NETROPYVE 4.0
INSTALLATION GUIDE
VMWARE WALK THROUGH
1 Overview

Objective: To install the NetropyVE product on ESXI 6.5 through an example with the steps to connect the NetropyVE to two virtual machines contained within a single ESXI server.

Assumptions: The reader of the document is familiar with ESXI environment and terminology. The reader already has two virtual machines built and ready to be integrated with the NetropyVE.

This Example: This document will show how to connect two virtual machines to the NetropyVE using the 2nd network cards configured to the virtual machines. The example virtual machines will be called “LA” and “NYC” and be running Ubuntu16 server.

Example Diagram:
2 STEPS

Step 1: Add Virtual Switches

NetropyVE will require 2 virtual switches to route TCP/IP traffic through the 2 emulation ports.

- Login to your ESXI server and choose “Networking” in the Navigation pane
- Choose the “Virtual Switches” tab
- Then “Add a standard virtual switch”
  - Give the switch a name (Vswitch A in this example)
  - Remove the uplink port
  - Click the security Arrow
    - Accept “Promiscuous mode” “Mac address changes” & “Forged Transmits”
    - ***VERY IMPORTANT ***
  - Click “Add”

Repeat the process for the 2nd switch that is required:
Step 2: Create Port Groups

Assign the port groups to the new Vswitches you just created.

- In the Navigator pane click on “Networking”
- Choose the “Port Group” tab
- Then “Add Port Group”
  - Name the port group (“Port Group A” in this example)
  - Assign to the Virtual switch “Vswitch A”
  - Click Add

Repeat the steps and create a “Port Group B” assigned to “Vswitch B”
Step 3: Add Network Cards

Add network cards to the virtual hosts and assign them to Vswitch A/B. You will need to shutdown your Virtual Machine and add a 2nd network card.

- In the "Navigator" pane click "Virtual Machines"
- Click on the Virtual Machine you want to assign the VswitchA (This example VM LA)
  - Click Shutdown
  - Then Click "Edit"
    - Add Network Adapter
    - You will see "New Network Adapter" in the Settings window
    - Assign "New Network Adapter" to "Port Group A"
    - Click Save

Repeat the process for the 2nd Virtual Server (This example VM NYC) but assign the "New Network Adapter to "Port Group B."

![Hardware Configuration](image)
Step 4: Assign IPs to “New Network Adapters”

In step 3. We added a second network adapters to VM LA and VM NYC. Now assign IP Addresses to these network cards. In this example we assigned the following

Virtual Machine “LA”

- IP Address: 10.10.10.213
- Subnet Netmask: 255.255.255.0

Virtual Machine “NYC”

- IP Address: 10.10.10.212
- Subnet Mask: 255.255.255.0

Step 5: Install NetropyVE

You must have a valid .ova file provided by Apposite Technologies with a license key or a demo license to proceed to this step.

- In the “Navigator” pane choose “Virtual Machines”
- The “Create / Register VM”
  o Choose “Deploy a virtual machine from a OVF or OVA file”
  o Then click “Next”
    ▪ Enter a name (In this example we use “NetropyVE”)
    ▪ Click or “Drag/Drop” the .ova supplied by Netropy
    ▪ Then click “Next”
    ▪ Select the storage/disk you wish to run the NetropyVE from
    ▪ Then click “Next”
      - Under Network mapping ***VERY IMPORTANT***
      - VM Network – Choose the Network for management IPS
      - Test Network A – Choose “Port Group A”
      - Test Network B – Choose “Port Group B”
      - Click Next
      - Now click Finish
Step 6: Set the IP on the NetropyVE

By default, the NetropyVE IP address is: 10.0.0.10. You can set the NetropyVE to DHCP or static route. You will need console access to configure the TCP/IP settings.

- In the "Navigator" pane choose "Virtual Machines"
- Choose the "NetropyVE" virtual machine
- Click on console
  - Login as "admin"
  - Password "admin"

Find IP Address:

DHCP is setup by default to see the IP it was assigned use the command:

```
mgmt show
```

To set Static route type in:

```
mgmt set addr 192.168.170.33 netmask 255.255.255.0
mgmt set gw 192.168.170.1
```

To see that the settings have taken effect type

```
mgmt show
```

![Command output]

You should now be able access the NetropyVE GUI interface by typing the IP address into a browser.

Type "logout" to log out of the console.
Step 7: NetropyVE Licensing

Open a web browser in the navigation window enter the IP address from the "mgmt show" command above.

You will be prompted to accept a license agreement:

Netropy End User License Agreement
Please read the terms of use for the Netropy hardware, software, and documentation.

Click "I ACCEPT"

The next popup will be for licensing:

Netropy License Expired
The license on this unit has expired. To renew the license, please contact your Apposite reseller or the Apposite sales team at renewals@apposite-tech.com.
For more information on license renewals, see the Apposite website at https://www.apposite-tech.com/renewals.

If you have already purchased a license renewal, you can request a new license key for this device by completing the form at https://www.apposite-tech.com/license and the license key file for this unit will be emailed to you.

Once you have a new license key, click on the browse button below to upload the file. The license key can also be installed from the License Key tab on the Administration panel.

Serial number: VN-0859798EAF
Download PIN: EM2
License Expiration: EXPIRED 2018-12-31 23:59:59 UTC

Enter your license key and click "Apply Key"

If you do not have a Key please contact your Apposite Sales rep or sales@apposite-tech.com.
The NetropyVE needs access to the internet to validate your license. If you do not have internet access you will get a "License Invalid" error.

It can take 10-30 seconds for the license to validate.

Authenticate using:

User; admin
Pass: admin

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Step 8: Configuring and Testing NetropyVE

The easiest way to test the NetropyVE is with a simple ping from Virtual Machine LA to the Virtual Machine NYC.

- Login to the NetropyVE via http
- Click on "Unnamed Path"
  - At the top change the name of the path (this example "VM LA to VM NYC")
  - Set the "Bandwidth" of "WAN Access – Port 1" (this example is 1Gbps)
  - Under WAN set the Delay to constant on both "PORT 1 to PORT 2" and "PORT 2 to PORT 1" (in this example 40ms each)
  - Set the "Bandwidth" of "WAN Access – Port 2" (this example is 1Gbps)
  - Apply Changes
Close the window and turn emulation to “on”

Emulation should now be on. When you ping from LA to NYC using the 2nd Ethernet cards you should see latency: