N-Partner

如何部屬

N-Probe/External Receiver VM V024

2024/07/04

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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。

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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。

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。

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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

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

壓縮檔

https://www.npartner.com/download/vm/Hyper-V/N-Probe7_500G.hpv.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。

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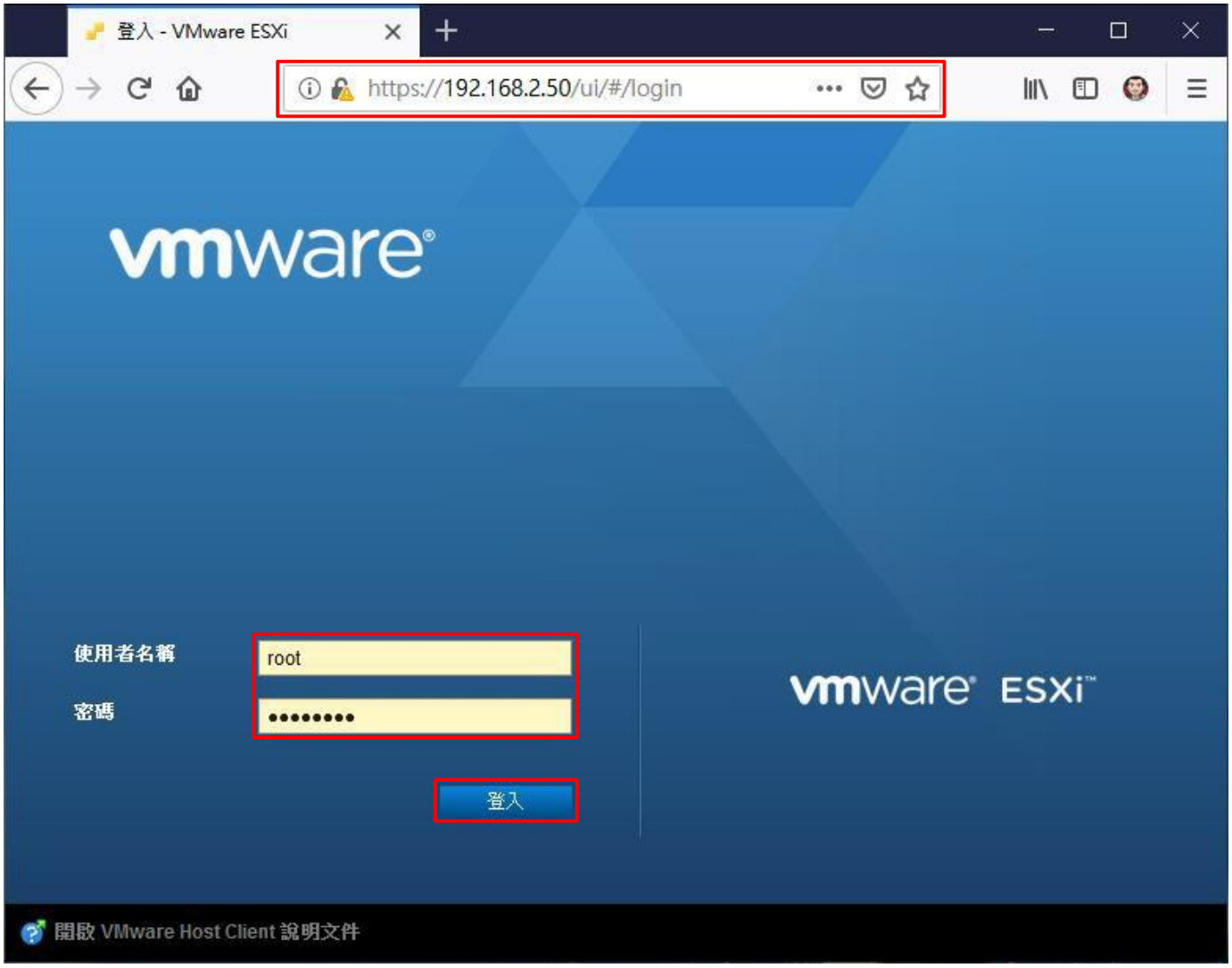
3. 安裝流程

3.1 vSphere Web Client

3.1.1 vSwitch Promiscuous Mode

(1) 登入 VMware ESXi

開啟 [瀏覽器] -> URL 輸入 https://<*VMware IP*> -> 輸入使用者名稱和密碼 -> 按 [登入]



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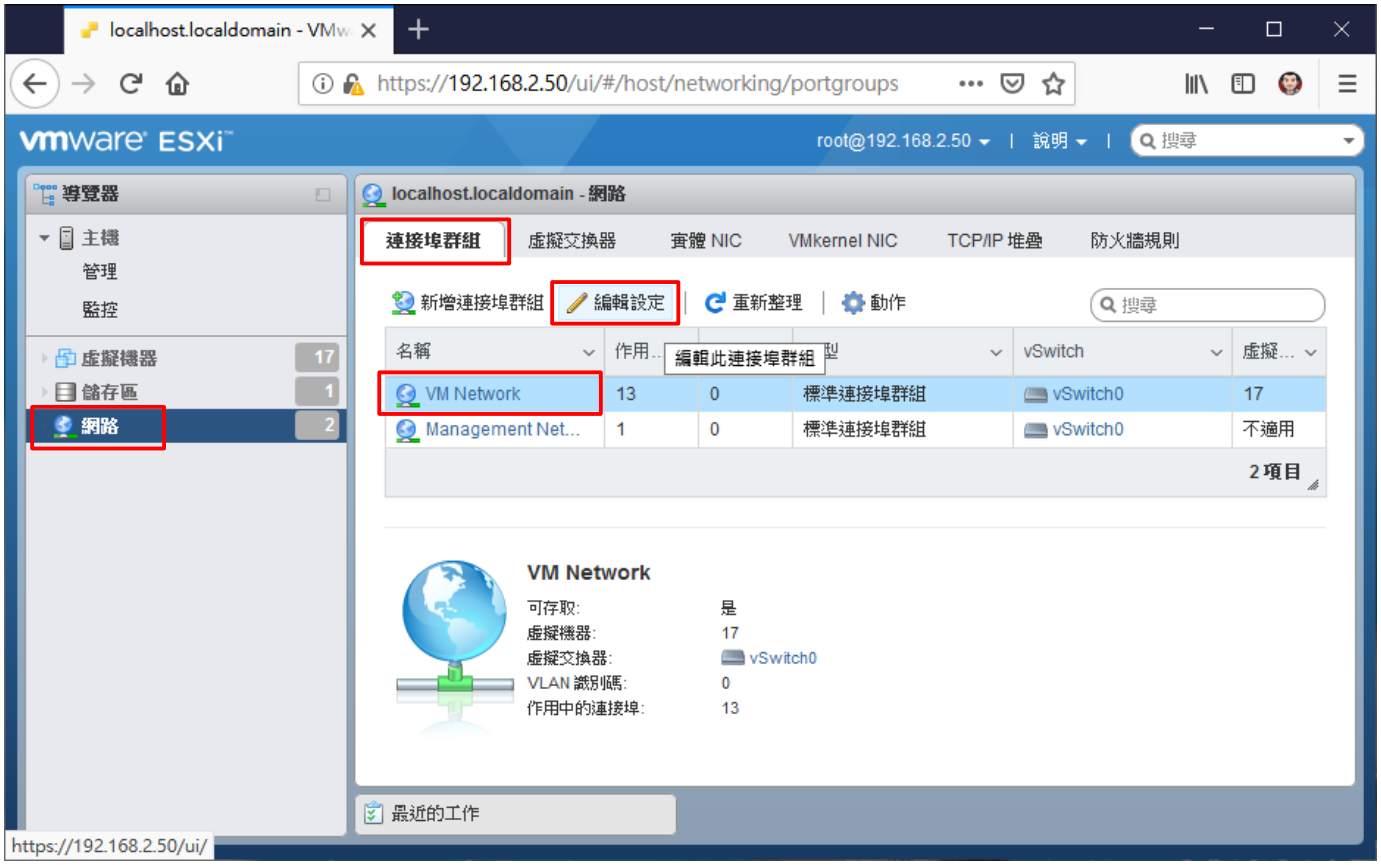
(2) 編輯網路設定

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]



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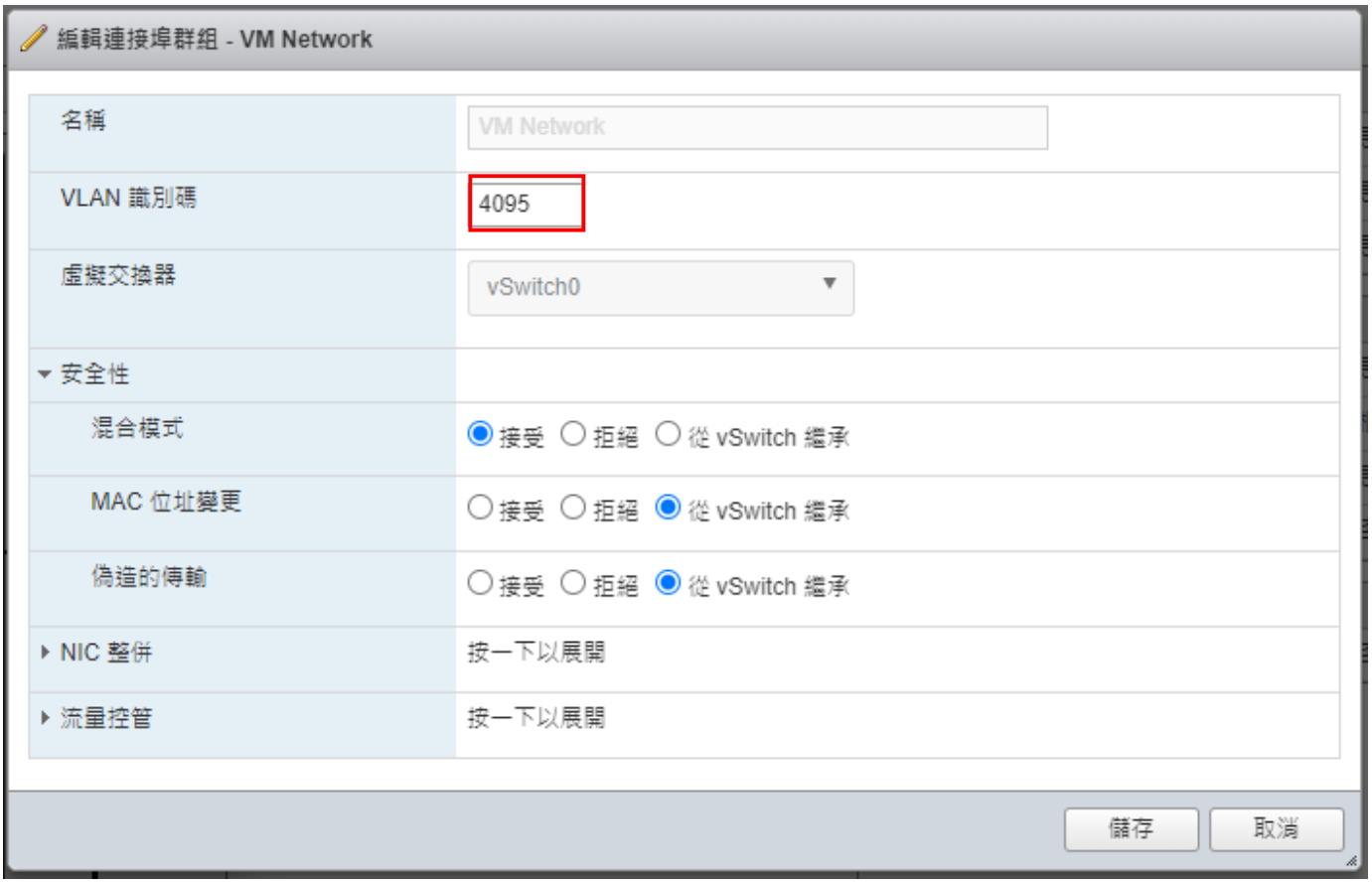
(3) 啟用VGT 模式

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

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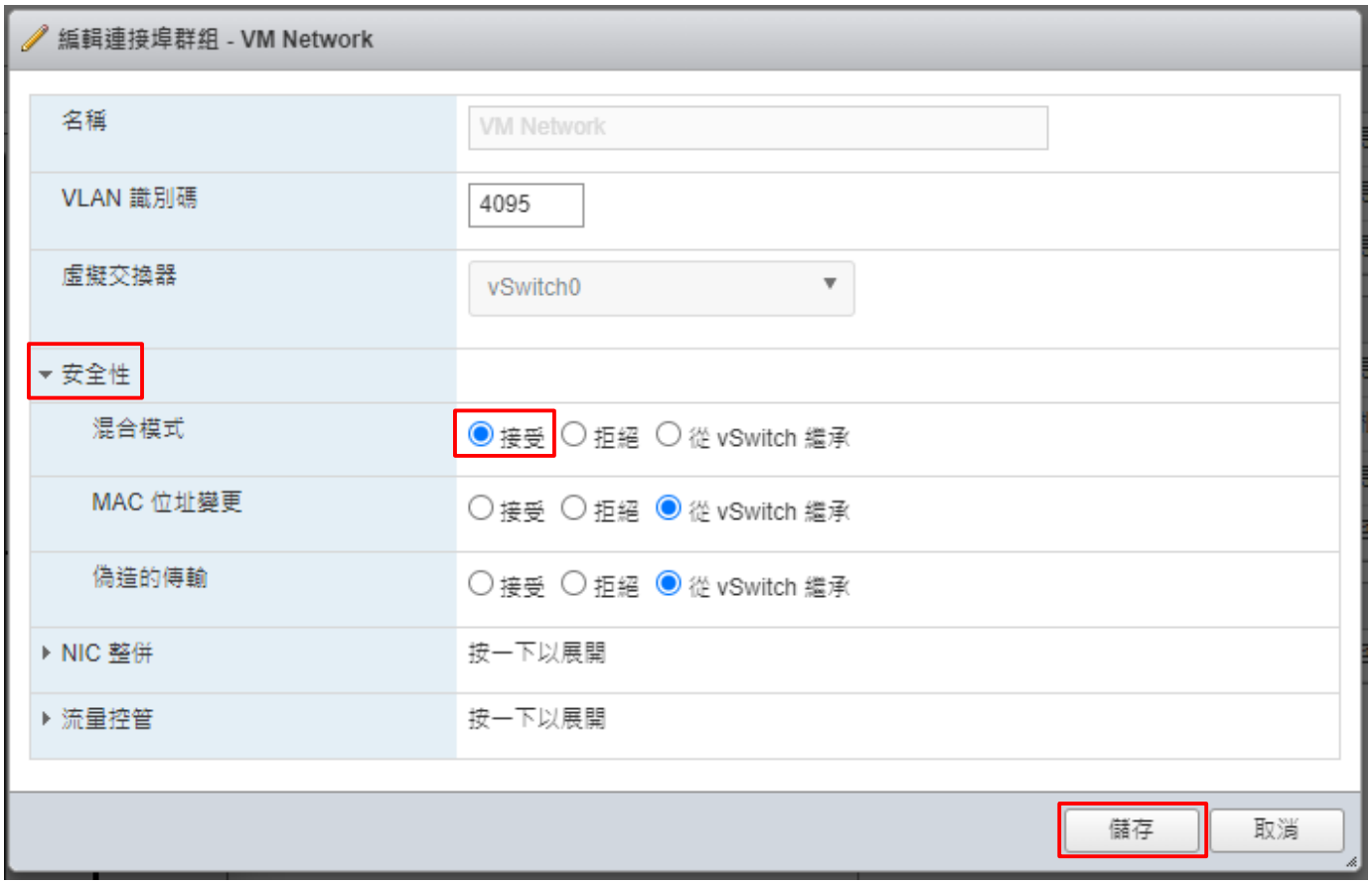
(4) 啟用混合模式

展開 [安全性] -> 點選混合模式: [接受] -> 按 [儲存]



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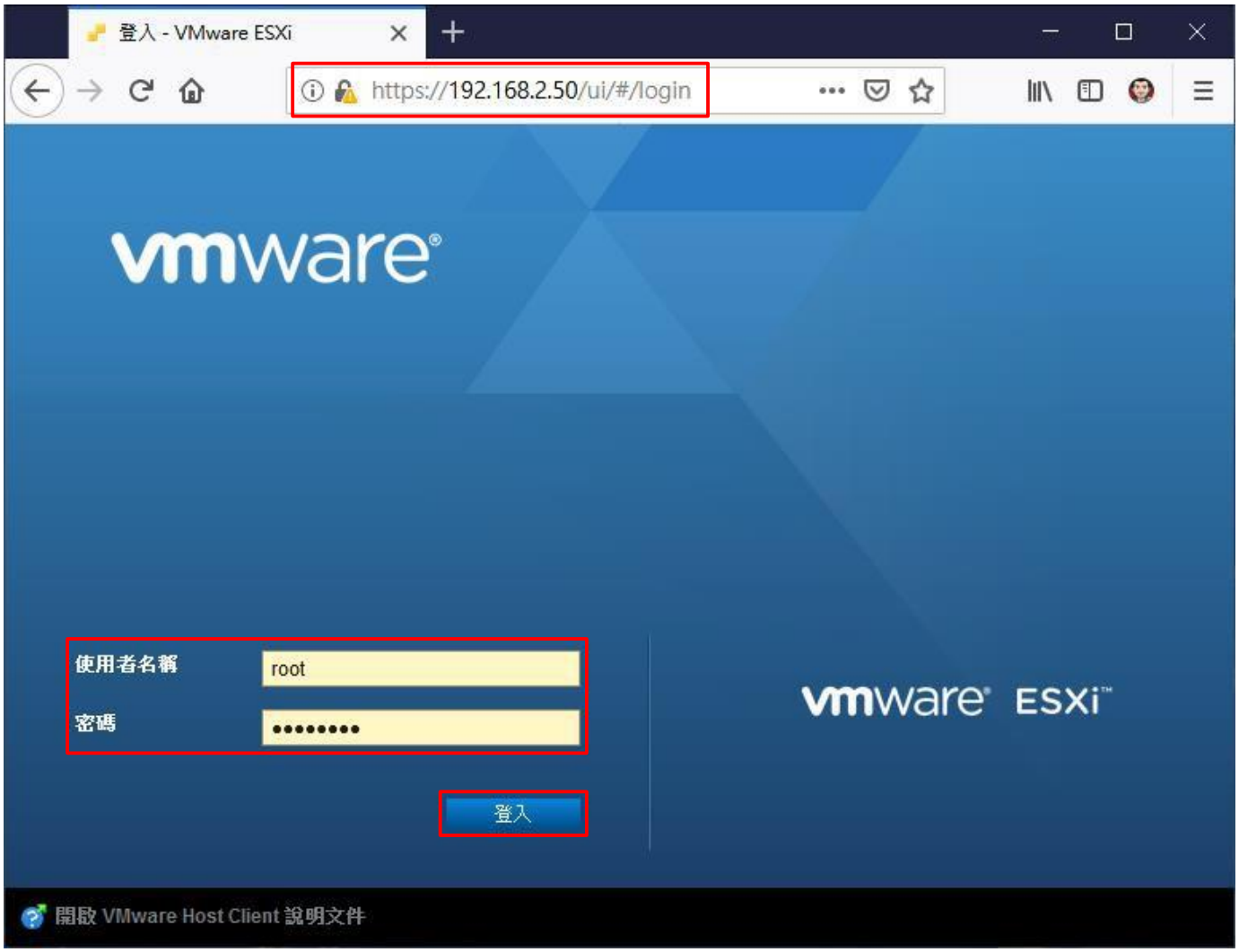
3.1.2 Import N-Probe VM

(1) 登入 VMware ESXi

開啟 [瀏覽器] -> URL 輸入 https://<*VMware IP*> -> 輸入使用者名稱和密碼 -> 按 [登入]



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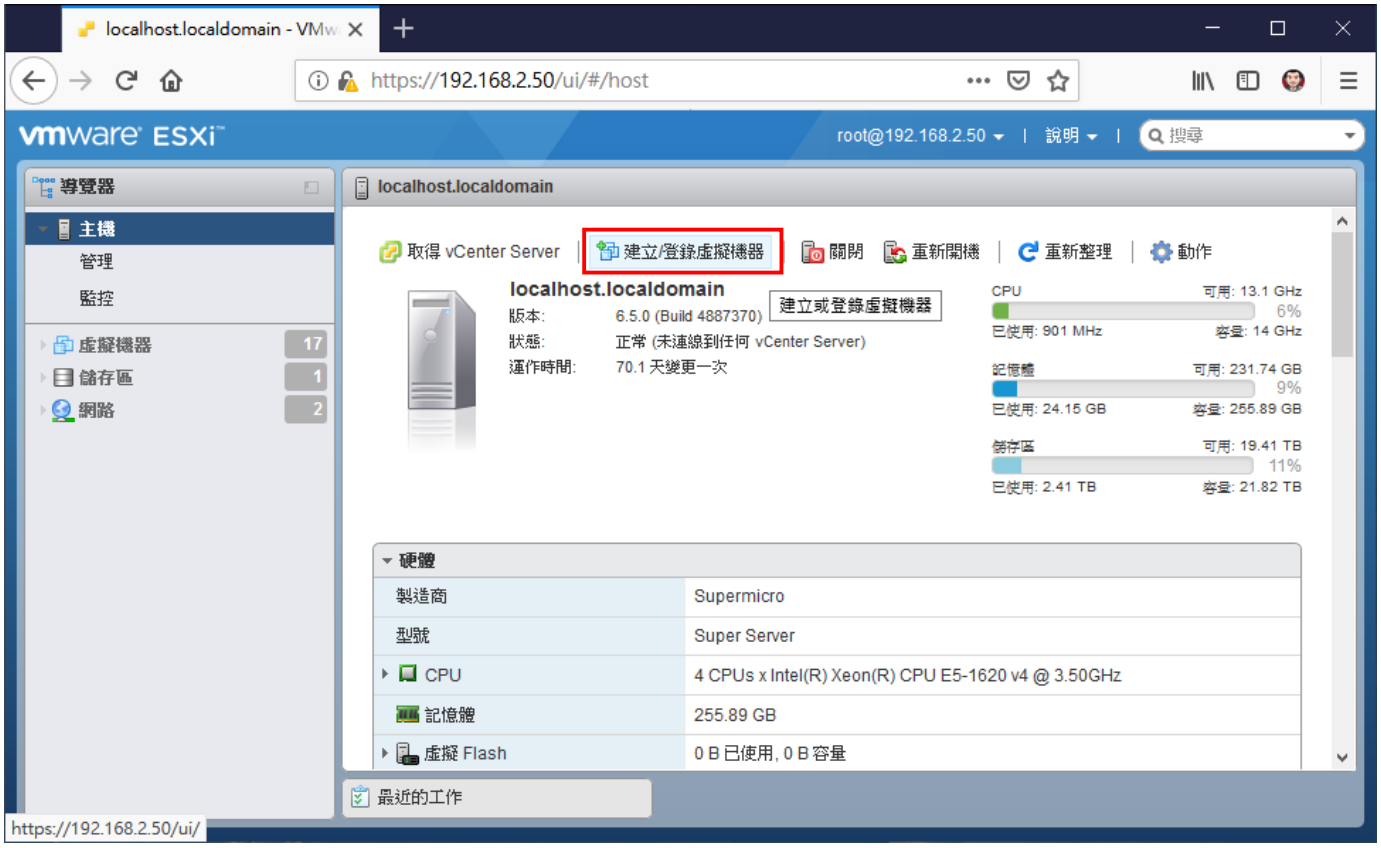
(2) 部署虛擬機器

點選 [建立/登錄虛擬機器]



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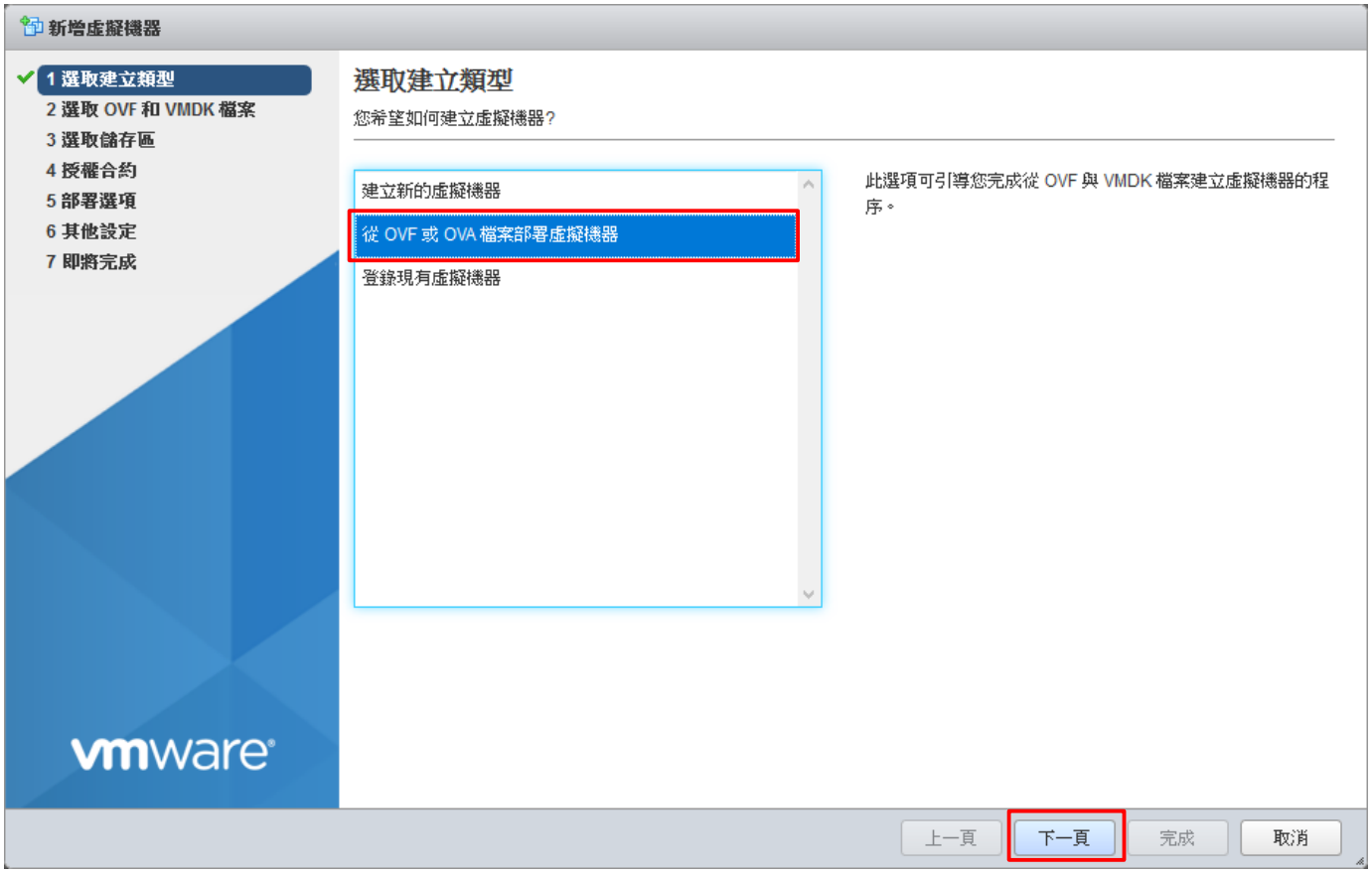
(3) 選取建立類型

選擇 [從 OVF 或 OVA 檔案部署虛擬機器] -> 按 [下一頁]



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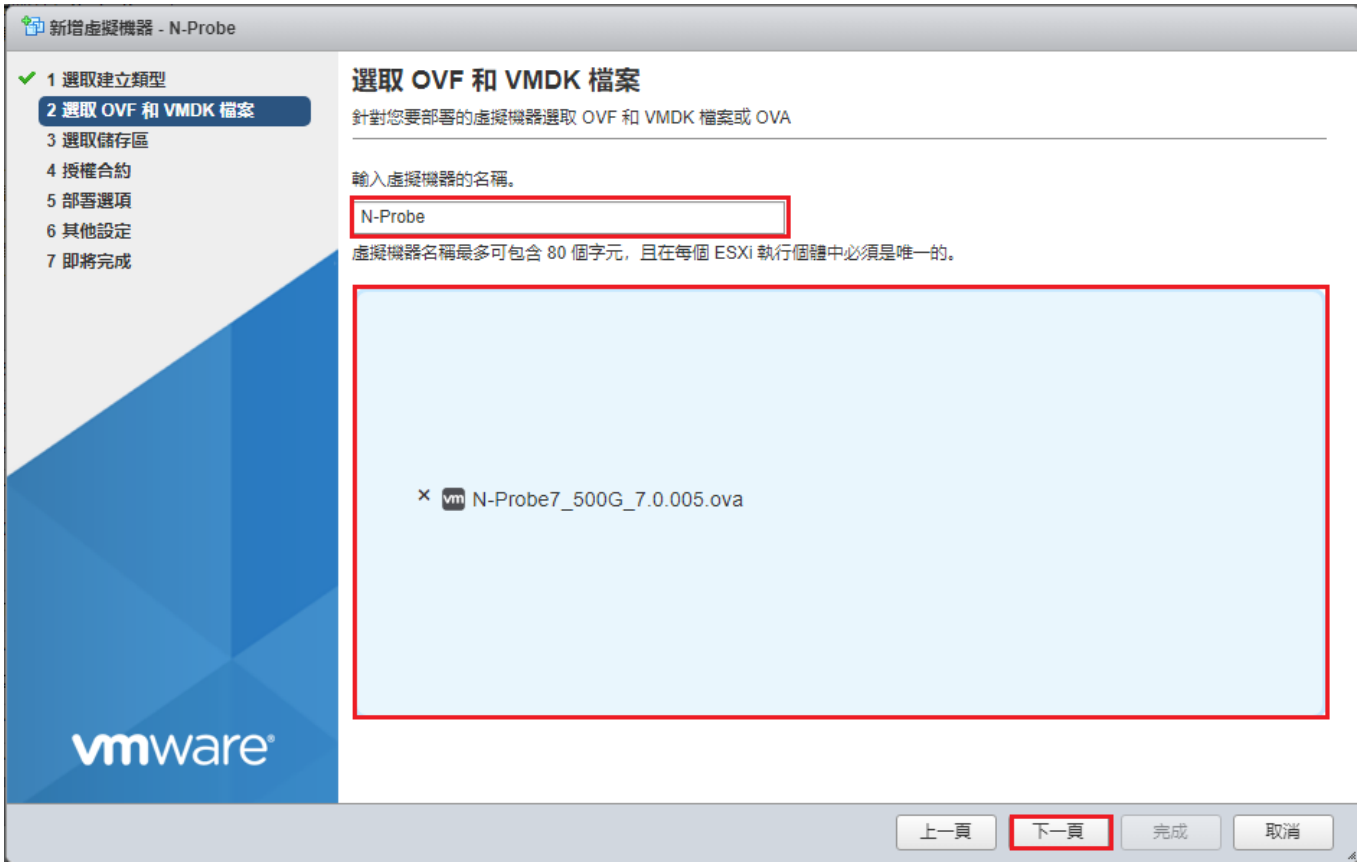
(4) 選取 OVF 和 VMDK 檔案

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 [下一頁]



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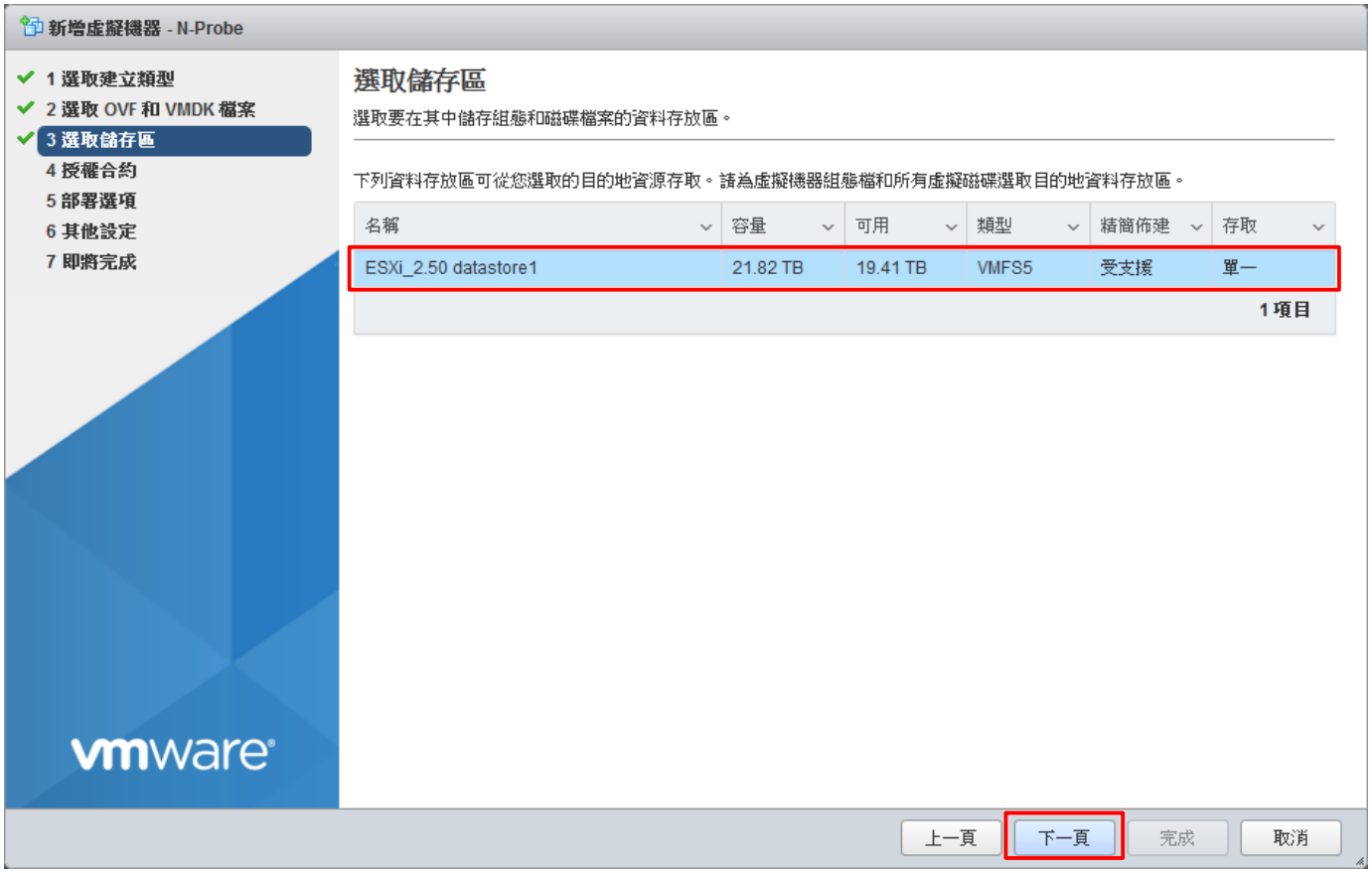
(5) 選取儲存區

選擇 [存放空間] -> 按 [下一頁]



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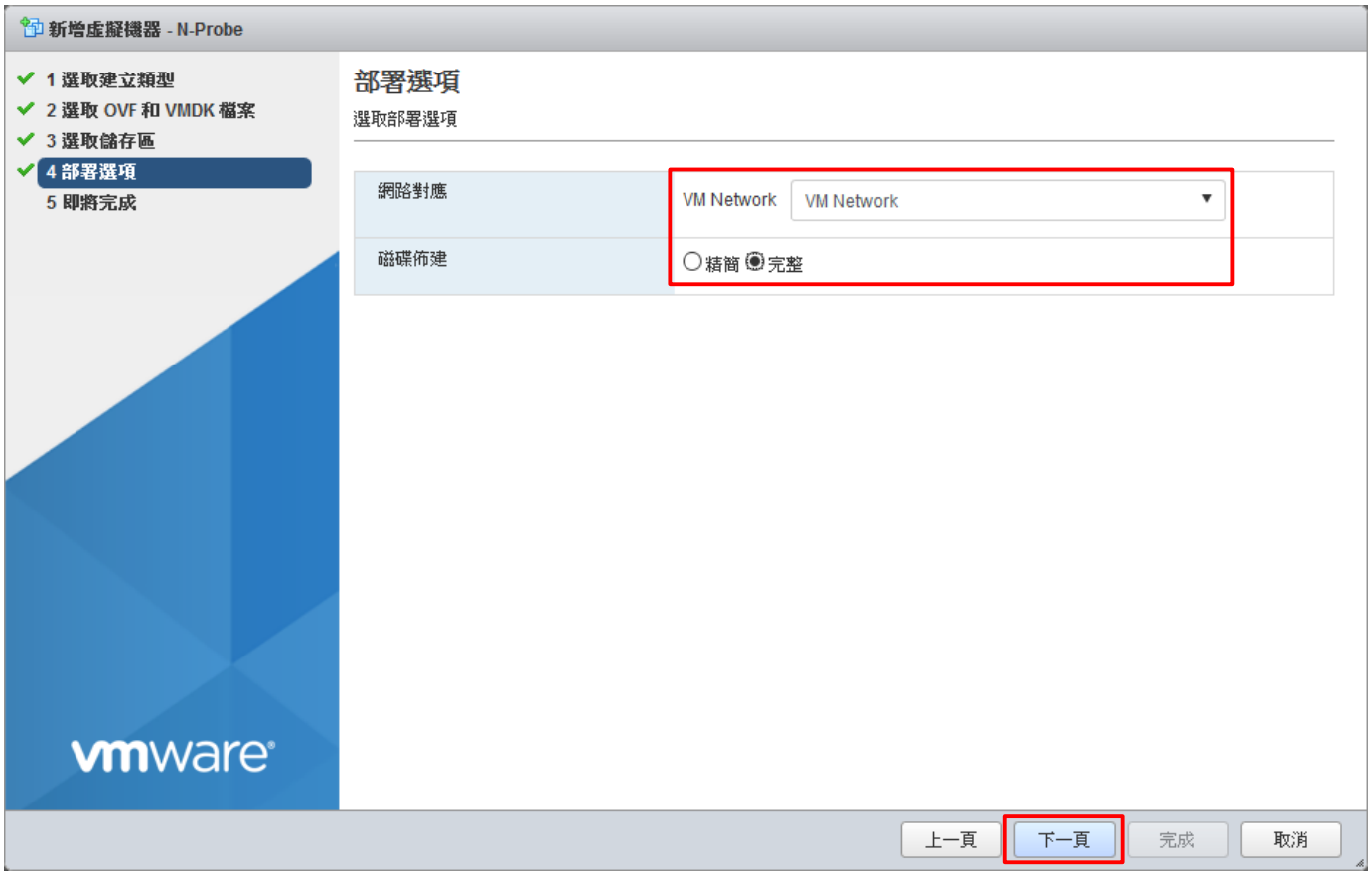
(6) 部署選項

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。



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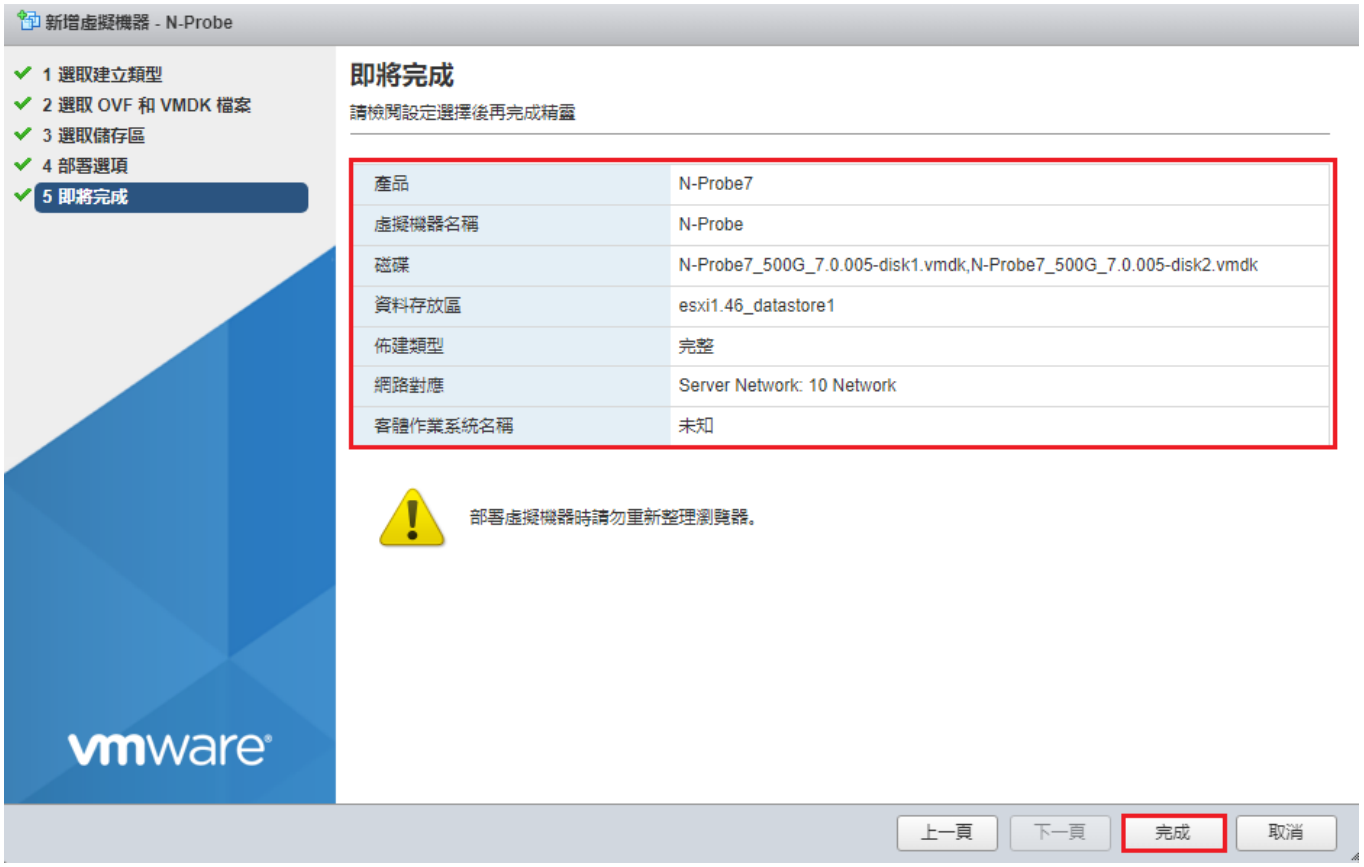
(7) 即將完成

確認匯入資訊是否正確，按 [完成]。開始部署虛擬機器



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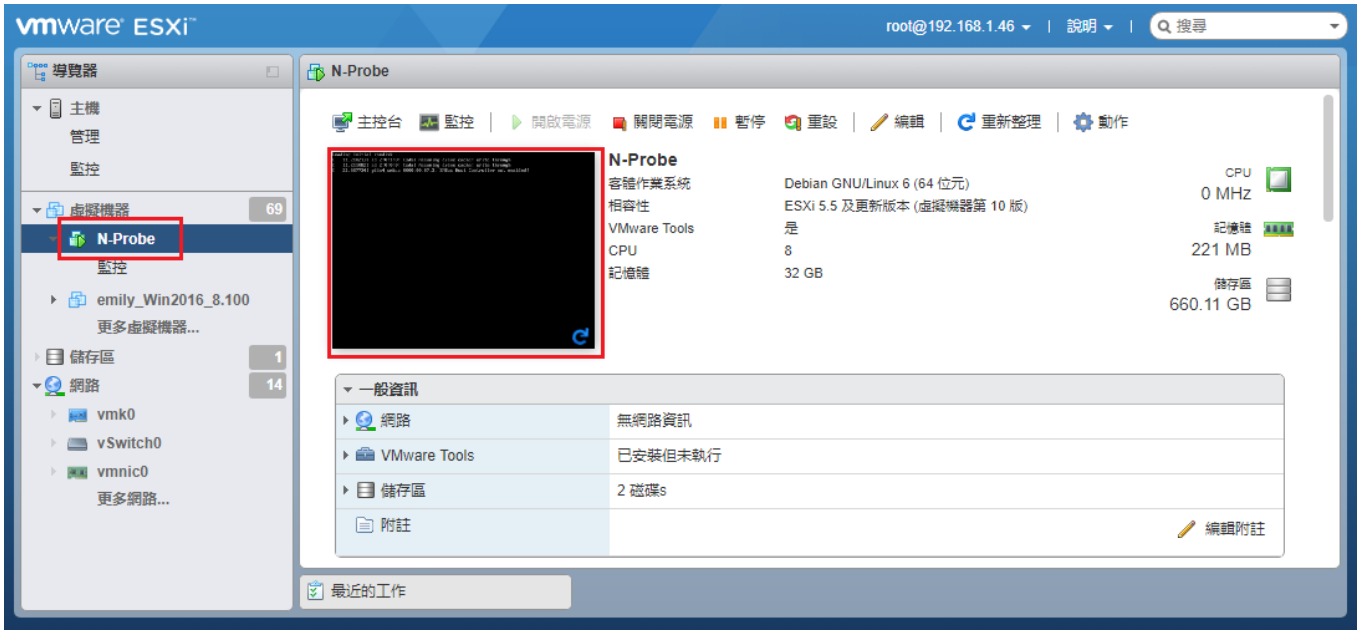
(8) 開啟主控台

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]



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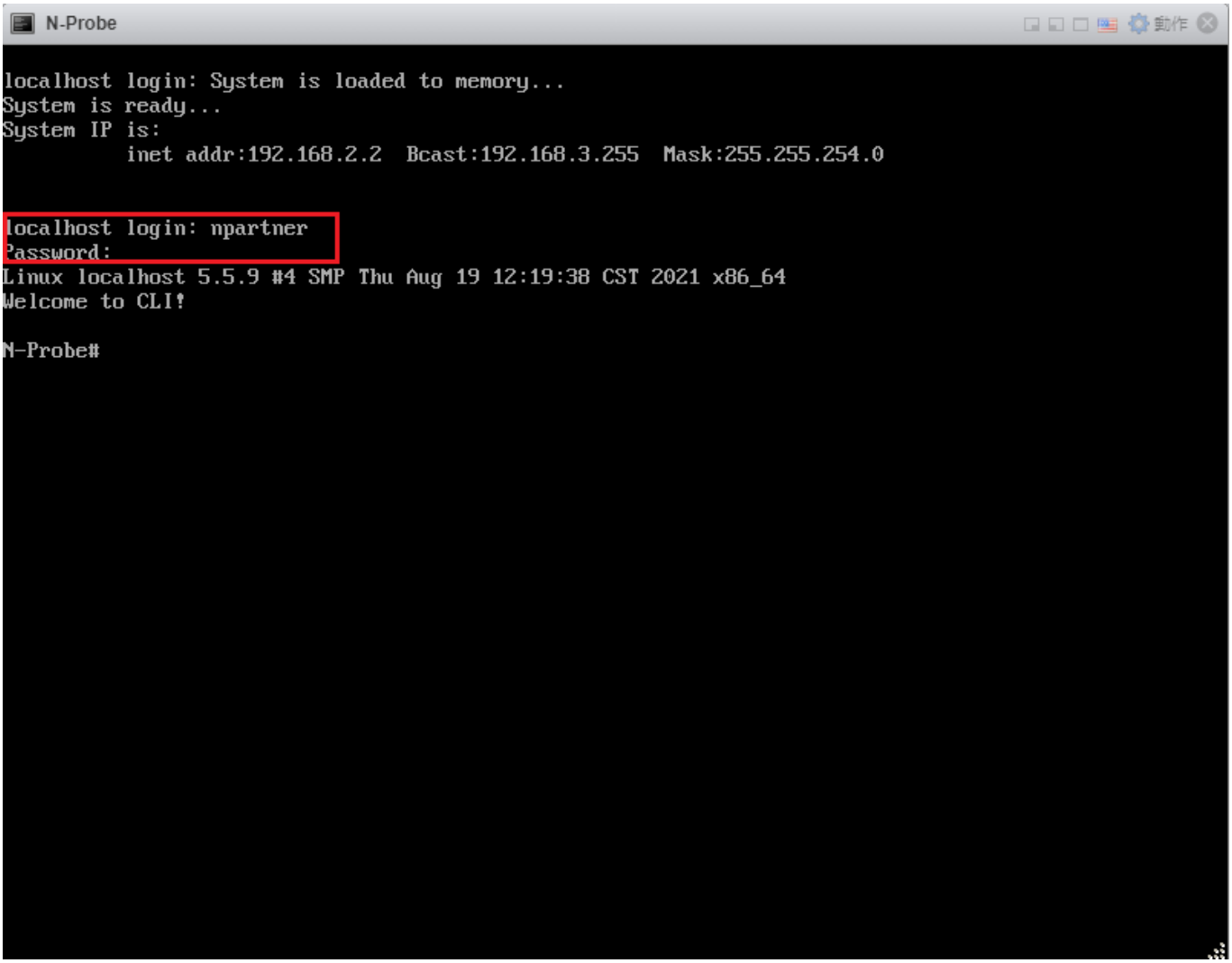
(9) 登入 N-Probe/External Receiver

預設CLI 登入帳號密碼：npartner / npartner



(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#
```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(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

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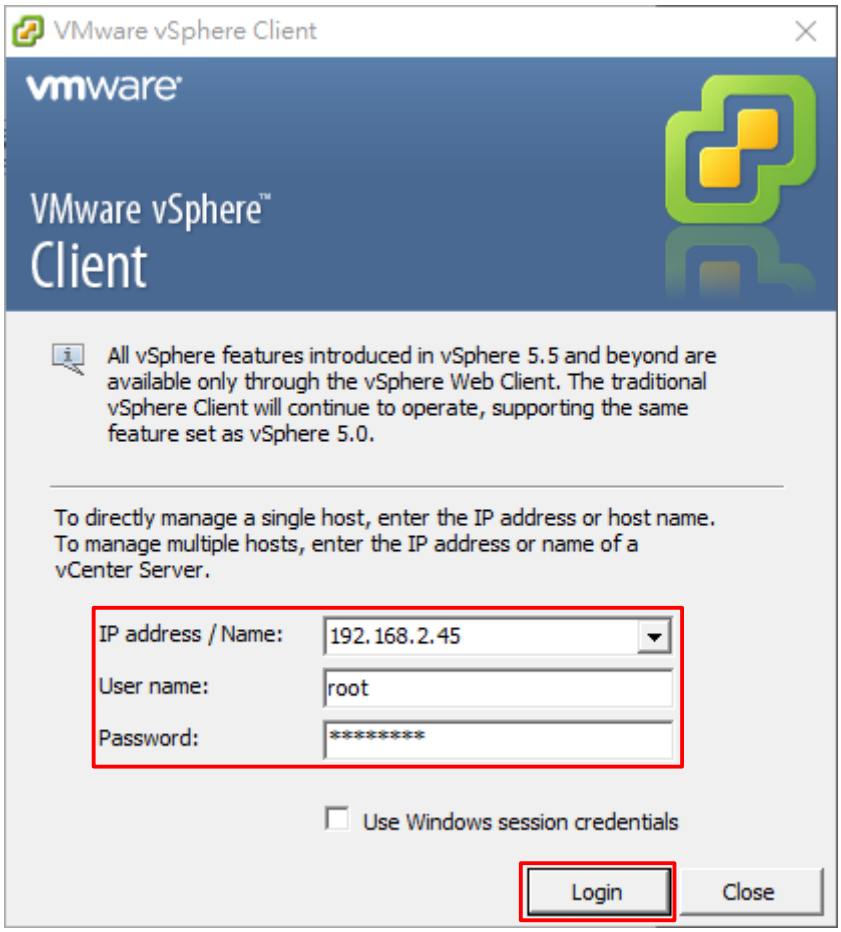
3.2 vSphere Client

3.2.1 vSwitch Promiscuous Mode

(1) 登入 VMware ESXi

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



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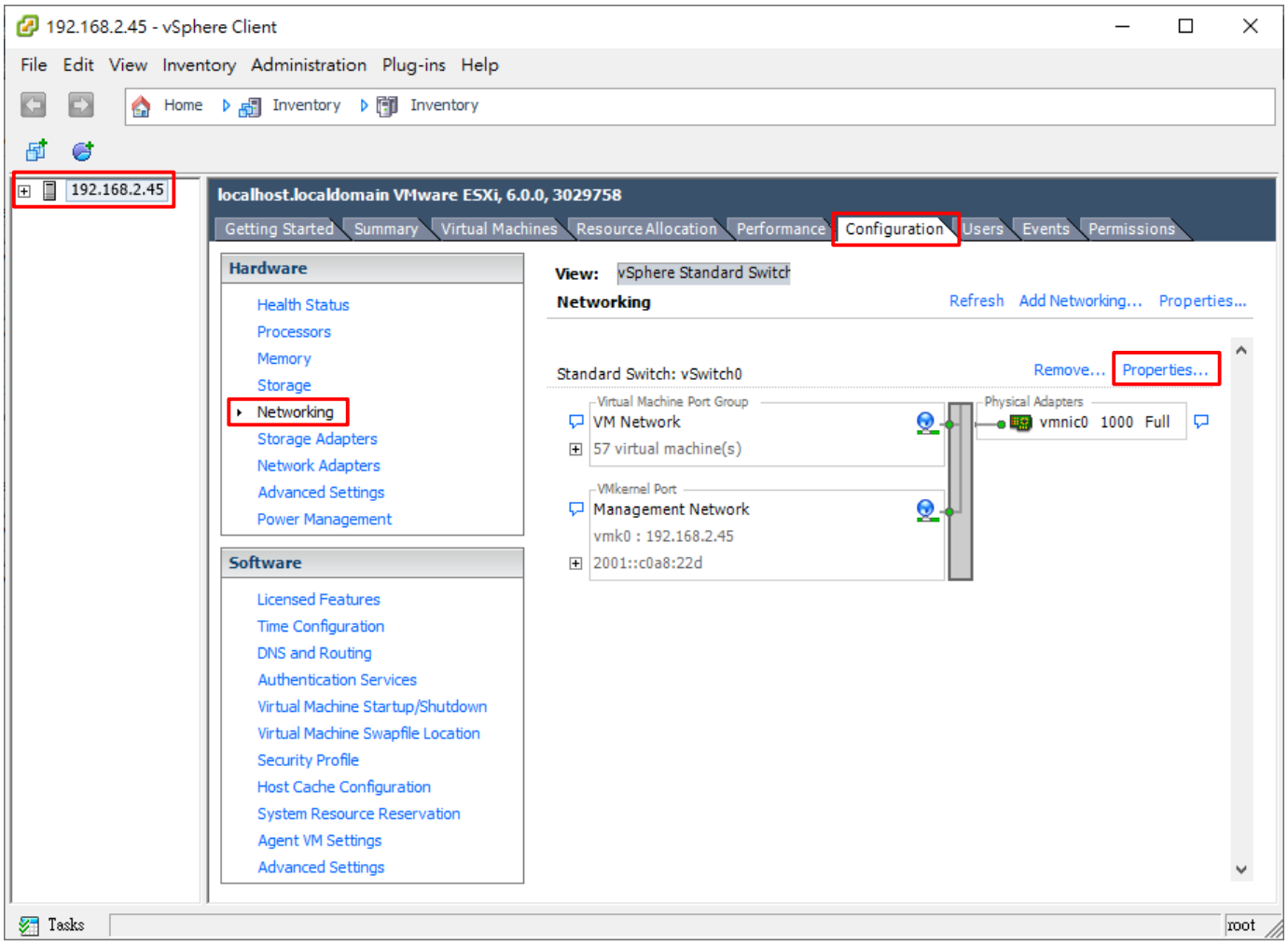
(2) 開啟虛擬交換器

[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



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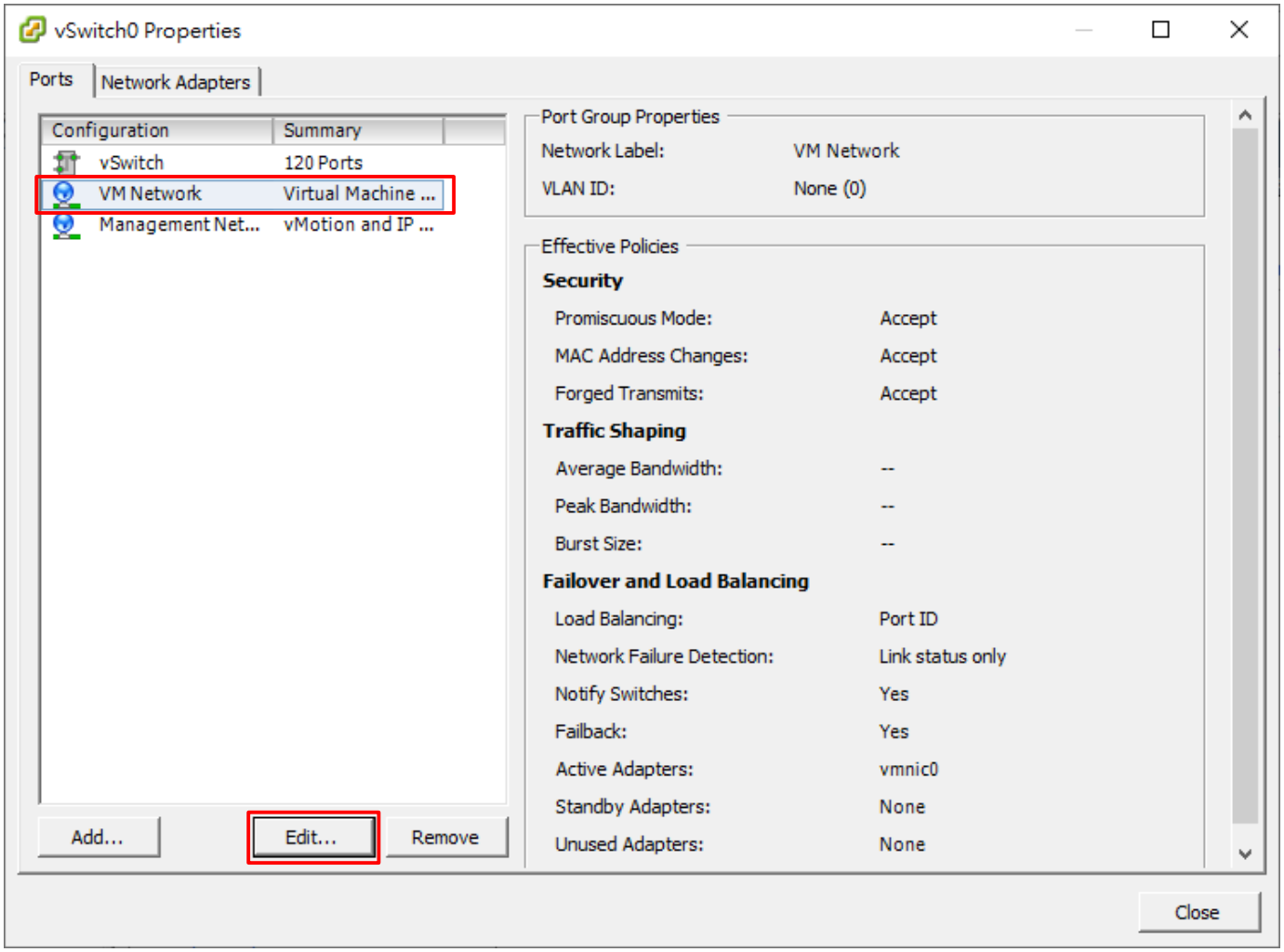
(3) 編輯網路設定

選擇 [VM Network] -> 按 [Edit]



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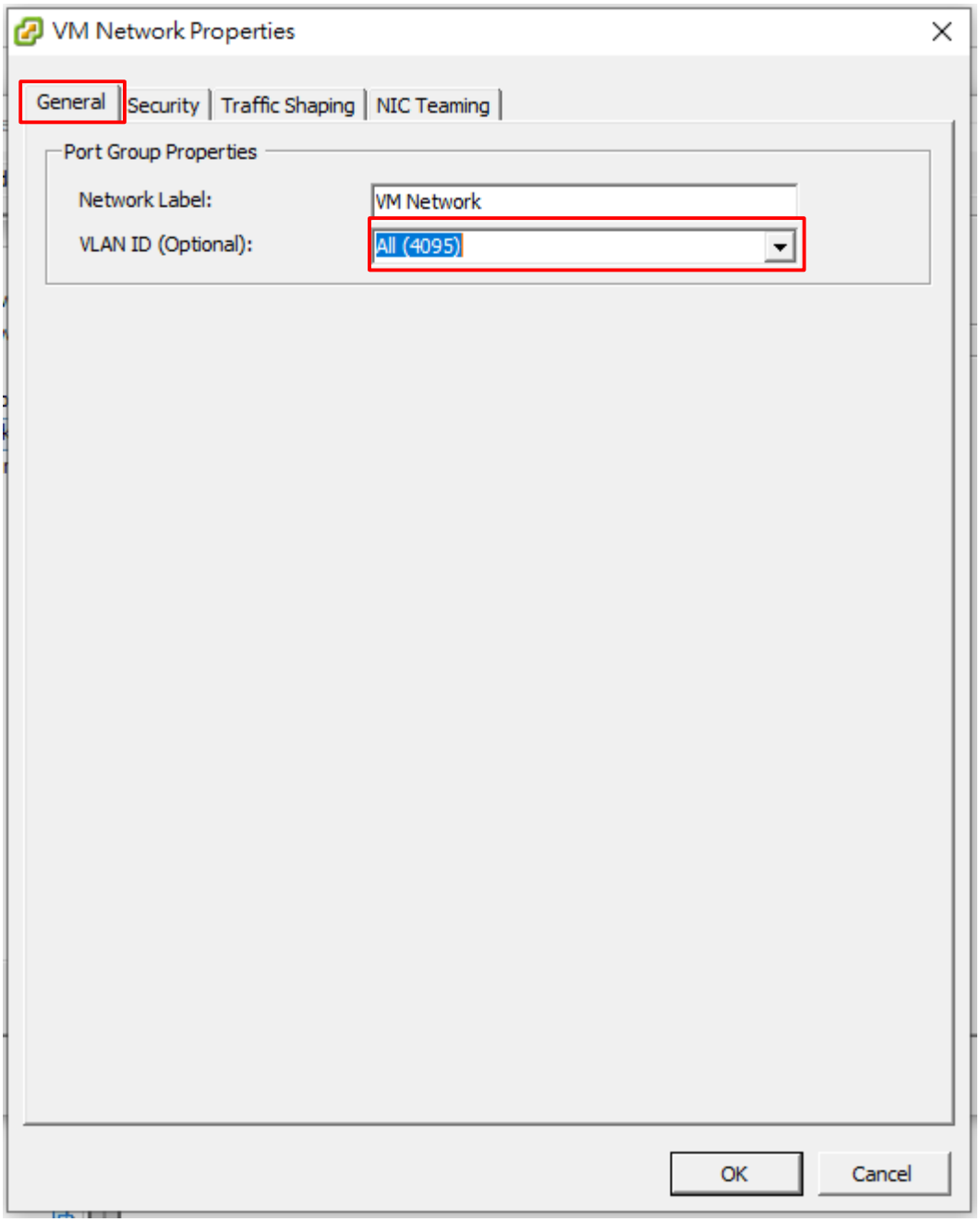
(4) 啟用VGT 模式

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

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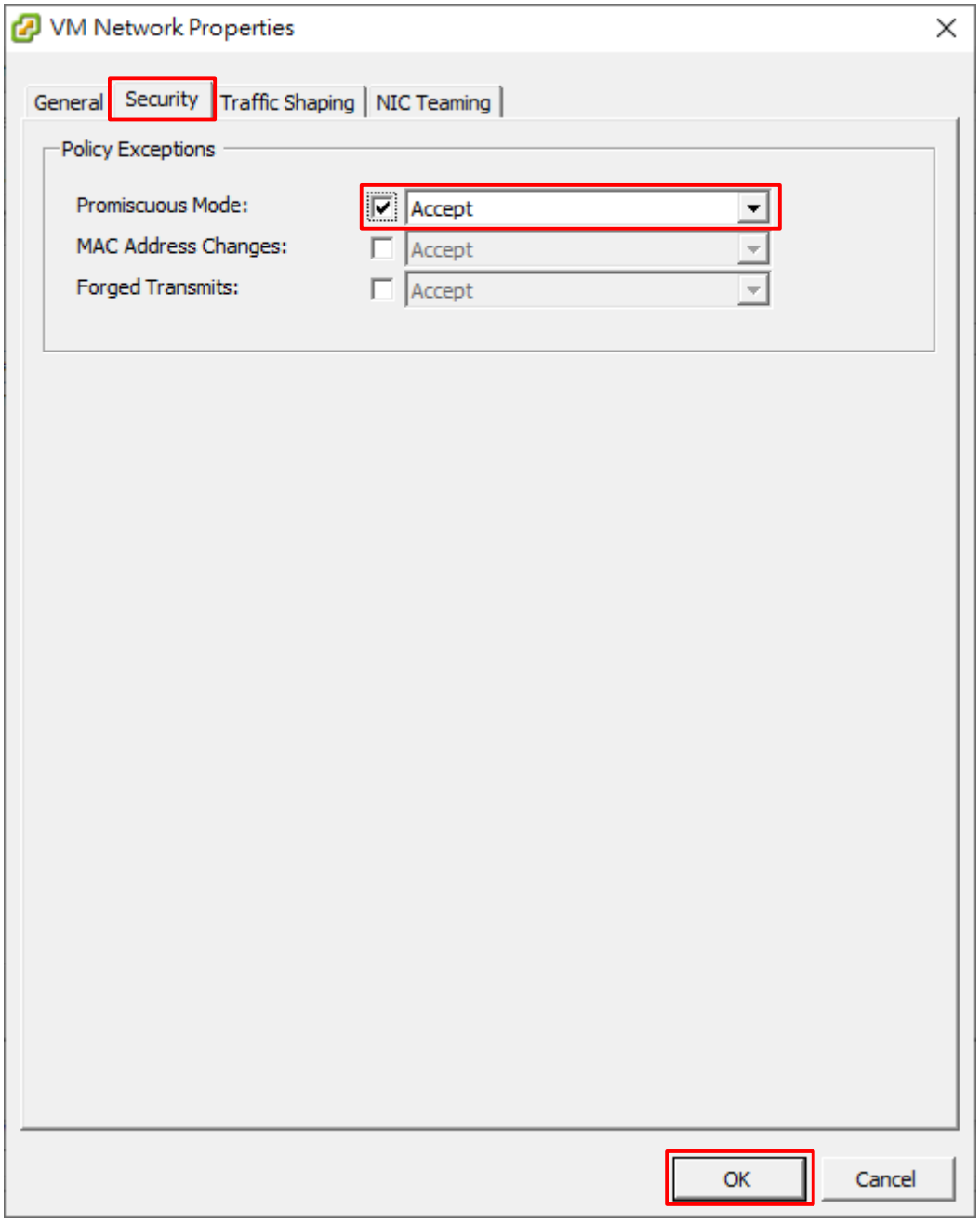
(5) 啟用混合模式

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



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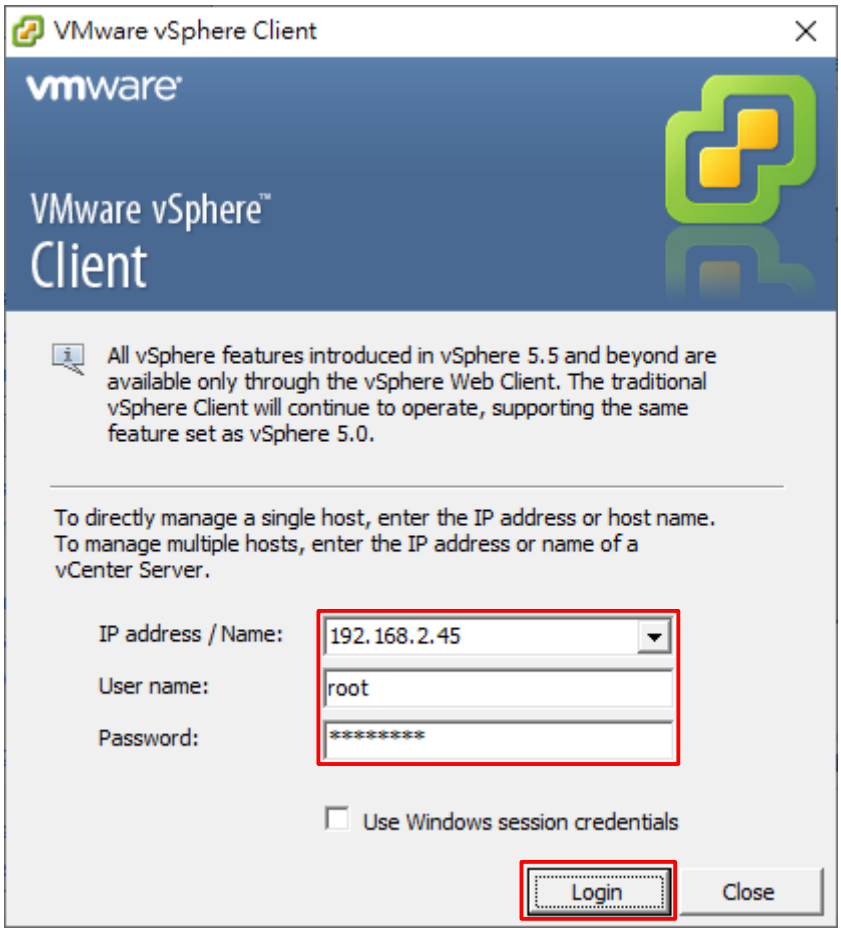
3.2.2 Import N-Probe VM

(1) 登入 VMware ESXi

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



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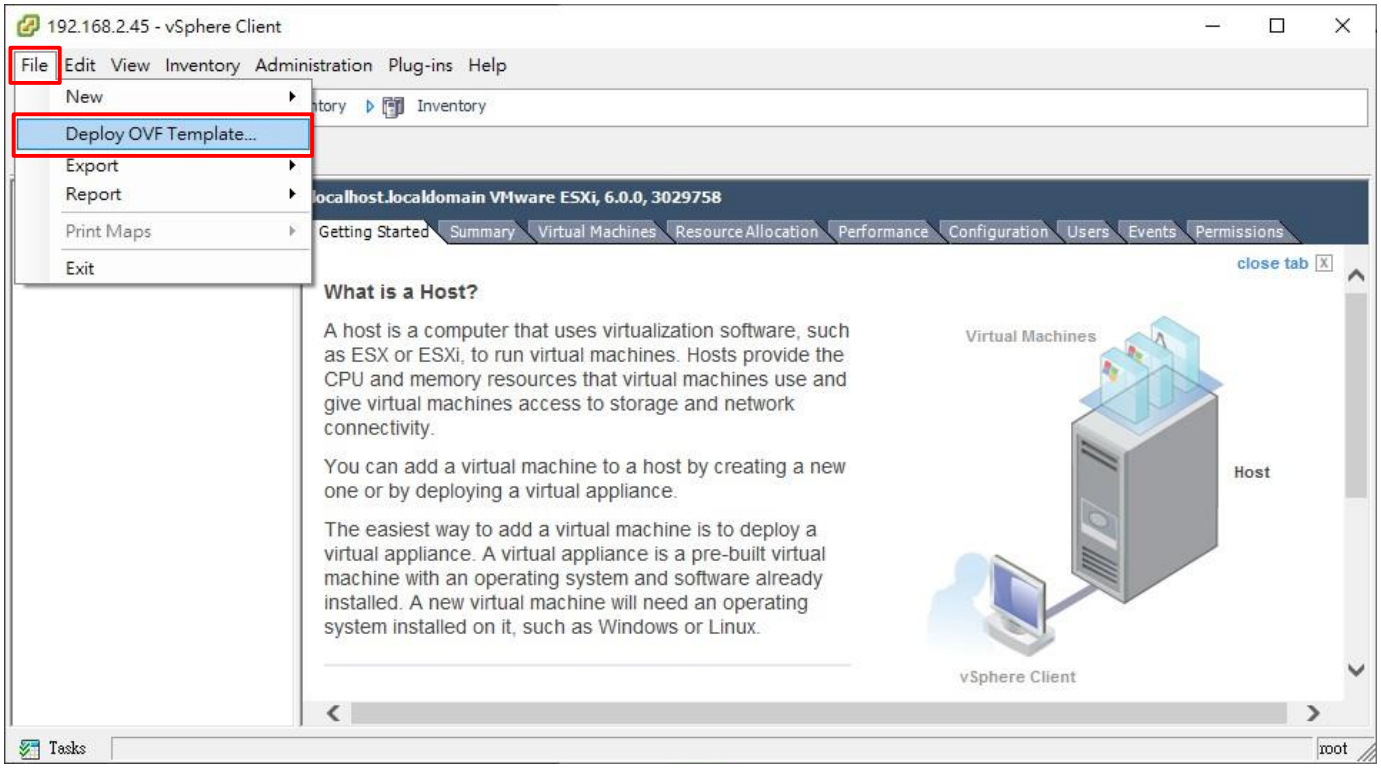
(2) 部署 N-Probe/External Receiver

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



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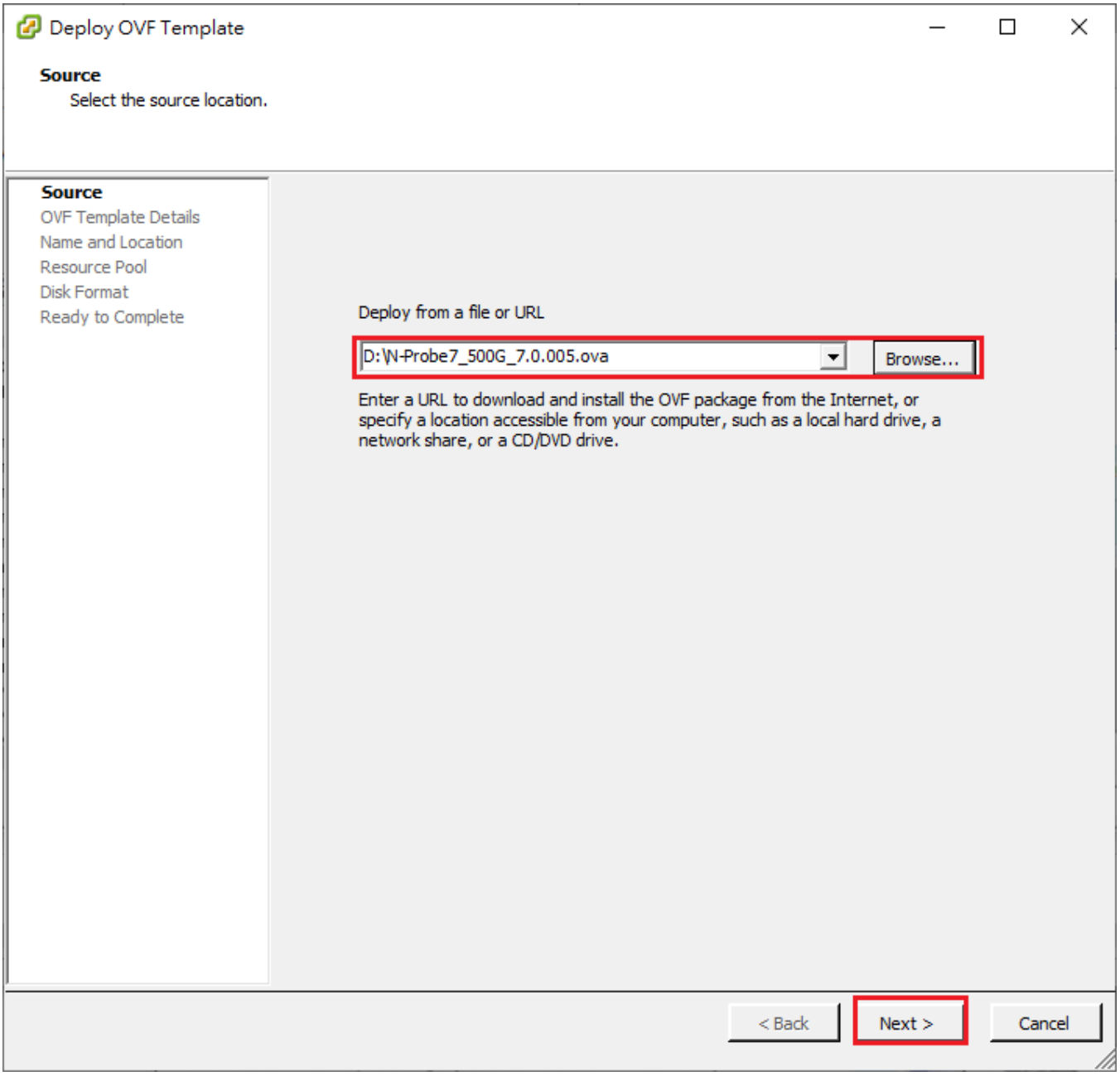
(3) 選擇來源 OVA

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



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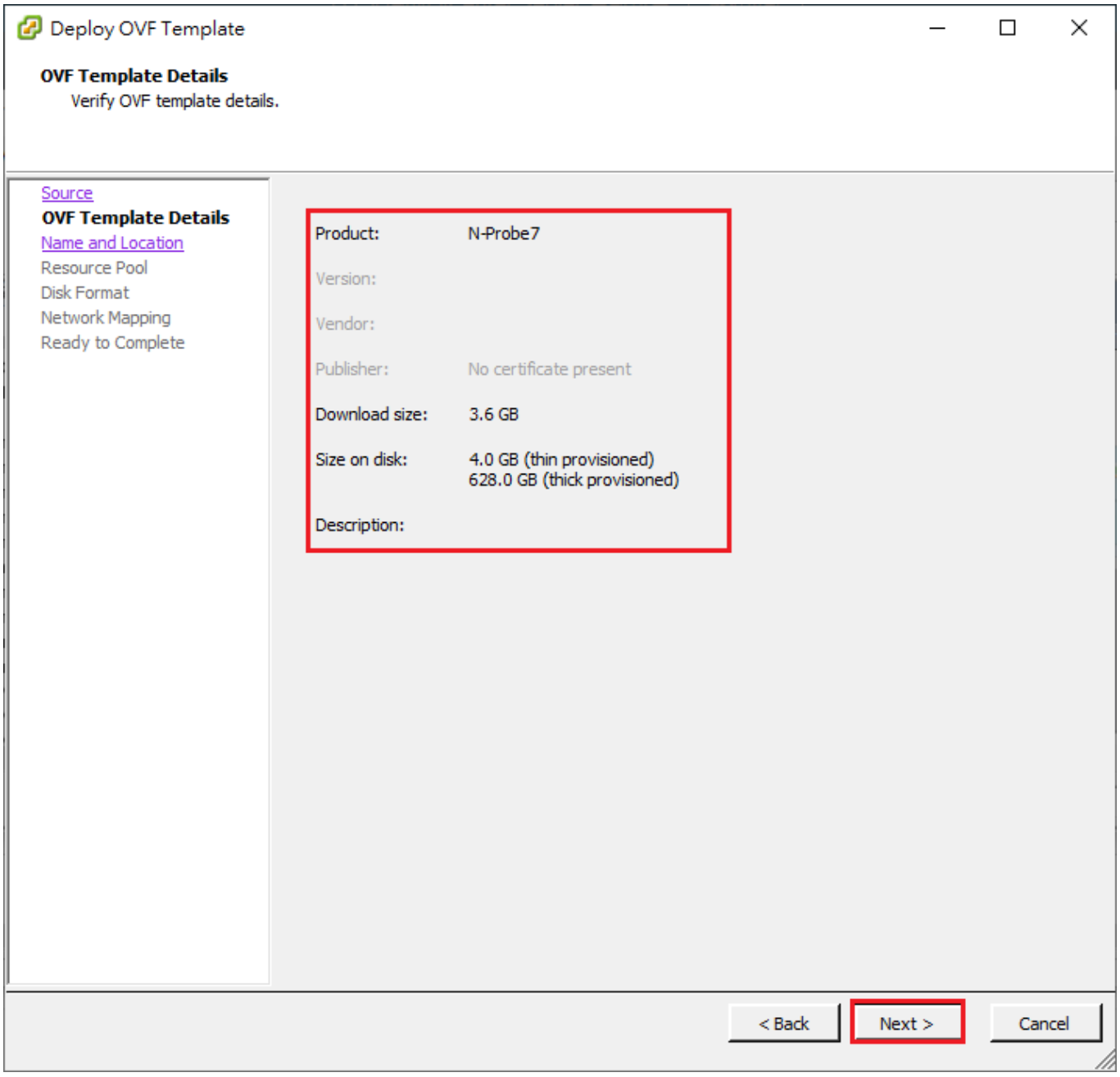
(4) OVF 範本詳細資料

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



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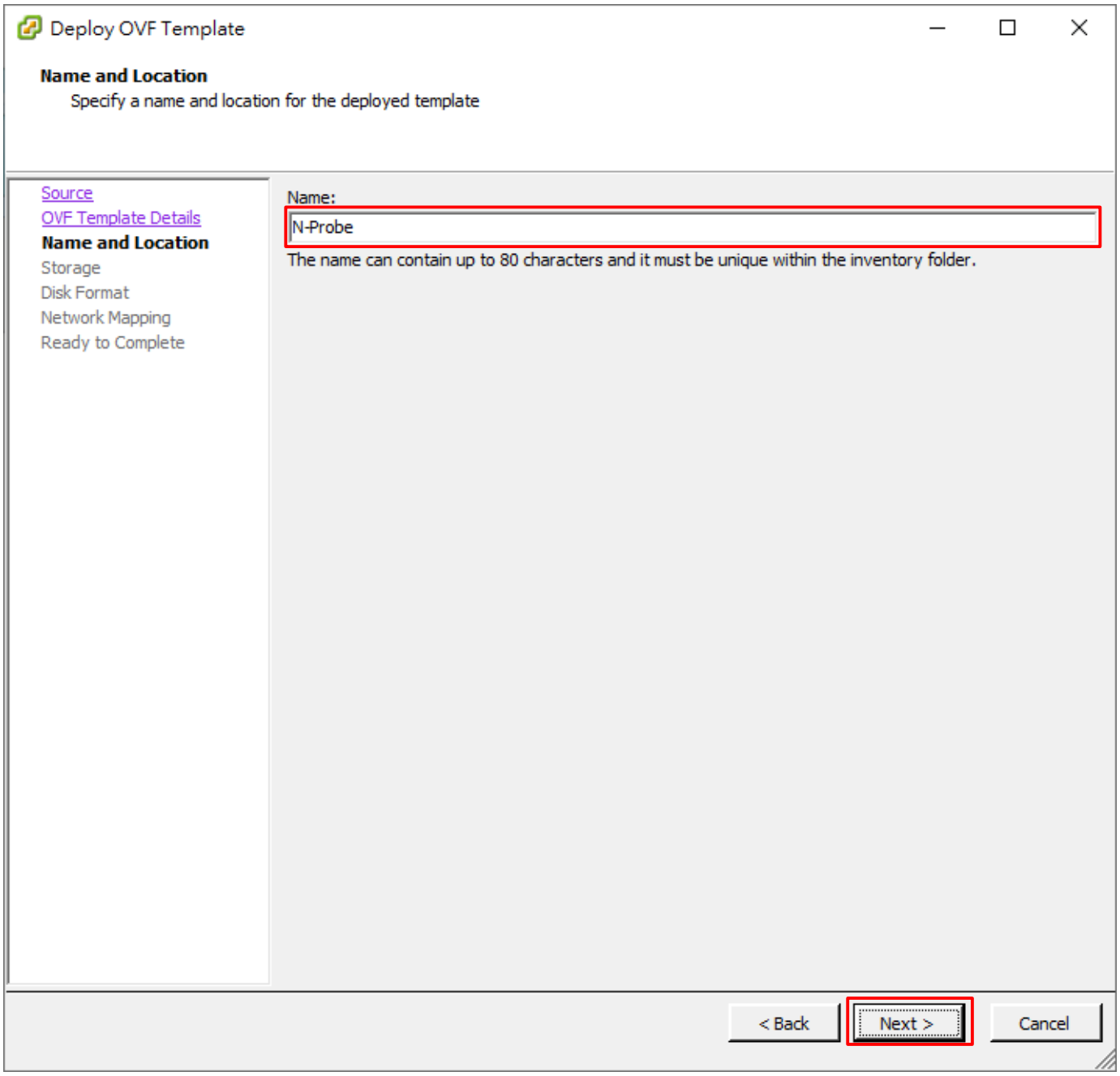
(5) 名稱和位置

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



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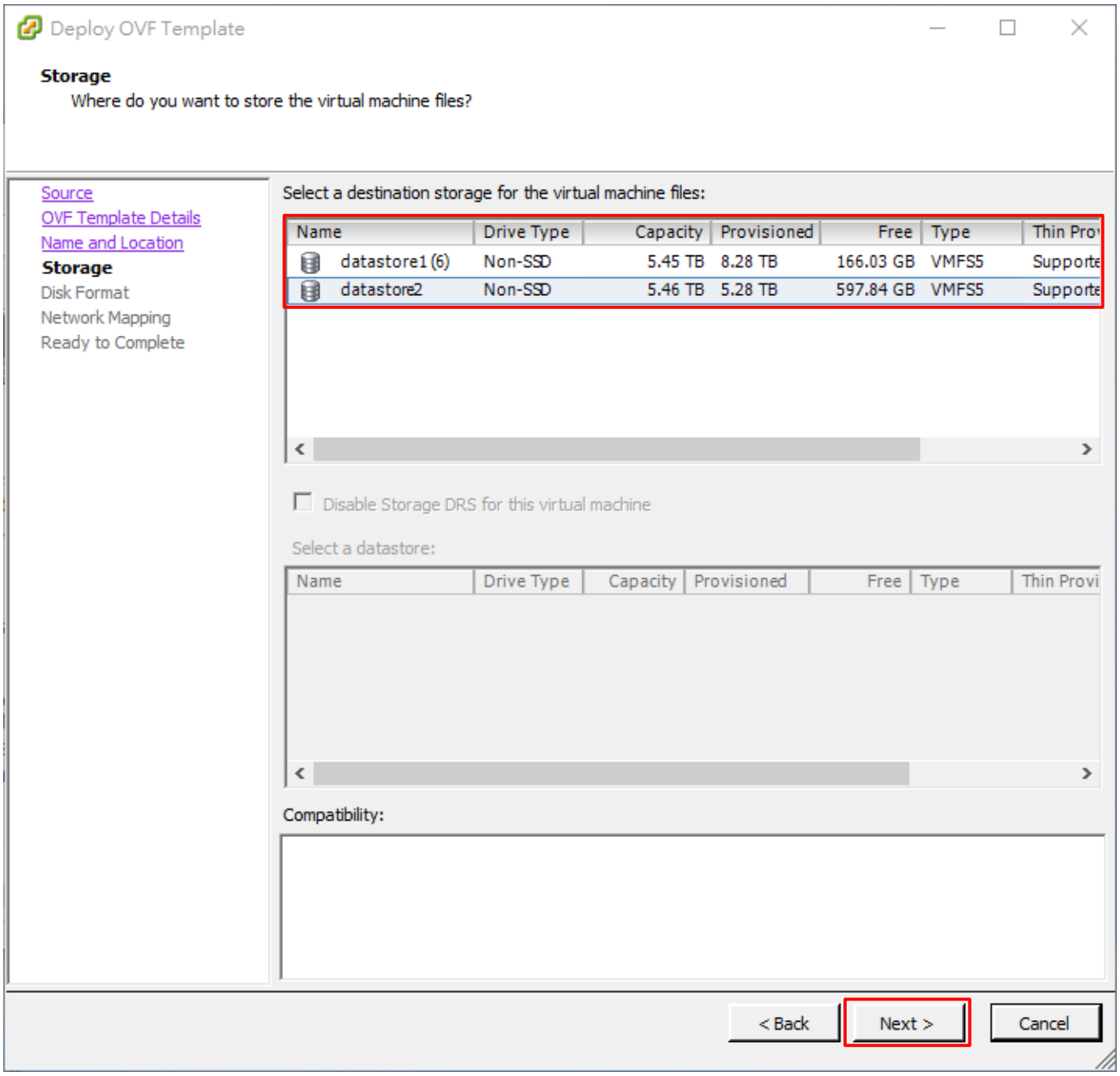
(6) 選擇儲存區

選擇 [datastore] -> 按 [Next]



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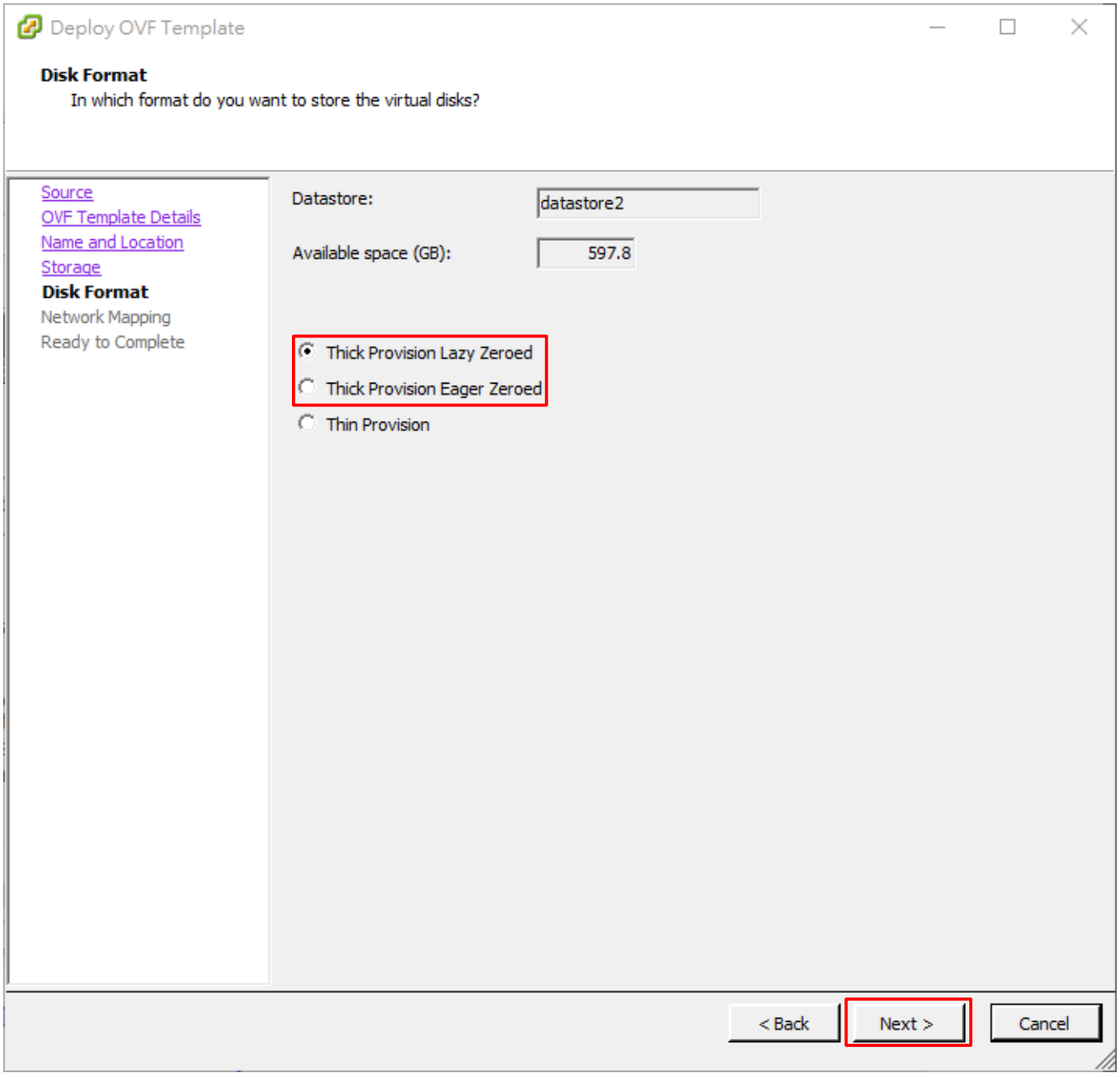
(7) 磁碟格式

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



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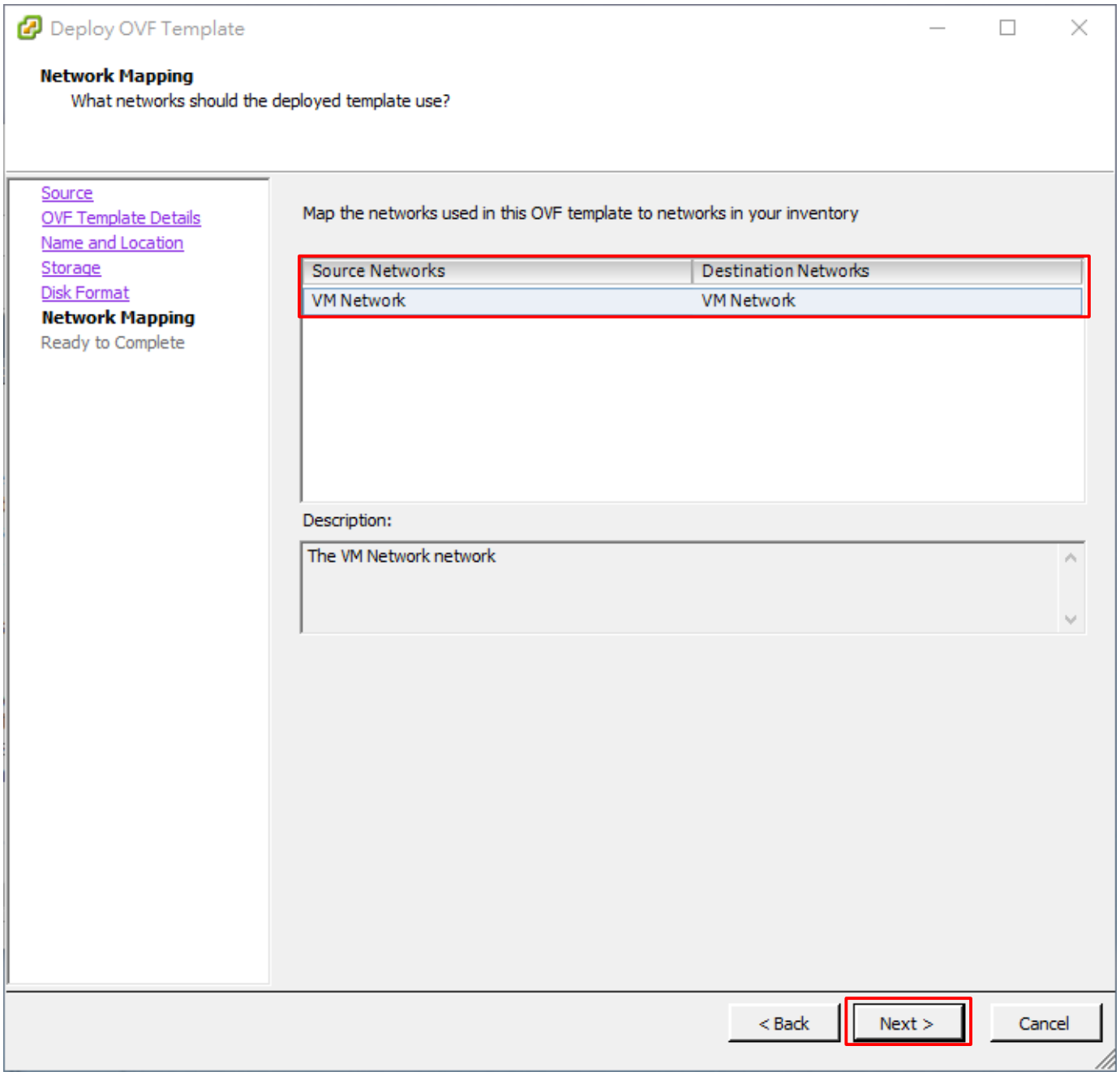
(8) 網路對應

選擇 [Network Mapping] -> 按 [Next]



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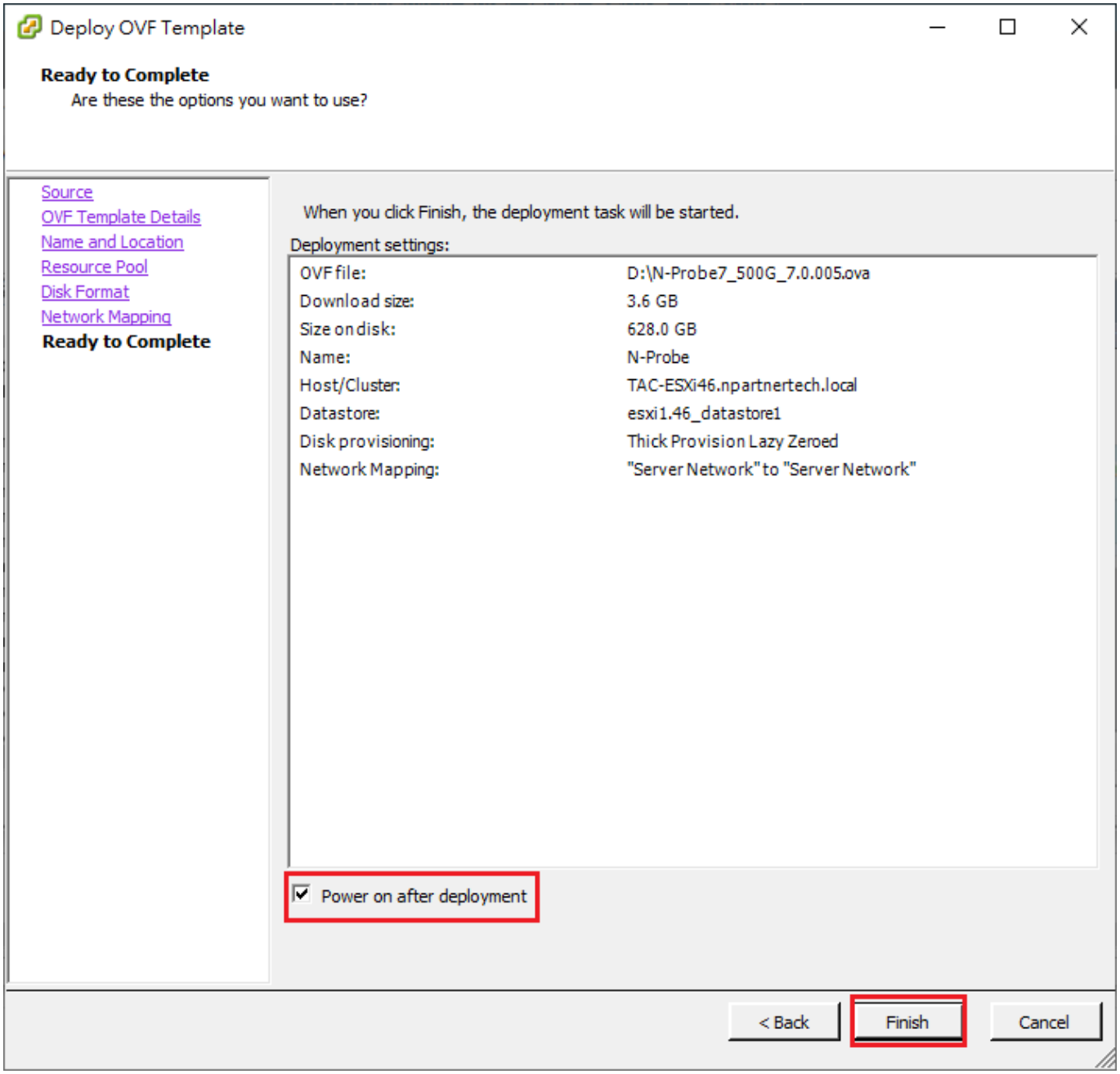
(9) 即將完成

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



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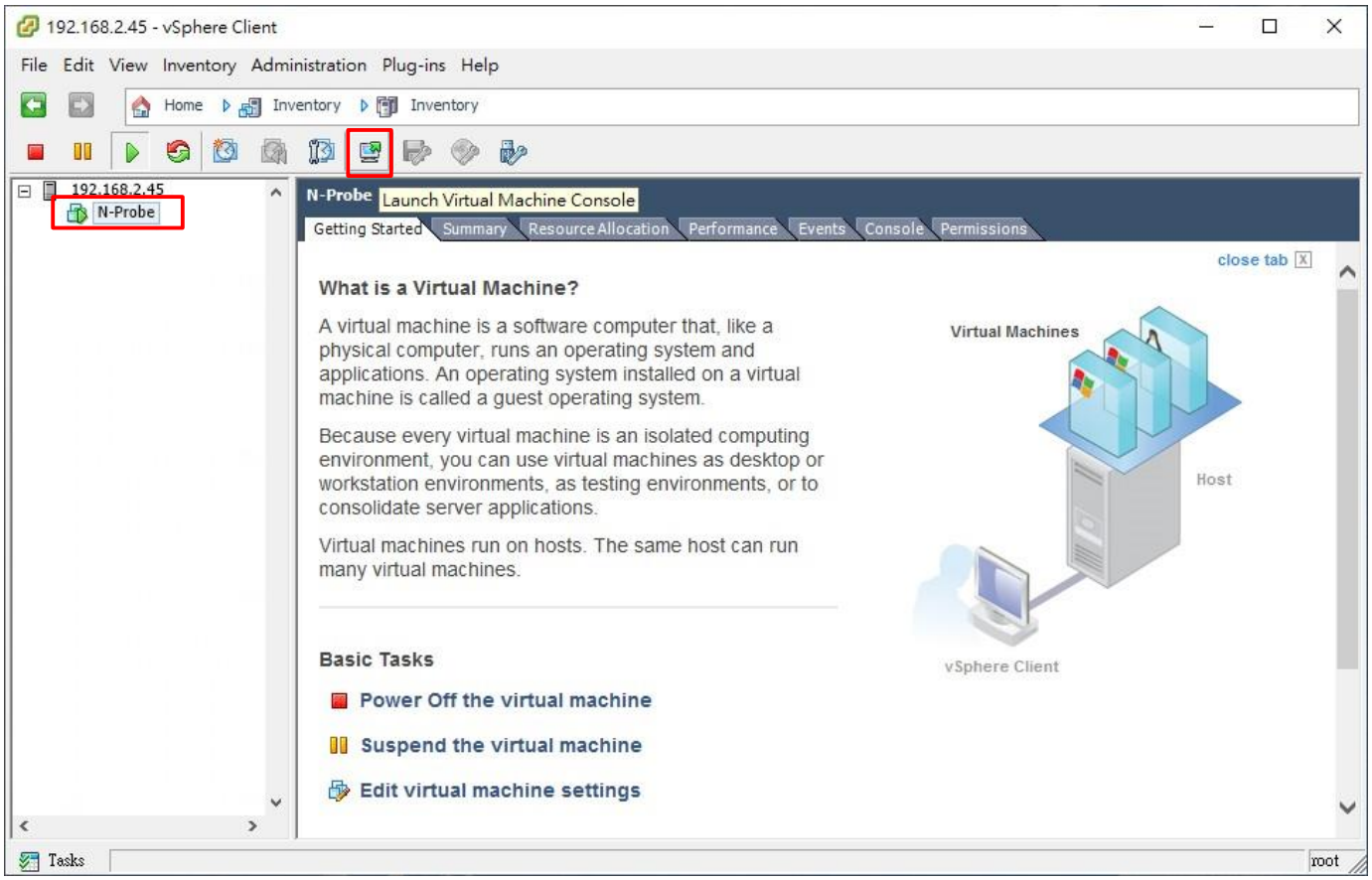
(10) 開啟主控台

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)]



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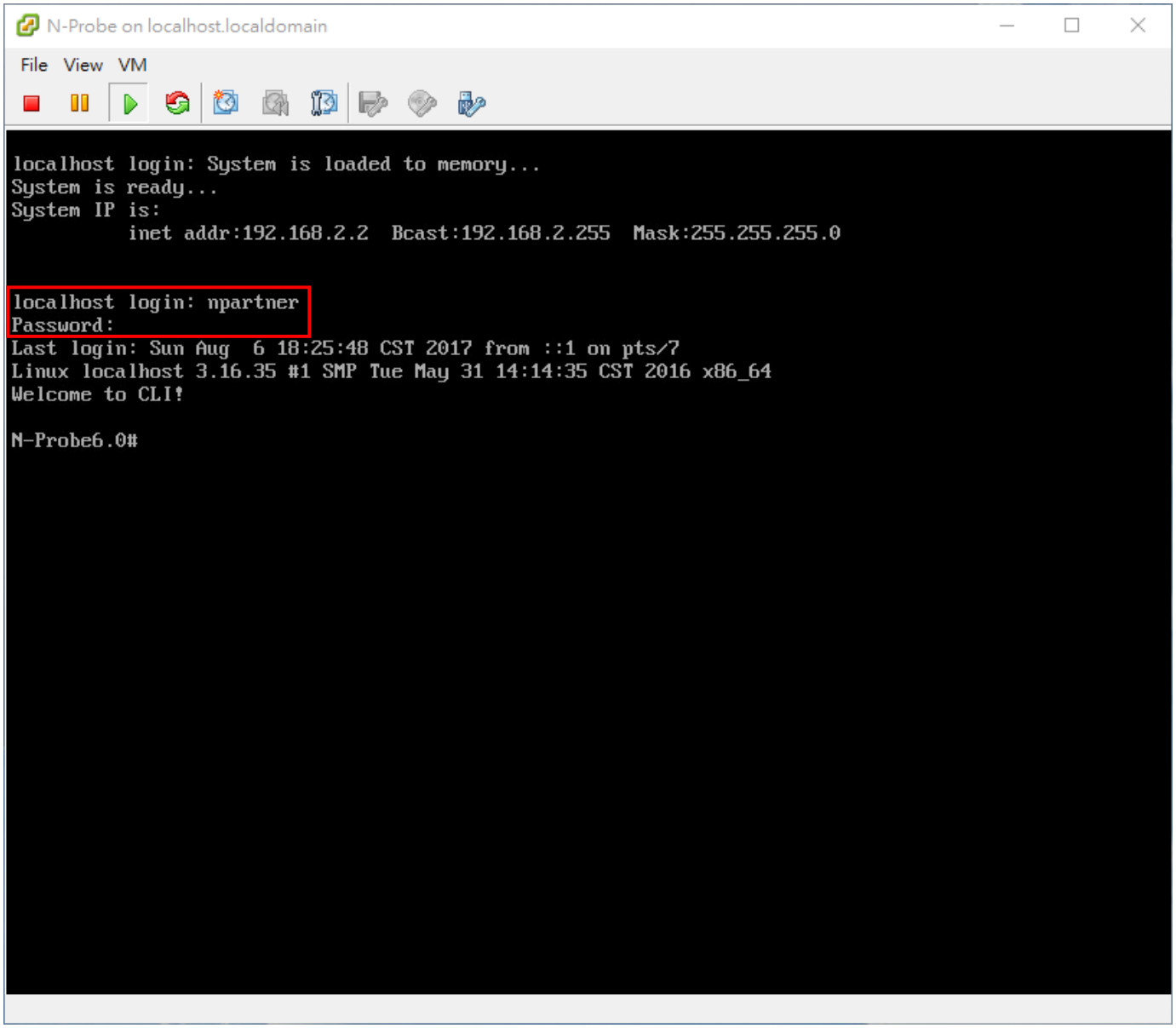
(11) 登入 N-Probe/External Receiver

預設 CLI 登入帳號密碼：npartner / npartner



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(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

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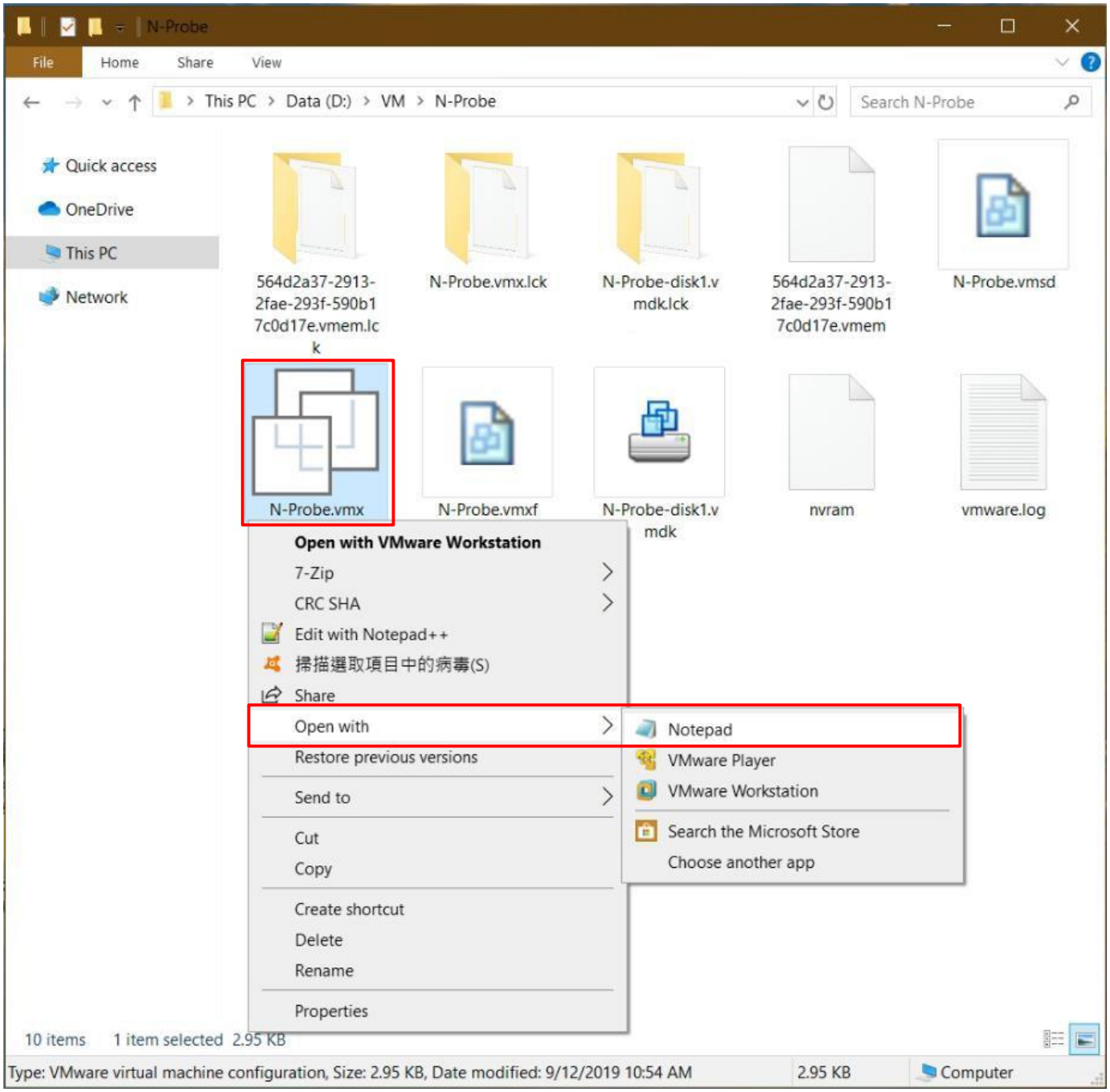
3.3 VMware Workstation

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)]



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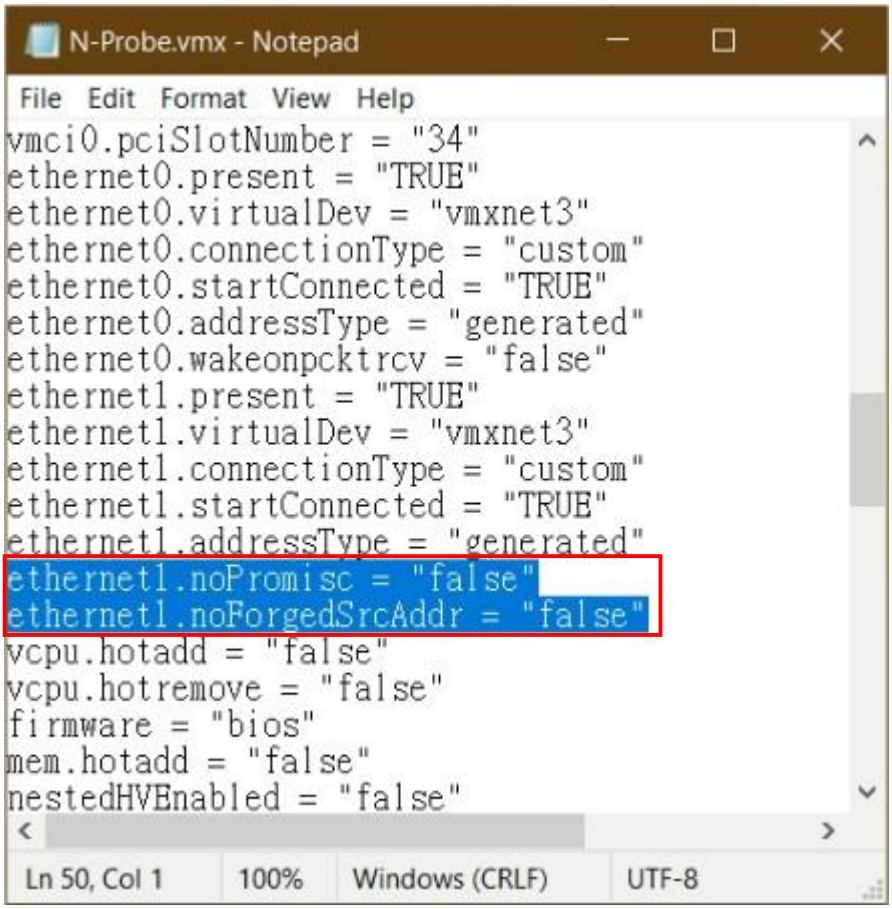
(2) 新增 ethernet1.noPromisc = "false" 和 ethernet1.noForgedSrcAddr = "false" -> 存檔離開



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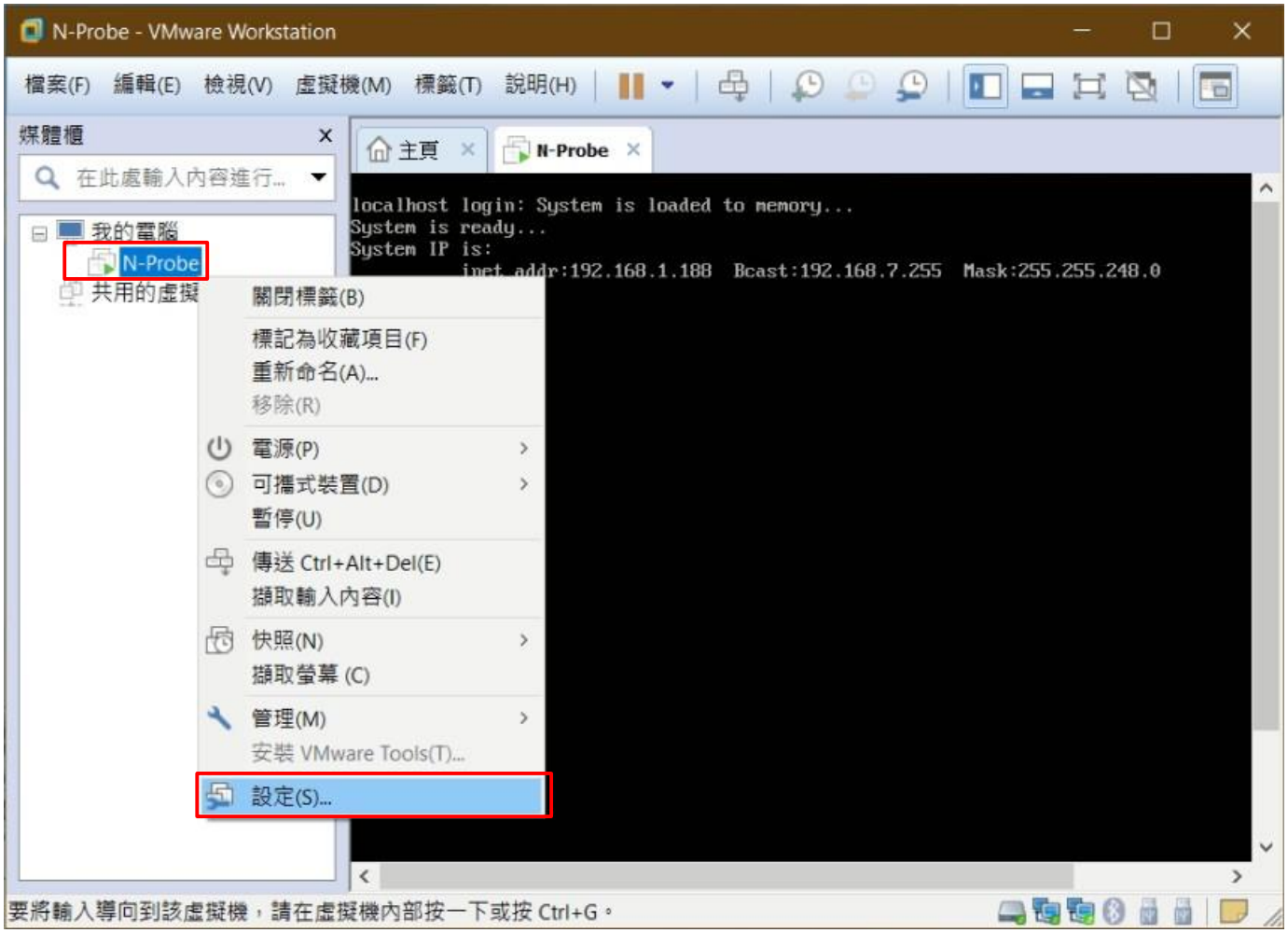
(3) 設定 N-Probe 網路介面卡橋接模式

在 [N-Probe] 上按滑鼠右鍵 -> 點選 [設定]



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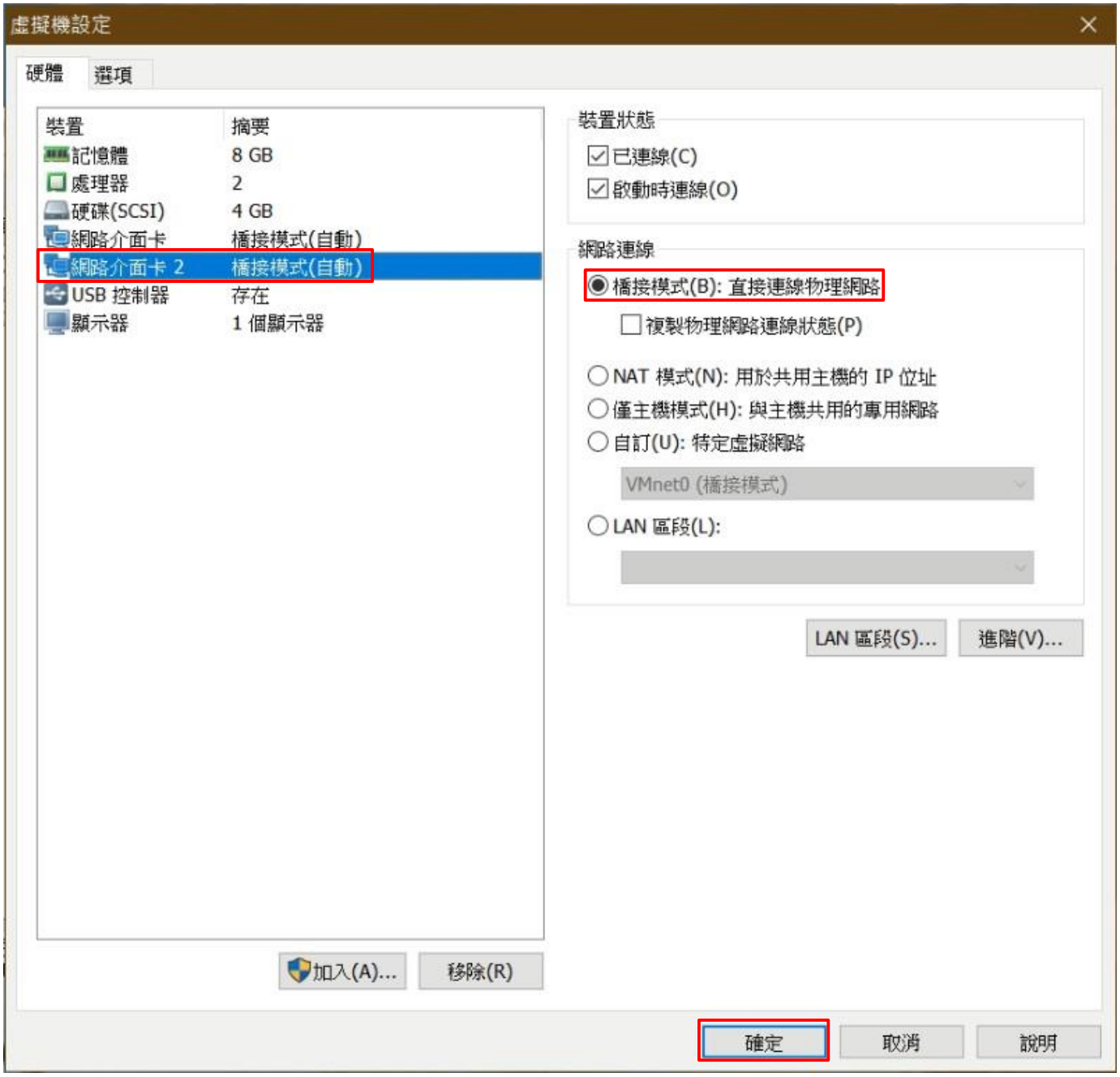
(4) 將 [網路介面卡 2(ethernet1)] 設定 [橋接模式] -> 按下 [確定]



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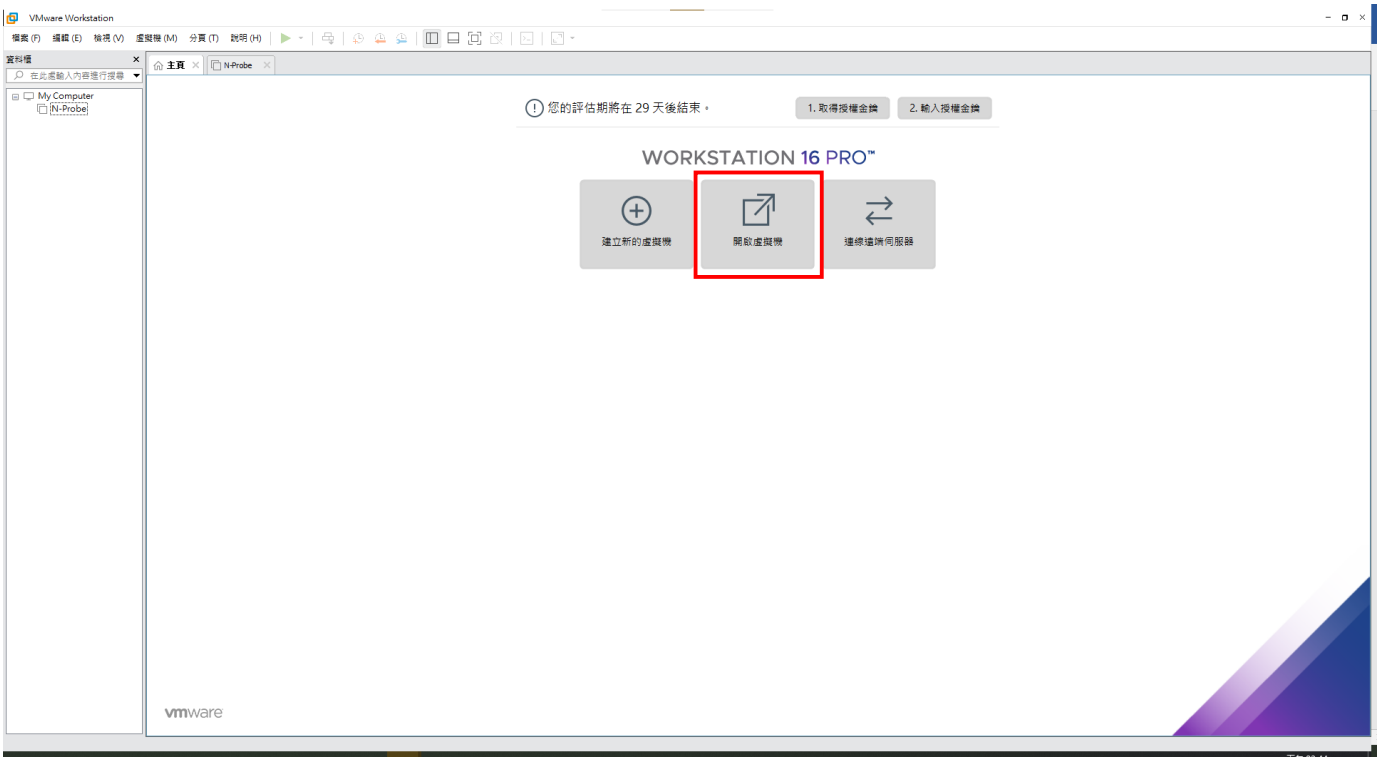
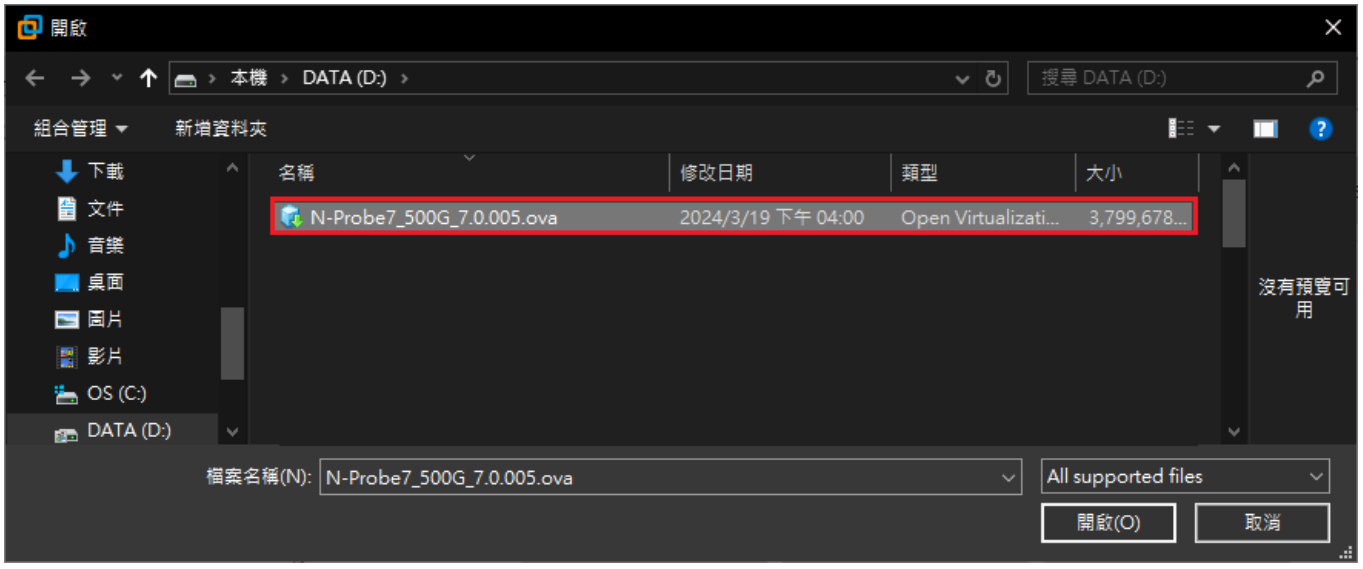
3.3.2 Import N-Probe VM

(1) 啟動Worstation -> 點選 [開啟虛擬機]



(2) 選擇N-Probe -> 按下 [開啟]



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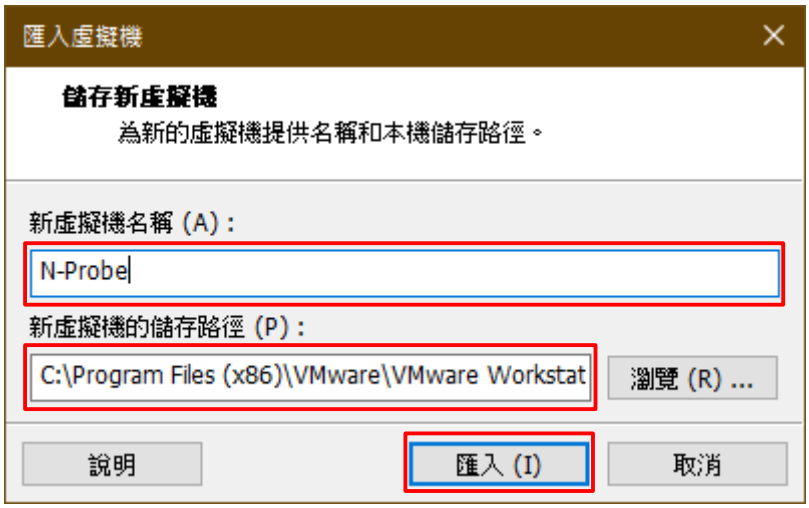
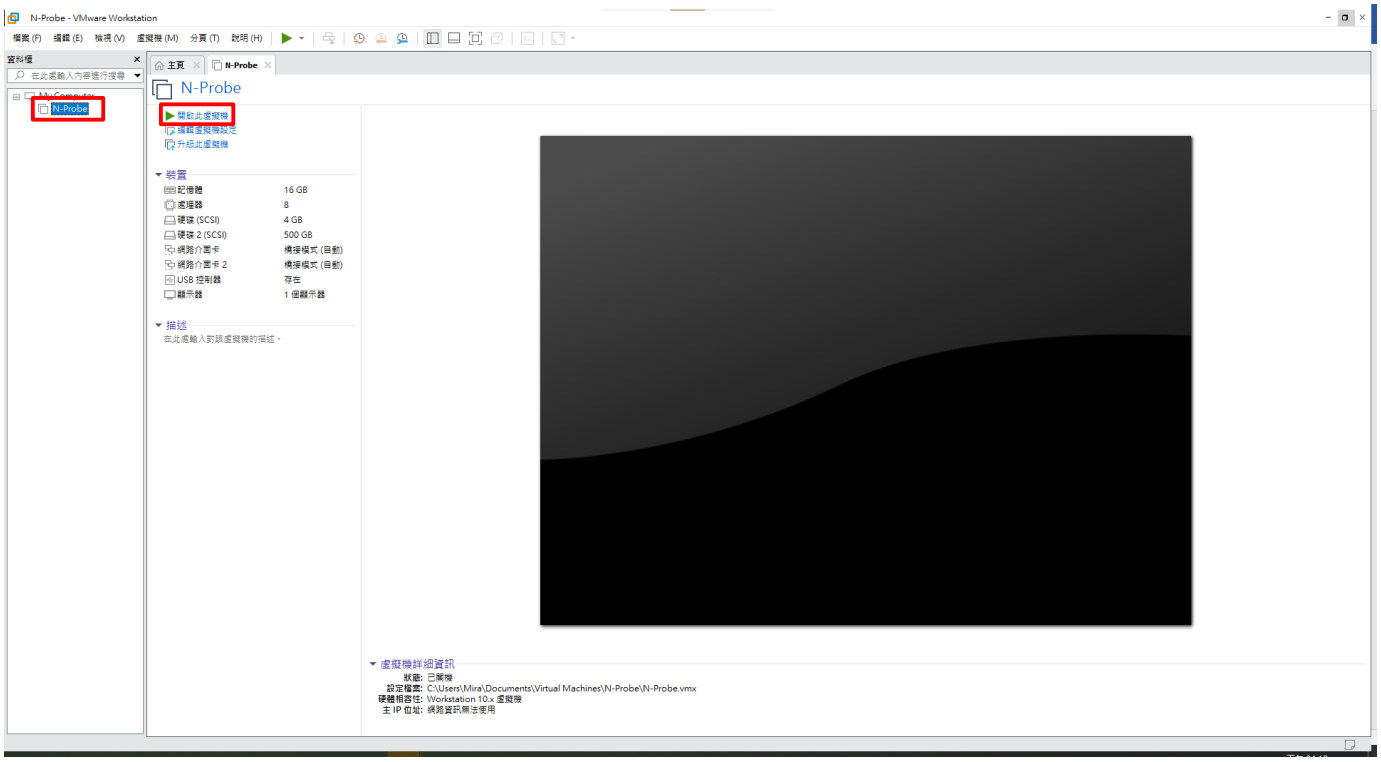
(3) 設定虛擬機名稱 -> 選擇存放路徑 -> 按下 [匯入]



(4) 開起虛擬機

匯入完成後，點選 [開啟此虛擬機]



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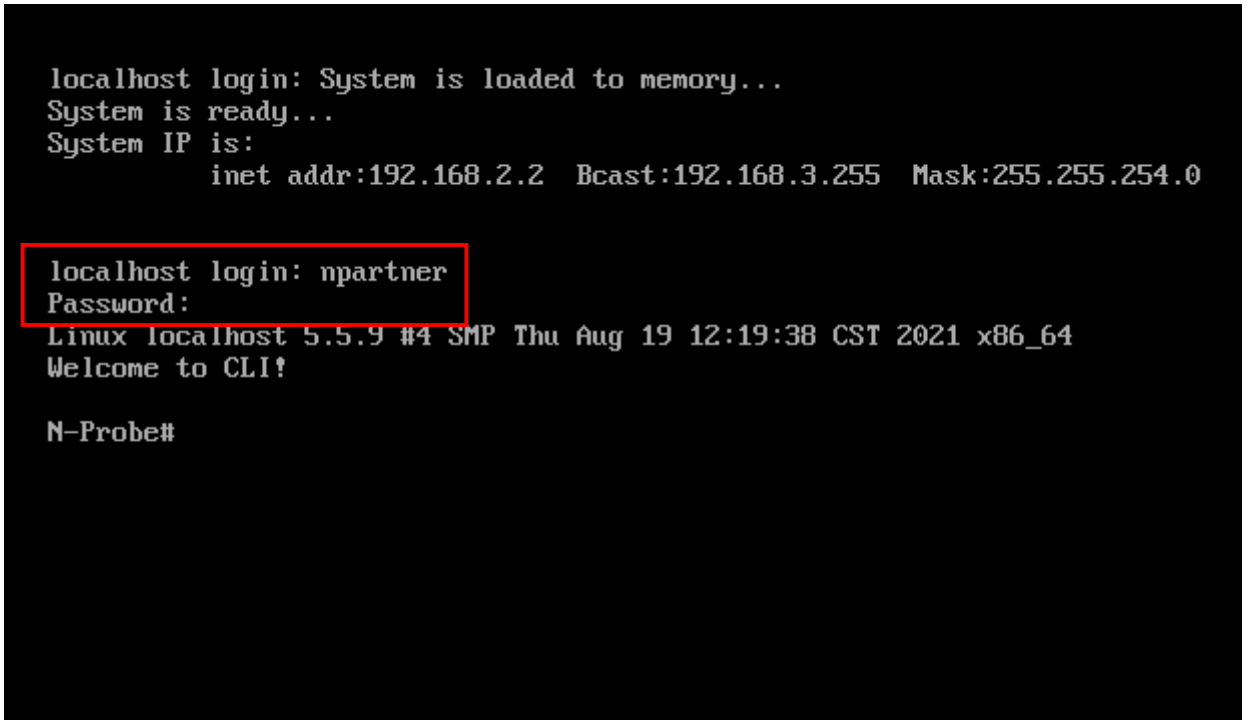
(5) 登入 N-Probe/External Receiver

預設CLI 登入帳號密碼：npartner / npartner



(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

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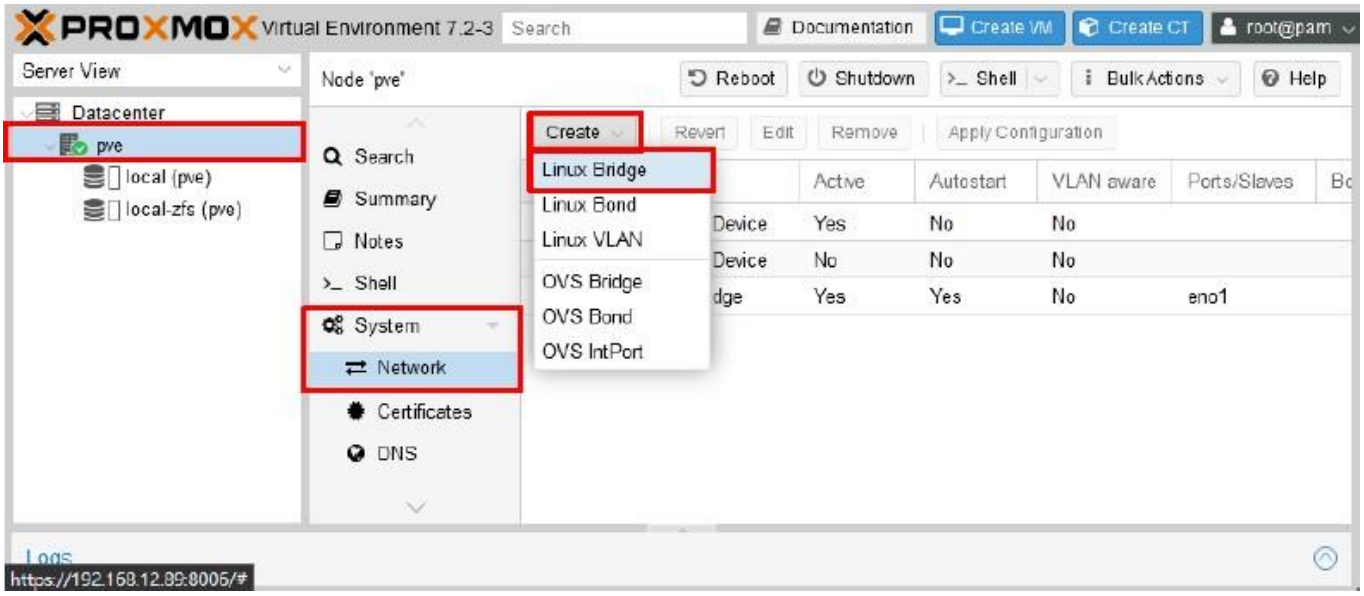
3.4 Proxmox VE 7

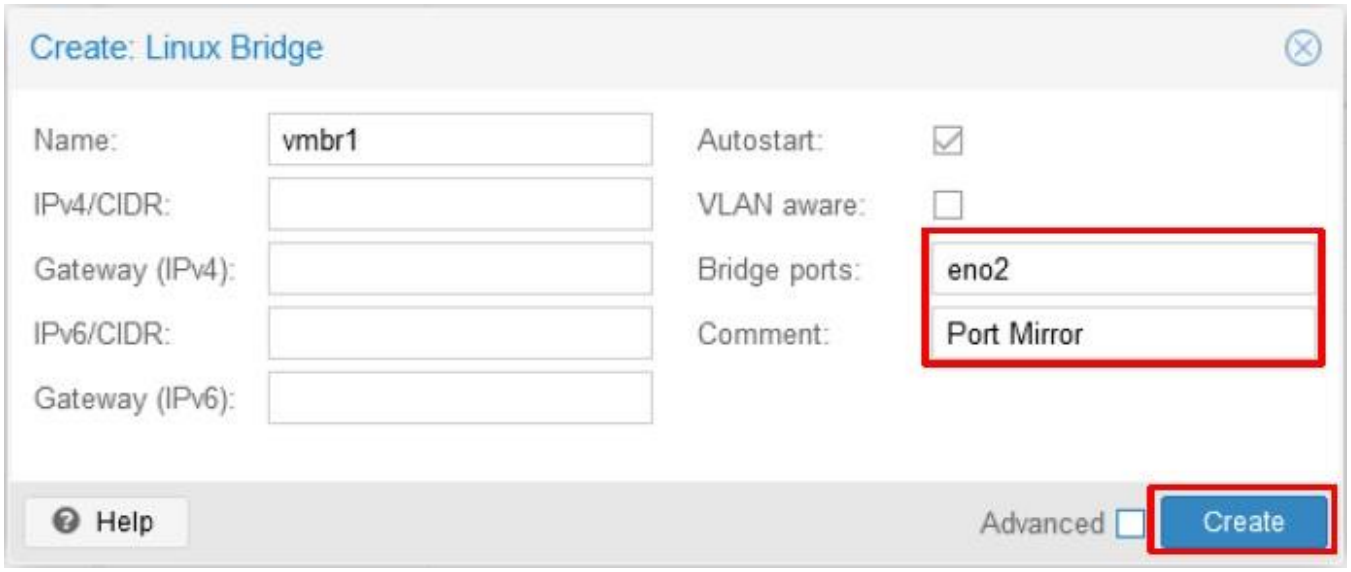
3.4.1 Mirror Bridge

※ 請安裝 Proxmox VE 7.0 或以上的版本。

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



(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]



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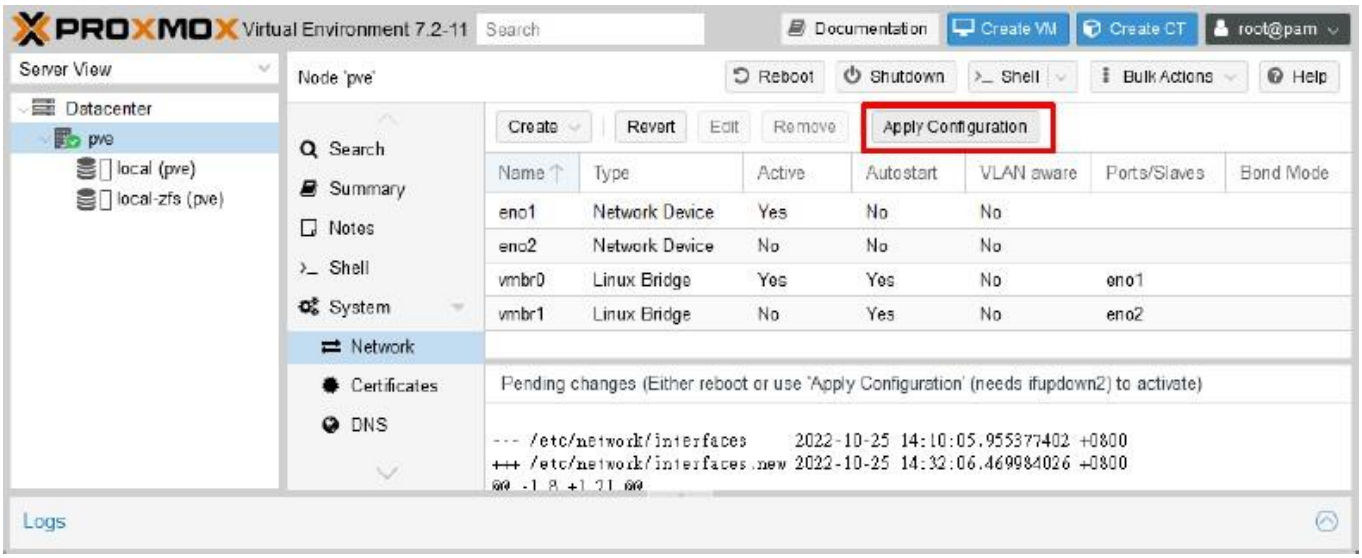
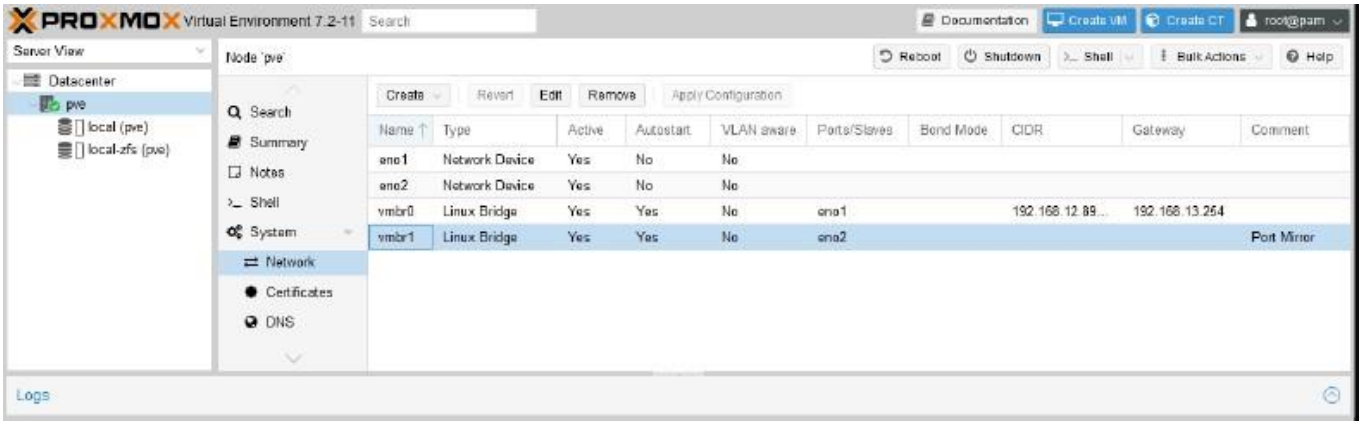
(3) 按 [Apply Configuration]



(4) 按 [Yes]

(5) 顯示VM Bridge 套用情形



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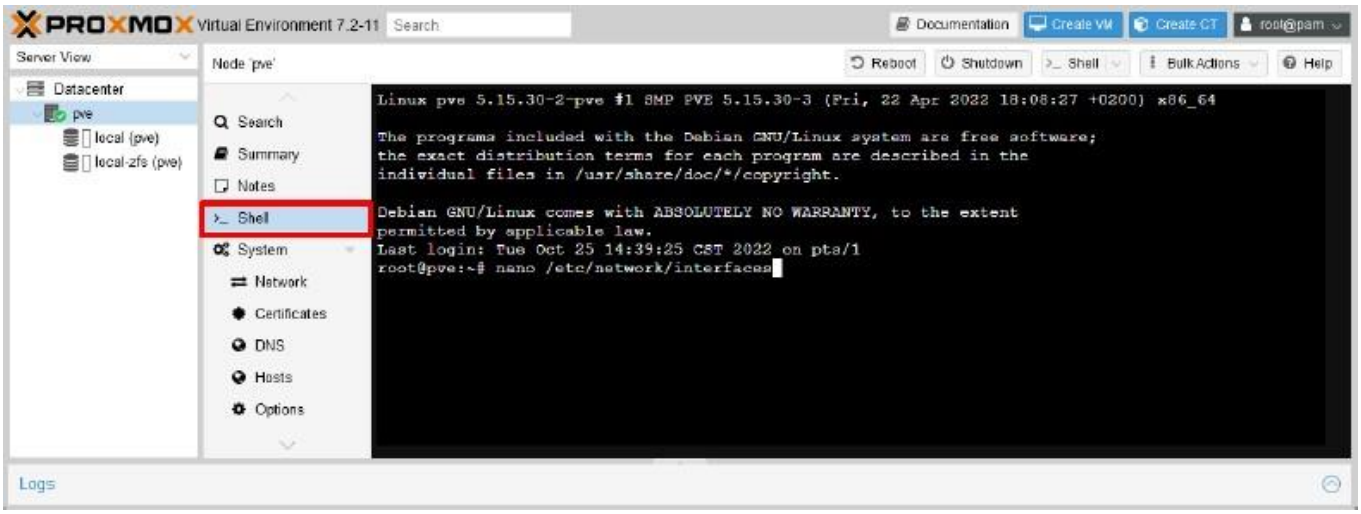
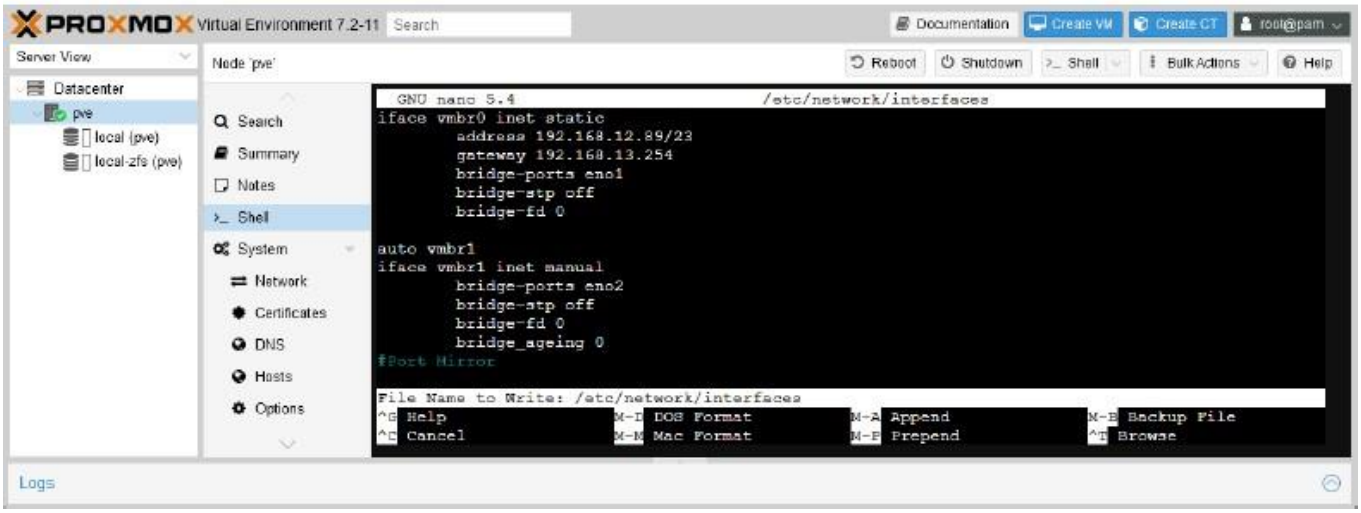
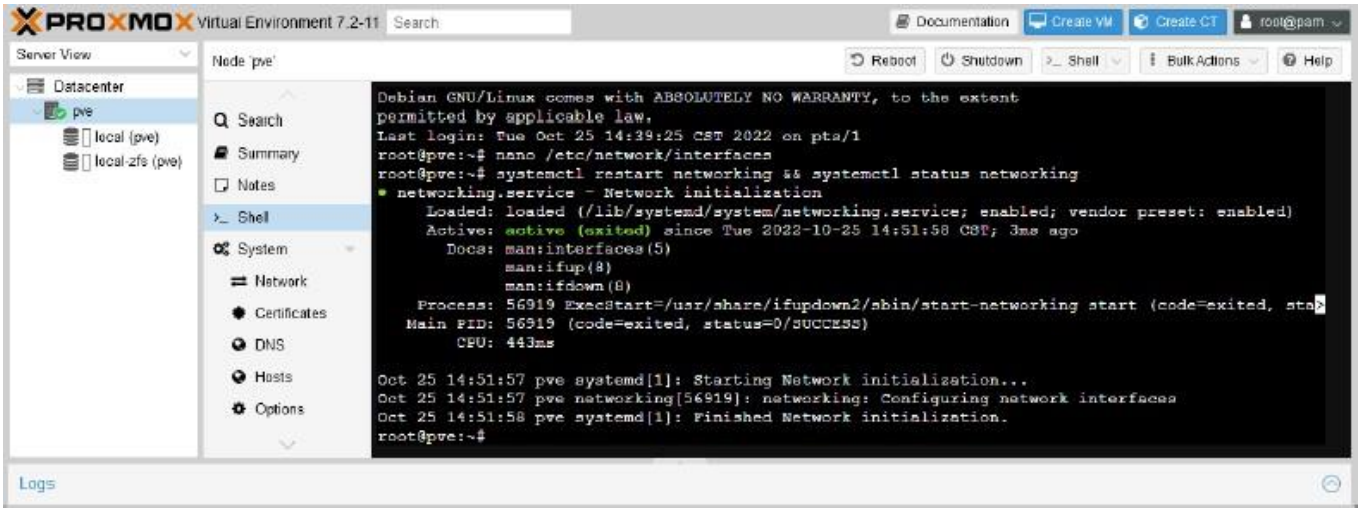
(6) 切換到 [>_ Shell] -> 編輯 interface 輸入 **nano /etc/network/interfaces**



(7) 在 iface vmbr1 ※請依據客戶環境 新增一行 **bridge_ageing 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**



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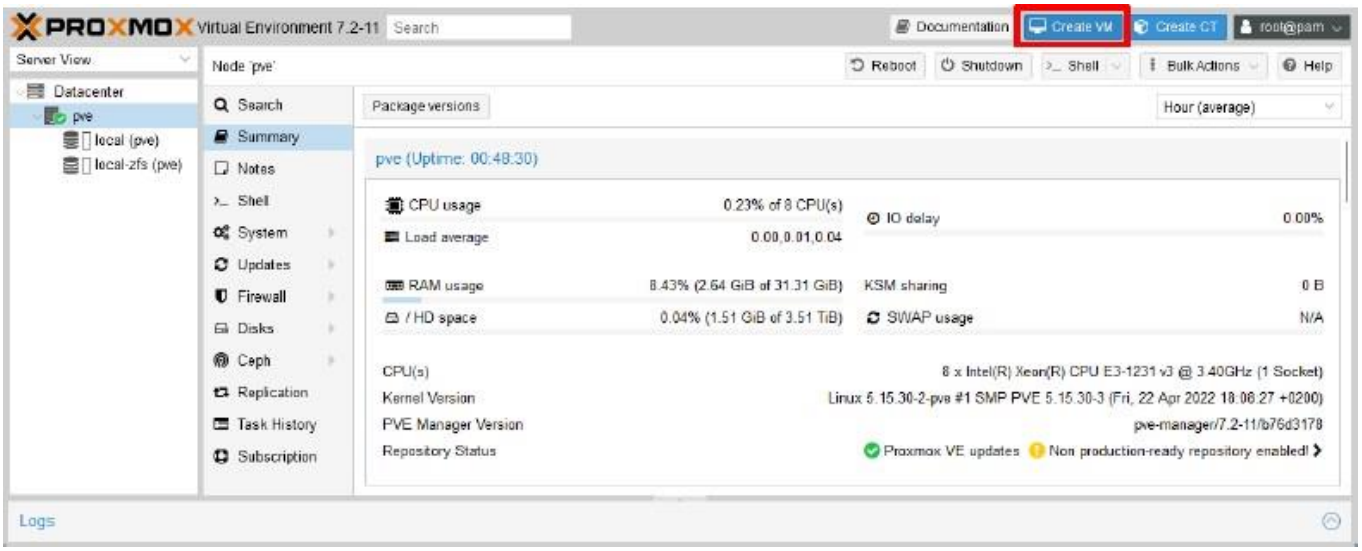
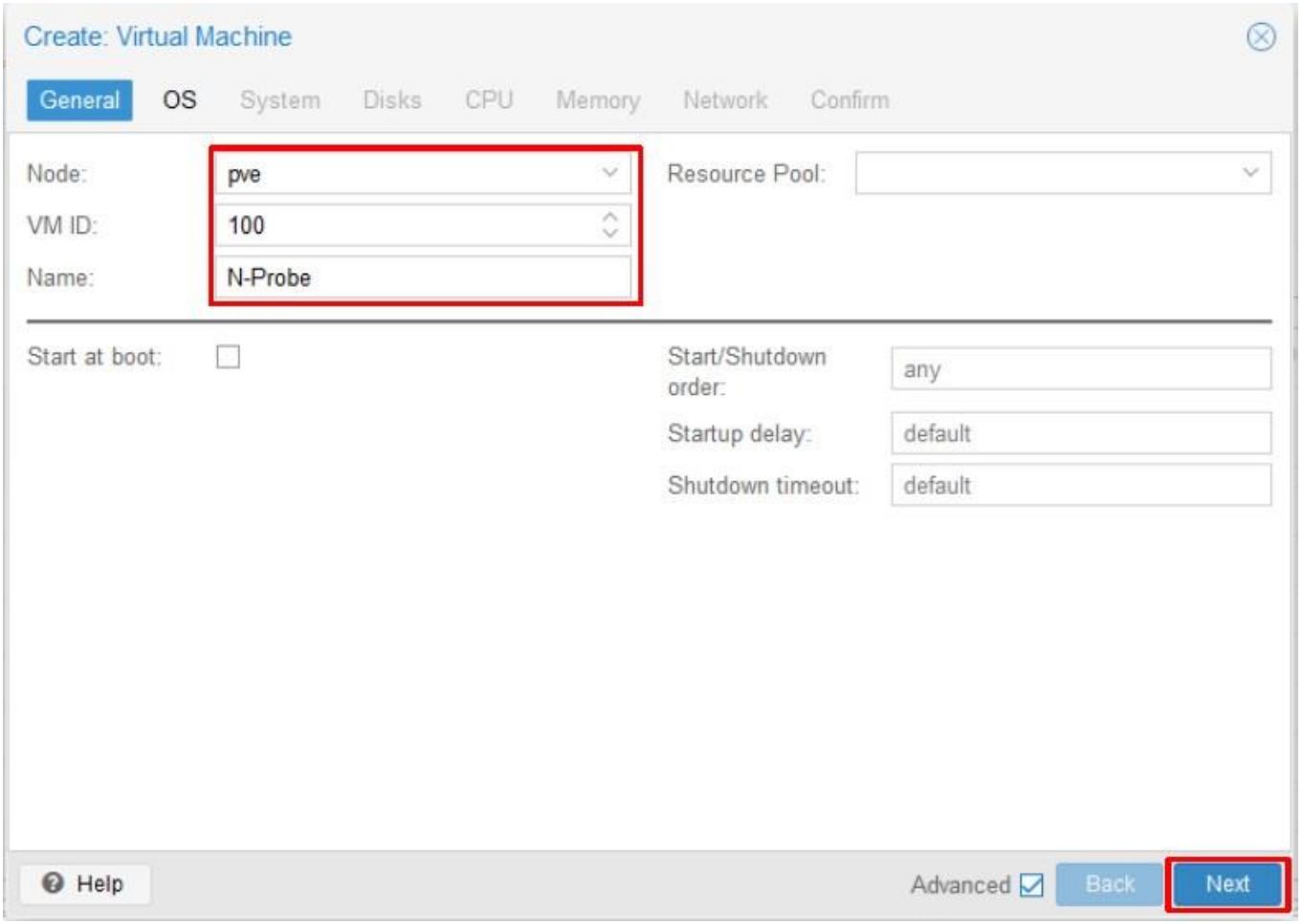
3.4.2 Import N-Probe VM

(1) 按 [Create VM]



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



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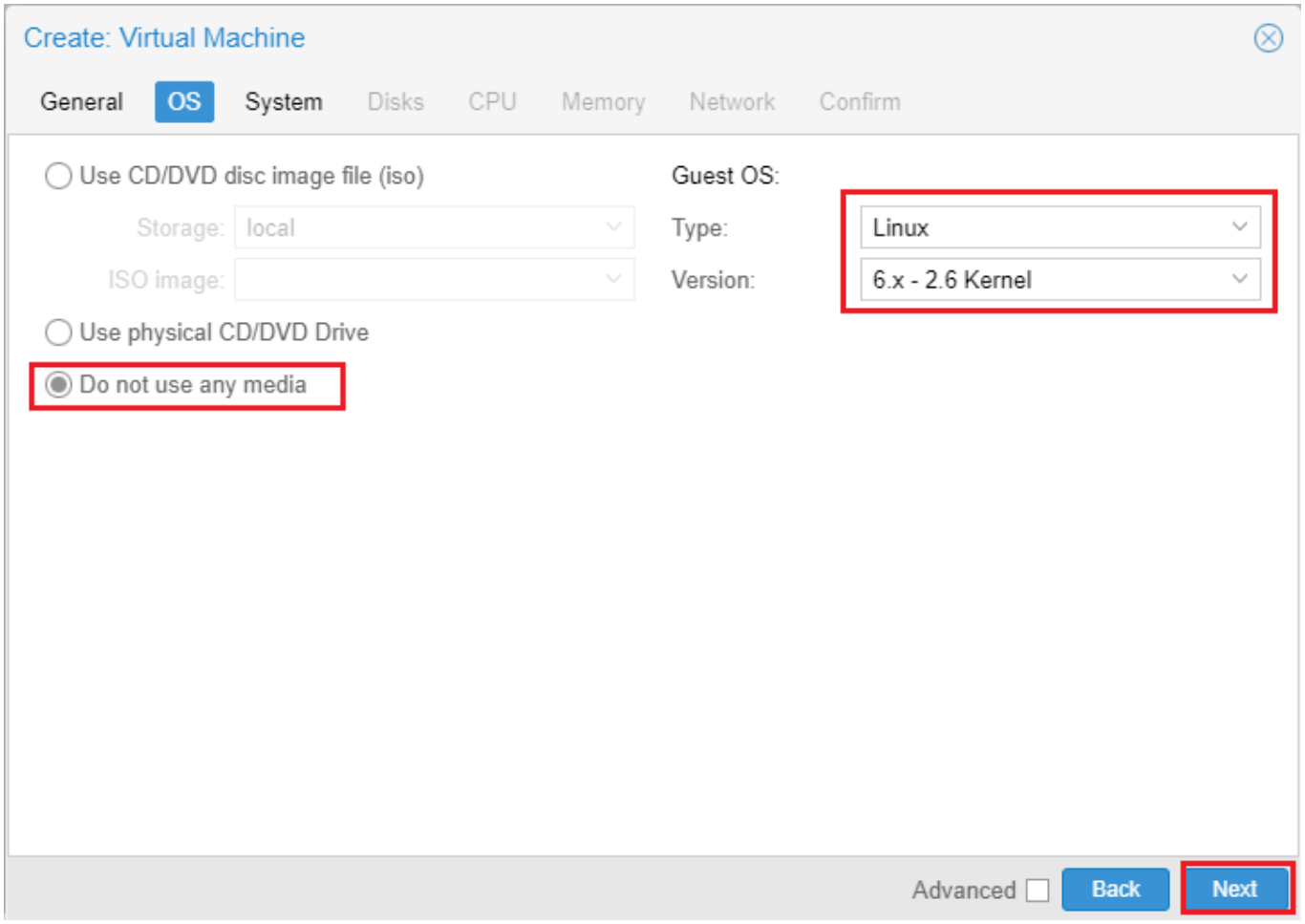
(3) [OS] 頁面；點選[Do not use any media] -> 選擇Guest OS Type: [Linux] -> Version: [6.x - 2.6 Kernel] -> 按[Next]



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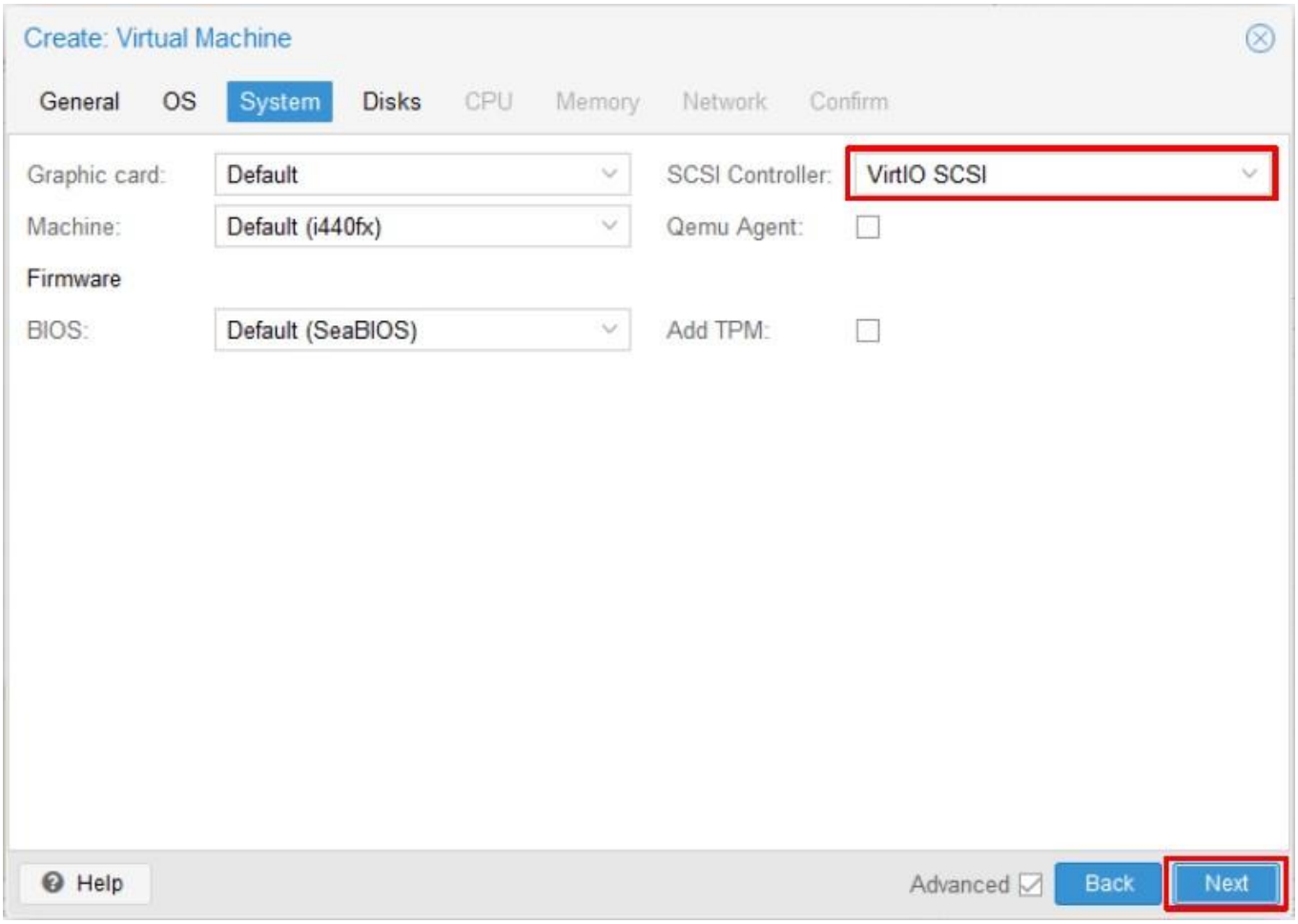
(4) [System] 頁面；選擇SCSI Controller: [VirtIO SCSI] -> 按[Next]



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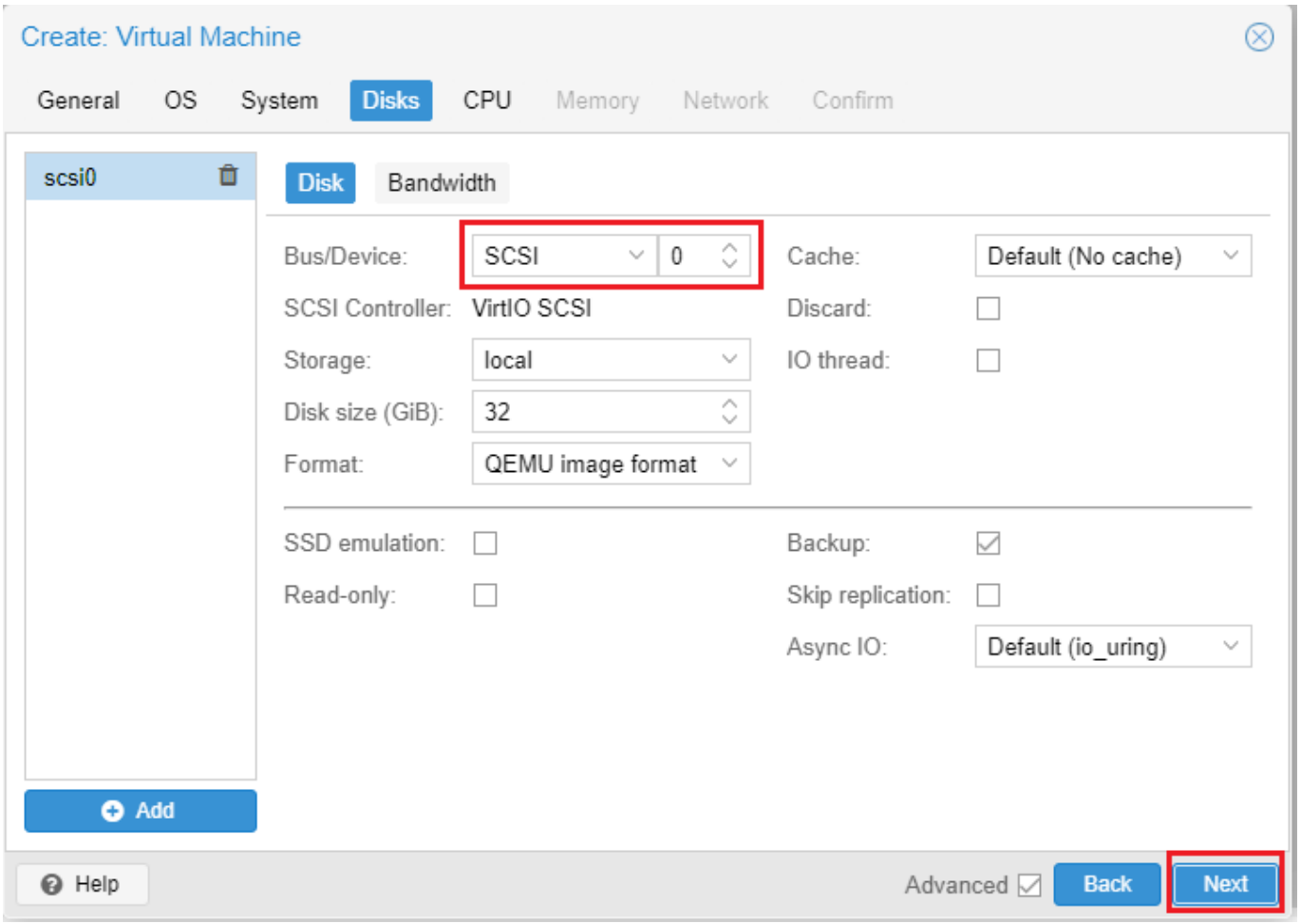
(5) [Disk] 頁面；選擇Bus/Device: [SCSI] -> 按[Next]



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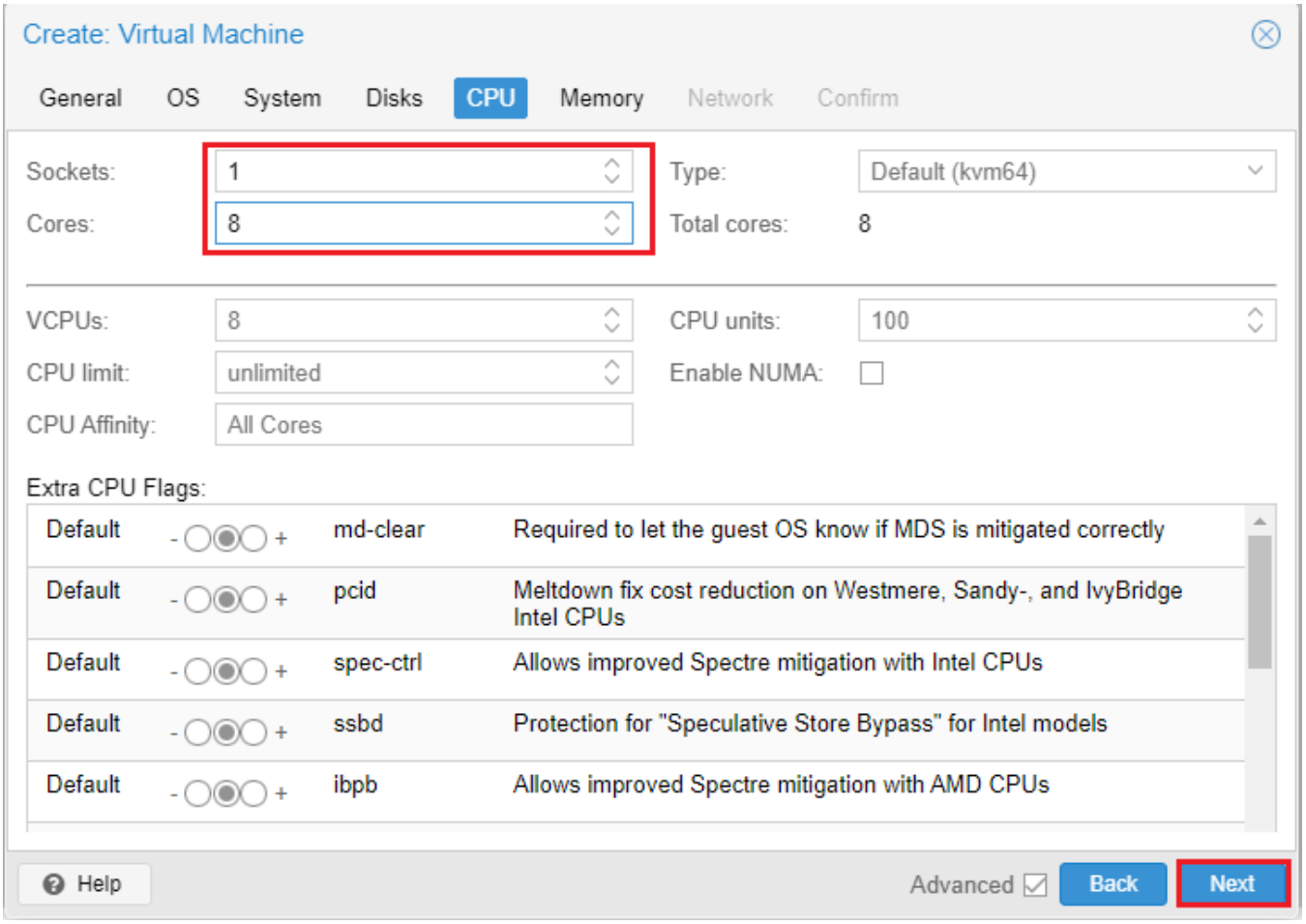
(6) [CPU] 頁面；輸入Sockets: 和 Cores: 8 ※核心總數 8 以上 -> 按[Next]



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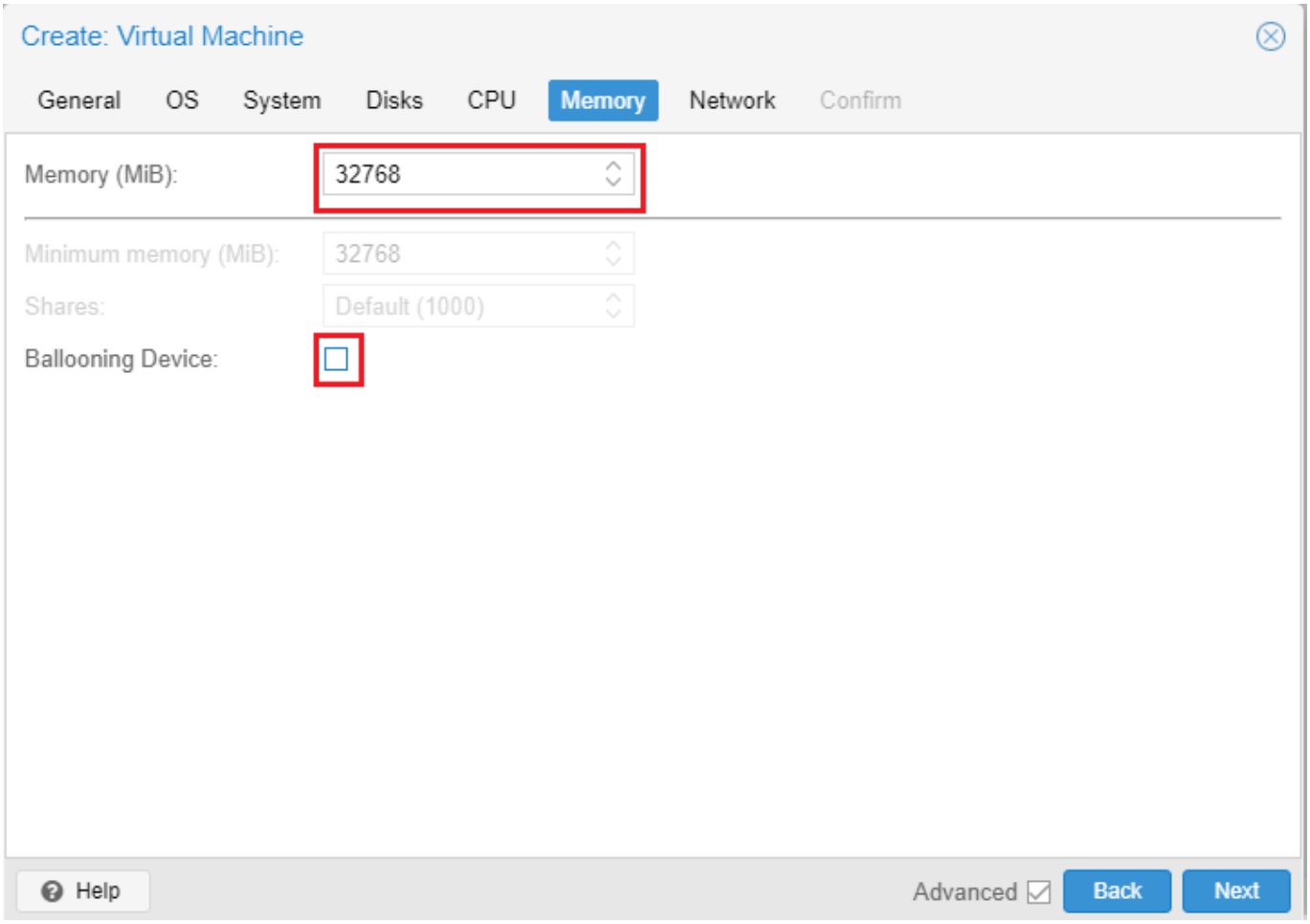
(7) [Memory] 頁面；輸入 Memory (MiB): 32768 ※至少 32GiB 以上 -> Ballooning裝置取消勾選 -> 按[Next]



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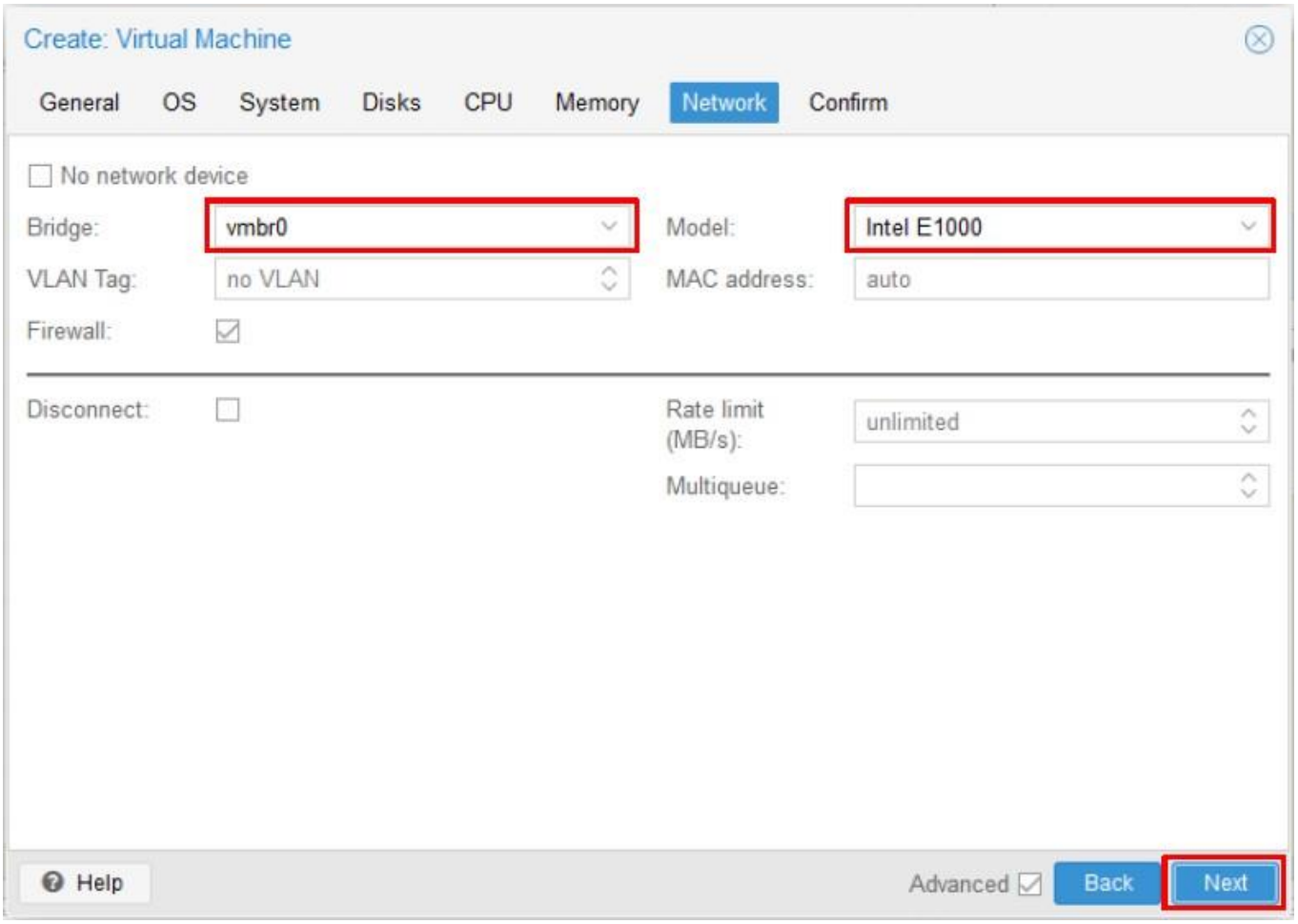
(8) [Network] 頁面；選擇Bridge: [vmbr0] ※請依客戶環境選擇 N-Probe 管理介面 -> Model: [Intel E1000] -> 按 [Next]



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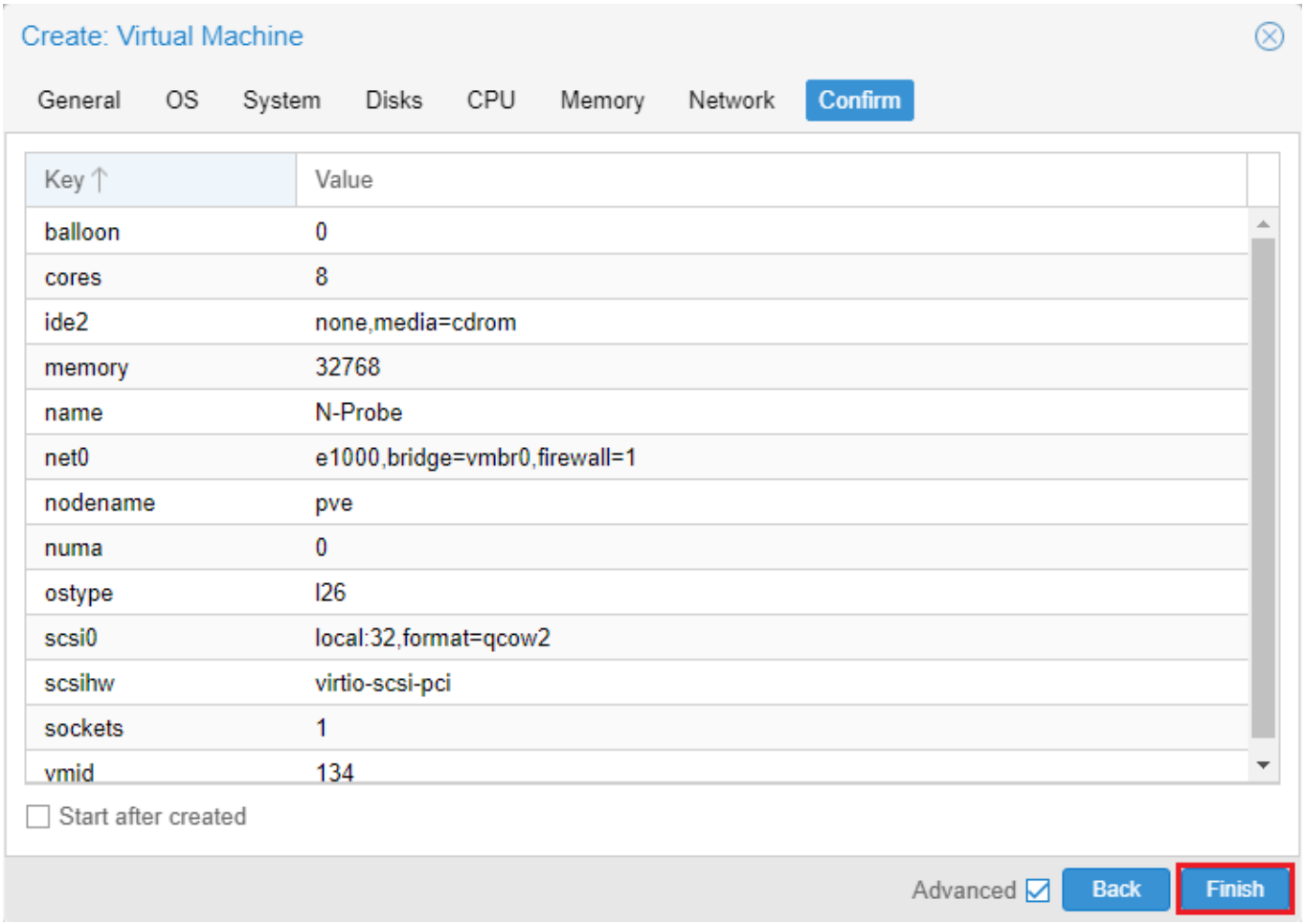
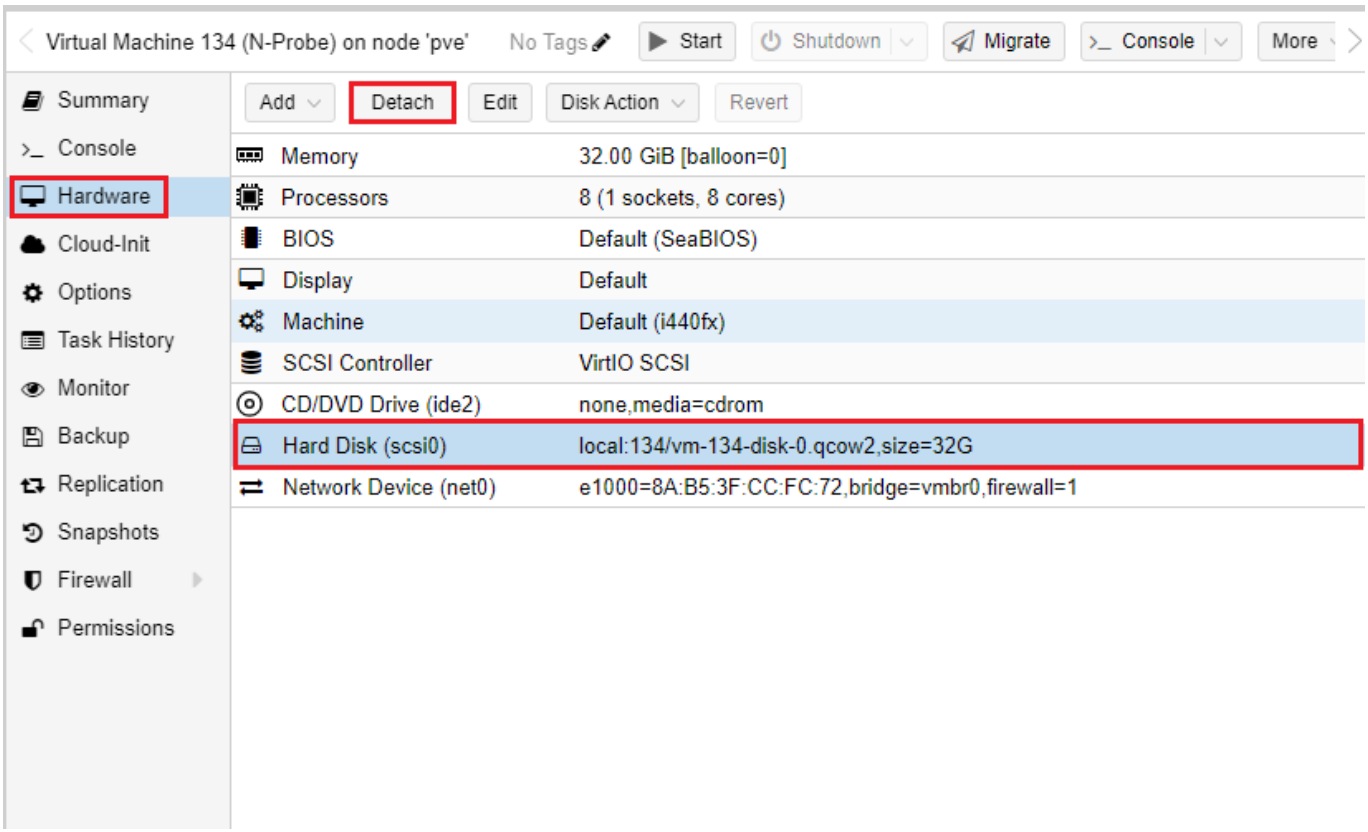
(9) [Confirm] 頁面；查看N-Probe VM 配置-> 按[Finish]



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



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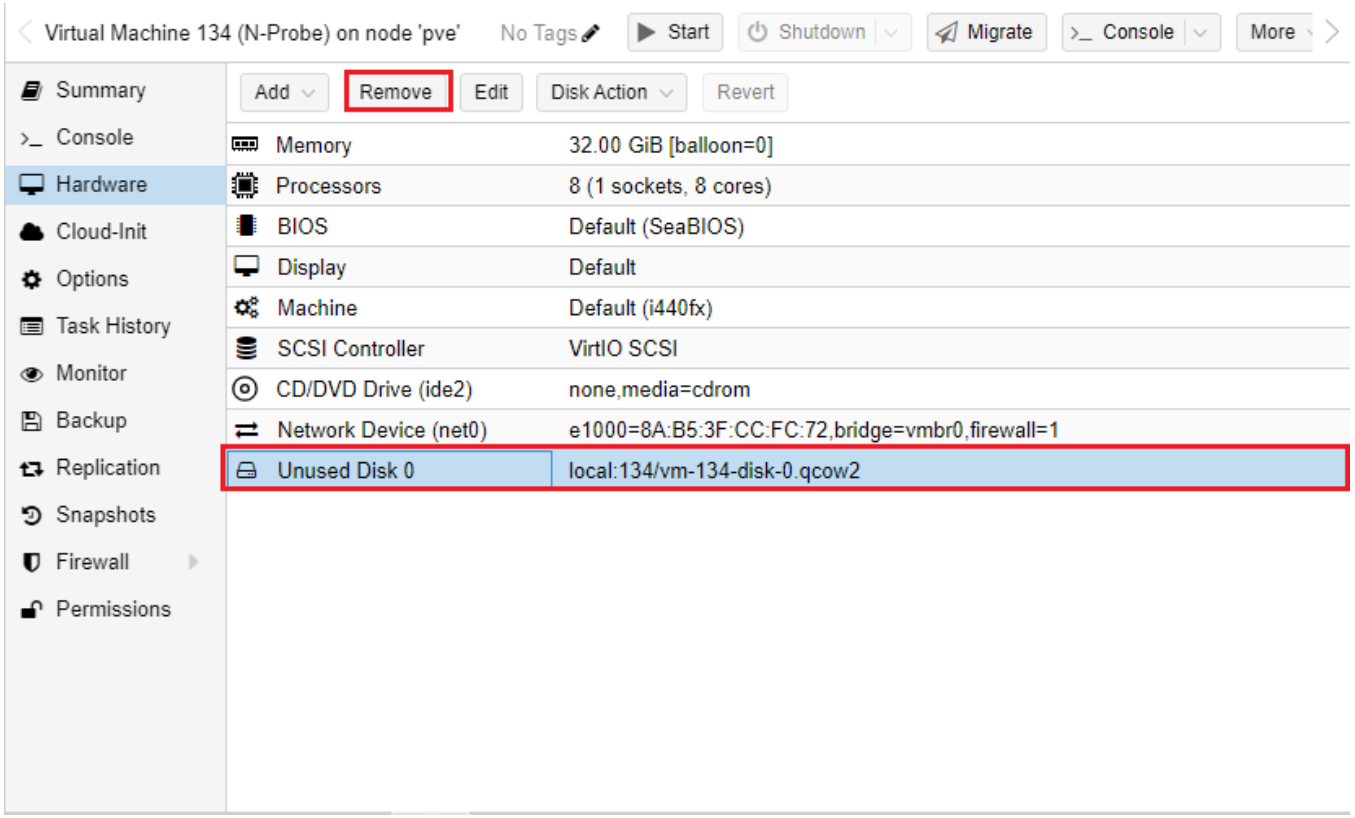
(11) 按[Yes]

(12) 點選[Unused Disk] -> 按[Remove]



(13) 按[Yes]

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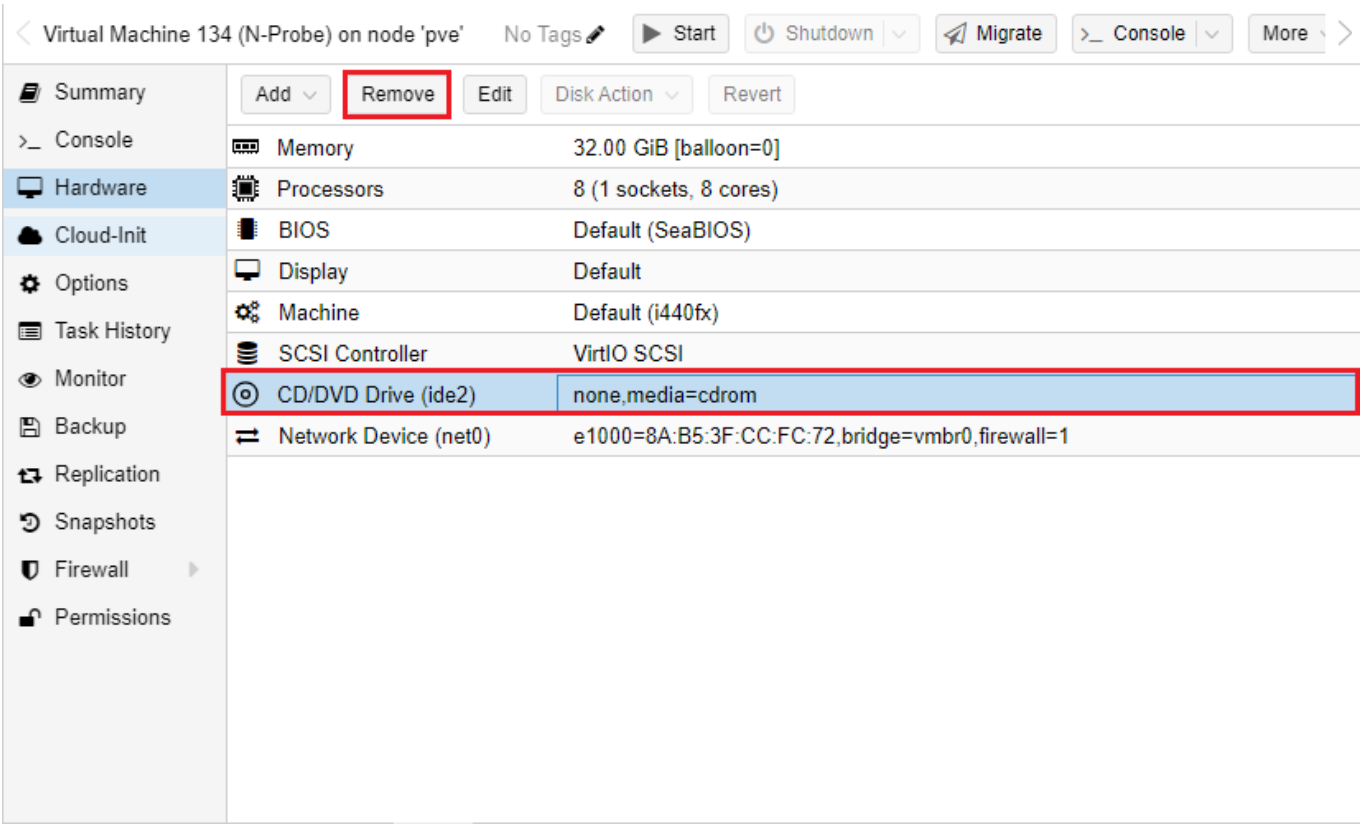
(14) 移除光碟機；點選[CD/DVD Drive] -> 按[Remove]



(15) 按[Yes]

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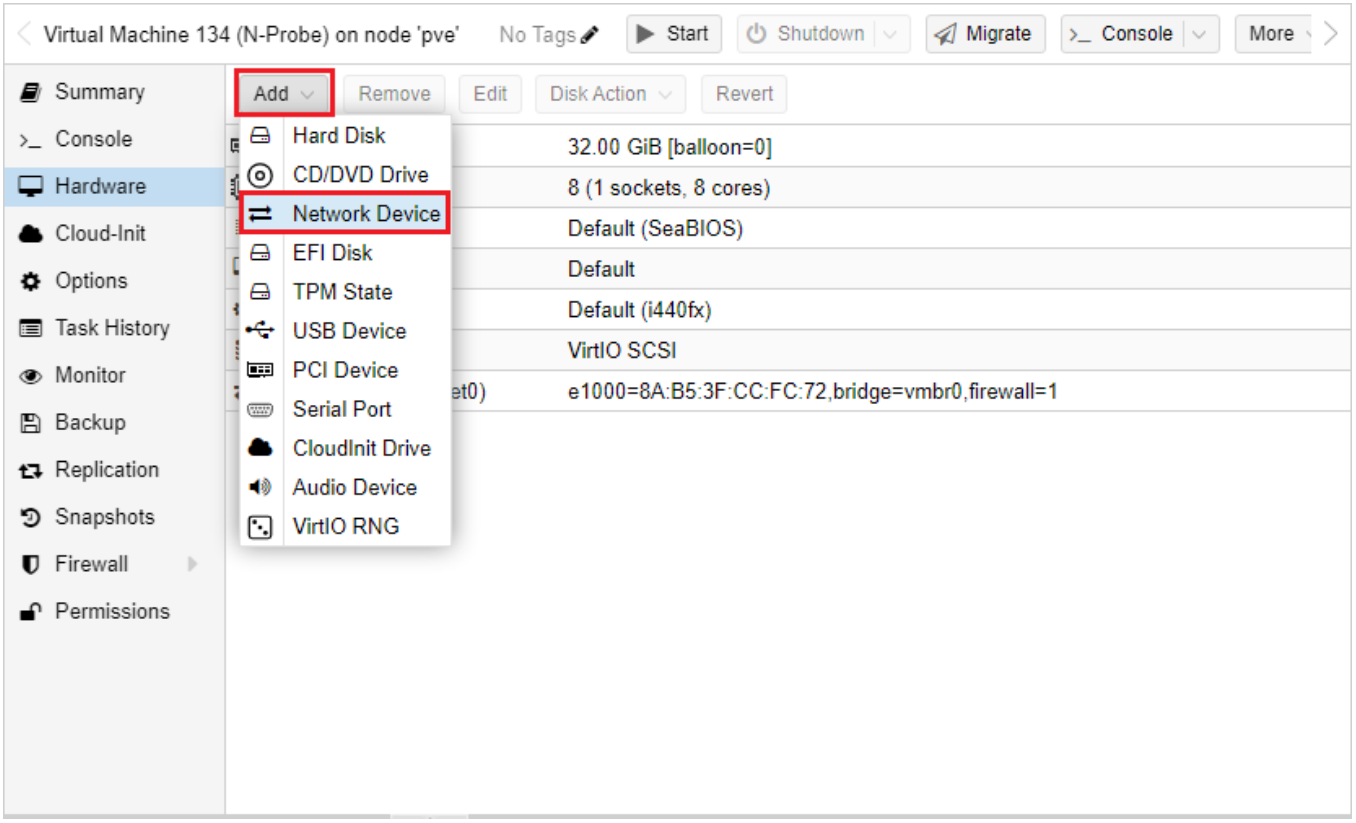
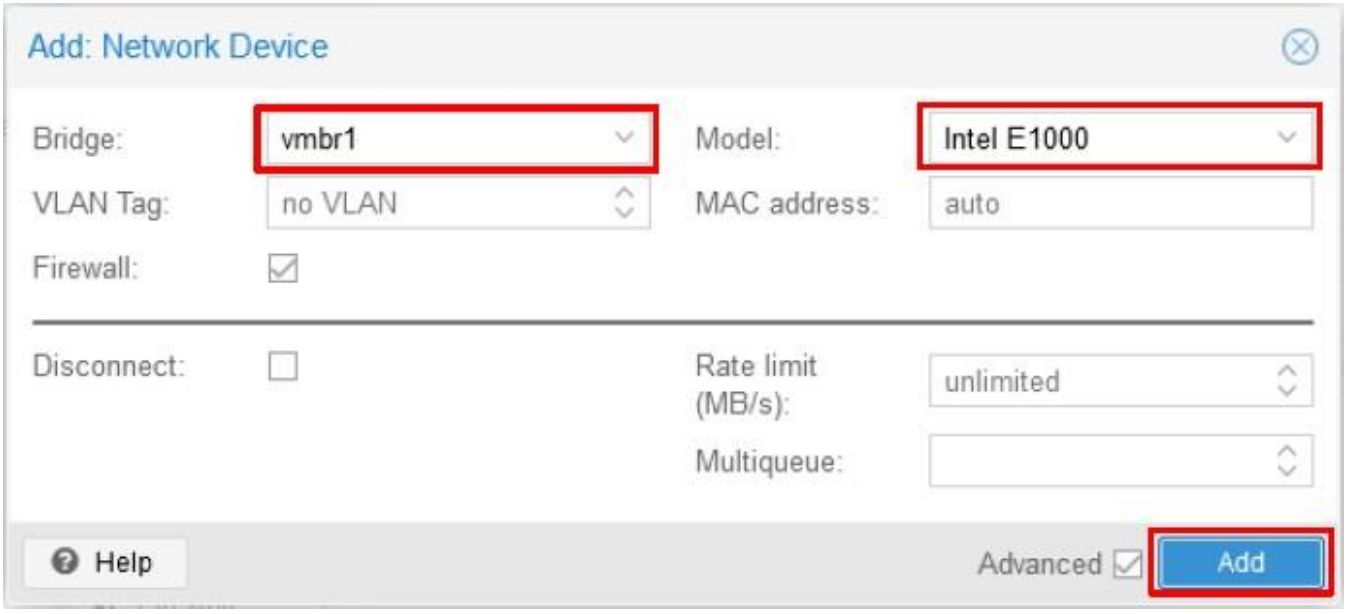
(16) 新增 Mirror Bridge; [Hardware] 項目-> 按[Add] -> 點選[Network Device]



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



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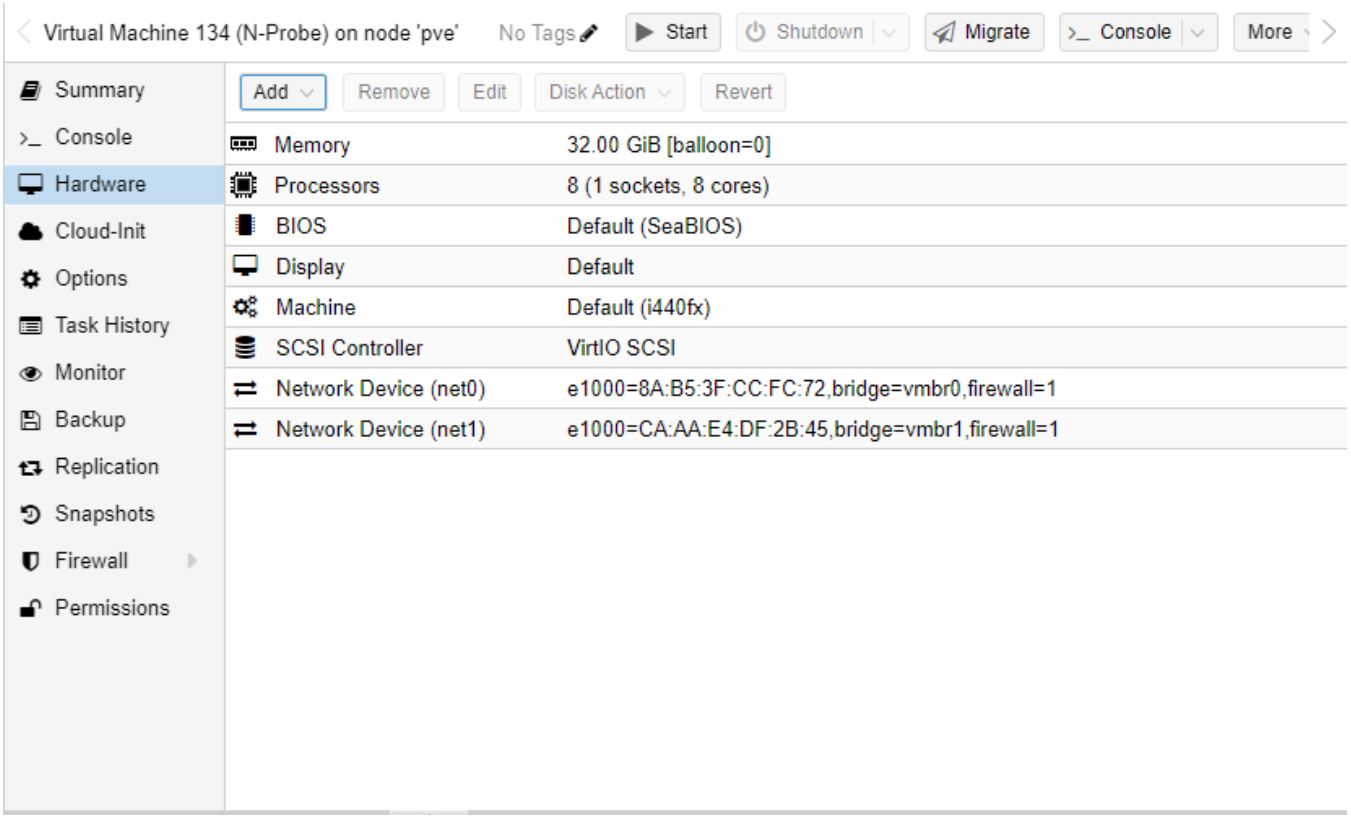
(18) 顯示N-Reporter VM 硬體訊息



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#
```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(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
```


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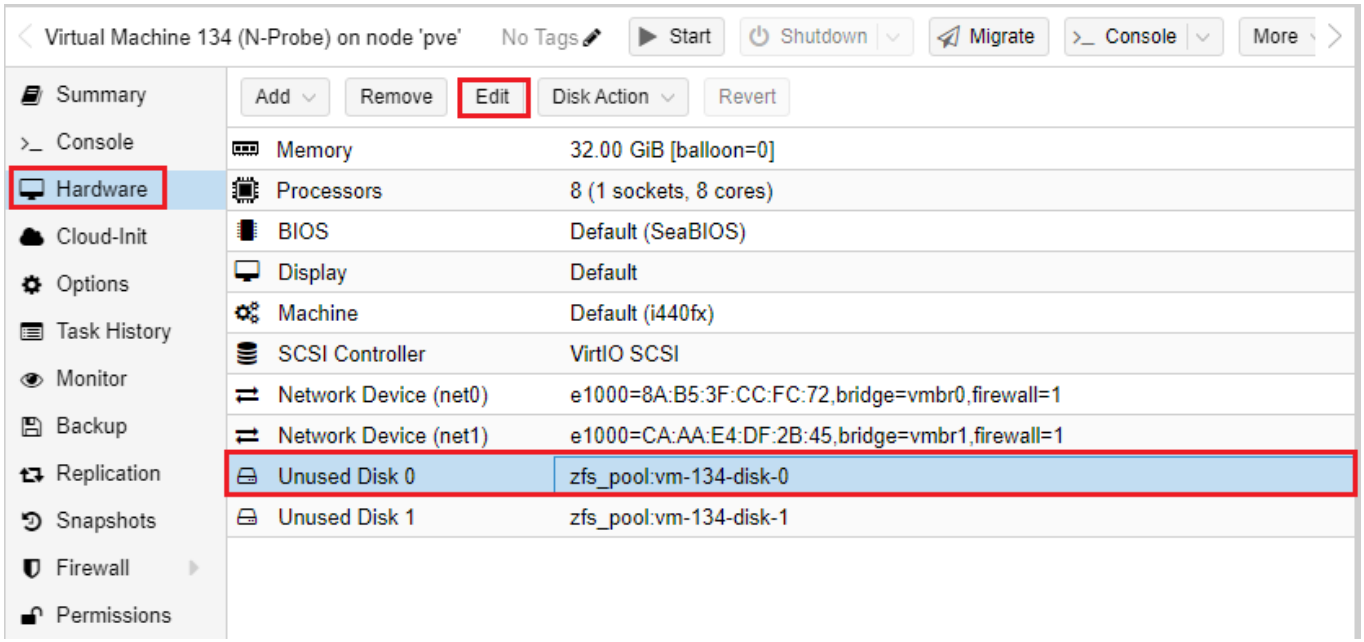
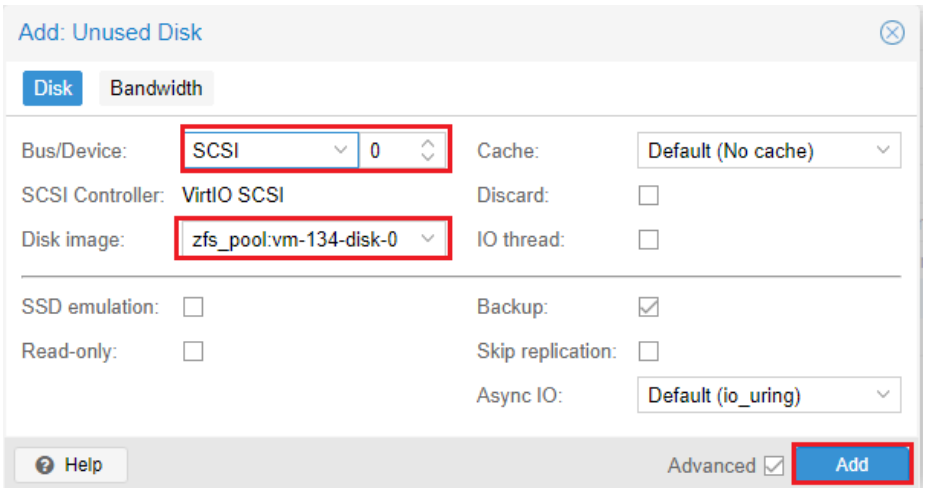
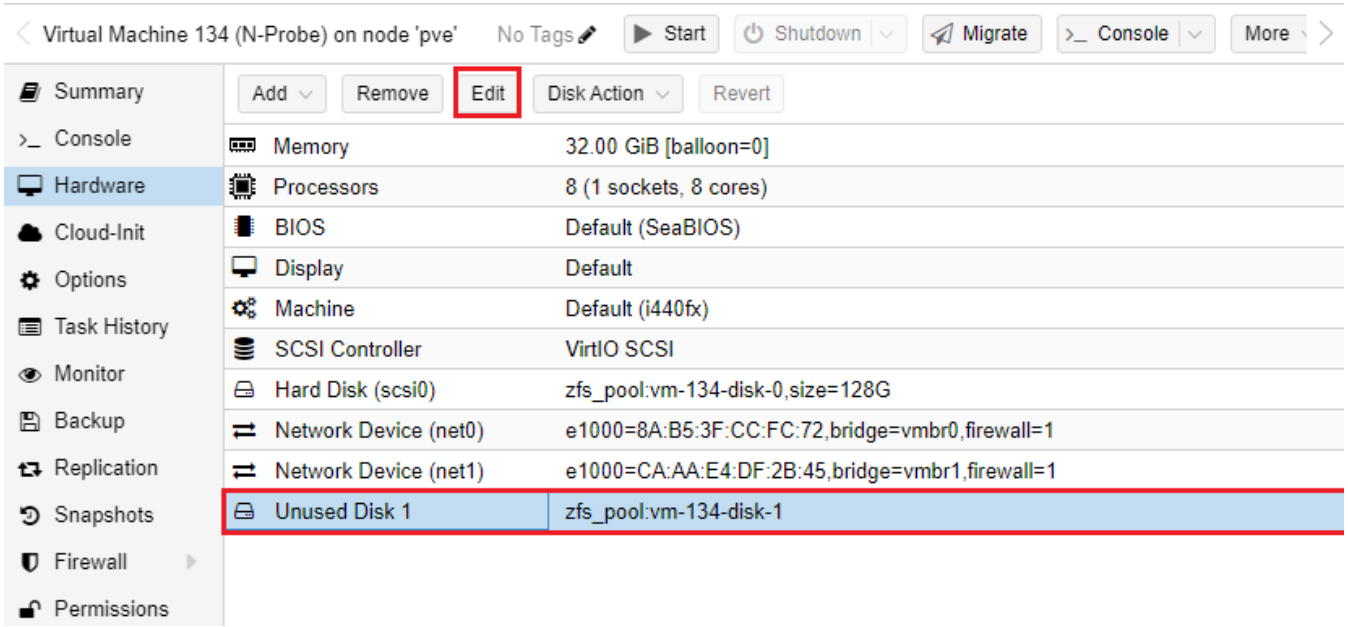
(20) 選擇[N-Probe VM] -> 點選[Hardware] -> [Unused Disk 0] -> [Edit]



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



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



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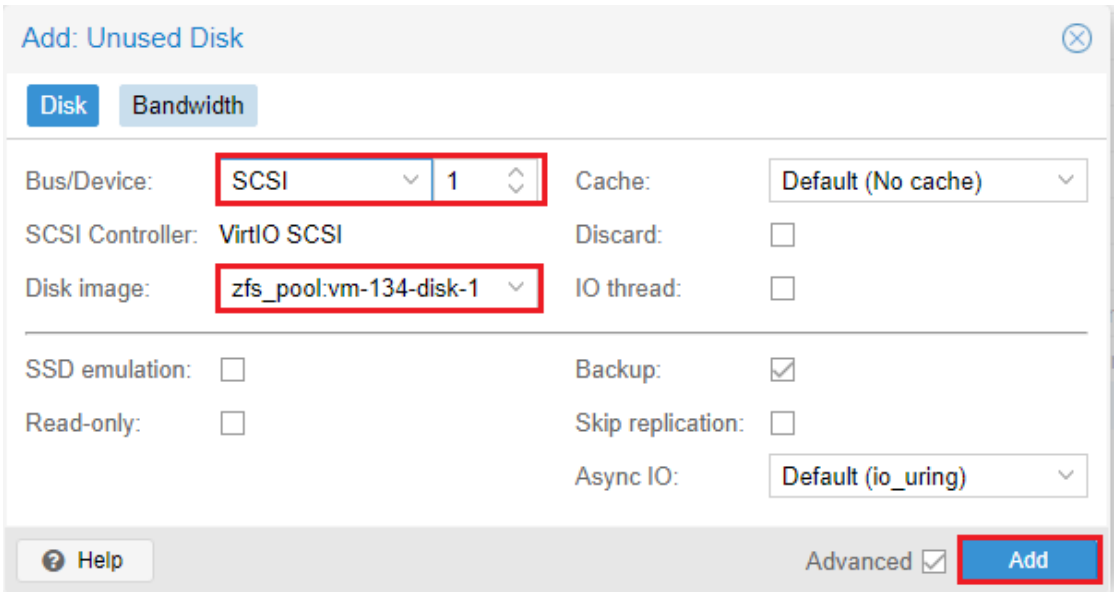
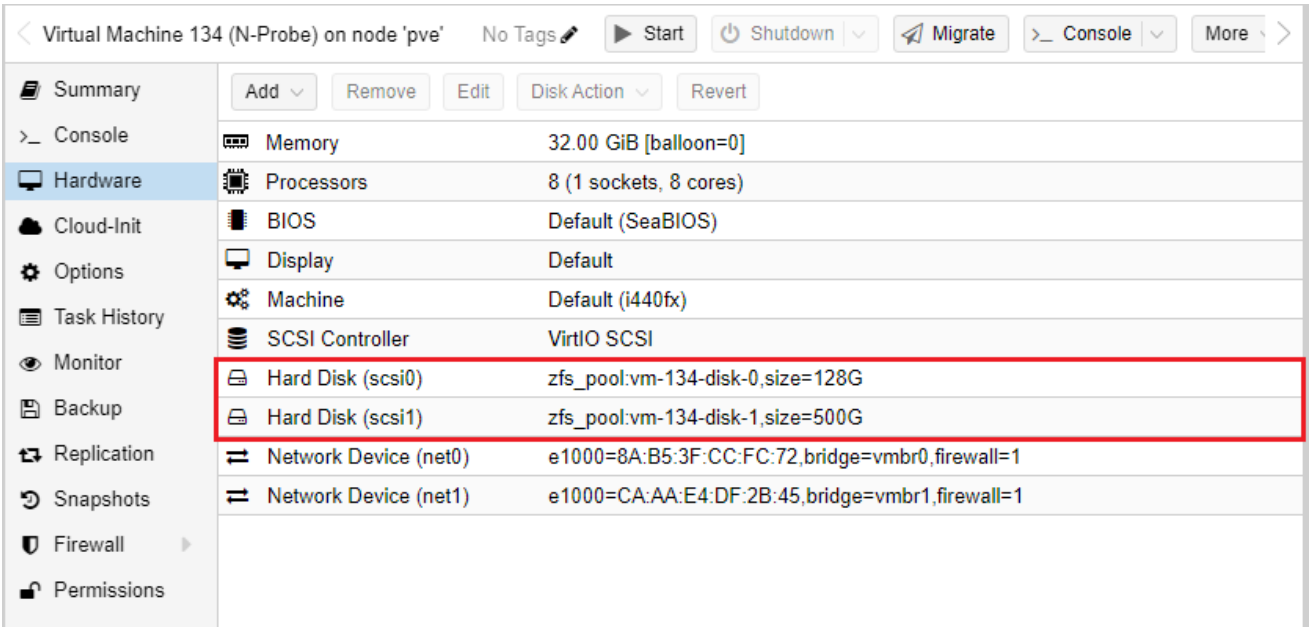
(23) [Disk] 頁面；點選Bus/Device: [SCSI] -> 查看[Disk image] 存放位置-> 按[Add]



(24) 硬體詳細資訊

確認disk 0(128G)為系統硬碟，disk1為資料硬碟。



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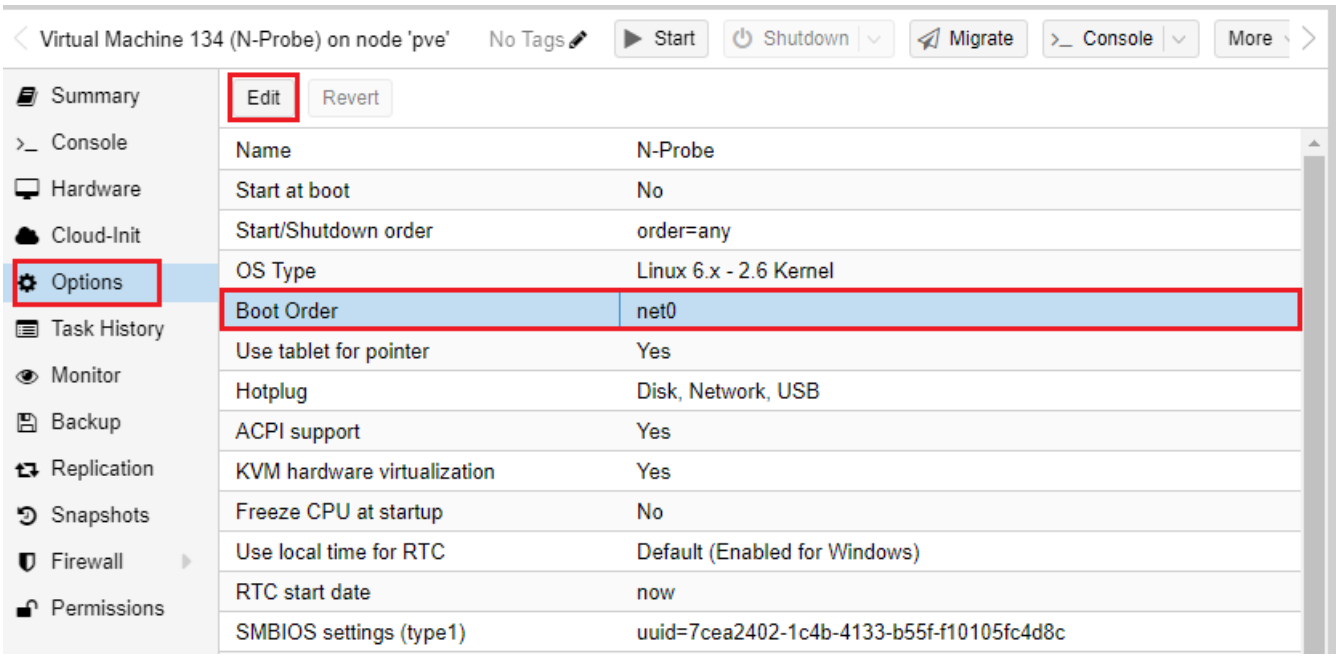
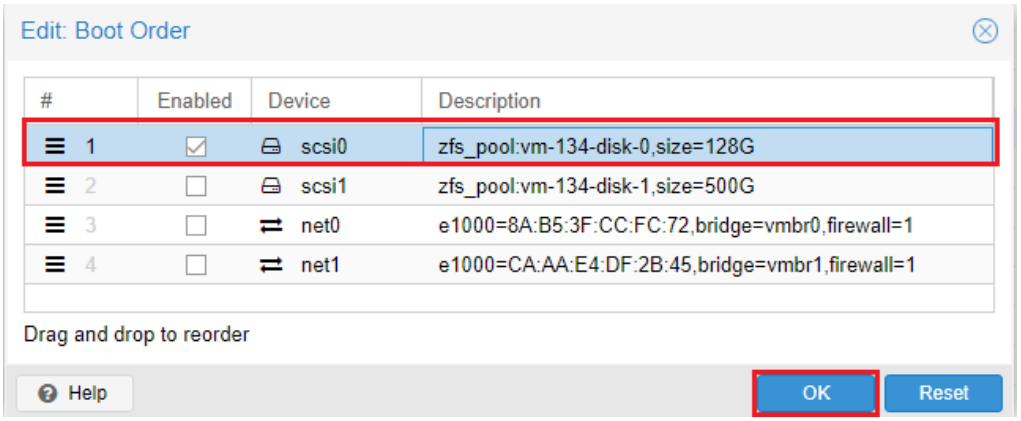
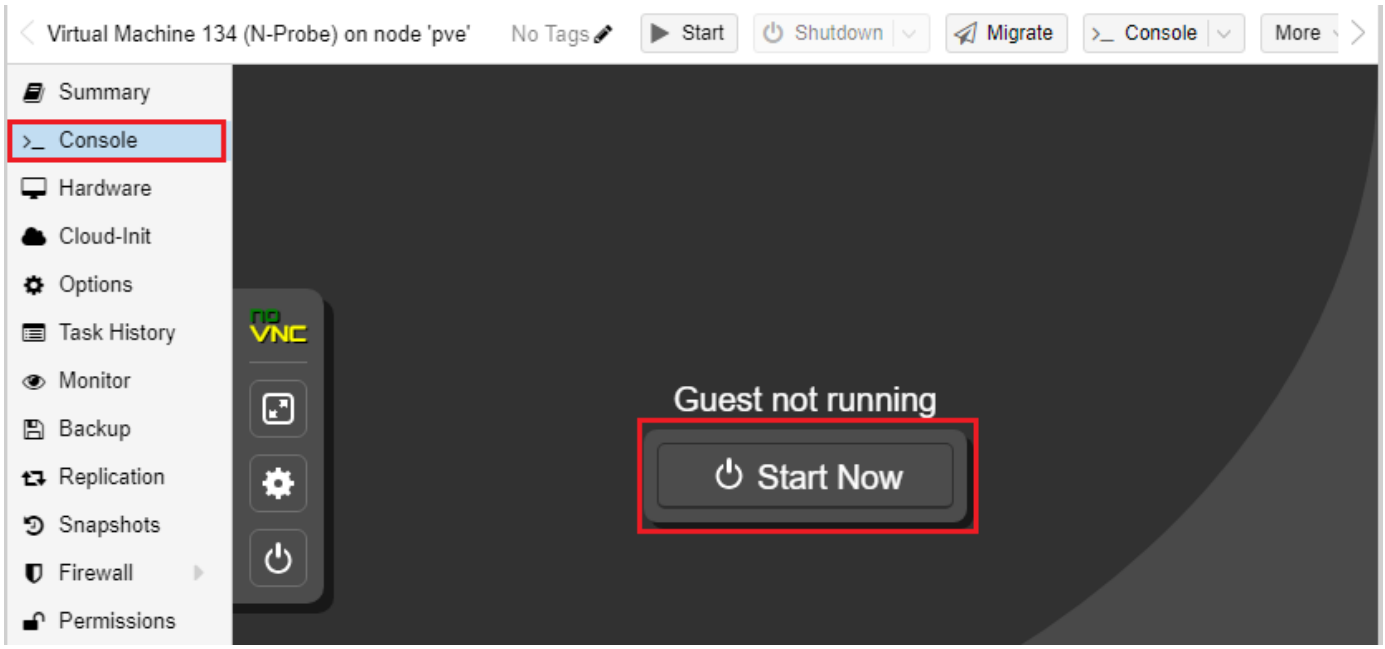
(25) 點選[Option] -> [Boot Order] -> [Edit]



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



(27) 點選[>_ Console] -> 按[Start Now]



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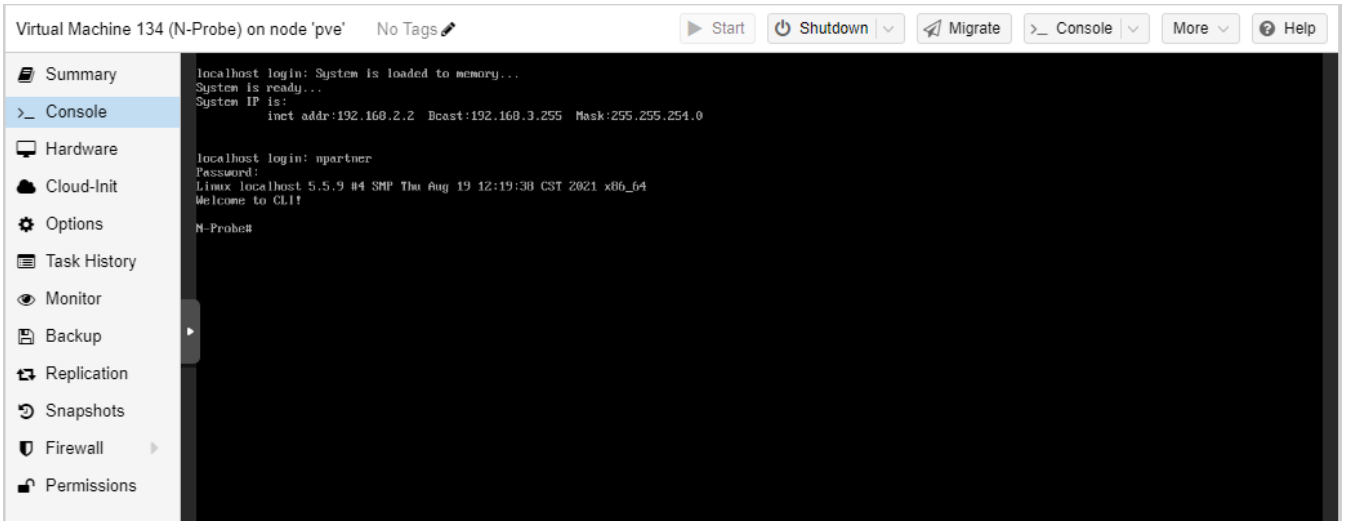
(28) 登入N-Probe/External Receiver

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#
```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(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
```

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

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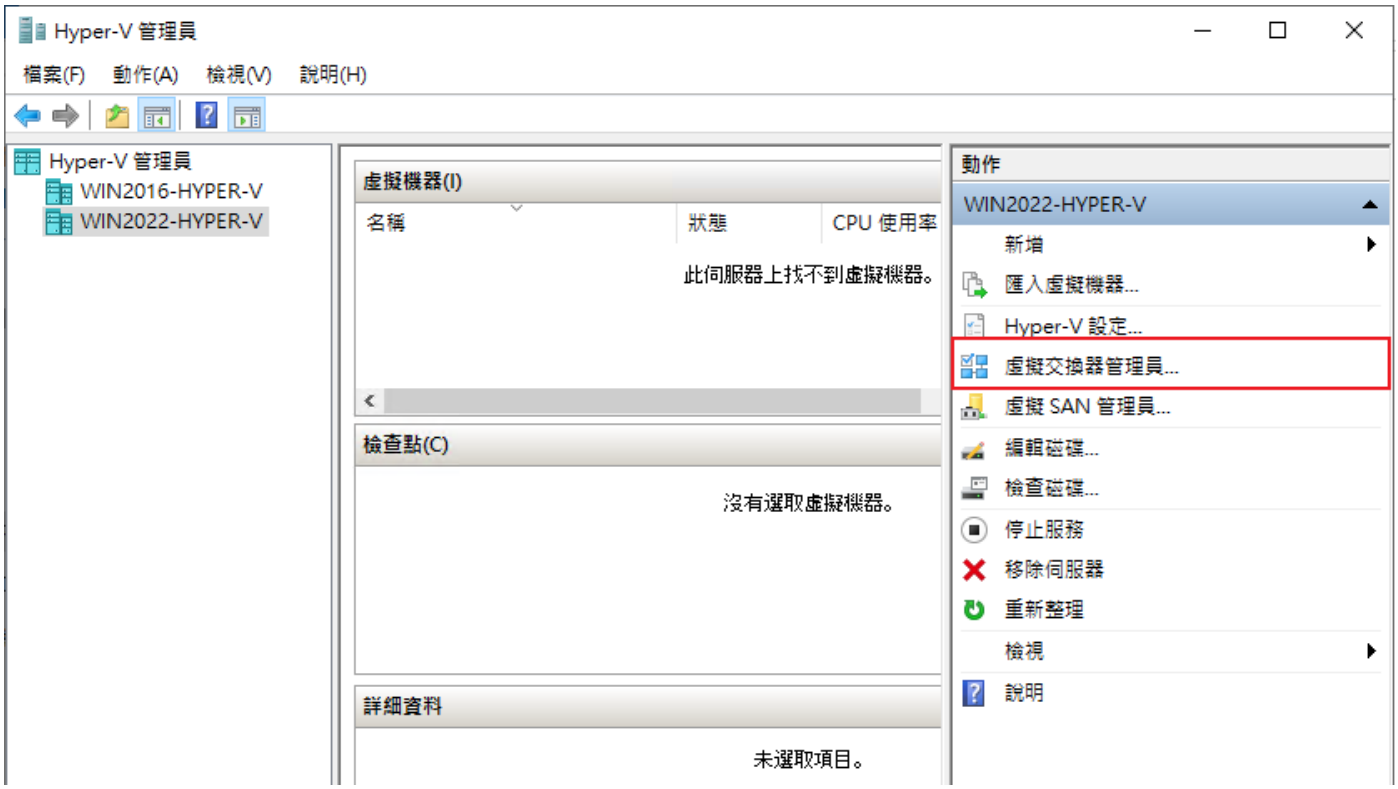
3.5 Hyper-V 2016-2022

3.5.1 Mirror vSwitch

(1) 開啟 [Hyper-V 管理員]

(2) 點選[虛擬交換器管理員]



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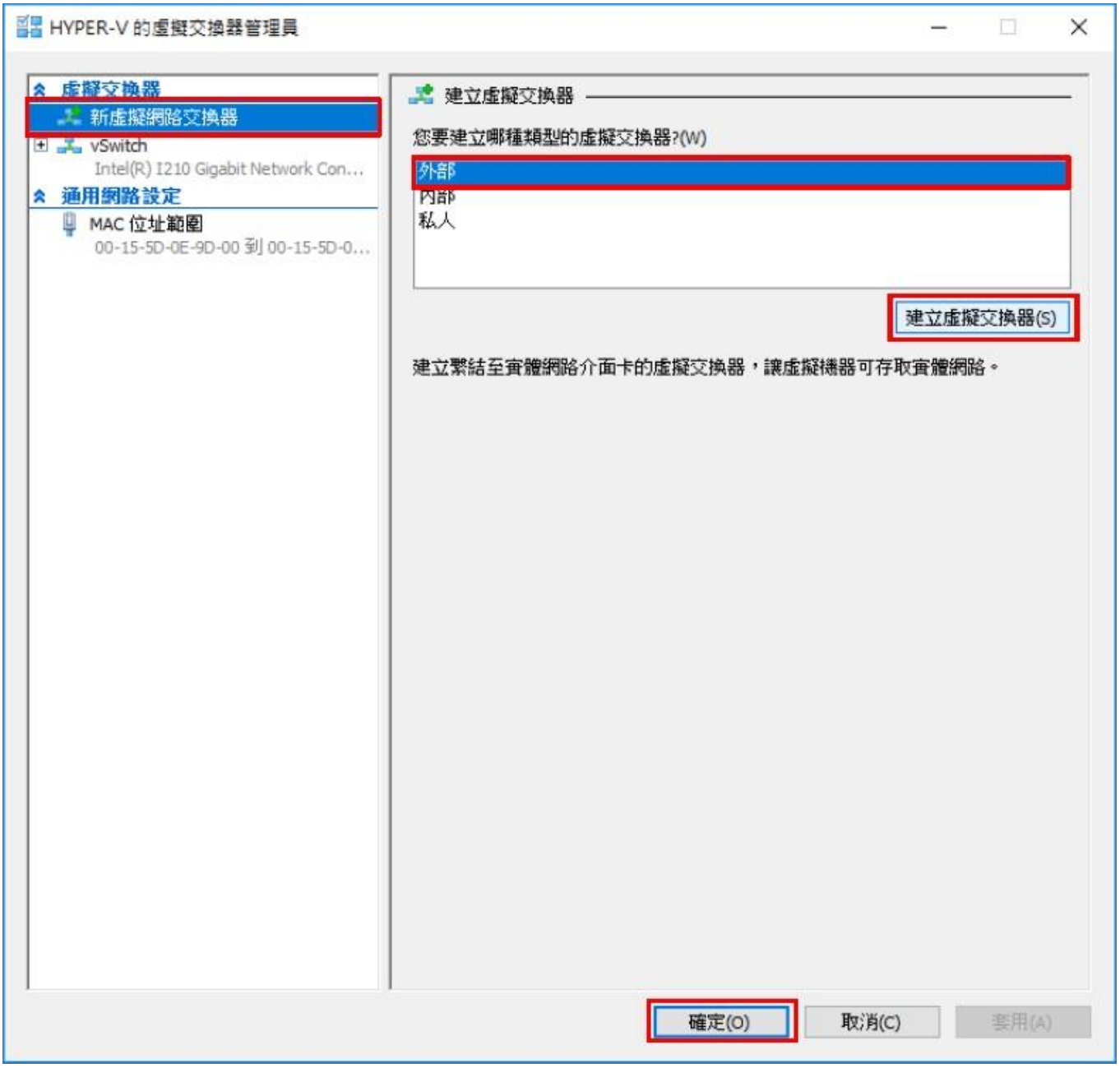
(3) 點選[新虛擬網路交換器] -> [外部] -> [建立虛擬交換器] -> [確定]



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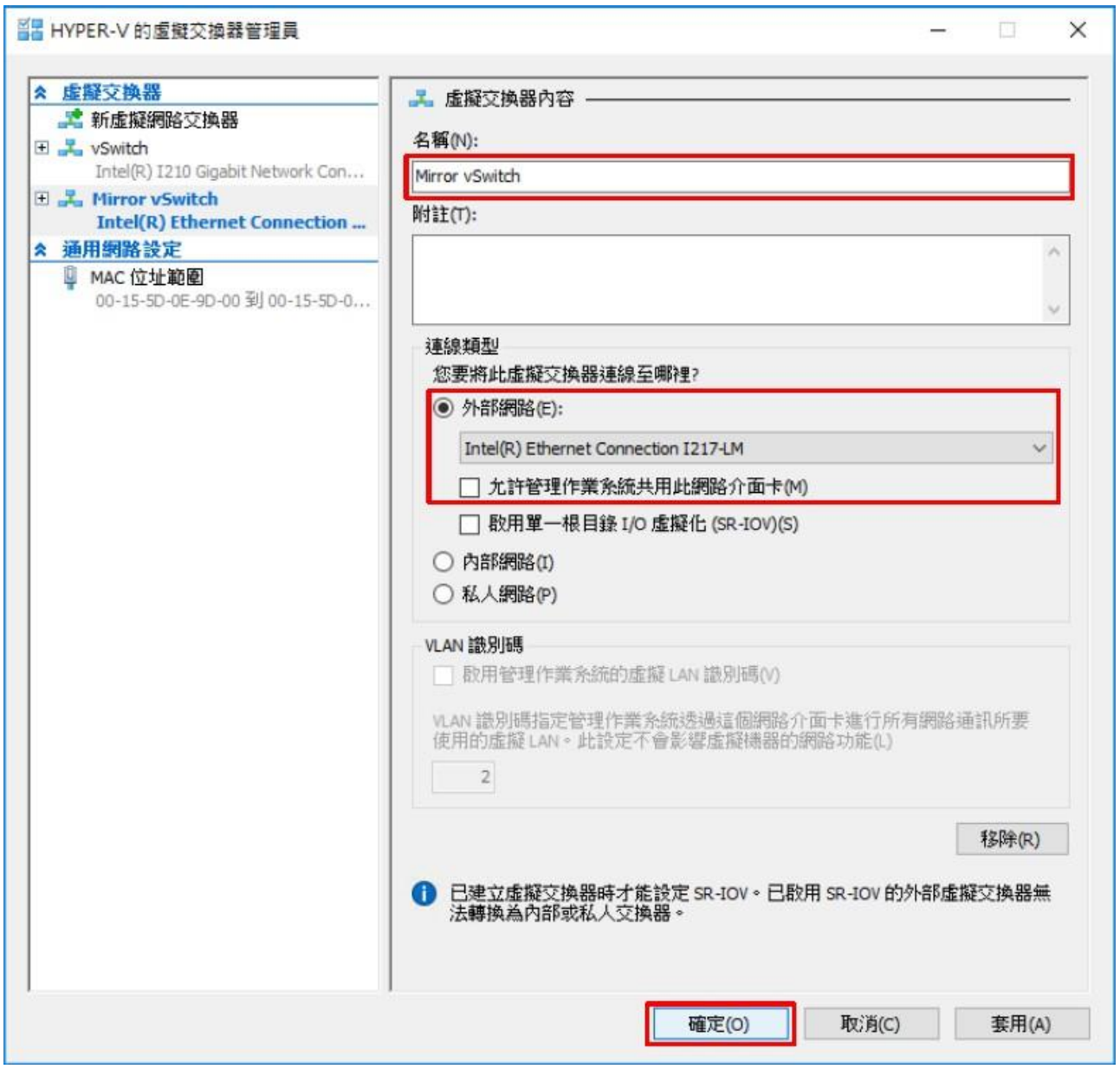
(4) 輸入vSwitch 名稱: Mirror vSwitch ※請依客戶環境設定 -> 點選[外部網路] 和[網路介面卡] -> 取消勾選[允許管理作業系統共用此網路介面卡] -> 按[確定]]



(5) 按[是]

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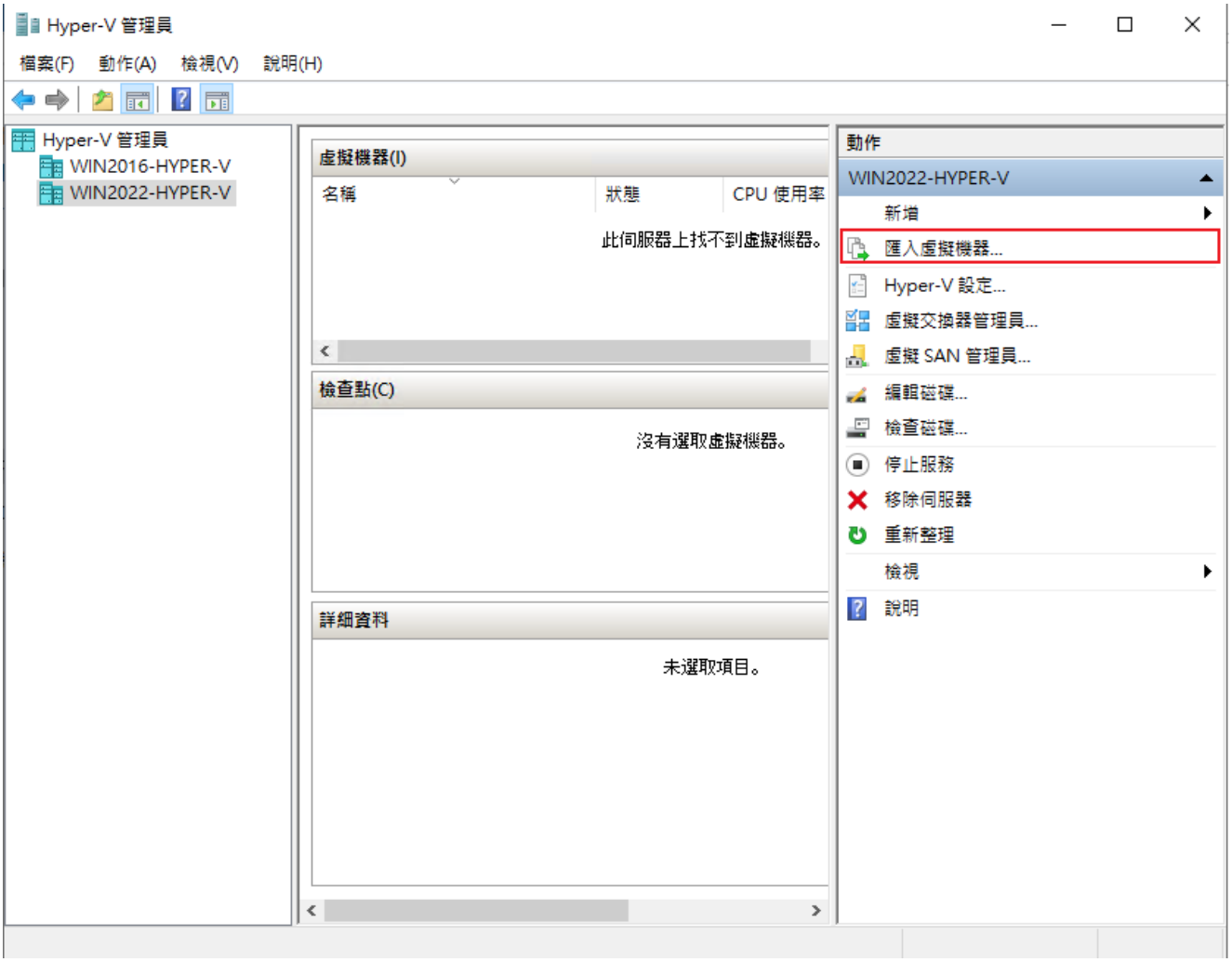
3.5.2 Import N-Probe VM

(1) 開啟 [Hyper-V 管理員]

(2) 點選[匯入虛擬機器]



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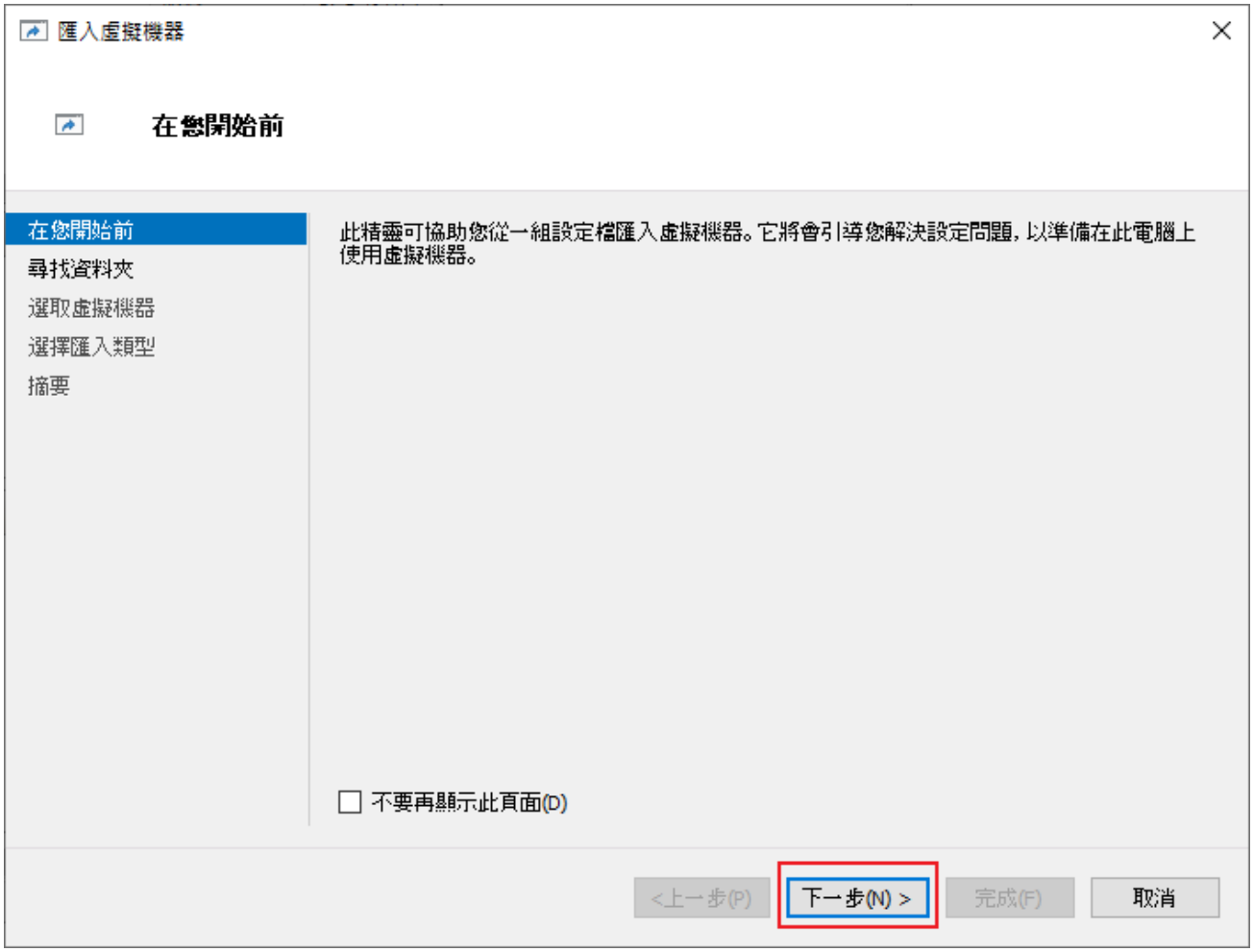
(3) 按[下一步]



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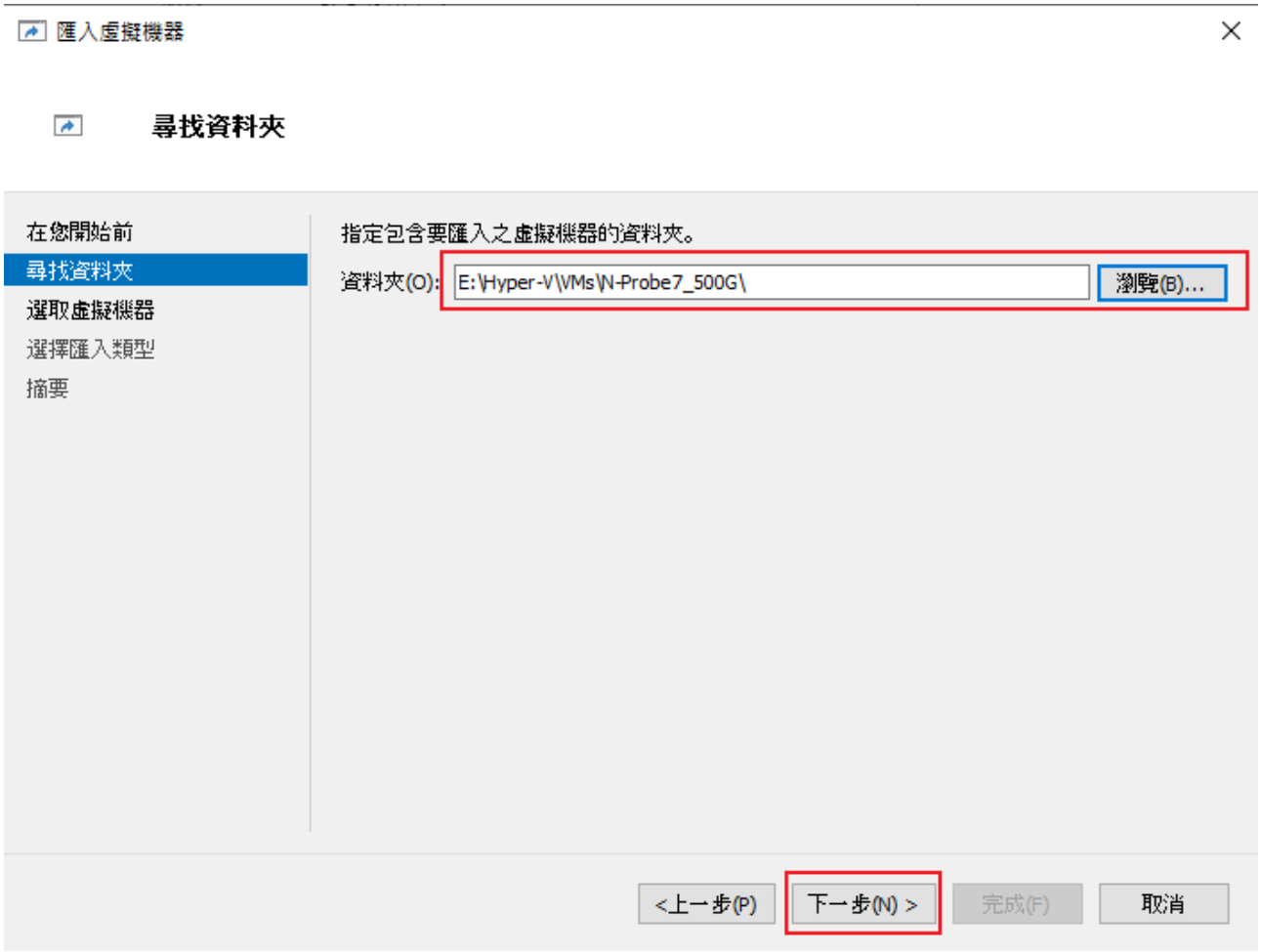
(4) 點[瀏覽] 選擇匯入N-Probe 虛擬機器的資料夾-> 按[下一步]



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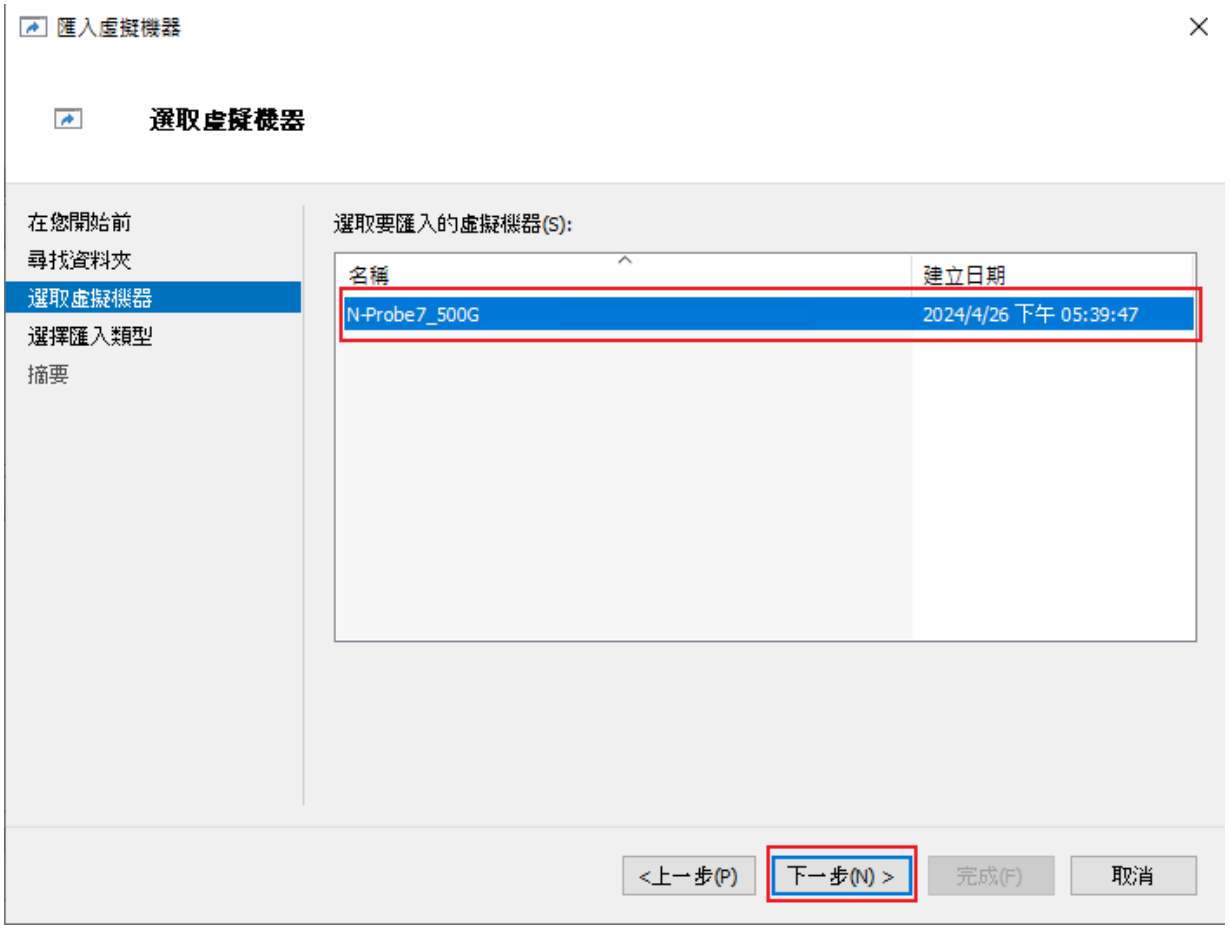
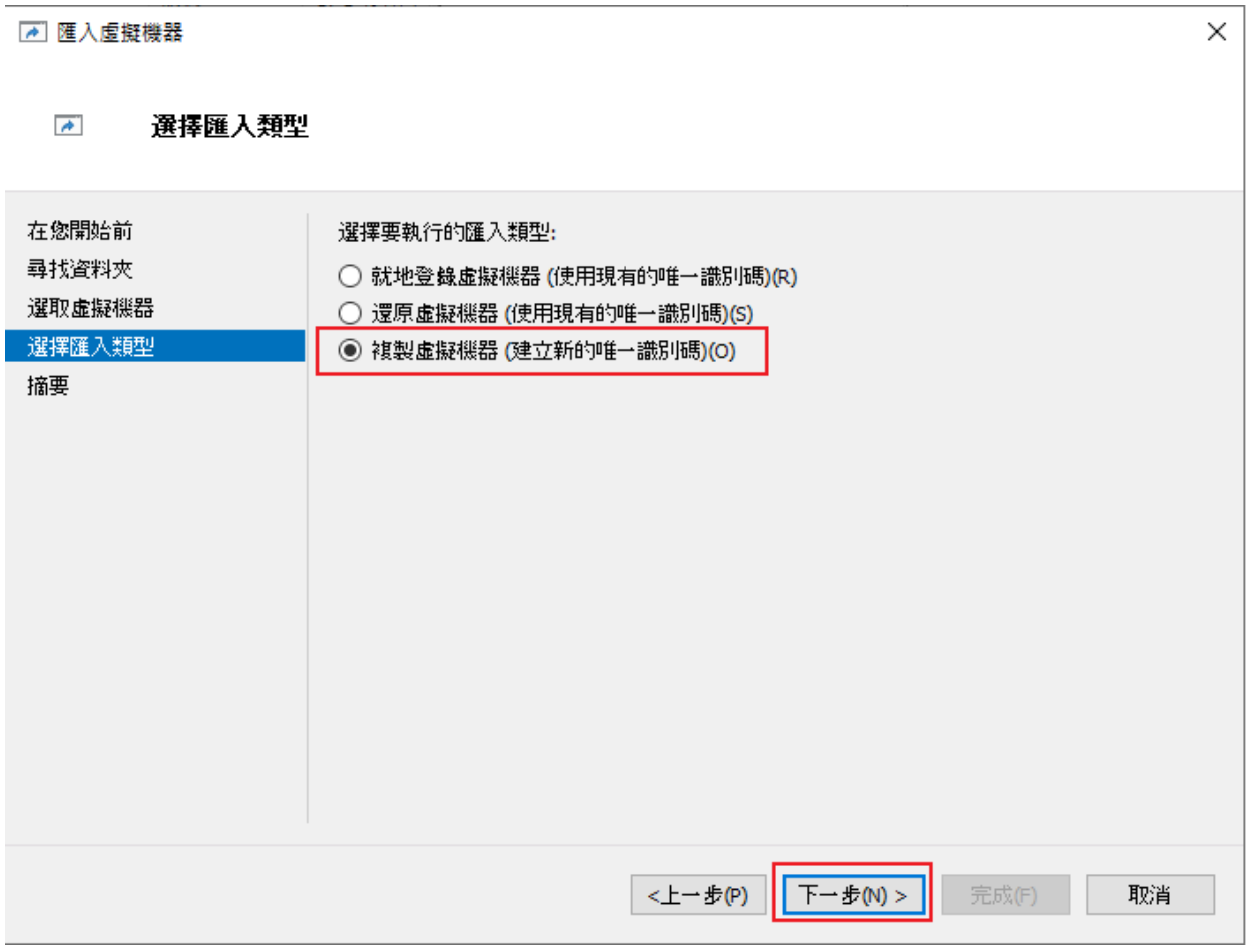
(5) 確認匯入N-Probe 虛擬機器-> 按[下一步]



(6) 點選[複製虛擬機器(建立新的唯一識別碼)] -> 按[下一步]



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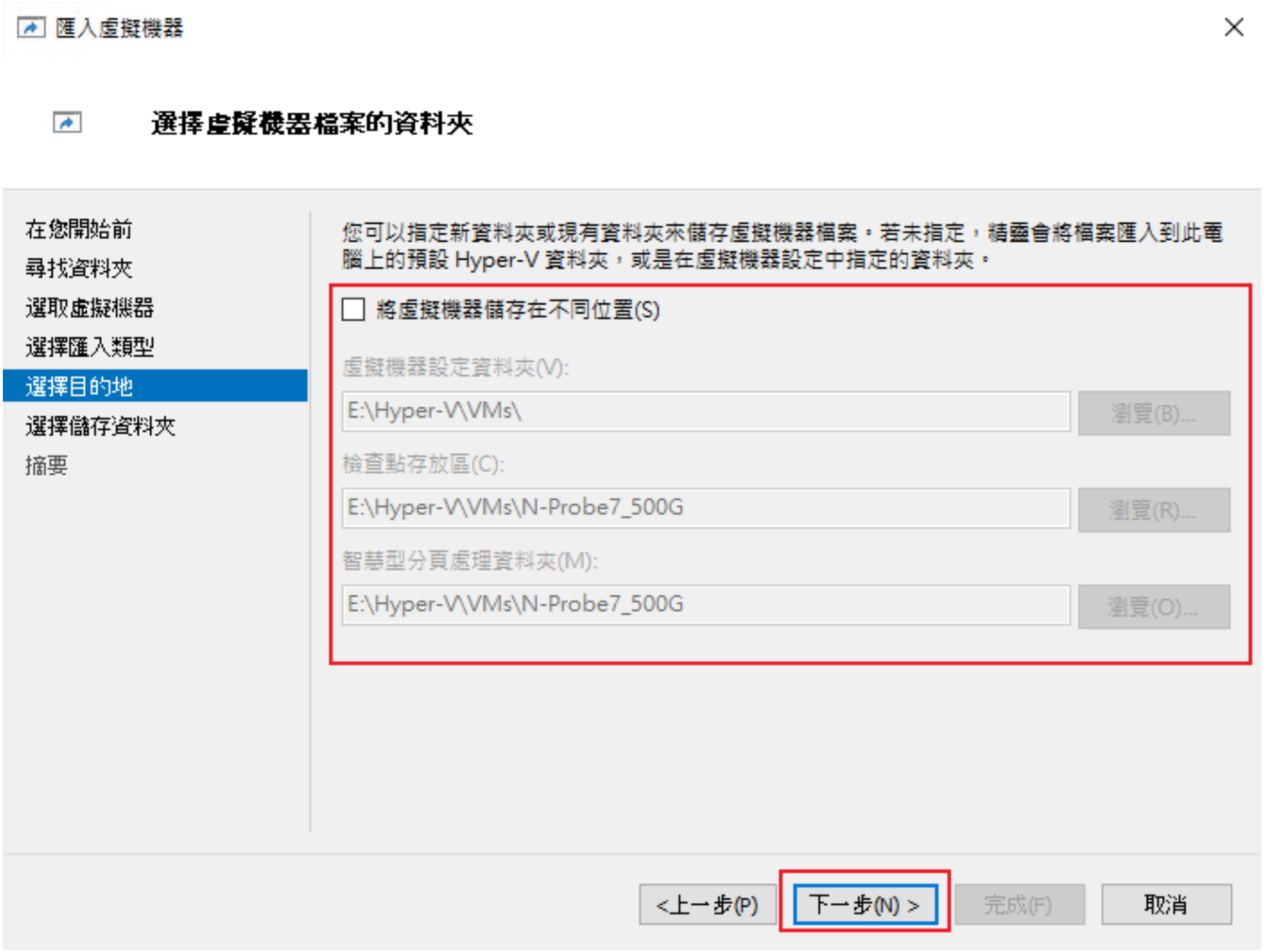
(7) 選擇虛擬機器儲存位置-> 按[下一步]



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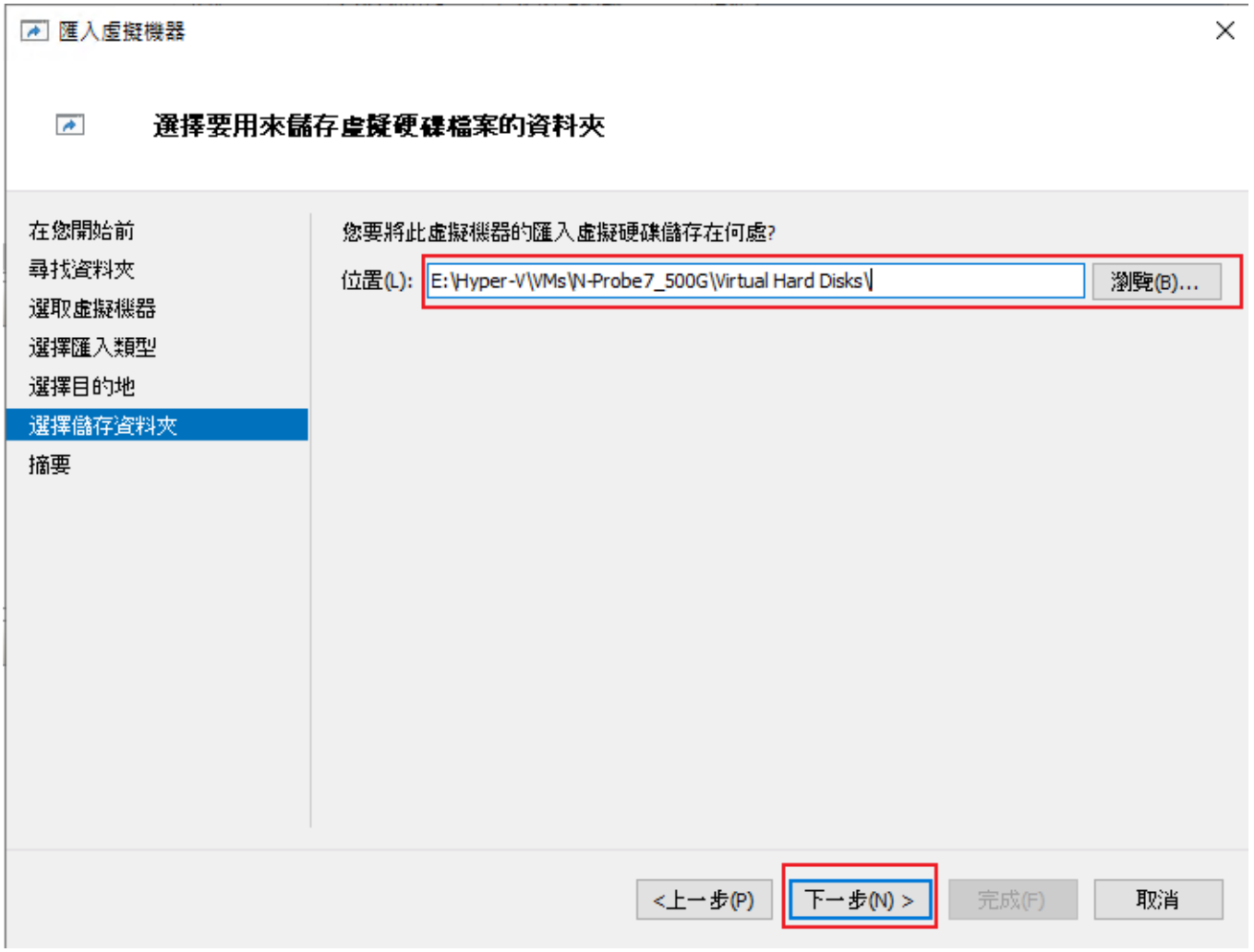
(8) 選擇儲存虛擬硬碟儲存位置-> 按[下一步]



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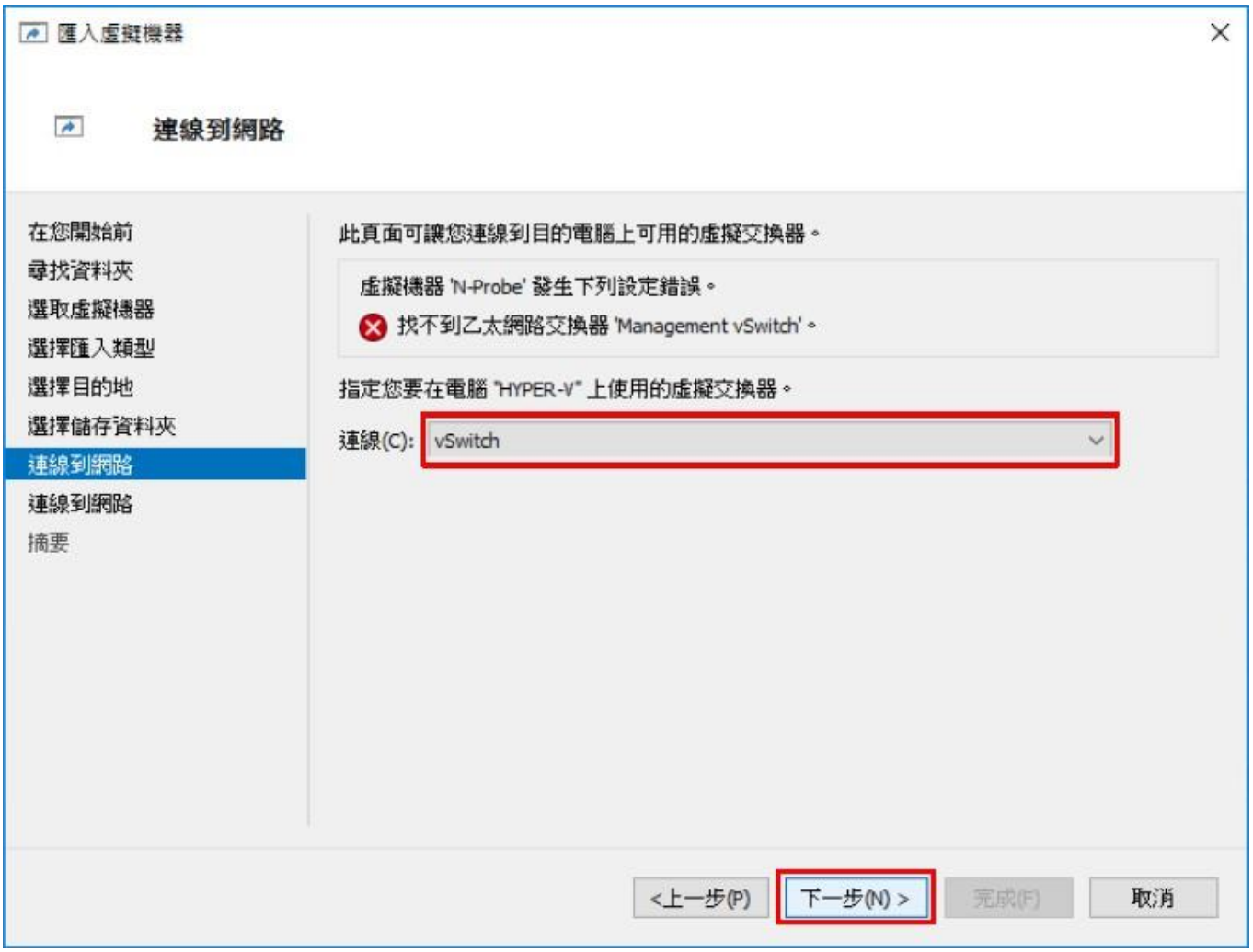
(9) 選擇管理介面虛擬交換器-> 按[下一步]



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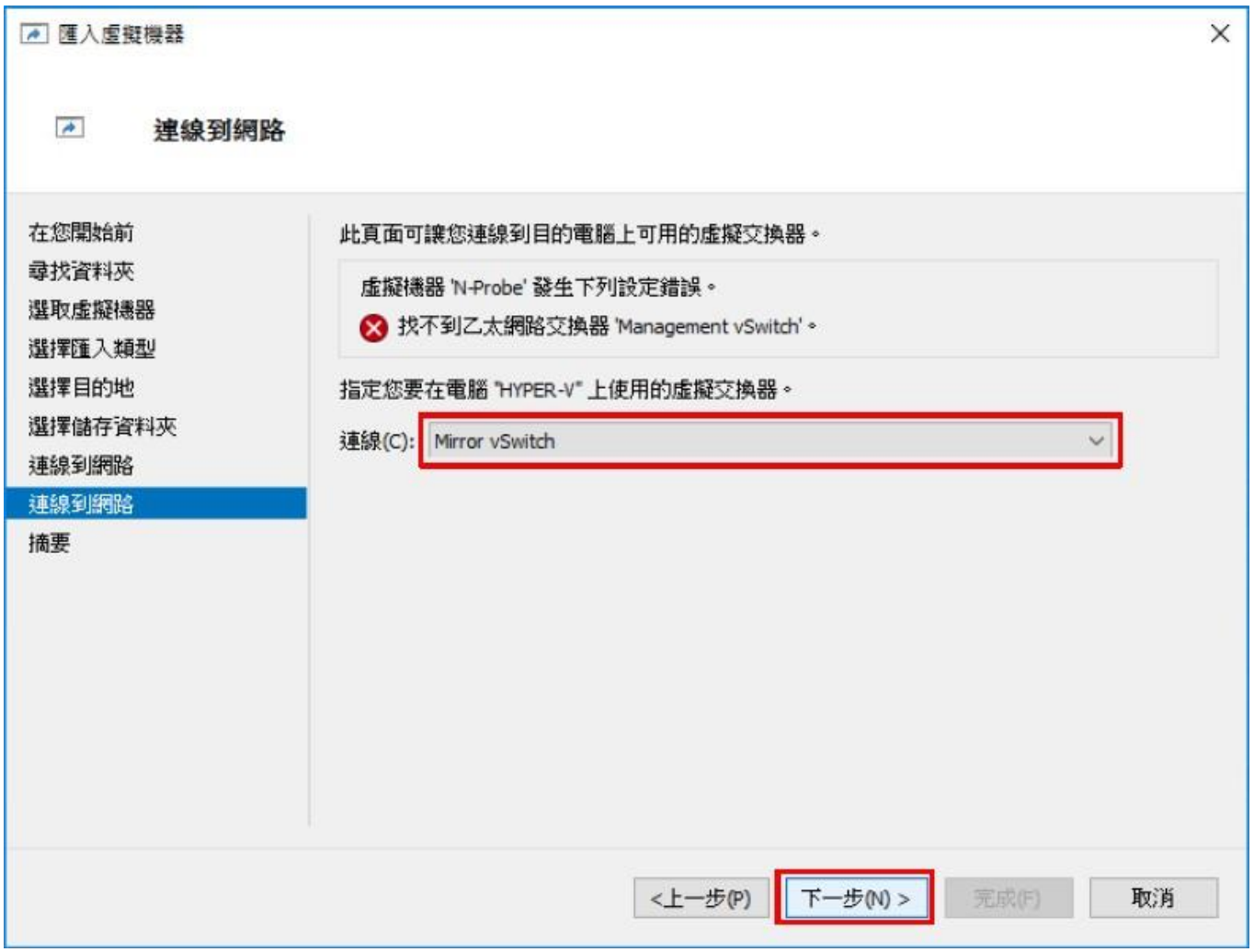
(10) 選擇 Mirror 鏡像介面虛擬交換器-> 按[下一步]



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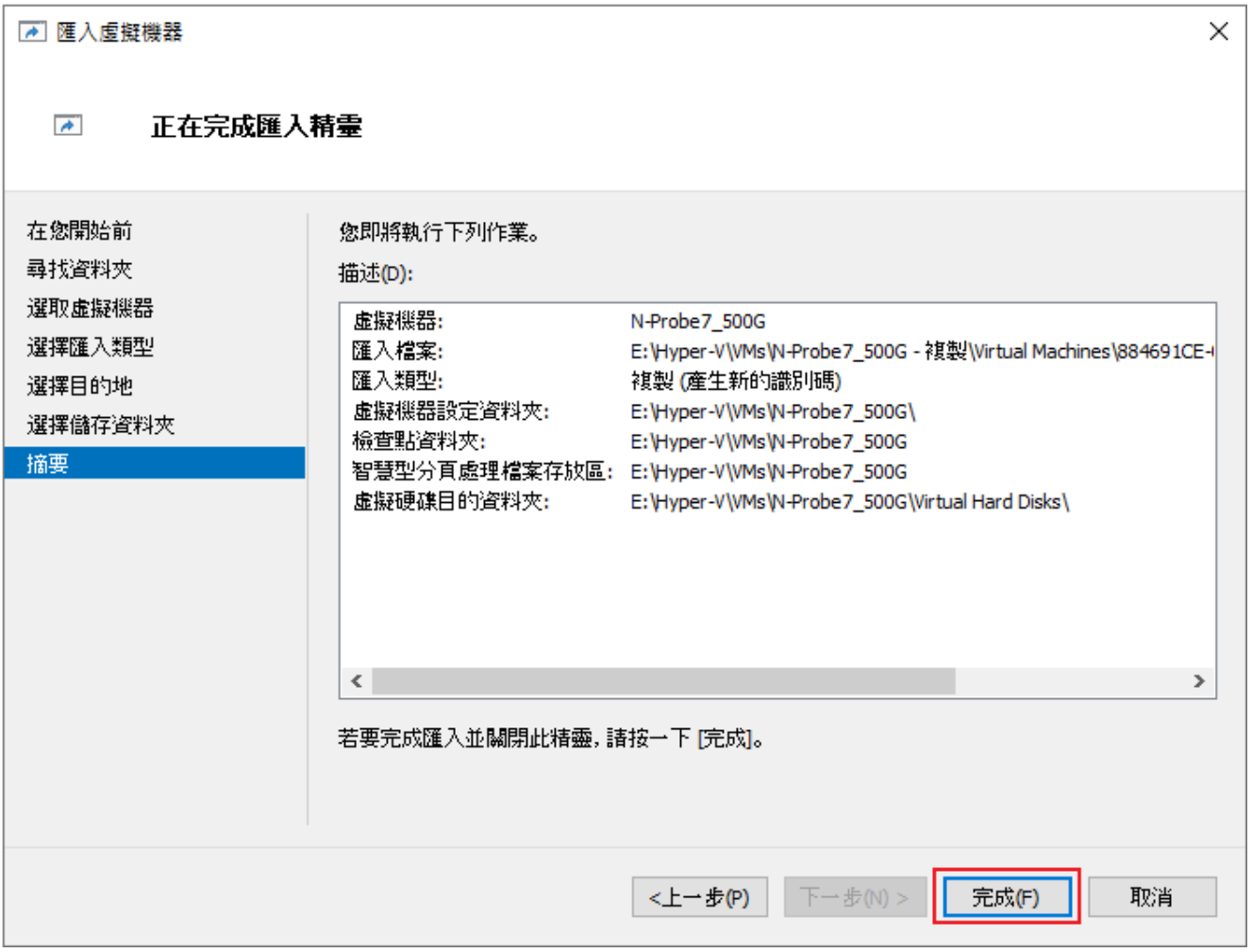
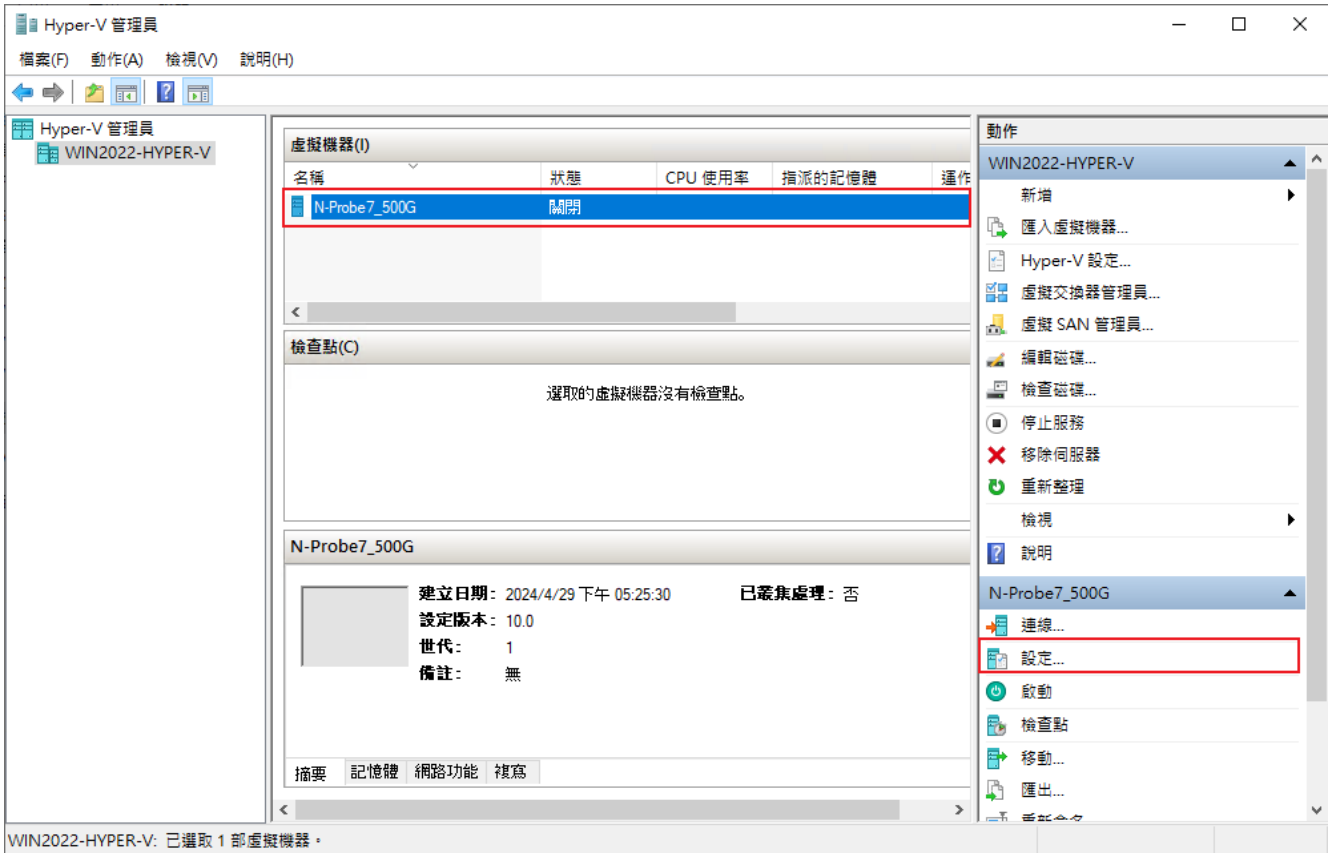
(11) 按[完成]



(12) 選擇N-Probe VM -> 按[設定]



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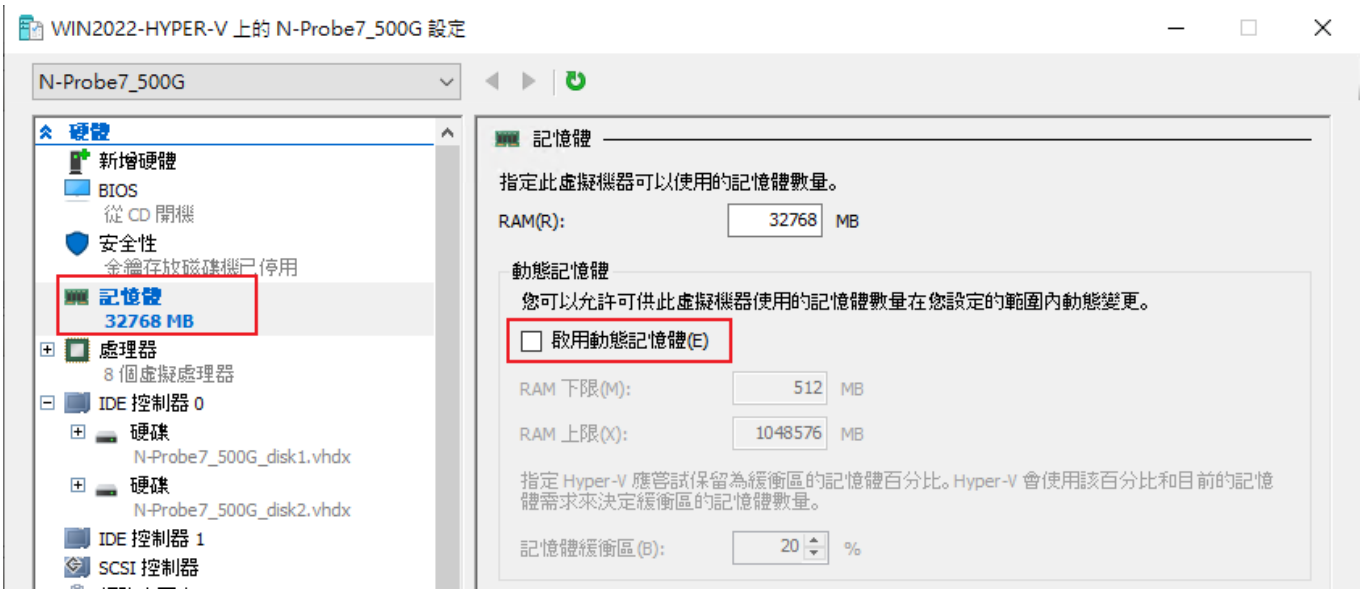
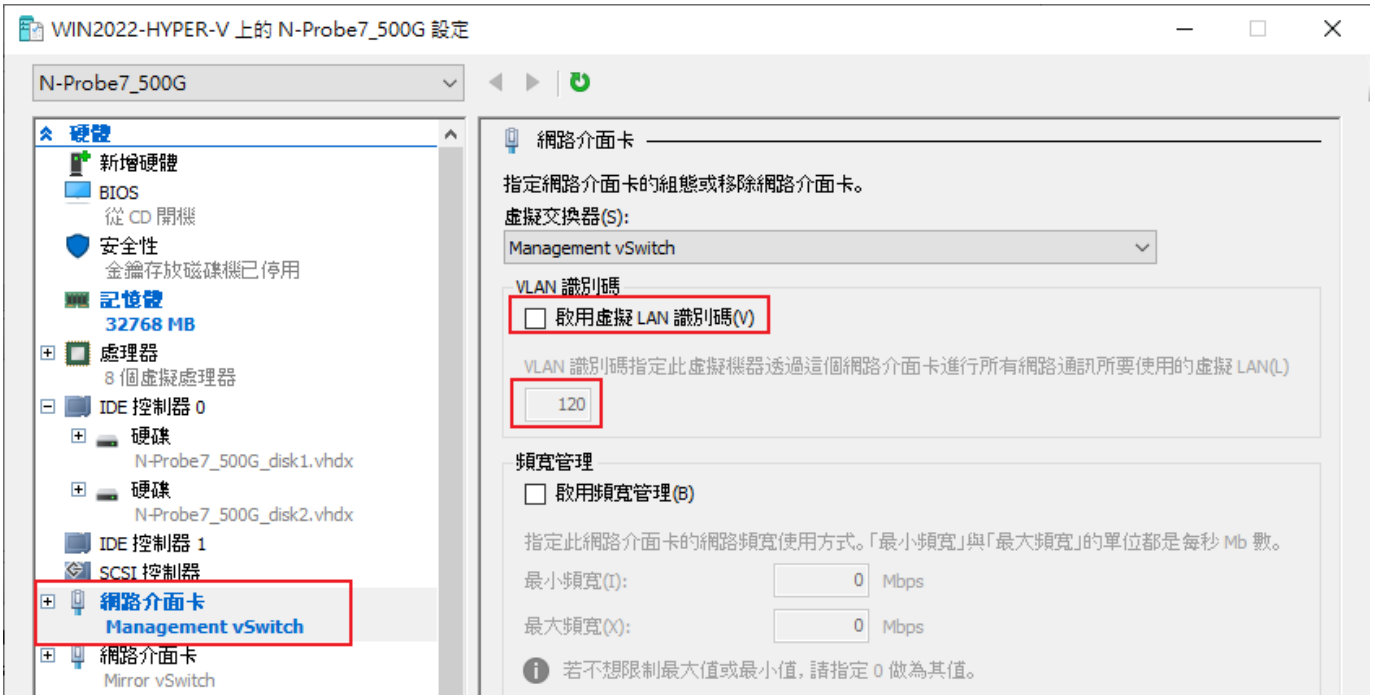
(13) [記憶體] 頁面；取消勾選[啟用動能記憶體]



(14) 管理[網路介面卡] 頁面；依據客戶環境選擇是否[啟用虛擬LAN 識別碼] -> 按[套用]



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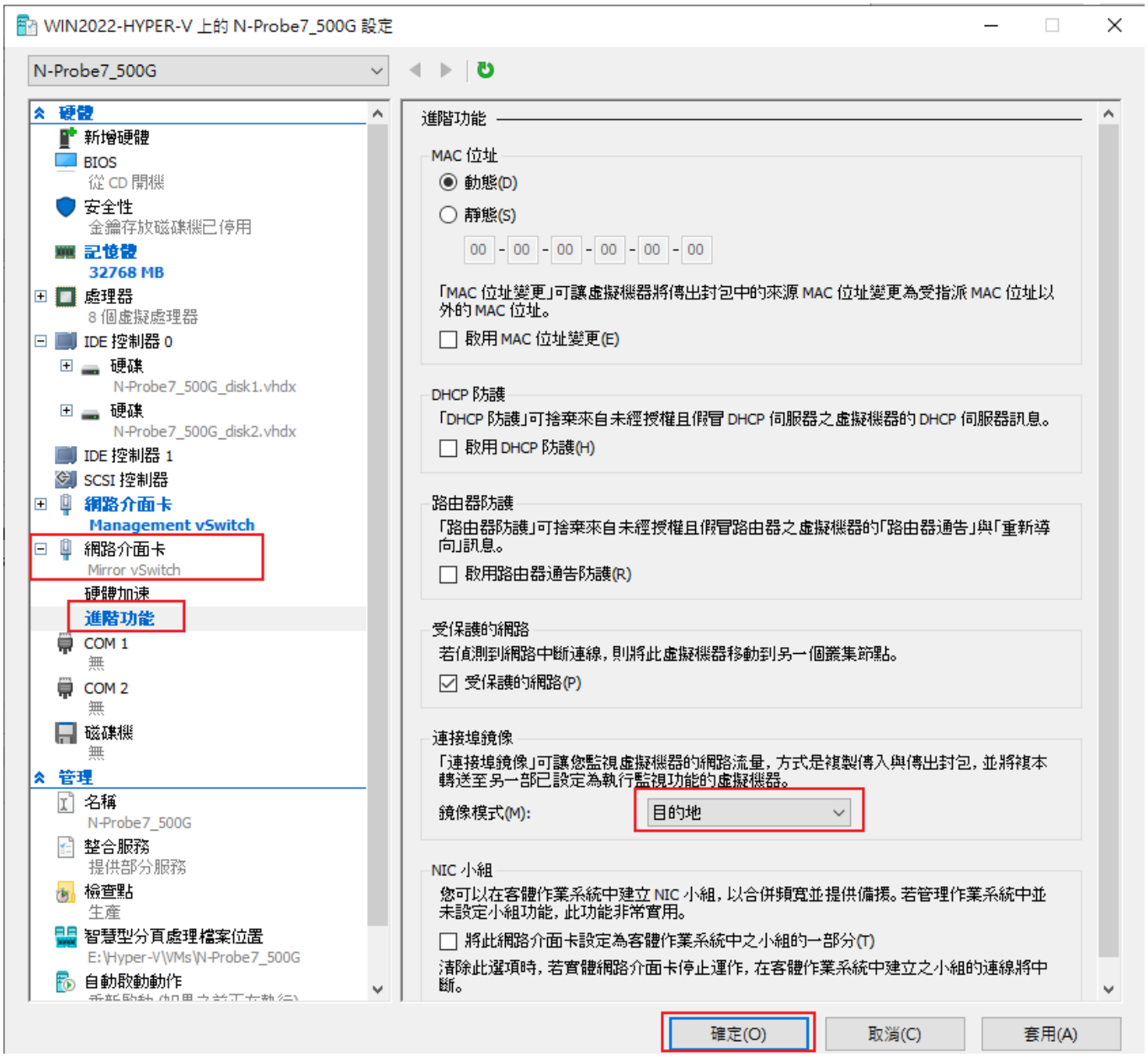
(15) 展開鏡像[網路介面卡] 的[進階功能] 頁面；鏡像模式: 選擇[目的地] -> 按[確定]



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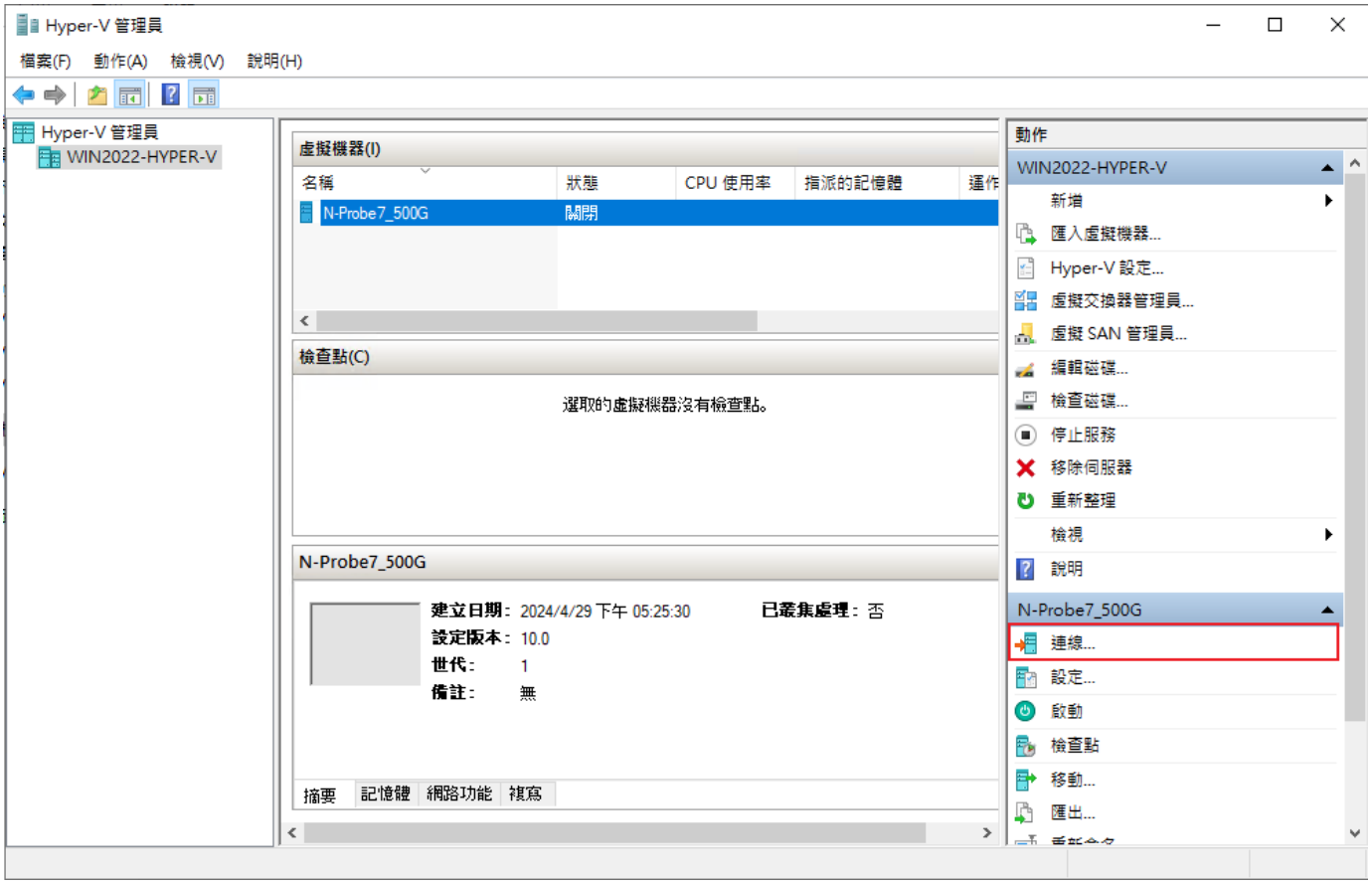
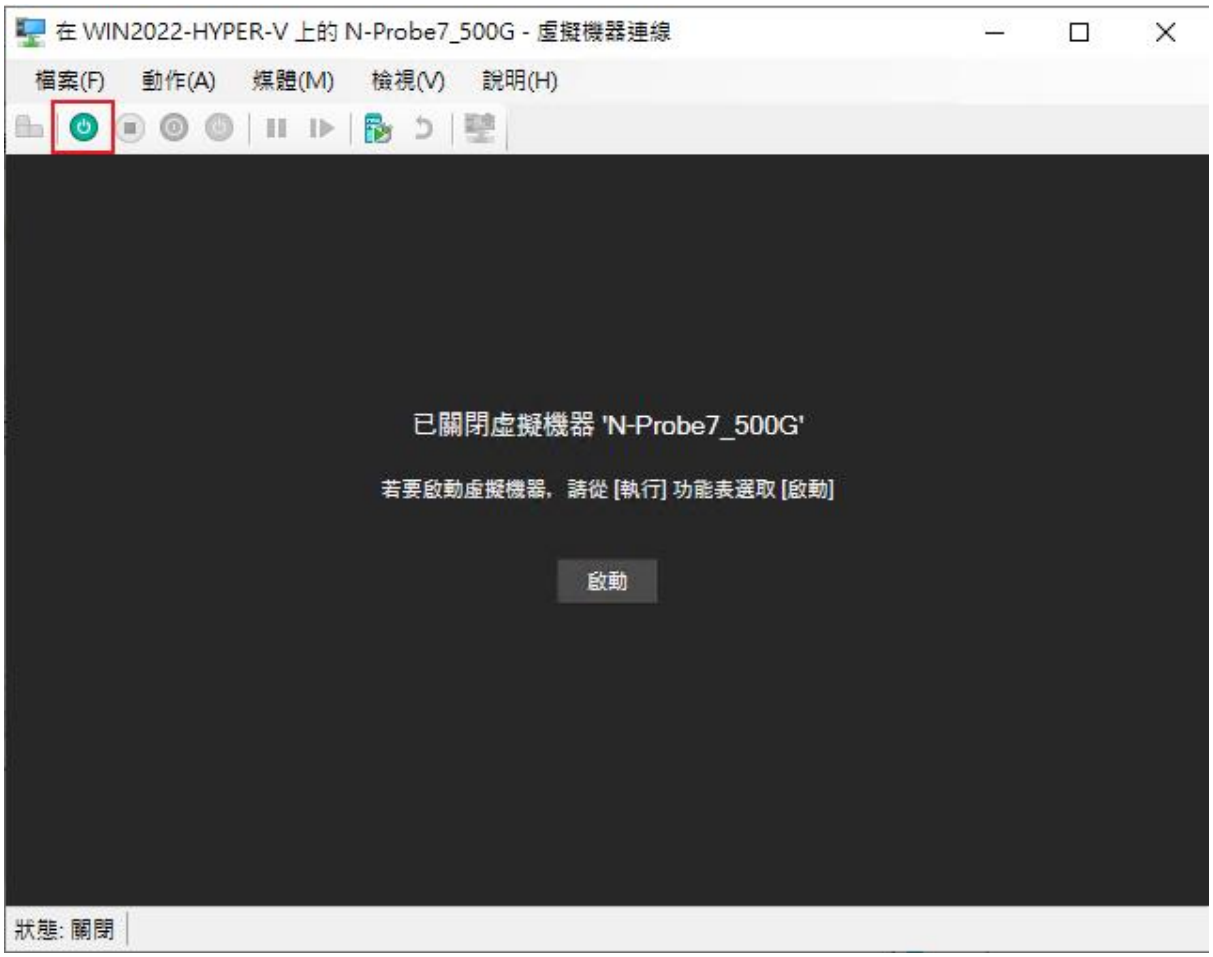
(16) 按[連線]



(17) 點選[啟動]



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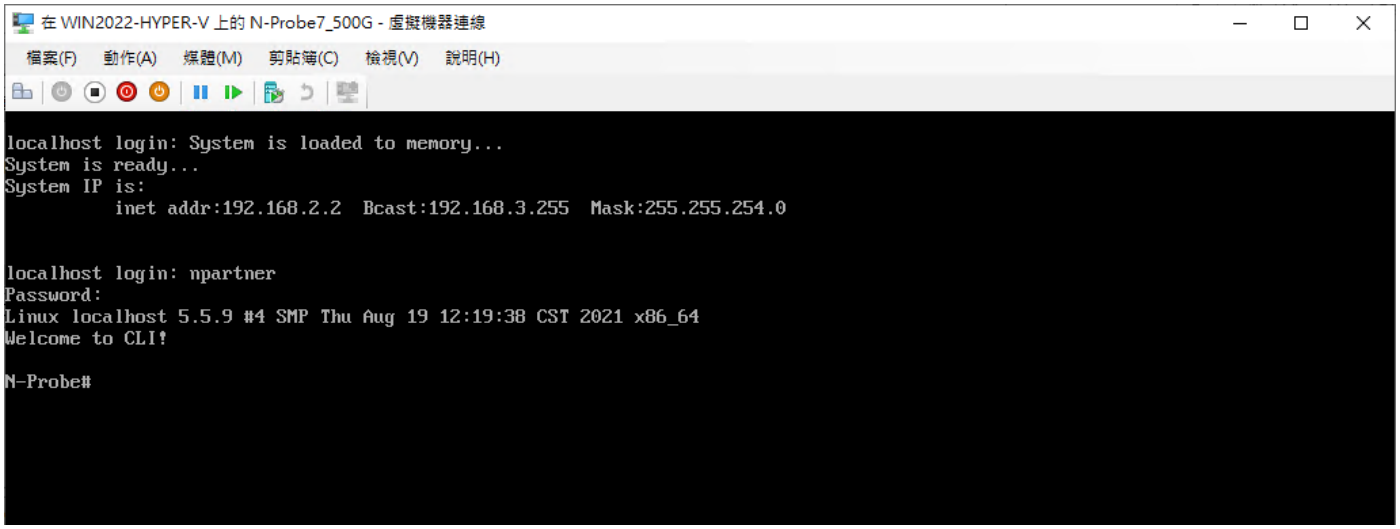
(18) 登入 N-Probe/External Receiver

預設 CLI 登入帳號密碼：npartner / npartner



(19) 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
https-only on
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# _
```

(20) 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 192.168.3.94 255.255.254.0 gw 192.168.3.254
N-Probe(config)# exit
N-Probe# show configure
```

```
N-Probe# configure terminal
N-Probe(config)# interface eth0 192.168.3.94 255.255.254.0 gw 192.168.3.254
N-Probe(config)# exit
N-Probe# show configure
######### Current configuration ########
flow-cache timeout active 30
flow-sampling 1
hostname N-Probe
https-only on
interface eth0 192.168.3.94 255.255.254.0 gw 192.168.3.254
ip dns1 8.8.8.8
ntp server on tock.stdtime.gov.tw
######### End ########
N-Probe#
```

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

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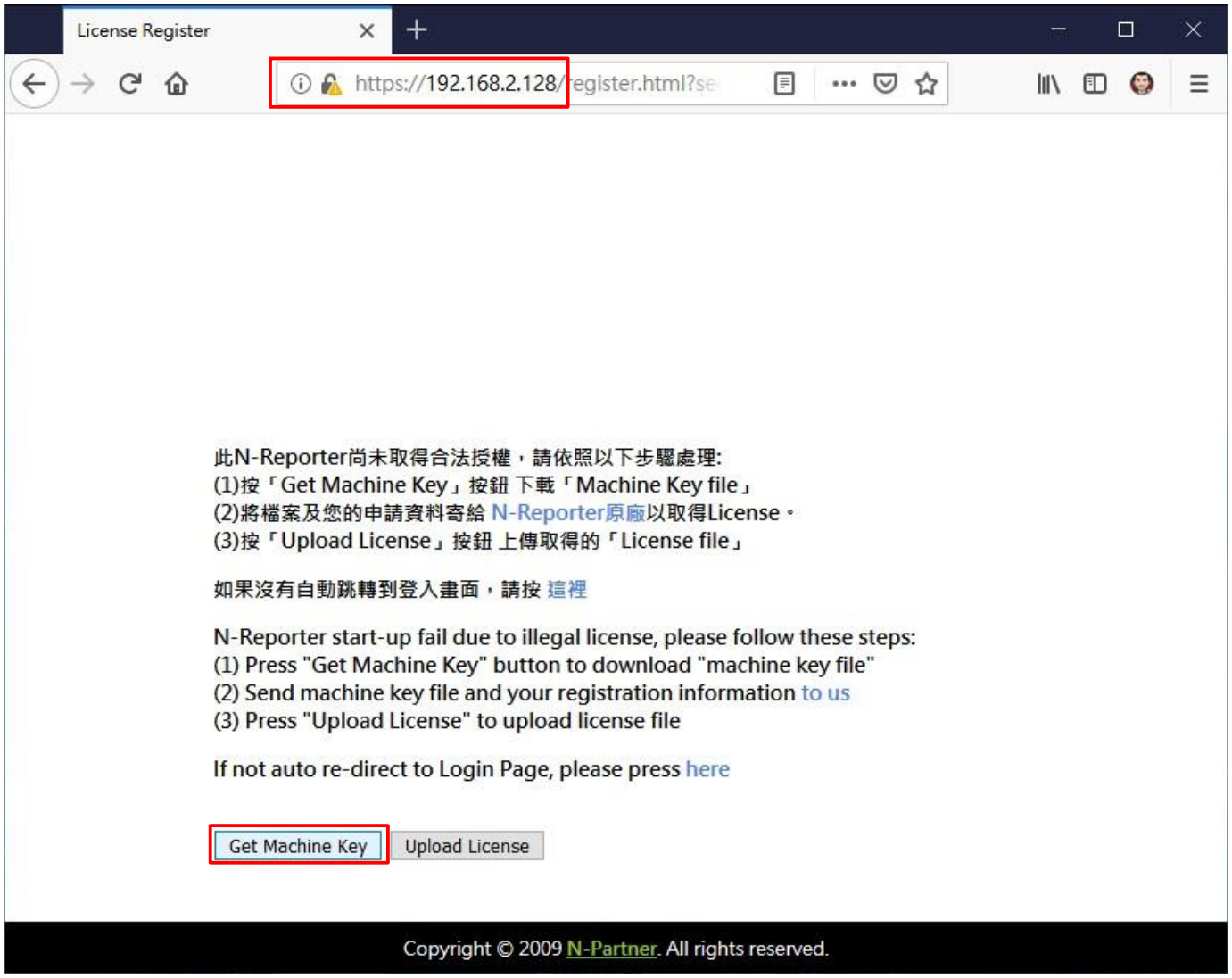
4. 更新流程

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]



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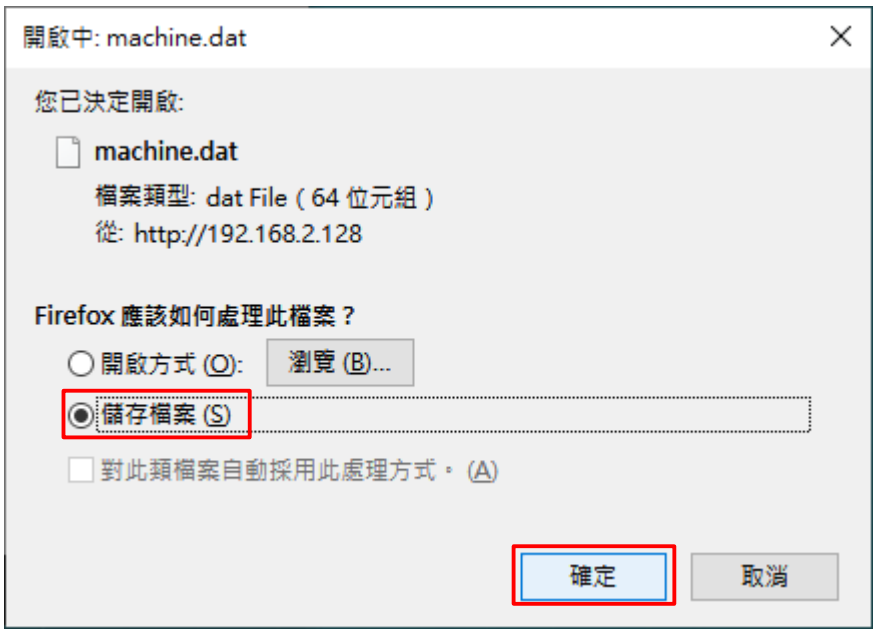
(2) 下載 machine.dat。將 machine.dat 寄給 se@npartner.com



(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：

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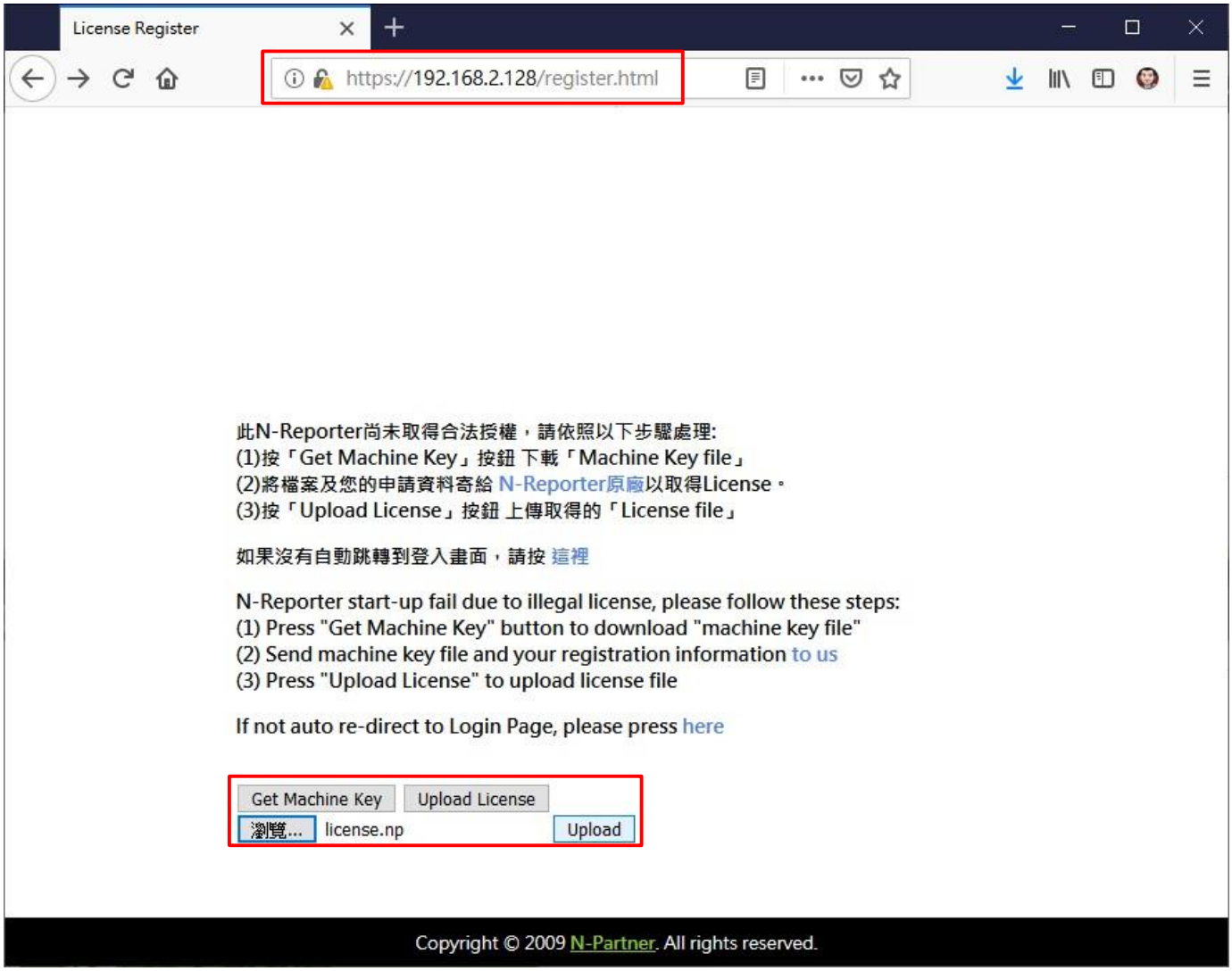
(4) 上傳 License 檔案

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]



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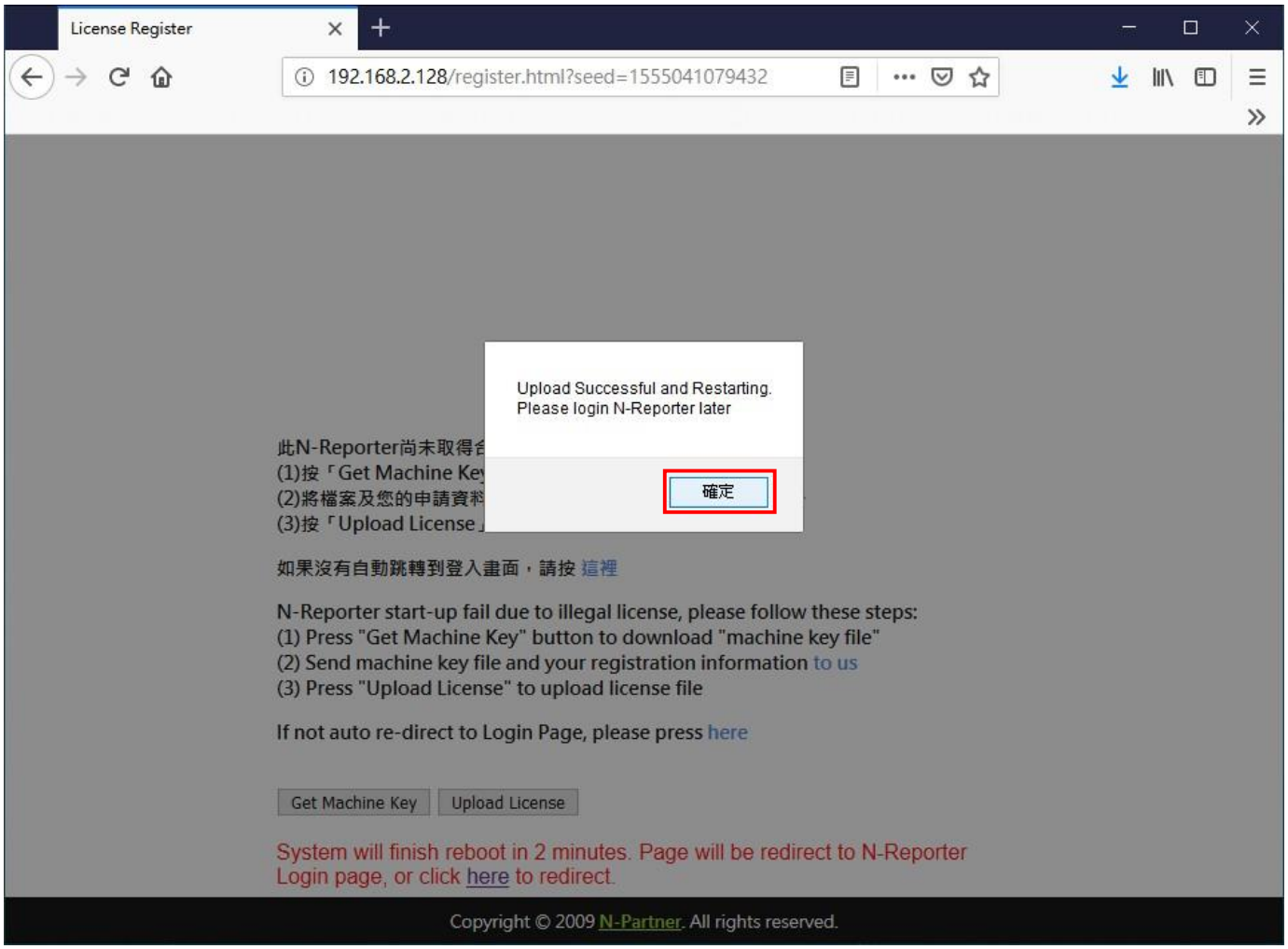
(5) 重新開機

系統會自動重新開機。按 [確定]



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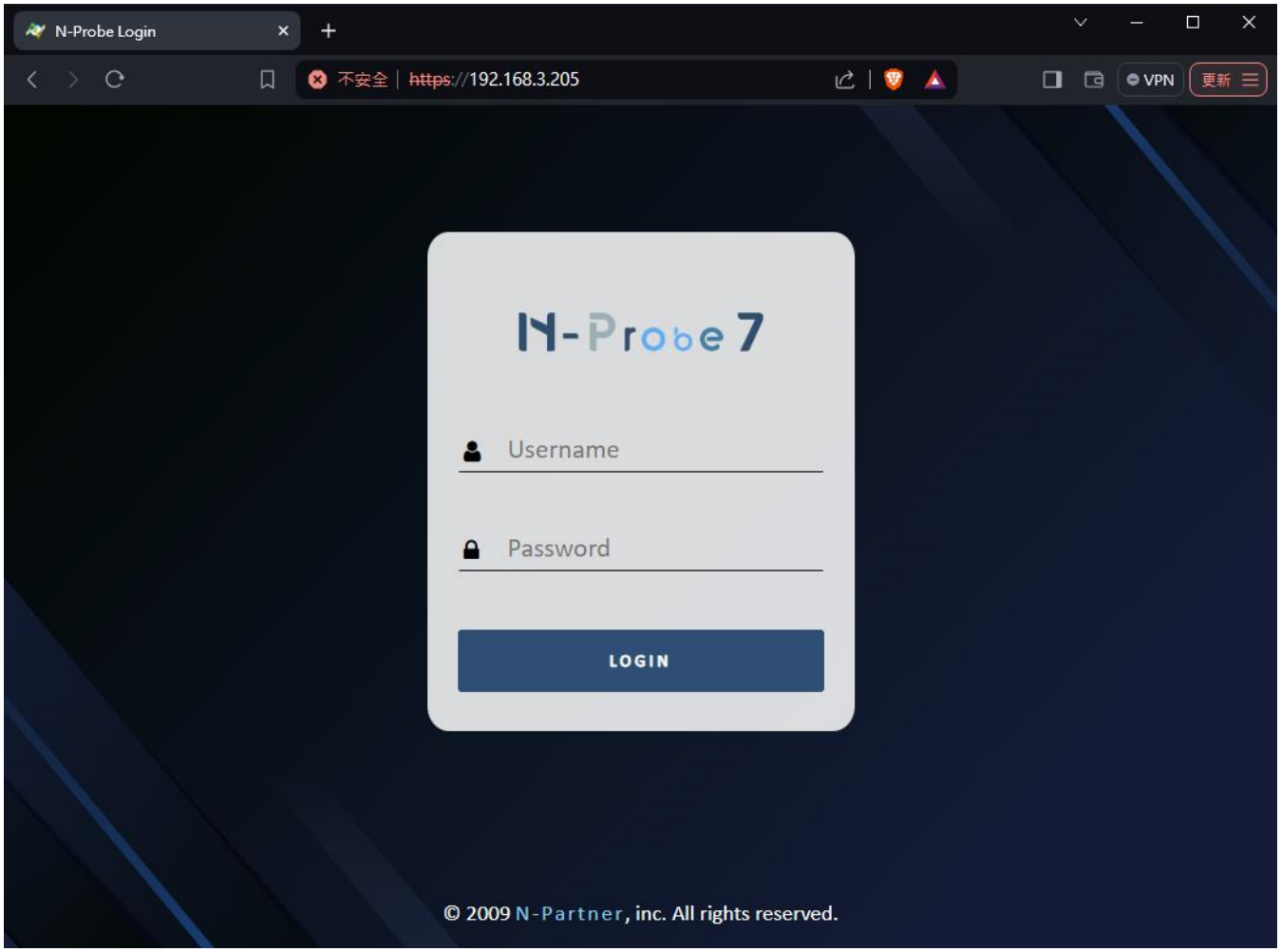
(6) 登入 N-Probe

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]



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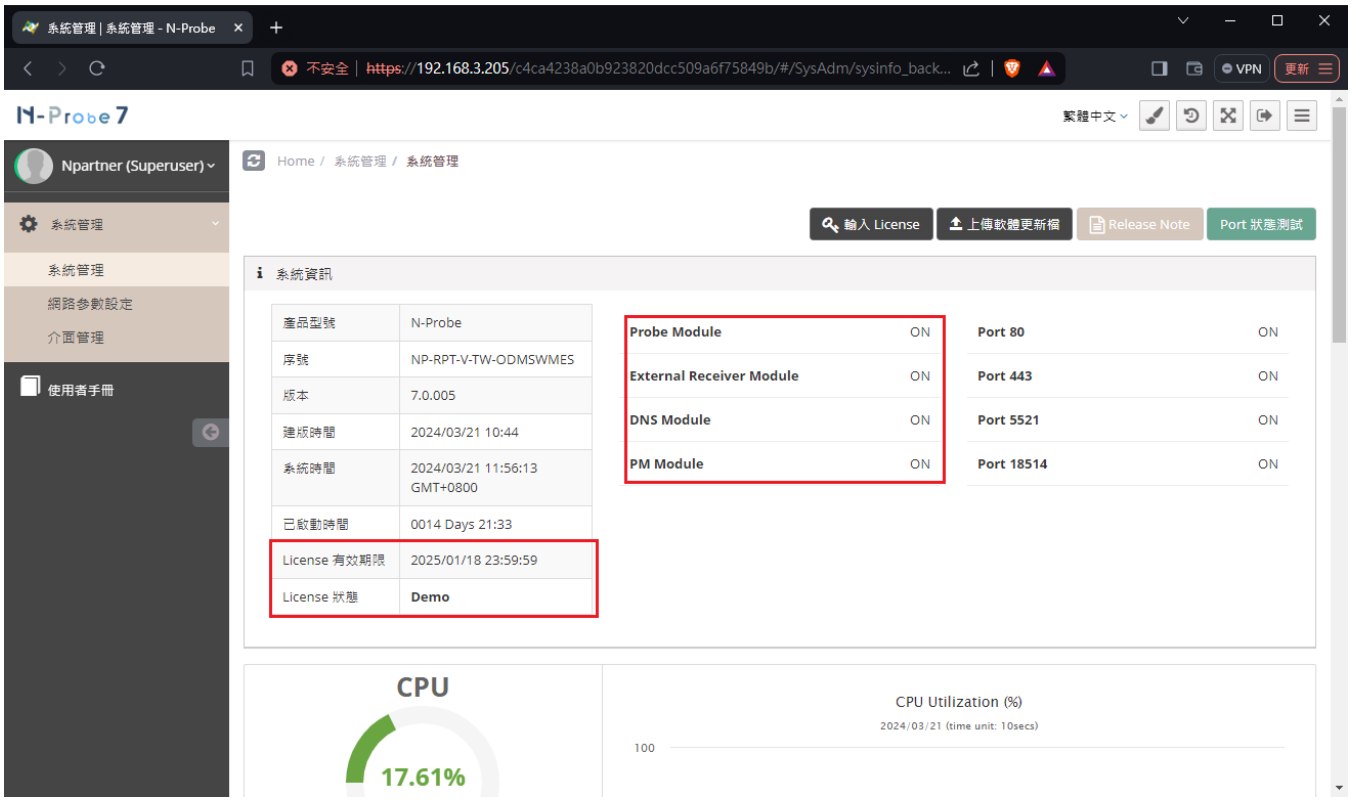
(7) 確認 License 狀態



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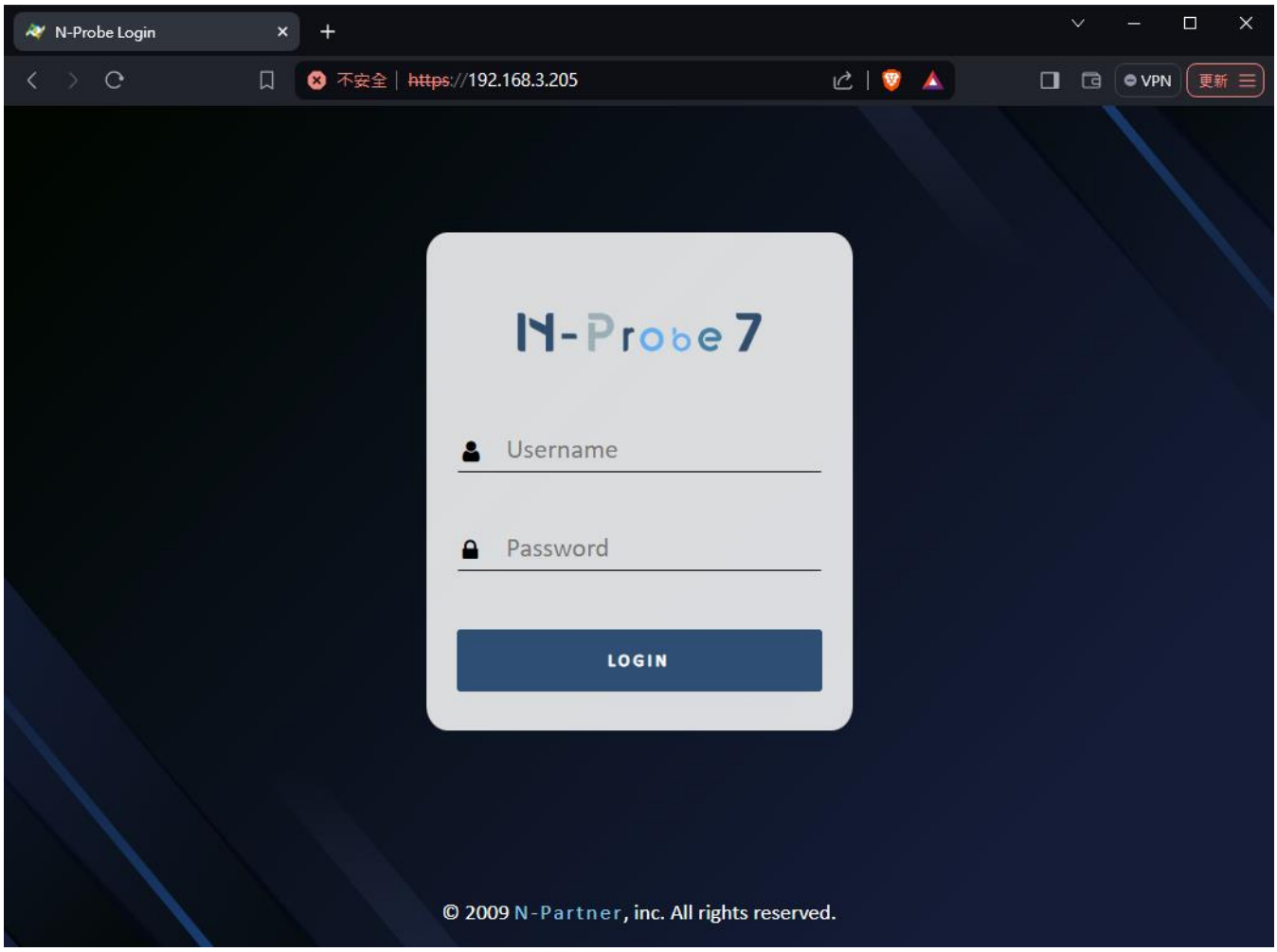
4.2 Firmware upgrade

(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]



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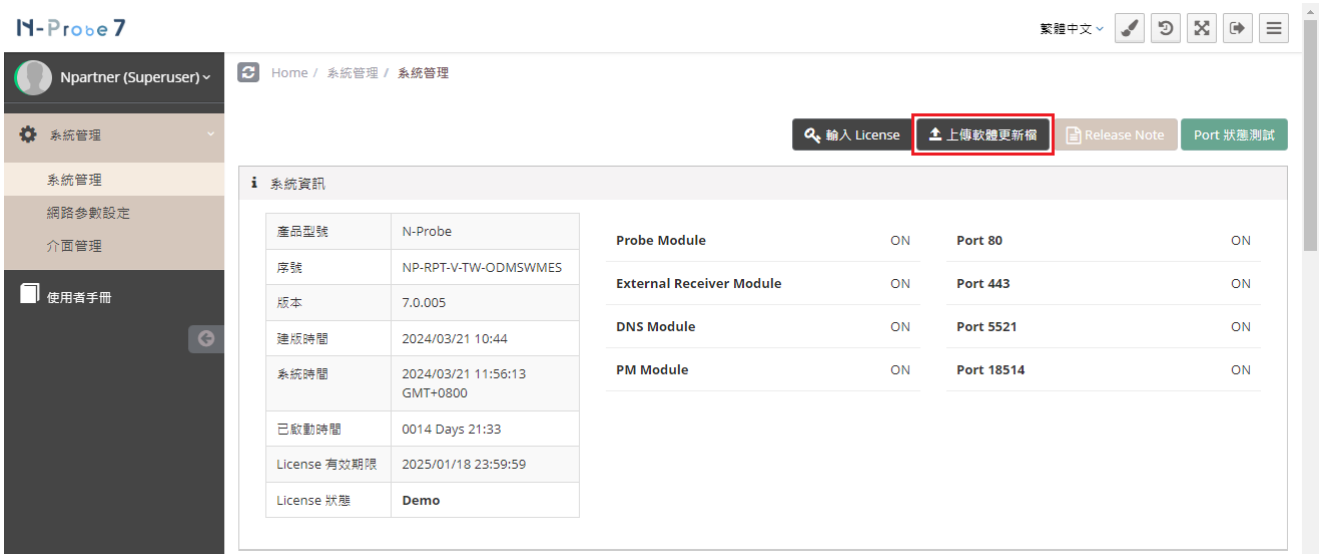
(2) 上傳軟體更新檔

按 [上傳軟體更新檔]



(3) 匯入軟體更新檔

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

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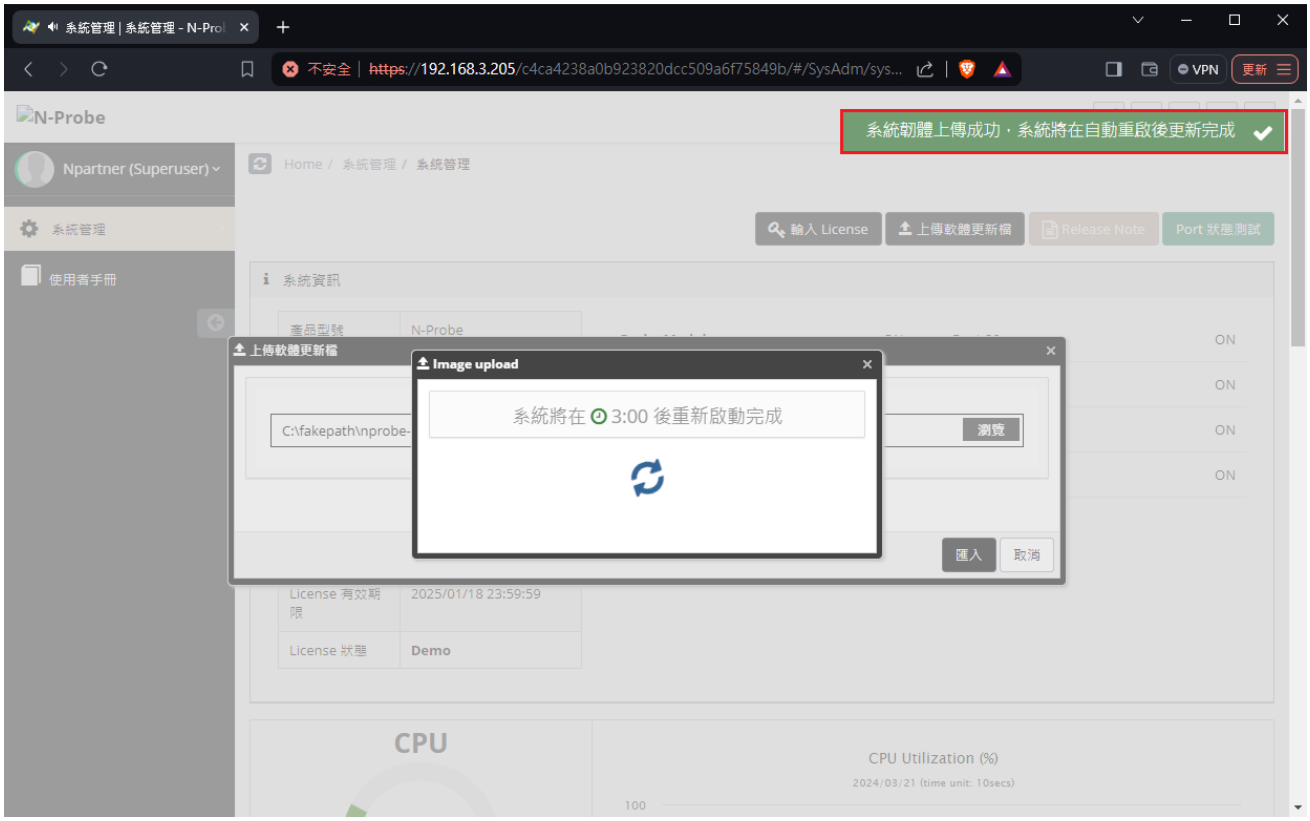
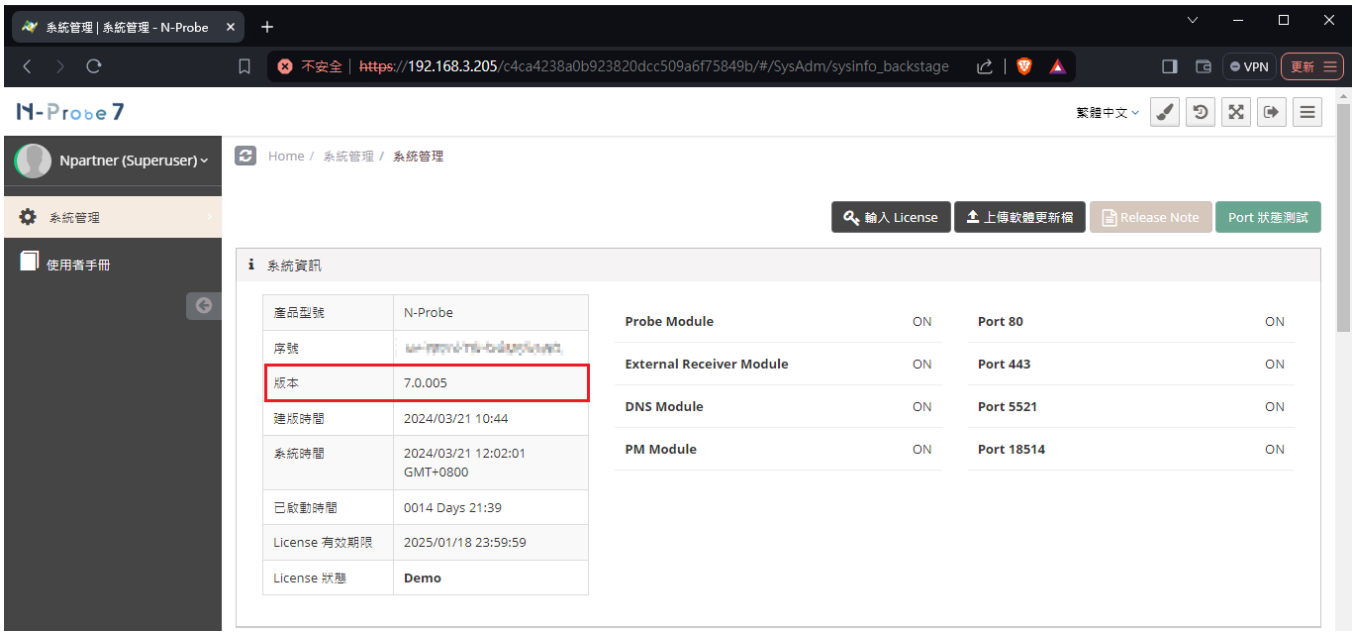
(4) 系統重啟

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



(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。



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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#
```


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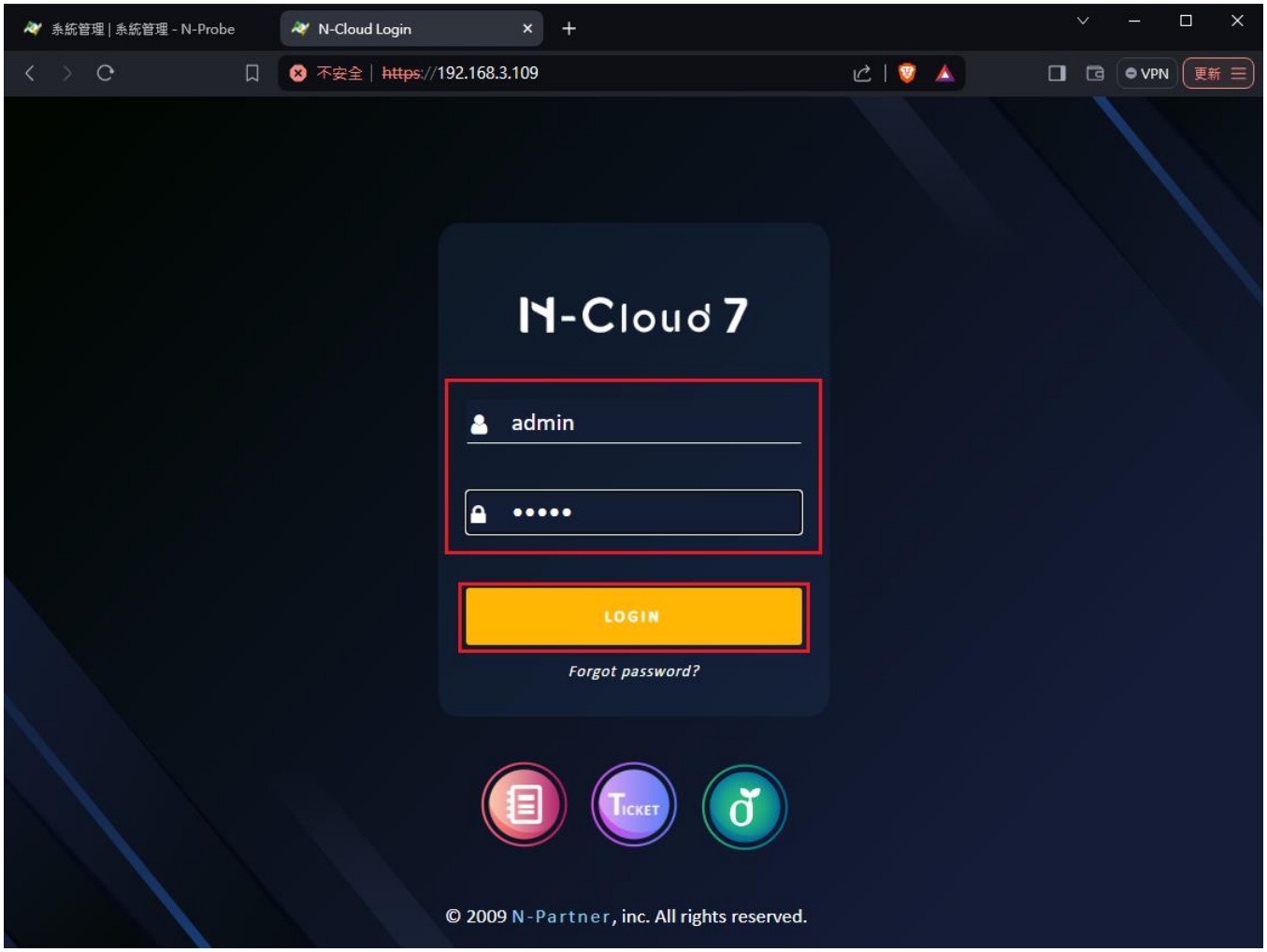
5.2 N-Cloud/N-Reporter

(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)



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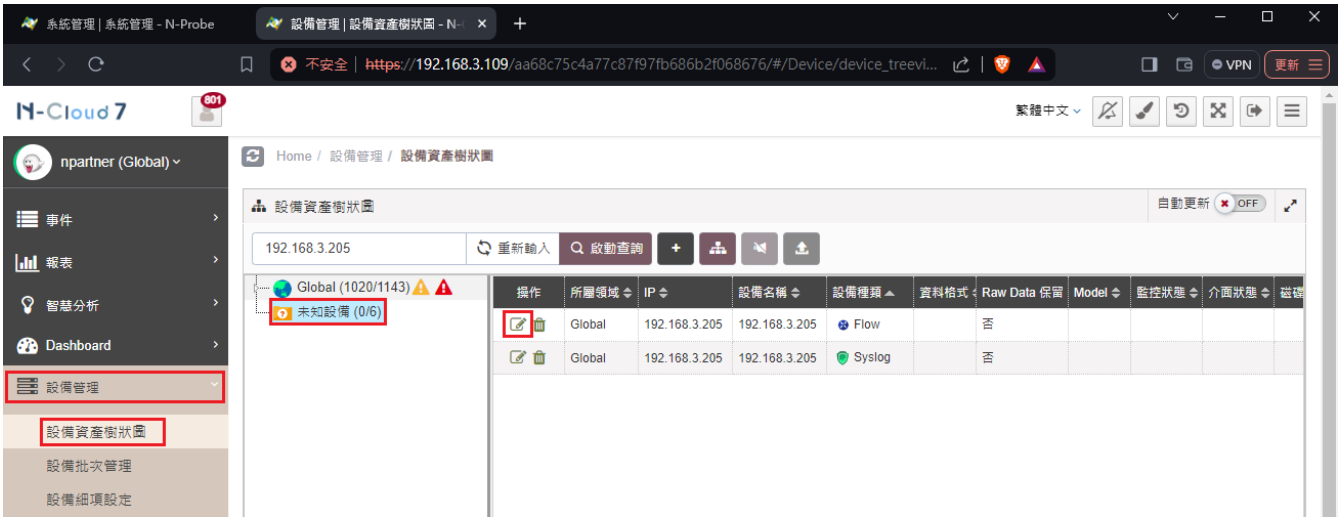
(2) 新增 N-Probe 設備

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]



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

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

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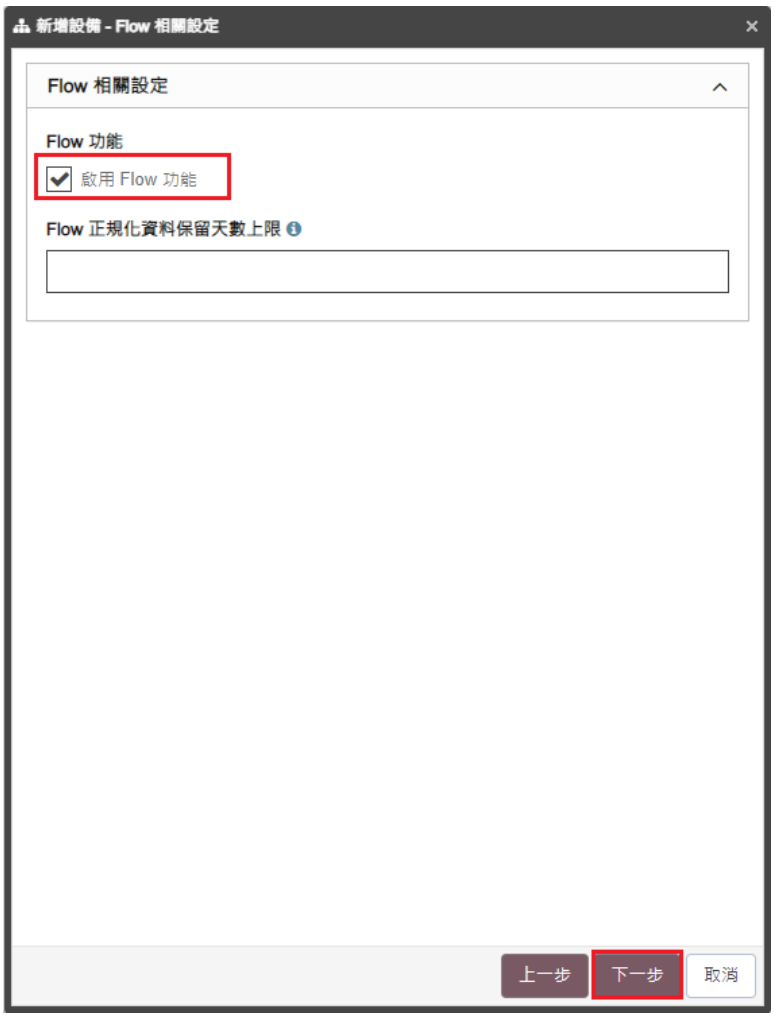
(5) 設定 N-Probe Flow相關設定

勾選 [啟用Flow功能] -> 按下 [下一步]



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(6) 確認設定並點選確定

(7) 是否啟用預設報表 -> 是

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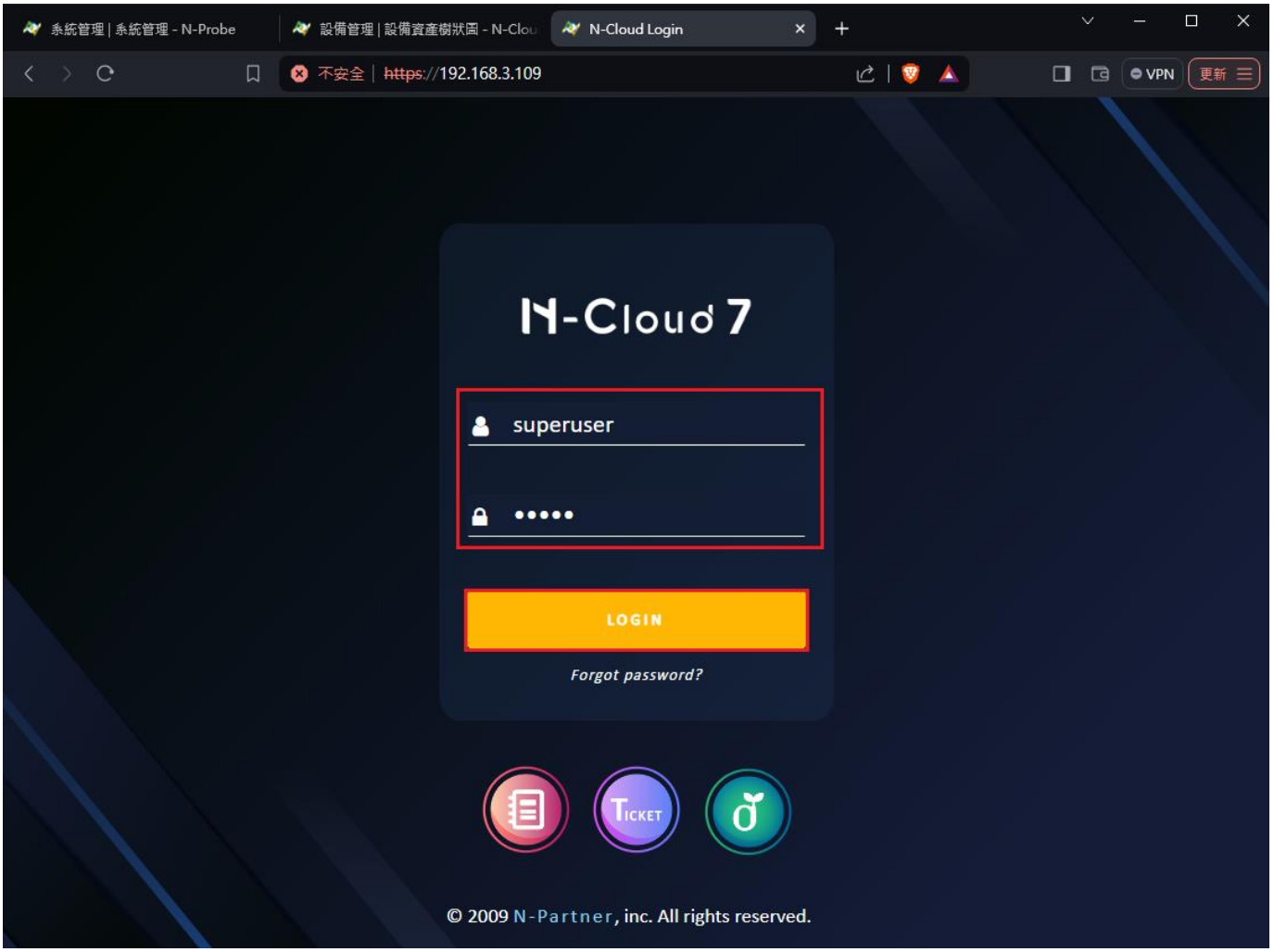
5.3 N-Probe join N-Cloud/N-Reporter

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)



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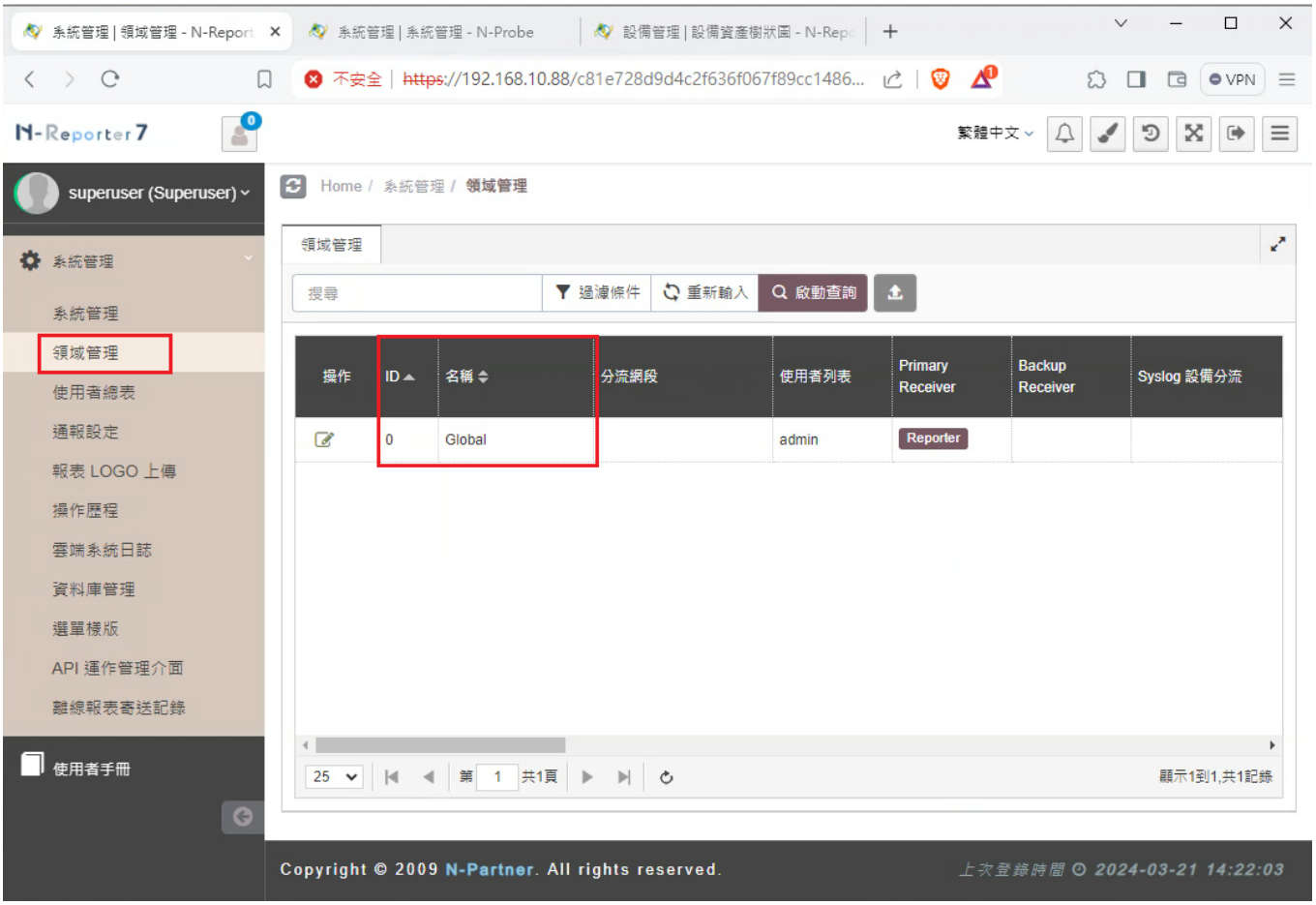
(2) [領域管理] 查看領域 ID 和領域名稱



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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。

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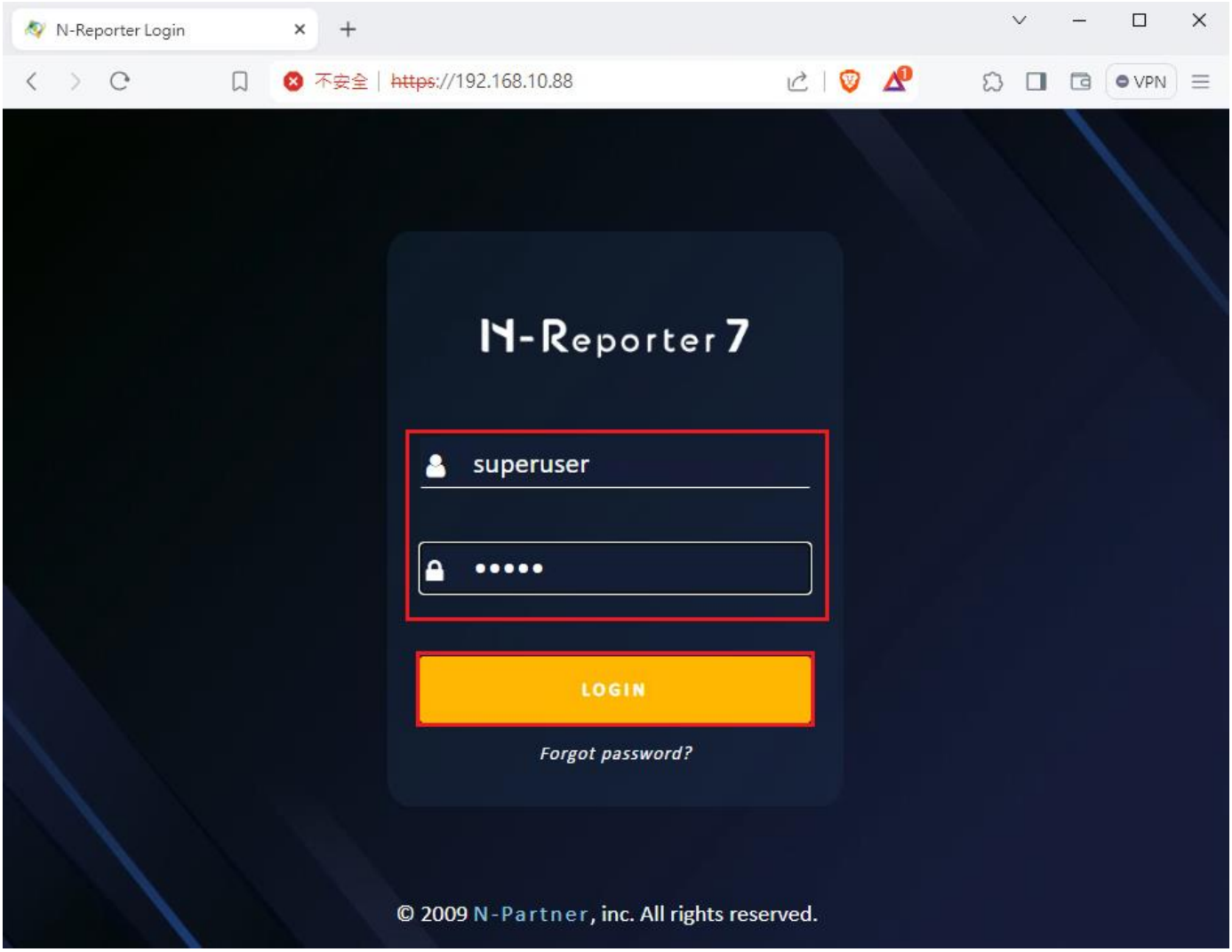
5.3.3 N-Cloud/N-Reporter

(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)



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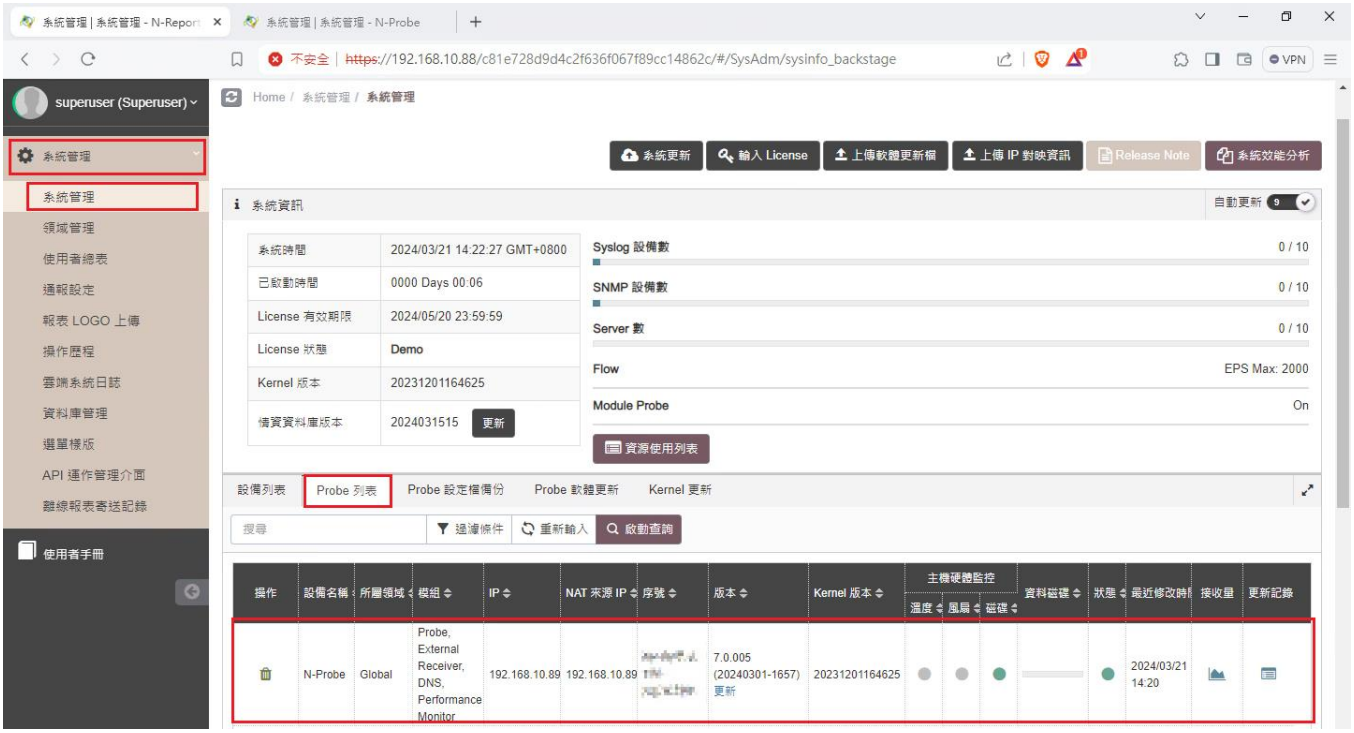
(2) 查看 N-Probe 設備列表 -> [系統管理] -> [Probe 列表] 頁面



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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)

註: External Receiver 預設使用9001 port接收flow，無法使用自定義port接收。

註: External Receiver 預設使用514 port接收syslog，無法使用自定義port接收。

(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#
```


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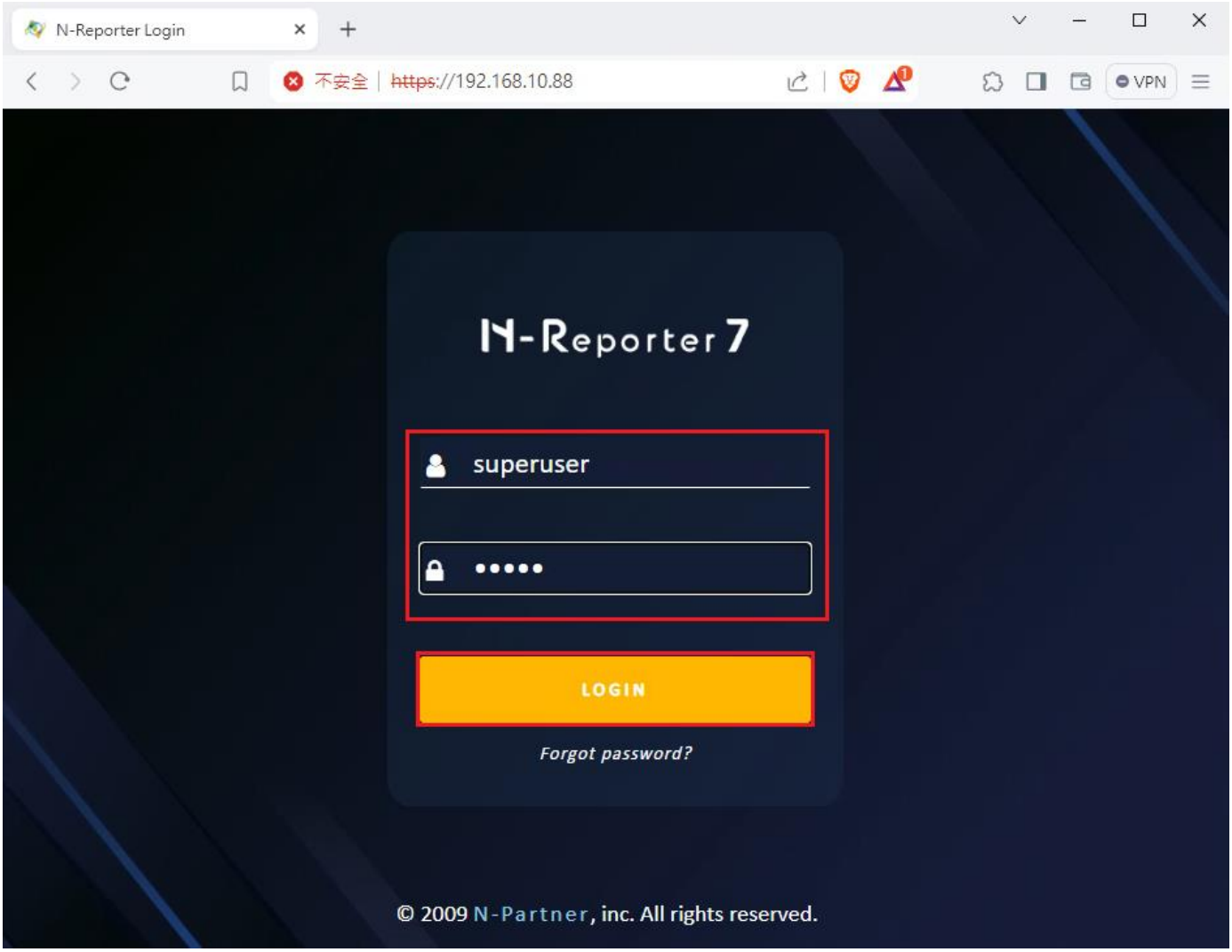
6.2 N-Cloud/N-Reporter

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)



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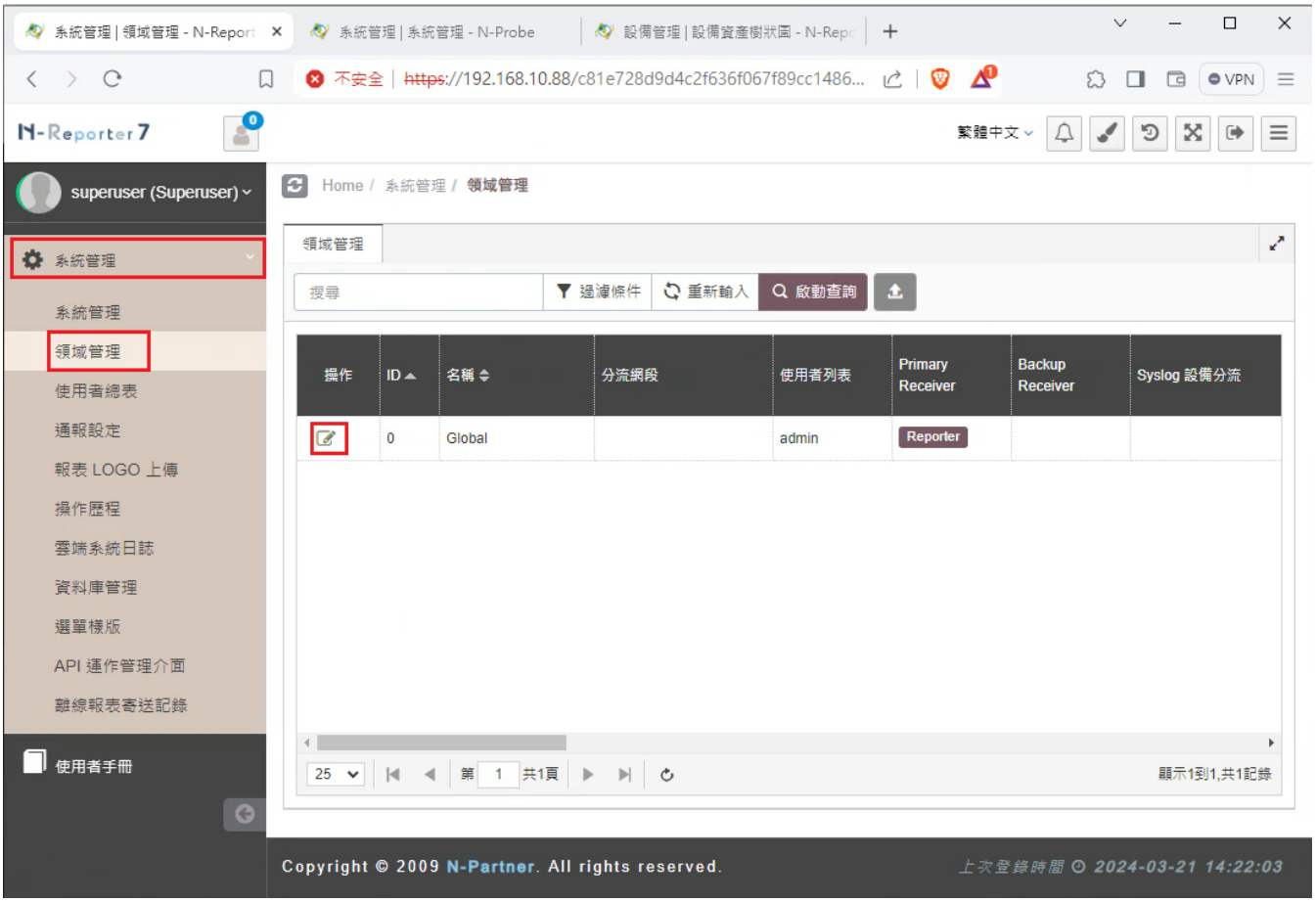
(2) 編輯領域

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]



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(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]

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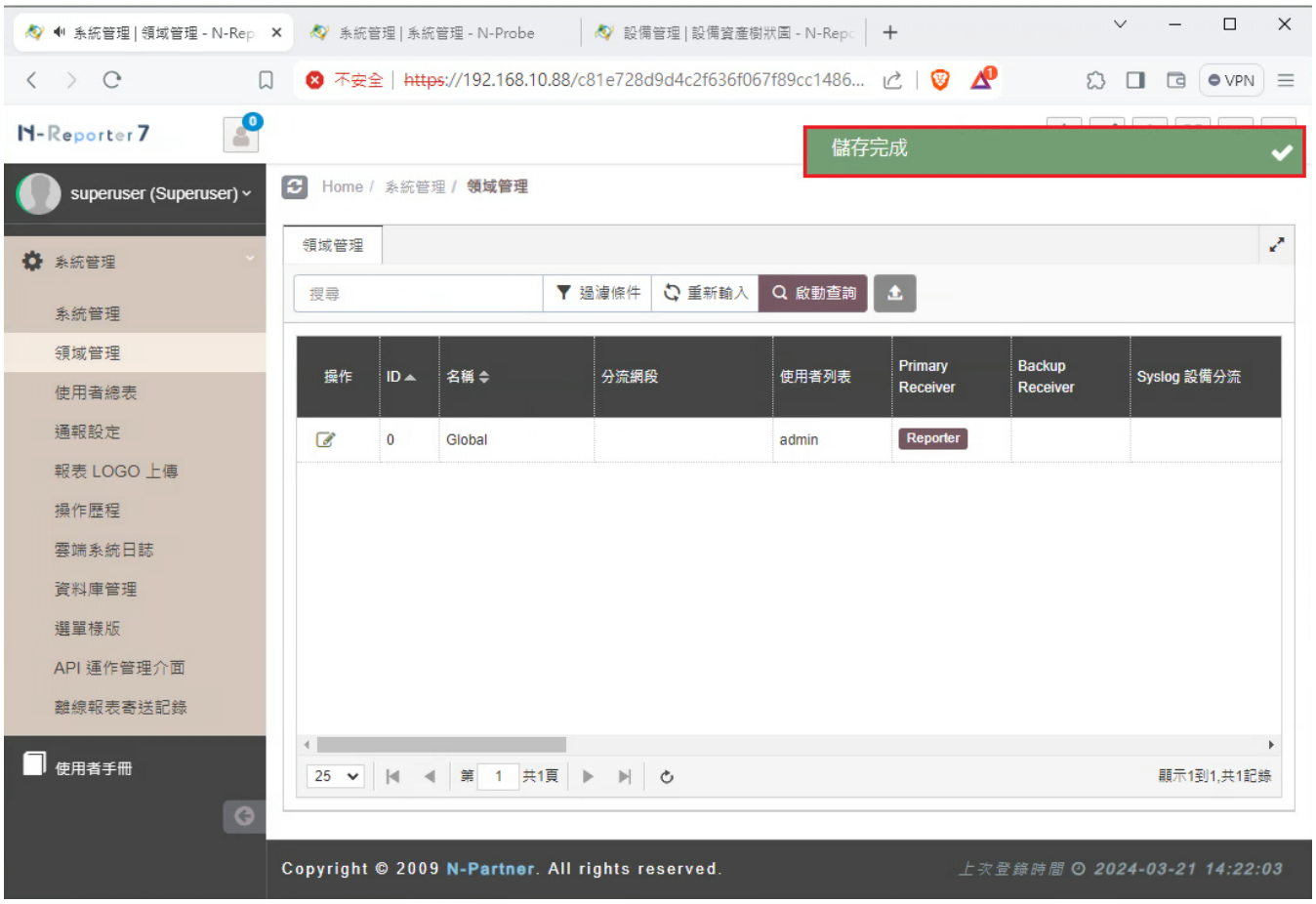
(4) 儲存完成



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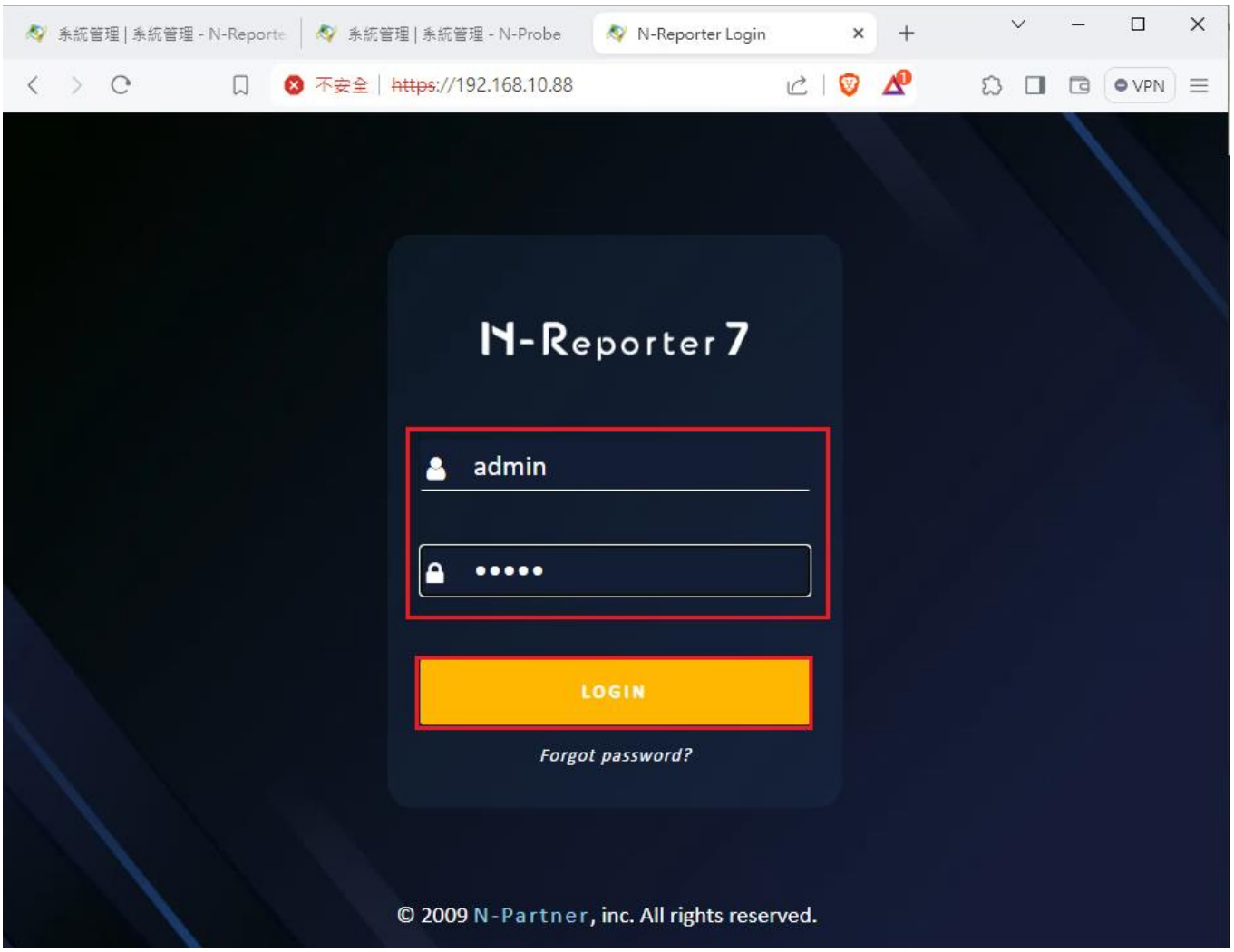
6.2.2 N-Cloud/N-Reporter Device

(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)



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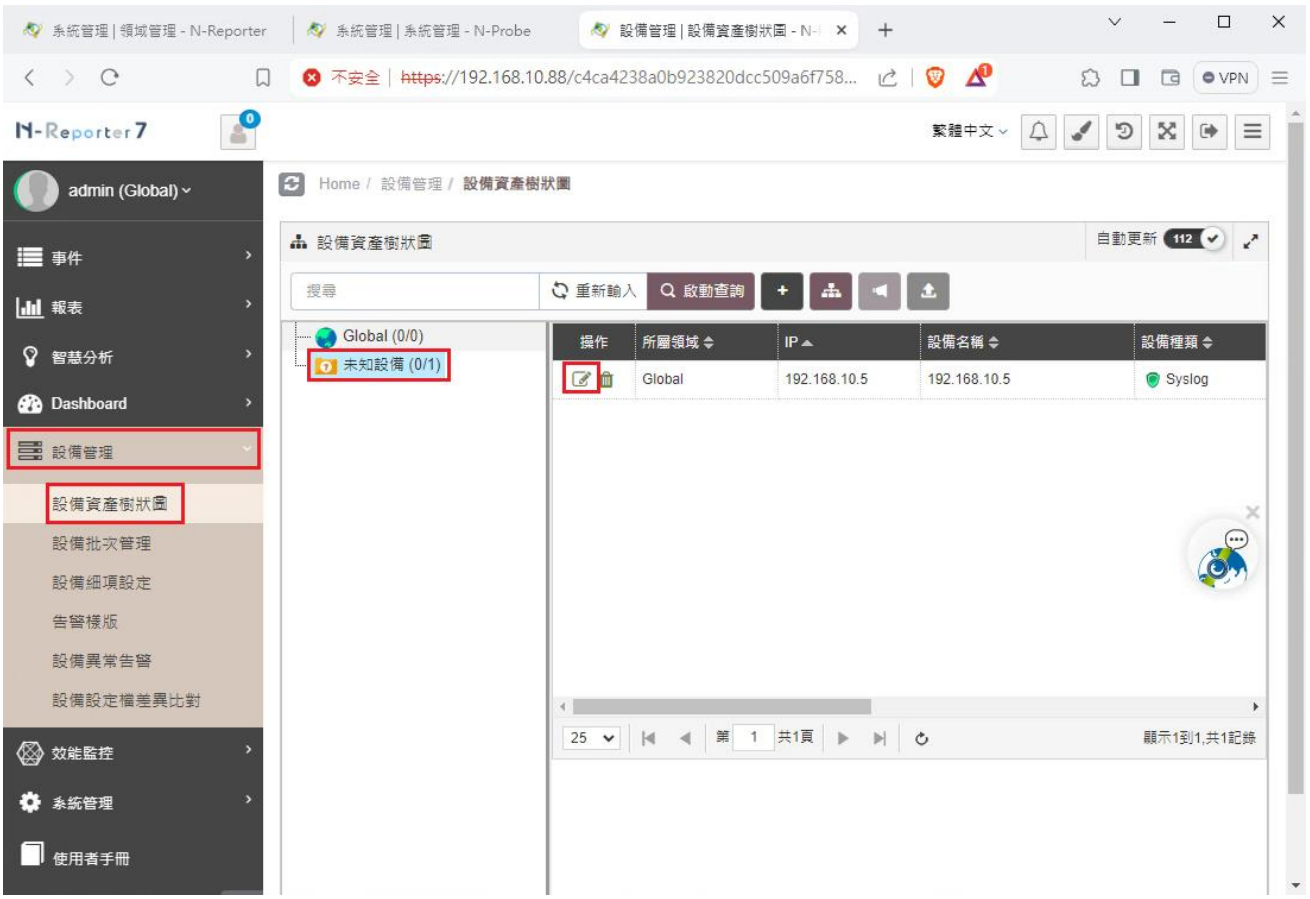
(2) 新增領域設備

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]



(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。

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7. 問題排除

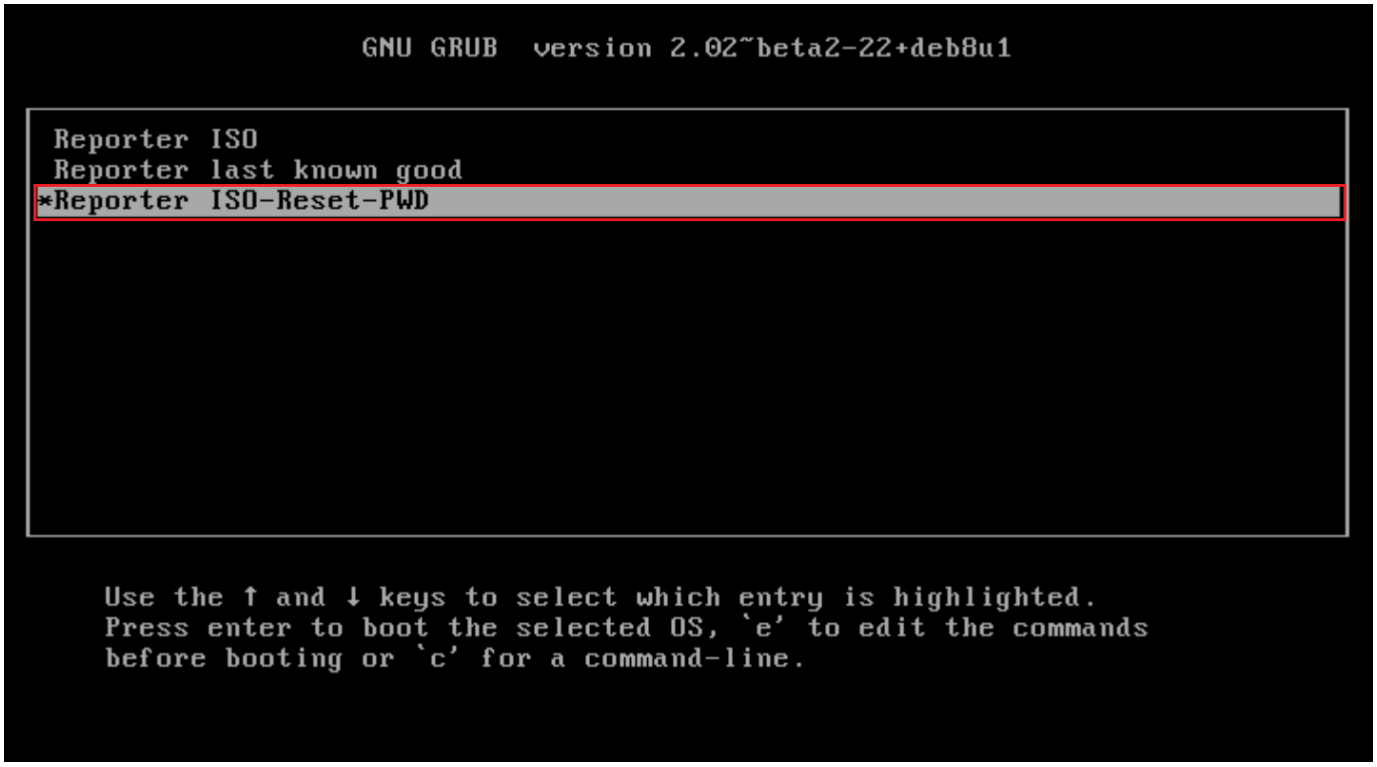
7.1 恢復預設密碼

(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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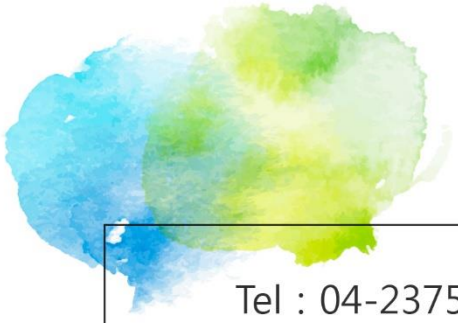

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