

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(2) 下載 machine.dat。將 machine.dat 寄給 se@npartnertech.com



(3) 請依底下圖示的郵件格式撰寫

郵件格式
主旨 : N-Probe License 測試申請
郵件內容 :
公司名稱 :
申請人 :
電子郵件 :
連絡人電話 :
服務的經銷商或 SI 廠商 : (可空白)
備註 :

(4) 上傳 License 檔案

取得 license.np 檔案。開啟 [瀏覽器] -> URL 輸入 <https://<N-Probe/External Receiver IP>/register.html> -> 連上 N-Probe/External Receiver License 頁面，按 [Upload License] -> [瀏覽] 選取 [license.np] 檔案 -> 按 [Upload]

此N-Reporter尚未取得合法授權，請依照以下步驟處理：
(1)按「Get Machine Key」按鈕 下載「Machine Key file」
(2)將檔案及您的申請資料寄給 [N-Reporter原廠](#)以取得License。
(3)按「Upload License」按鈕 上傳取得的「License file」

如果沒有自動跳轉到登入畫面，請按 [這裡](#)

N-Reporter start-up fail due to illegal license, please follow these steps:
(1) Press "Get Machine Key" button to download "machine key file"
(2) Send machine key file and your registration information [to us](#)
(3) Press "Upload License" to upload license file

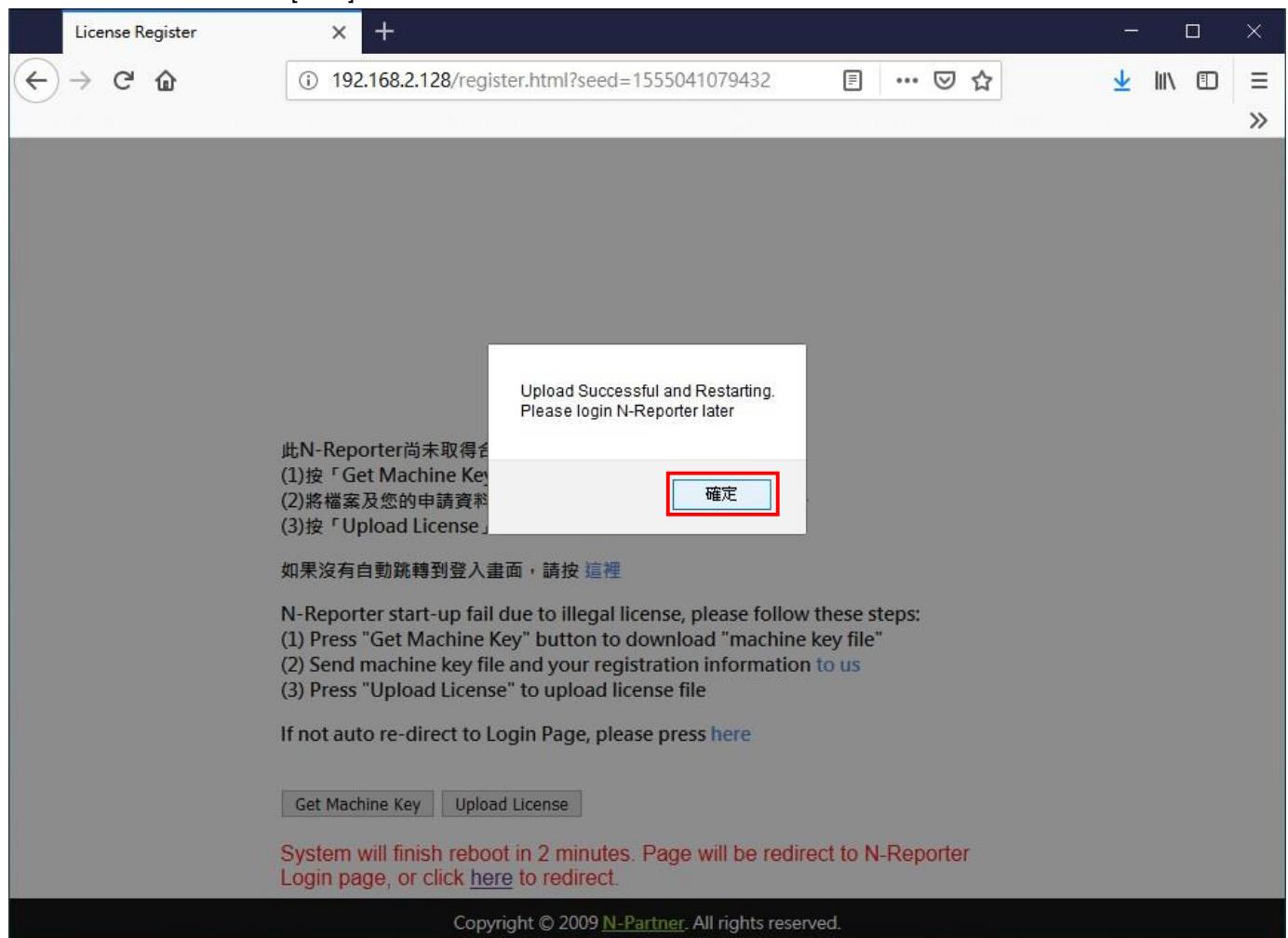
If not auto re-direct to Login Page, please press [here](#)

Get Machine Key Upload License
瀏覽... license.np Upload

Copyright © 2009 [N-Partner](#). All rights reserved.

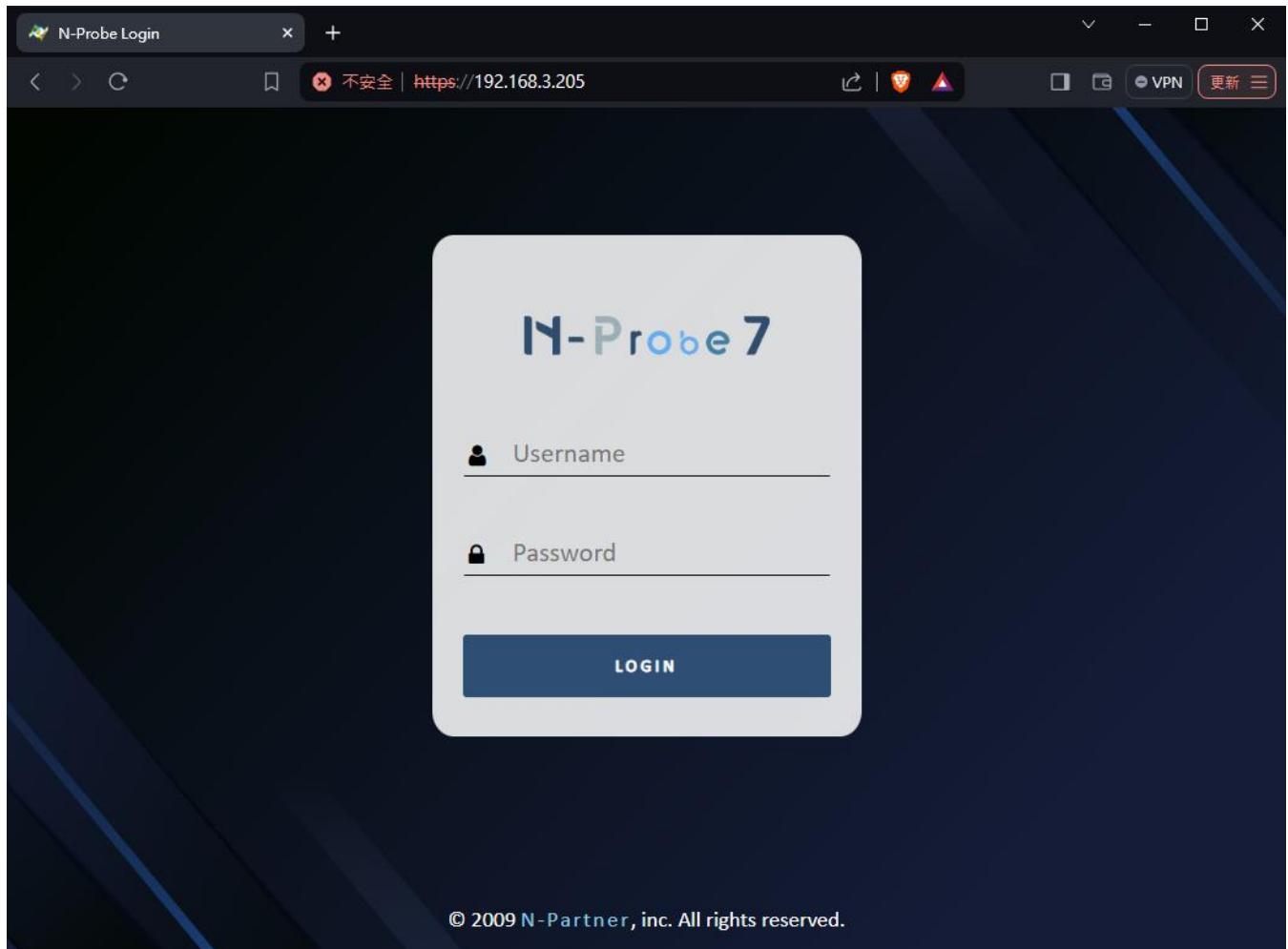
(5) 重新開機

系統會自動重新開機。按 [確定]



(6) 登入 N-Probe

重新開機後，開啟 [瀏覽器] -> URL 輸入 <https://<N-Probe/External Receiver IP>> 登入頁面和帳號密碼: npartner / npartner -> 按下 [Login]



(7) 確認 License 狀態

The screenshot shows the N-Probe 7 system management interface. On the left, there's a sidebar with user information (Npartner (Superuser)), navigation links (系統管理, 網路參數設定, 介面管理), and a manual icon. The main content area has tabs for Home, 系統管理, and 系統資訊.

In the 系統資訊 tab, there are two tables:

- 產品資訊** table:

產品型號	N-Probe
序號	NP-RPT-V-TW-ODMSWMES
版本	7.0.005
建版時間	2024/03/21 10:44
系統時間	2024/03/21 11:56:13 GMT+0800
已啟動時間	0014 Days 21:33
License 有效期限	2025/01/18 23:59:59
License 狀態	Demo
- Port 狀態測試** table:

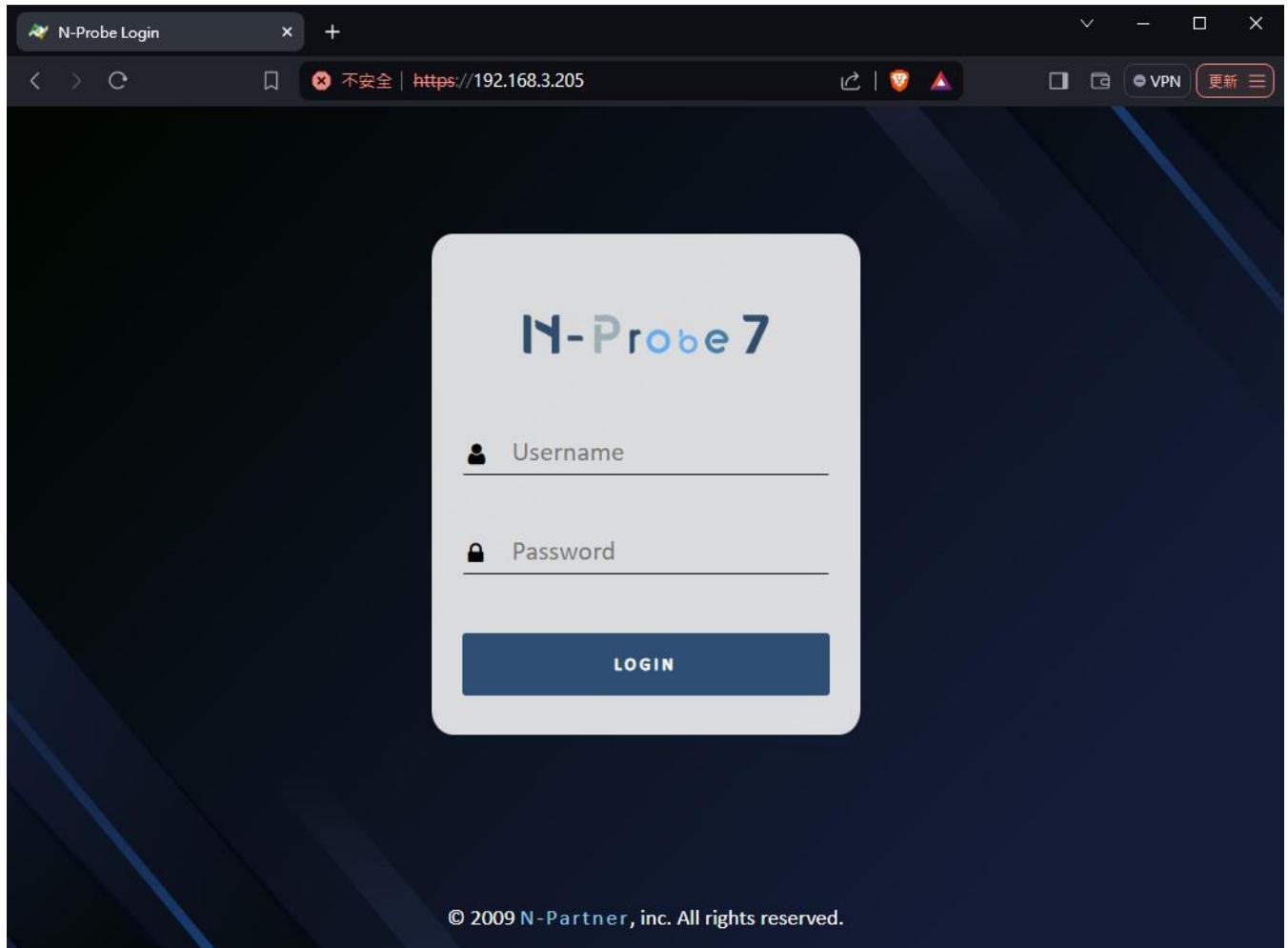
Probe Module	ON
External Receiver Module	ON
DNS Module	ON
PM Module	ON
Port 80	ON
Port 443	ON
Port 5521	ON
Port 18514	ON

Below the tables, there's a CPU utilization chart and a graph showing CPU Utilization (%) over time.

4.2 Firmware upgrade

(1) 登入 N-Probe/External Receiver

開啟 [瀏覽器] -> URL 輸入 <https://<N-Probe/External Receiver IP>> 登入頁面和帳號密碼: npartner / npartner -> 按下 [Login]



(2) 上傳軟體更新檔

按 [上傳軟體更新檔]

The screenshot shows the N-Probe 7 web interface. On the left, there's a sidebar with 'Npartner (Superuser)' and navigation links like 'Home', '系统管理', '網路參數設定', '介面管理', and '使用者手冊'. The main content area has a 'System Information' table with details such as Product Model (N-Probe), Serial Number (NP-RPT-V-TW-ODMSWMES), Version (7.0.005), and License Valid Until (2025/01/18). At the top right, there are buttons for 'Search License', 'Upload Software Update' (highlighted with a red box), 'Release Note', and 'Port Status Test'.

(3) 匯入軟體更新檔

按 [瀏覽] -> 選擇 [Firmware image] 檔案 -> 按 [匯入]



(4) 系統重啟

確認系統韌體上傳成功訊息，等待三分鐘系統自動刷新網頁

The screenshot shows the N-Probe management interface. At the top right, a green notification box says "系統韌體上傳成功，系統將在自動重啟後更新完成" with a checkmark. Below it, a modal window titled "Image upload" displays the message "系統將在 3:00 後重新啟動完成" with a circular progress icon. The main interface shows system information and a CPU utilization chart.

(5) 確認版本

重新開機後，開啟 [瀏覽器] -> URL 輸入 <https://<N-Probe/External Receiver IP>> 登入頁面和帳號密碼: npartner / npartner，確認韌體版本。

The screenshot shows the N-Probe management interface. In the "System Information" section, the "Version" field is highlighted with a red box and contains the value "7.0.005".

5. N-Probe 設定

5.1 N-Probe

透過終端機模擬軟體 (例如：Putty、SecureCRT、XShell 等) 以 SSH 連線到N-Probe 命令列介面(CLI)
(預設的 CLI 登入帳號密碼 : npartner / npartner)

(1) 查看設定檔

```
N-Probe# show configure
```

```
N-Probe6.0# show configure
#####
# Current configuration #####
flow-sampling 1
hostname N-Probe6.0
interface eth0 192.168.2.128 255.255.254.0 gw 192.168.2.253
ip dns1 192.168.5.202
ntpdate 192.168.5.202
#####
# End #####
#
```

(2) 進入設定模式

```
N-Probe# configure terminal
```

(3) 設定 Flow 流量輸出到 N-Reporter 接收 IP 與 Port

```
N-Probe(config)# flow-export 192.168.2.77 9001
```

註: 紅色文字部位請輸入 N-Cloud/N-Reporter IP address

(4) 設定 Flow 取樣率擷取封包

```
N-Probe(config)# flow-sampling 1
```

(5) 啟用監聽 IPv6 傳輸流量封包

```
N-Probe(config)# flow-ipv6 on
```

(6) 離開 configure terminal

```
N-Probe(config)# exit
```

```
N-Probe# configure terminal
N-Probe(config)# flow-export 192.168.2.77 9001
N-Probe(config)# flow-sampling 1
N-Probe(config)# flow-ipv6 on
N-Probe(config)# exit
N-Probe#
```

(7) 確認設定狀態

```
N-Probe# show configure
```

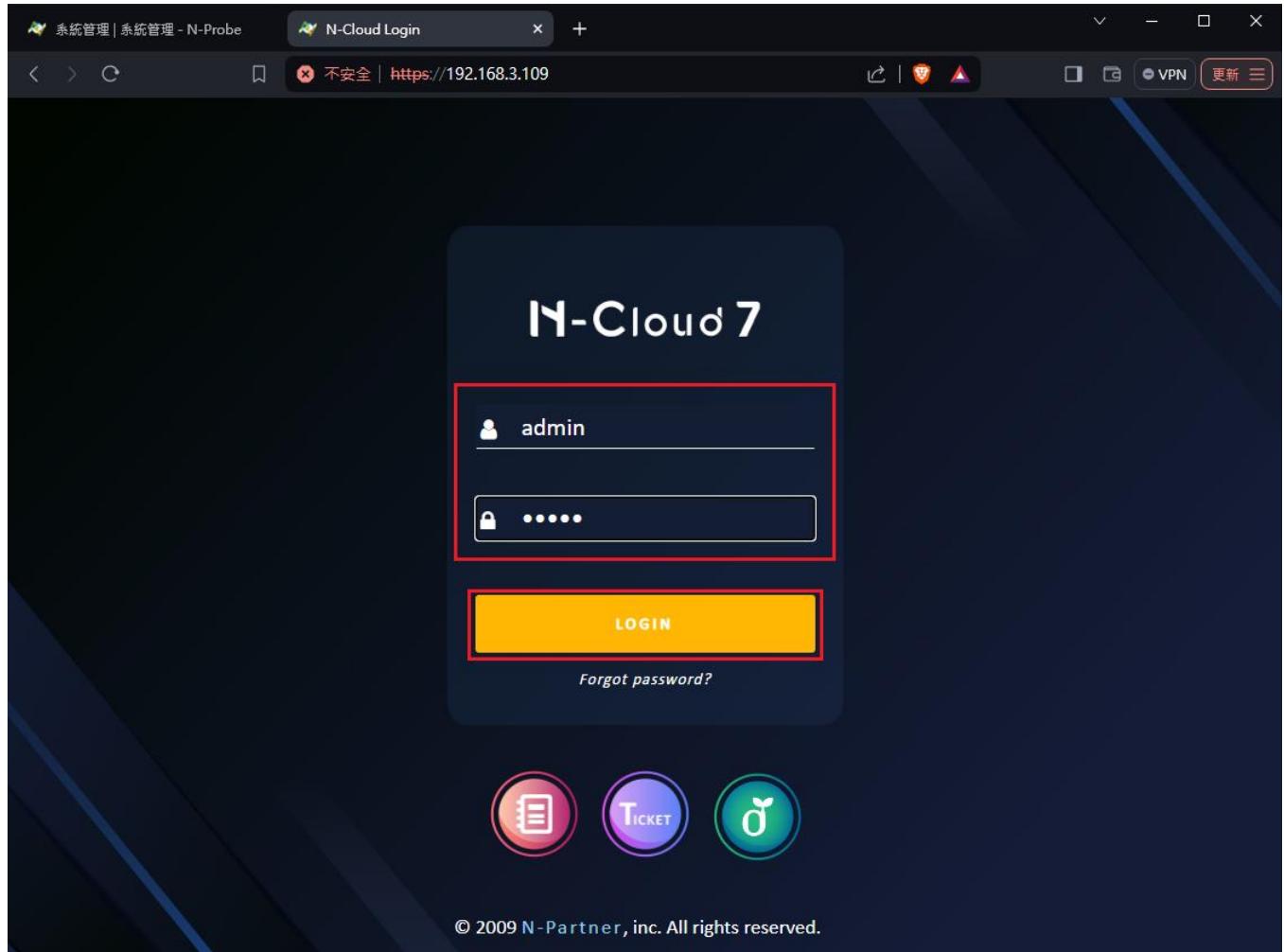
```
N-Probe# show configure
#####
# Current configuration #####
flow-cache timeout active 30
flow-export 192.168.2.77 9001
flow-ipv6 on
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
#####
# End #####
N-Probe#
```

5.2 N-Cloud/N-Reporter

(1) 登入 VMware ESXi

開啟 [瀏覽器] -> URL 輸入 <https://N-Cloud/N-Reporter IP> -> 輸入前台帳號和密碼 -> 按 [登入]

(預設的Web 前台登入帳號密碼 : admin / admin , 預設的 Web 後台登入帳號密碼: superuser / admin)



(2) 新增 N-Probe 設備

點選 [設備管理] -> [設備樹狀圖] -> [未知設備] 項目搜尋 N-Probe IP address 設備 -> 點選 [編輯]

The screenshot shows the N-Cloud 7 web interface. On the left, there's a sidebar with 'npartner (Global)' and several menu items: 事件 (Events), 報表 (Reports), 智慧分析 (Smart Analysis), Dashboard, 設備管理 (Device Management), 設備資產樹狀圖 (Device Asset Tree View), 設備批次管理 (Device Batch Management), and 設備細項設定 (Device Detailed Settings). The 'Device Management' item is highlighted with a red box. The main area is titled '設備資產樹狀圖' (Device Asset Tree View) and shows a table with two rows. The first row is for 'Global (1020/1143)' and the second is for '未知設備 (0/6)'. The '未知設備 (0/6)' row has a red box around it. The table includes columns for 操作 (Operation), 所屬領域 (Category), IP, 設備名稱 (Name), 設備種類 (Type), 資料格式 (Data Format), Raw Data 保留 (Raw Data Retention), Model, 監控狀態 (Monitoring Status), 介面狀態 (Interface Status), and 磁碟 (Disk).

(3) 選擇N-Cloud / N-Reporter / N-Probe -> 點選[引導模式]



(4) 輸入設備名稱並確認Syslog 資料格式、SNMP Model為 N-Partner

新增設備 - 設備基本設定

設備基本設定

設備名稱 *

IP *

所屬領域 *

Syslog 資料格式 ⓘ

自定義資料格式 ⓘ



SNMP Model ⓘ

Web 監控 ⓘ

 啟用網頁監控功能

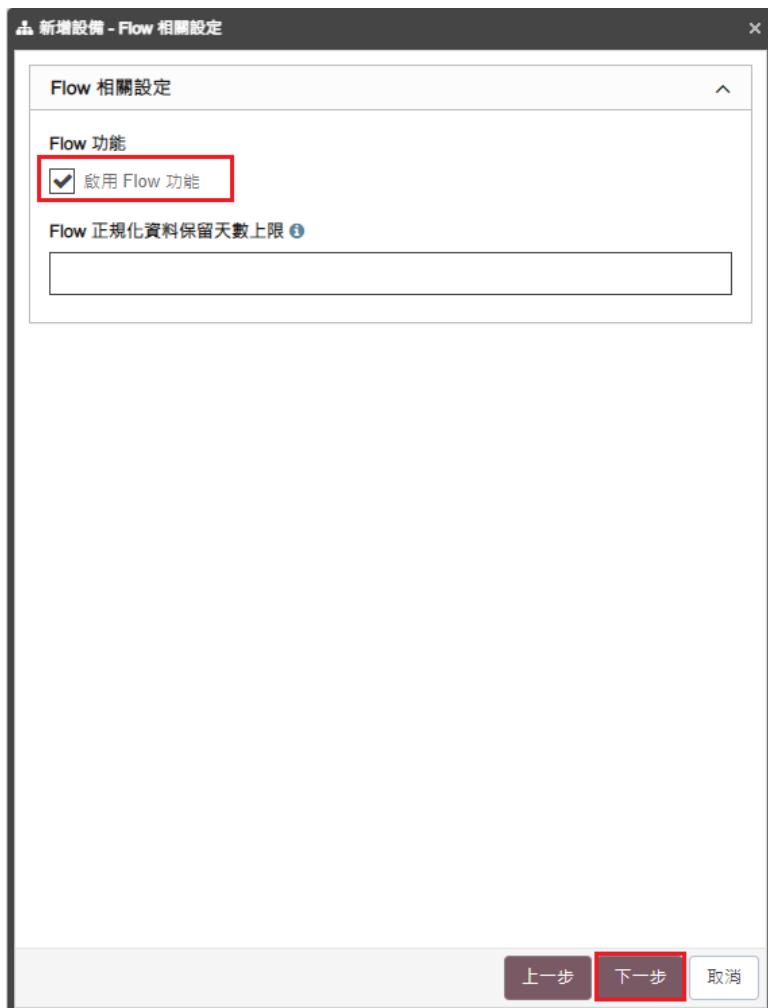
上一步

下一步

取消

(5) 設定 N-Probe Flow相關設定

勾選 [啟用Flow功能] -> 按下 [下一步]



(6) 確認設定並點選確定

新增設備 - Confirmation

設備基本設定	Detail	More
--------	--------	------

General

名稱	N-Probe7
IP	192.168.3.205
所屬領域	Global
設備種類	N-Cloud/ N-Reporter/ N-Probe
資料格式	N-Partner
Model	N-Partner
Web 監控	未啟用

Alert Templates & Notification

ICMP 告警樣版	未設定
設備告警樣版	未設定
程序告警樣版	未設定
自訂 OID 樣版	未設定
通報設定	

上一步 確定 取消

(7) 是否啟用預設報表 -> 是

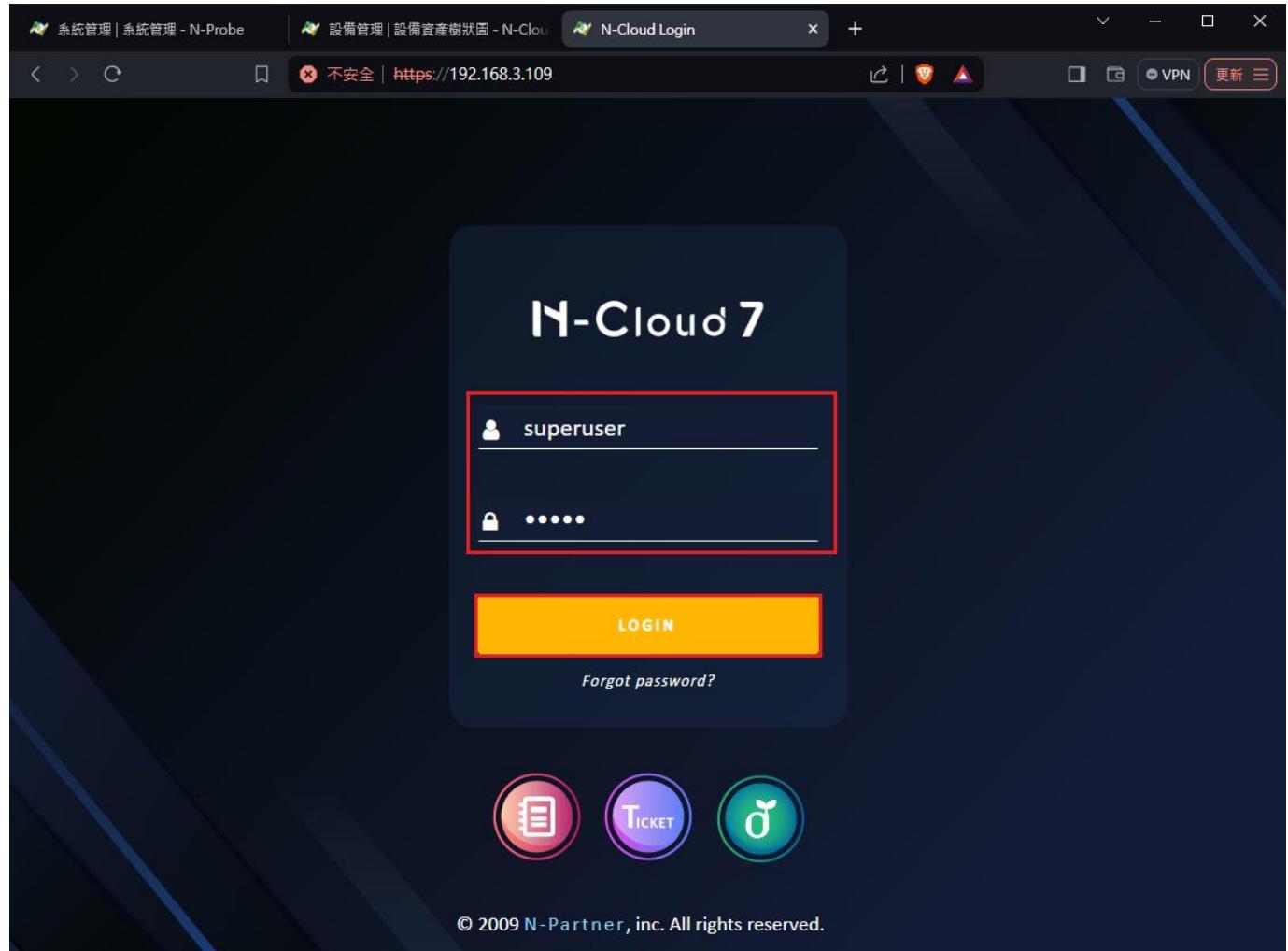


5.3 N-Probe join N-Cloud/N-Reporter

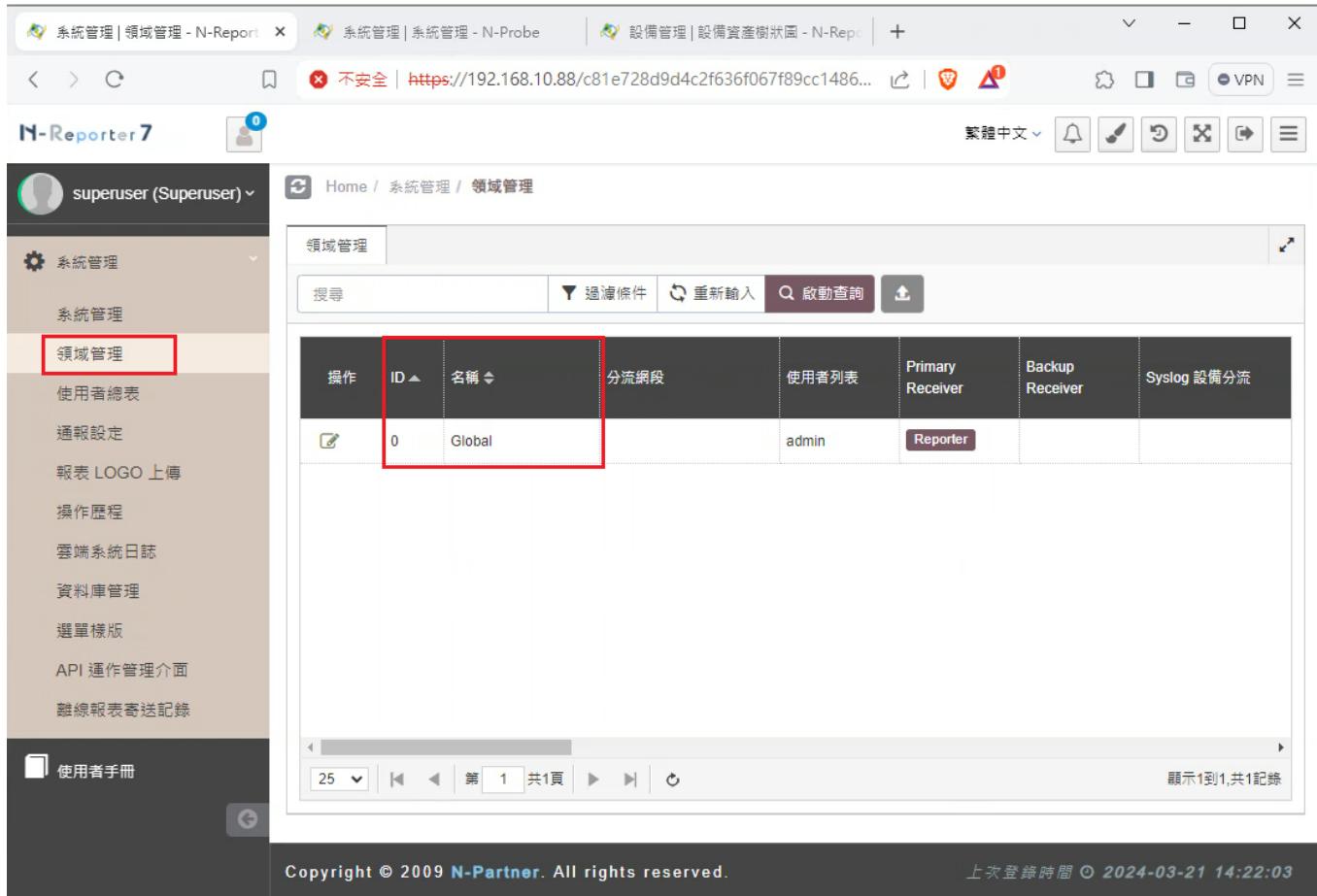
5.3.1 N-Cloud

(1) 開啟 [瀏覽器] -> URL 輸入 <https://<N-Cloud/N-Reporter IP>> -> 輸入後台帳號密碼 -> 按 [Login]

(預設的Web 前台登入帳號密碼：admin / admin , 預設的 Web 後台登入帳號密碼: superuser / admin)



(2) [領域管理] 查看領域 ID 和領域名稱



The screenshot shows the N-Reporter 7 web interface. The left sidebar has a 'Domain Management' section highlighted with a red box. The main content area shows a table with the following data:

操作	ID	名稱	分流網段	使用者列表	Primary Receiver	Backup Receiver	Syslog 設備分流
	0	Global		admin	Reporter		

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5.3.2 N-Probe

透過終端機模擬軟體(例如：Putty、SecureCRT、XShell 等) 以 SSH 連線到 N-Probe 命令列介面(CLI)
(預設的 CLI 登入帳號密碼：npartner / npartner)

(1) 查看版本

```
N-Probe# show version
```

```
N-Probe# show version
Software version : 7.0.005 (20240301-1657)
NP Kernel version : 20231201164625
Serial number :
N-Probe#
```

(2) 進入 config 模式

```
N-Probe# configure terminal
```

```
N-Probe# configure terminal
N-Probe(config)#
```

(3) N-Probe 註冊 N-Cloud/N-Reporter IP

```
N-Probe(config)# ncloud ipv4 192.168.10.88
```

```
N-Probe(config)# ncloud ipv4 192.168.10.88
Success. N-Cloud ip is set to 192.168.10.88
N-Probe(config)#
```

註：紅色文字部位請輸入 N-Cloud/N-Reporter IP address

(4) 系統註冊，本例使用領域名稱註冊 Global 領域

```
N-Probe(config)# system register
```

```
N-Probe(config)# system register domain-name Global
```

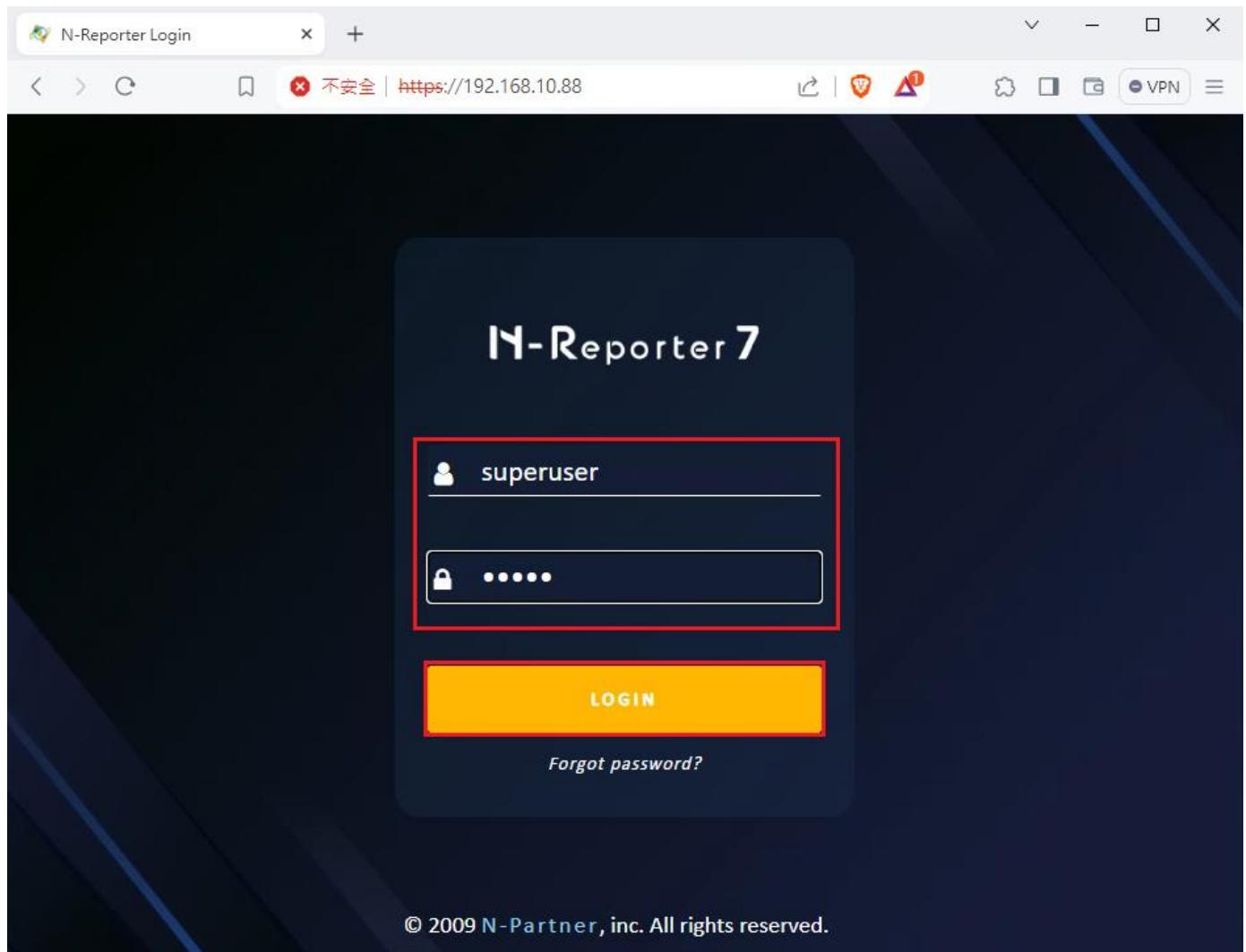
```
N-Probe(config)# system register
domain-id      Register device with the specific domain id
domain-name    Register device with the specific domain name
global         Register device with the "Global" domain
update         Update device info with the existed machine id
reset          Reset old gossip config if this probe will move to another N-Cloud
N-Probe(config)# system register domain-name Global
Register to N-Cloud/N-Reporter 192.168.10.88 is successful
N-Probe(config)#
```

註：紅色文字部位請輸入領域 ID 或領域名稱，領域名稱分大小寫。

5.3.3 N-Cloud/N-Reporter

(1) 開啟 [瀏覽器] -> URL 輸入 <https://<N-Cloud/N-Reporter IP>> -> 輸入後台帳號密碼 -> 按 [Login]

(預設的Web 前台登入帳號密碼：admin / admin , 預設的 Web 後台登入帳號密碼: superuser / admin)



(2) 查看 N-Probe 設備列表 -> [系統管理] -> [Probe 列表] 頁面

The screenshot shows the N-Probe management interface. The left sidebar has a 'System Management' section with 'System Management' highlighted. The main content area shows system information and a probe list table.

System Information:

- System Time: 2024/03/21 14:22:27 GMT+0800
- Up-time: 0000 Days 00:06
- License Valid Period: 2024/05/20 23:59:59
- License Status: Demo
- Kernel Version: 20231201164625
- Information Database Version: 2024031515 (Update)

Probe List:

操作	設備名稱	所屬領域	模組	IP	NAT 來源 IP	序號	版本	Kernel 版本	主機硬體監控	資料磁碟	狀態	最近修改時間	接收量	更新記錄
刪除	N-Probe	Global	Probe, External Receiver, DNS, Performance Monitor	192.168.10.89	192.168.10.89	7.0.005 (20240301-1657)	更新	20231201164625	溫度 風扇 磁碟	狀態 健康	正常	2024/03/21 14:20	上傳 圖表	詳細

6. External Receiver 設定

6.1 External Receiver

透過終端機模擬軟體(例如：Putty、SecureCRT、XShell 等) 以 SSH 連線到 External Receiver 命令列介面(CLI)
(預設的 CLI 登入帳號密碼 : npartner / npartner)

(1) 查看設定檔

```
N-Probe# show configure
```

```
N-Probe# show configure
##### Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ncloud ipv4 192.168.10.88
ntp server on tock.stdtime.gov.tw
##### End #####
N-Probe#
```

(2) 進入設定模式

```
N-Probe# configure terminal
```

(3) 設定 Syslog 和 Flow 流量輸出到 N-Reporter 接收 IP

```
N-Probe(config)# ncloud ipv4 192.168.10.88
```

註：紅色文字部位請輸入 N-Cloud/N-Reporter IP address

(4) 離開 configure terminal

```
N-Probe(config)# exit
```

(5) 確認是否有設定成功

```
N-Probe# show configure
```

```
N-Probe# configure terminal
N-Probe(config)# ncloud ipv4 192.168.10.88
Success. N-Cloud ip is set to 192.168.10.88
N-Probe(config)# exit
N-Probe# show configure
##### Current configuration #####
collector 192.168.10.88
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ncloud ipv4 192.168.10.88
ntp server on tock.stdtime.gov.tw
##### End #####
N-Probe#
```

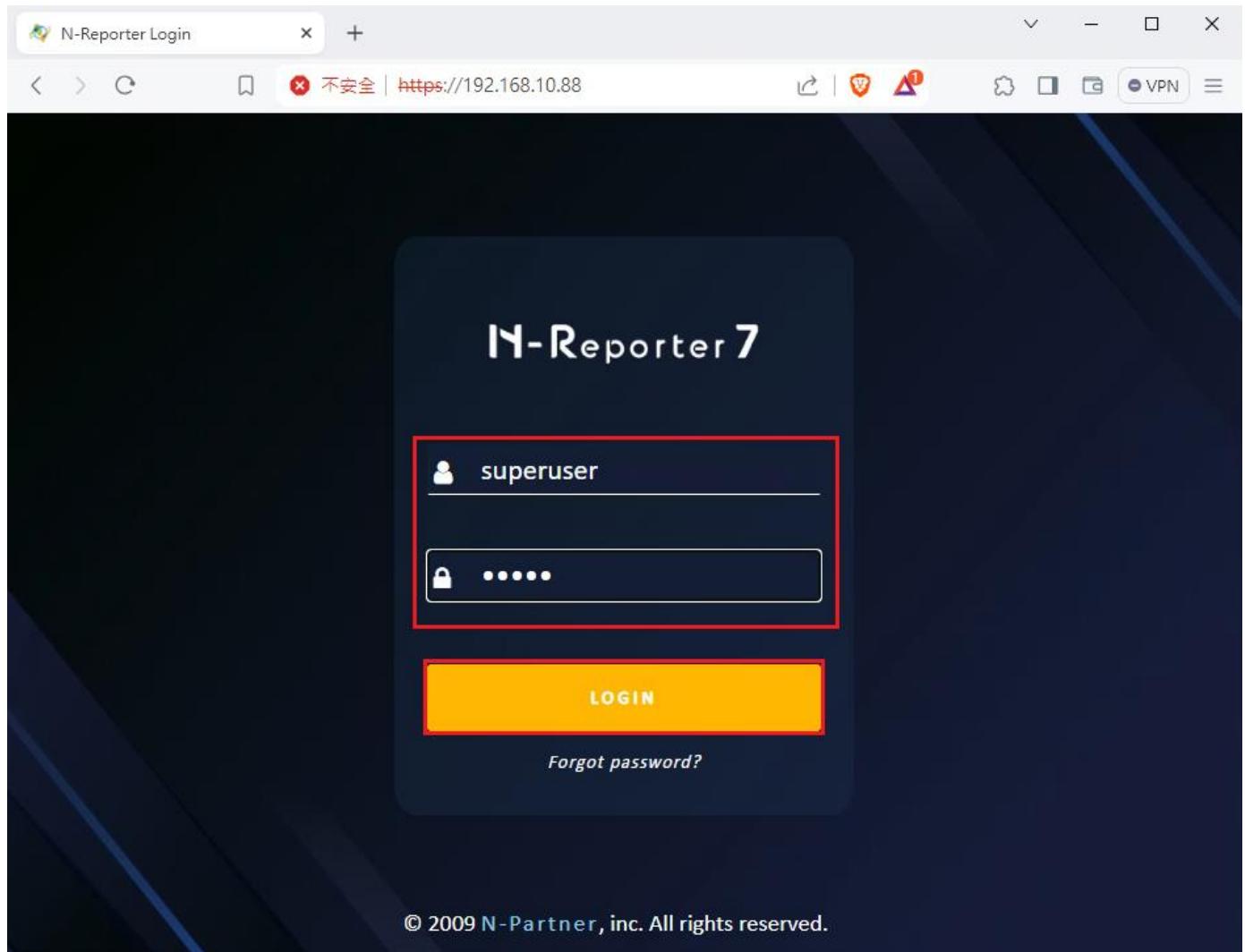
6.2 N-Cloud/N-Reporter

6.2.1 N-Cloud/N-Reporter Domain

(1) 登入 N-Cloud/N-Reporter 後台

開啟 [瀏覽器] -> URL 輸入 <https://<N-Cloud/N-Reporter IP>> -> 輸入後台帳號密碼 -> 按 [登入]

(預設的 Web 前台登入帳號密碼 : admin / admin , 預設的 Web 後台登入帳號密碼: superuser / admin)



(2) 編輯領域

點選 [系統管理] -> [領域管理] -> 選擇 [領域] (範例領域名稱: N-Partner) -> 按下 [編輯]

The screenshot shows the N-Reporter 7 web-based system management interface. On the left, there is a sidebar with various menu items: 系統管理 (System Management), 領域管理 (Domain Management) which is highlighted with a red box, 使用者總表 (User Summary), 通報設定 (Report Settings), 報表 LOGO 上傳 (Report Logo Upload), 操作歷程 (Operation History), 雲端系統日誌 (Cloud System Log), 資料庫管理 (Database Management), 選單模版 (Menu Template), API 連作管理介面 (API Work Management Interface), and 離線報表寄送記錄 (Offline Report Delivery Record). Below the sidebar is a '使用者手冊' (User Manual) section with a PDF icon.

The main content area is titled '域管理' (Domain Management). It features a search bar with fields for '搜尋' (Search), '過濾條件' (Filter Conditions), '重新輸入' (Re-enter), and '啟動查詢' (Start Query). There is also a '上' (Up) button. Below the search bar is a table with the following columns: 操作 (Operation), ID ▲ (ID), 名稱 (Name), 分流網段 (Traffic Segmentation), 使用者列表 (User List), Primary Receiver, Backup Receiver, and Syslog 設備分流 (Syslog Equipment Segmentation). A single row is displayed, showing an operation icon, ID 0, name Global, no traffic segmentation, user list admin, primary receiver Reporter, and no backup receiver or syslog segmentation.

At the bottom of the main content area, there is a footer with the text 'Copyright © 2009 N-Partner. All rights reserved.' and '上次登錄時間: 2024-03-21 14:22:03'.

(3) 輸入 External Receiver

點選 [其他資訊] 頁面 -> 在 External Receiver 欄位輸入 **External Receiver IP address** -> 按 [確定]

領域管理

基本資訊 其他資訊

External Receiver
192.168.10.89

公司名稱

啟動時間
2017/01/01

到期時間
2100/01/01

狀態
 啟用 到期 暫停使用

備註

確定 取消

(4) 儲存完成

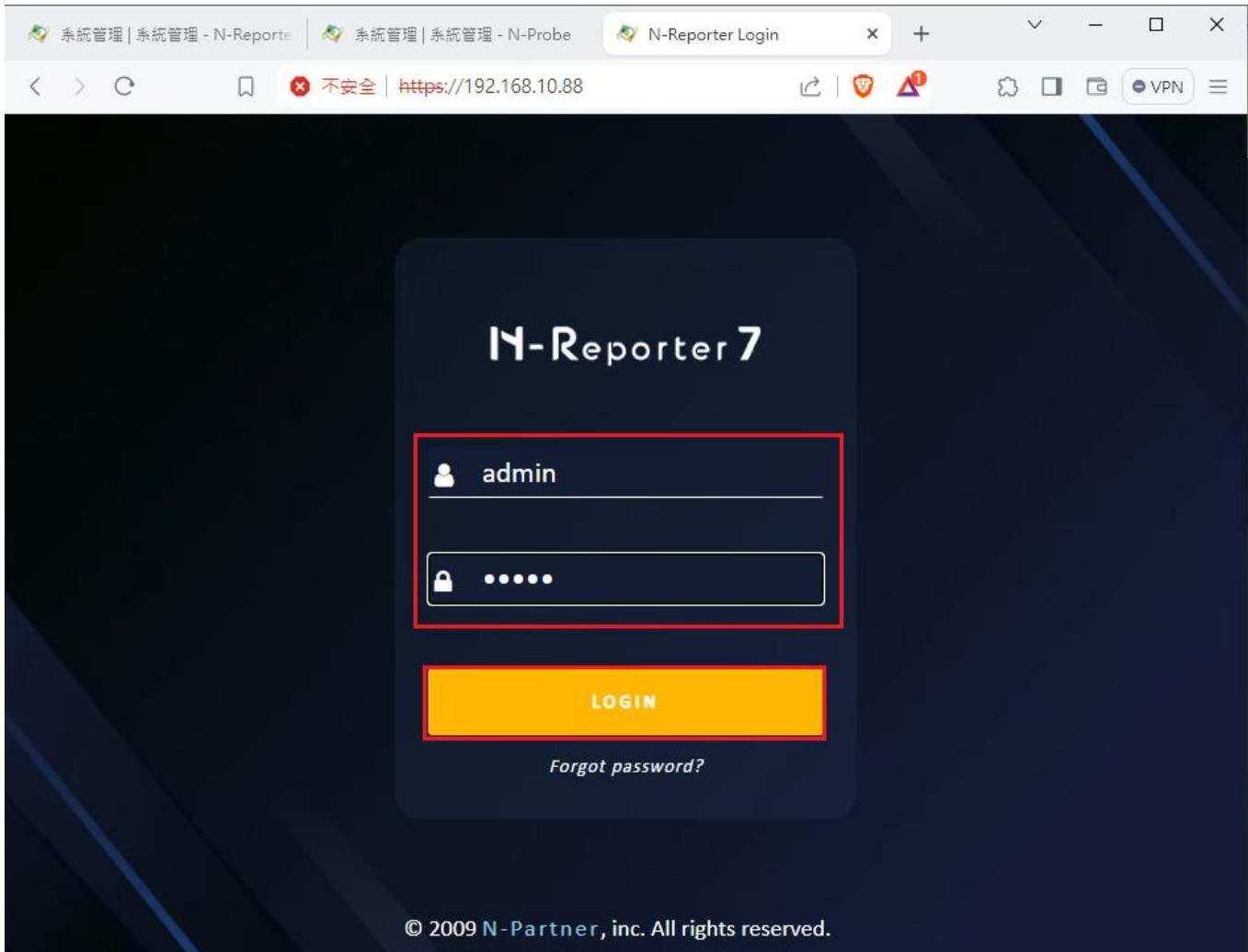
The screenshot shows the N-Reporter 7 web interface. The left sidebar has a 'superuser (Superuser)' profile icon and a navigation menu with items like 系統管理, 領域管理, 使用者總表, 通報設定, 報表 LOGO 上傳, 操作歷程, 雲端系統日誌, 資料庫管理, 選單樣版, API 連作管理介面, and 離線報表寄送記錄. The main content area is titled '領域管理' and displays a table with one row of data. The table columns are 操作, ID, 名稱, 分流網段, 使用者列表, Primary Receiver, Backup Receiver, and Syslog 設備分流. The data row shows: 操作 (Edit icon), ID (0), 名稱 (Global), 分流網段 (empty), 使用者列表 (admin), Primary Receiver (Reporter), Backup Receiver (empty), and Syslog 設備分流 (empty). A green banner at the top right says '儲存完成' (Save successful) with a checkmark icon. At the bottom, there's a copyright notice 'Copyright © 2009 N-Partner. All rights reserved.' and a timestamp '上次登錄時間 2024-03-21 14:22:03'.

6.2.2 N-Cloud/N-Reporter Device

(1) 登入 N-Cloud/N-Reporter 前台

開啟 [瀏覽器] -> URL 輸入 <https://<N-Cloud/N-Reporter IP>> -> 輸入前台帳號密碼 -> 按 [Login]

(預設的Web 前台登入帳號密碼 : admin / admin , 預設的 Web 後台登入帳號密碼: superuser / admin)



(2) 新增領域設備

選擇 [設備管理] -> [設備樹狀圖] -> [未知設備] 項目搜尋領域 (範例領域名稱: N-Partner) -> 點選 [編輯]

The screenshot shows the N-Reporter 7 web interface. The left sidebar has a '设备管理' (Device Management) section with a '设备资产树状图' (Asset Tree) option highlighted with a red box. The main content area shows a table titled '设备资产树状图' (Asset Tree) with one row:

操作	所屬領域	IP	設備名稱	設備種類
	Global	192.168.10.5	192.168.10.5	Syslog

The '操作' (Operation) column for the first row contains edit and delete icons, both of which are highlighted with red boxes.

(3) 設定領域設備的資料格式

依據設備資料格式設定並新增設備。

7. 問題排除

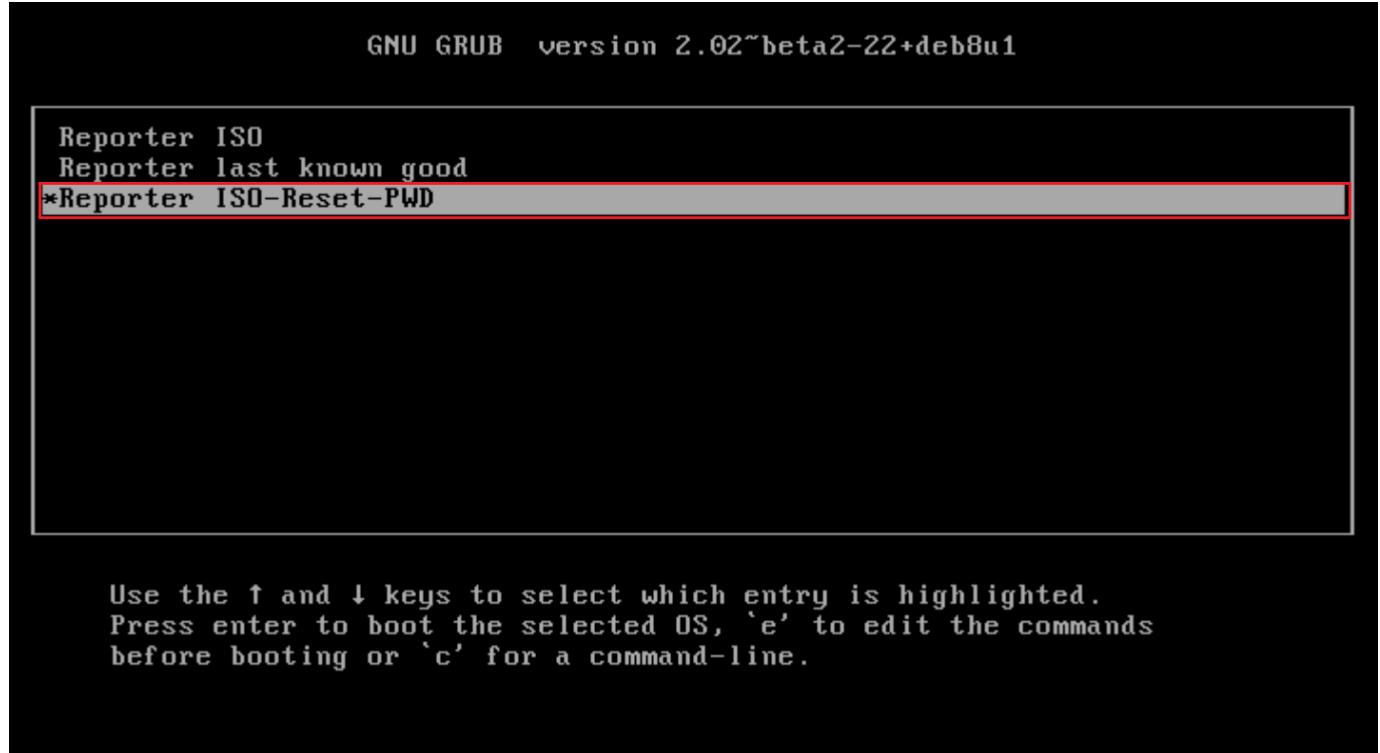
7.1 恢復預設密碼

(1) 重新啟動 N-Probe

```
N-Probe# reboot
```

```
N-Probe6.0# reboot
```

(2) 開機畫面顯示 GNU GRUB -> 選擇 [Booting from ISO-RESET-PWD] -> 按 [Enter]



(3) 檢查沒有 password 設定

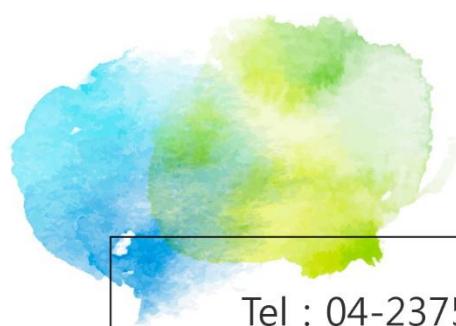
```
N-Probe# show configure
```

```
N-Probe# show configure
##### Current configuration #####
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
interface eth0 192.168.10.89 255.255.255.0 gw 192.168.10.5
ip dns1 8.8.8.8
ncloud ipv4 192.168.10.88
ntp server on tock.stdtime.gov.tw
##### End #####
N-Probe#
```

(4) 重新啟動 N-Probe

```
N-Probe# reboot
```

```
N-Probe# reboot
```



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