

Installing the PA 100 VM in VMware Workstation 9.x

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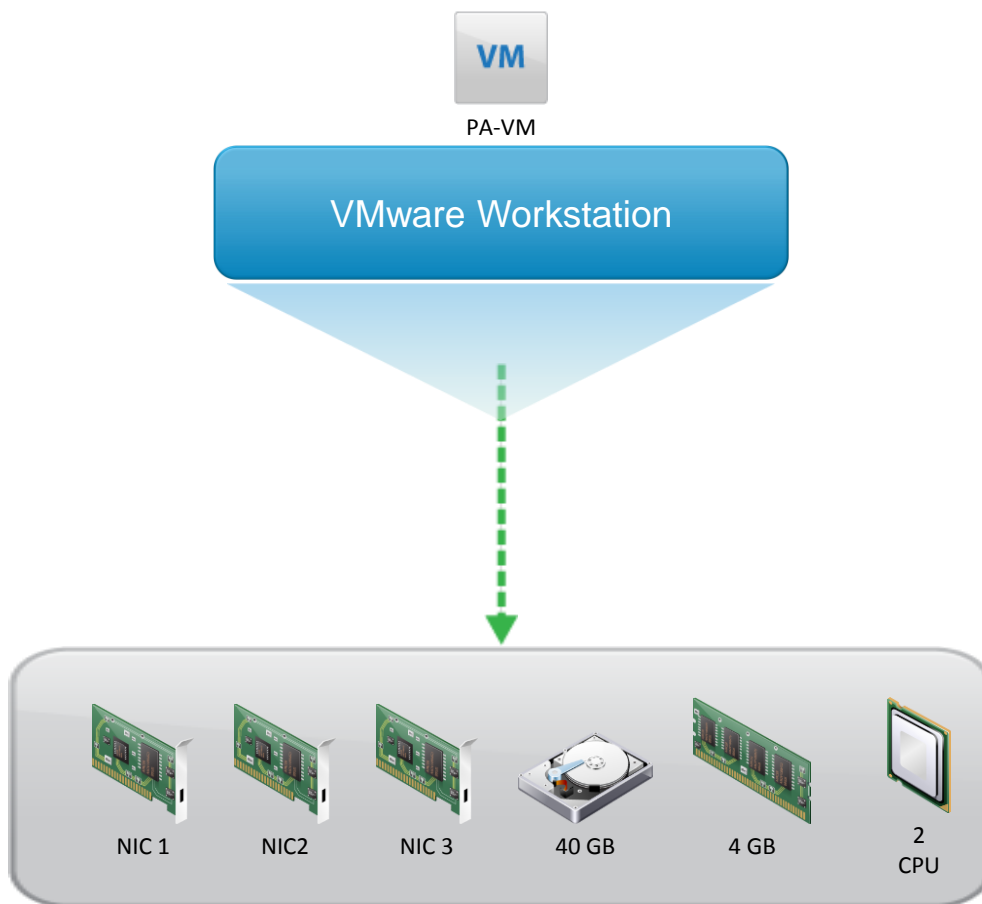
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Version 1.0

Introduction

The PA 100-VM is a virtual firewall delivered as a VMware OVF. This is a way to package and distribute virtual machines. This file contains all the files needed to run your file into a virtual environment.

I'm not running a VMware ESXi in my environment, but I have a VMware workstation 9.x on Windows 7 64-bit. When you buy a virtual instance of the firewall, you receive the authorization codes from your reseller. When you import the files into VMware workstation, two cores are reserved, 4 GB of RAM and two network adapters.



The first network adapter is used for management, the second network adapter is used as ethernet1/1 and the third network adapter is used as ethernet1/2. Additional network adapters can be added and are used as Ethernet interfaces by the firewall. It is important that these network adapters support vmxnet3. This can be verified in the virtual machine configuration file (.vmx). The following steps describe how to install the VM and configure your management access.

Obtaining the bits task list

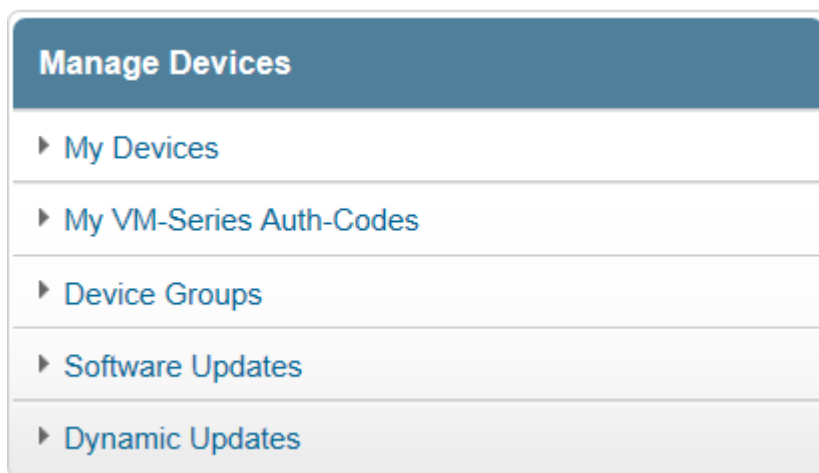
- △ Logon into the portal page on Palo Alto Networks
- △ Register your device
- △ Download and extract the source package
- △ Import your VM firewall into VMware workstation
- △ Configuring the management interface
- △ Register your firewall
- △ Update your device
- △ Clone a licensed device
- △ Managing the device

Logon into the portal page on Palo Alto Networks

- Login with your username and password that you've used during registration

Register the device

- Under **Manage Devices**, select **My VM-Series Auth-Codes**
- Click on **Add VM-Series Auth-Code**



- In the Auth Code text box, type the Authentication Code that you've received from your reseller

Auth Code	Quantity	Part Description	Action
[REDACTED]	1	Palo Alto Networks VM-100, LAB Unit	Edit Register VM Download

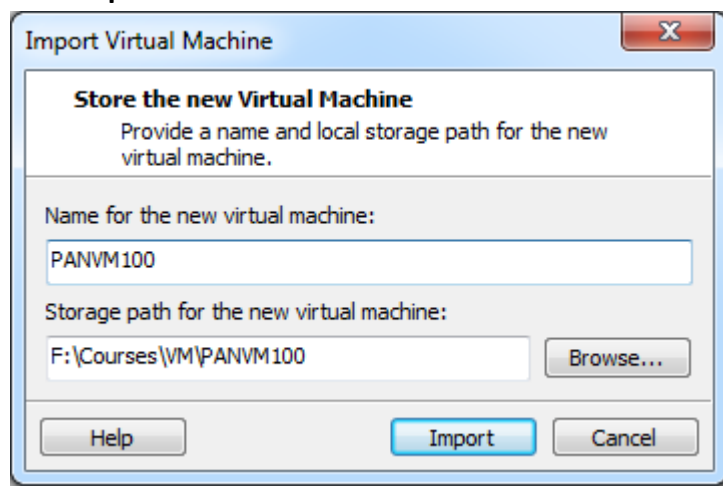
Download and extract the source package

- Click on **Download** link to download the package
- After downloading the source package, the file phoenix-5.0.zip file is available
- Extract this zip file to a temporary location

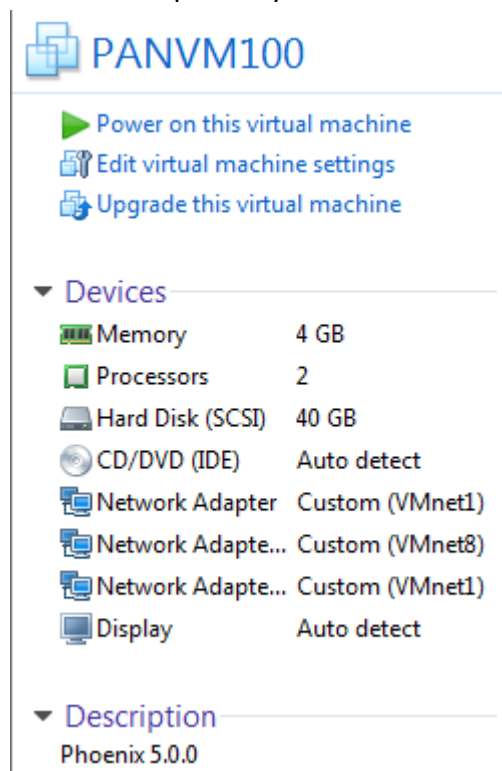
Name	Date modified	Type	Size
PA-VM.mf	1/11/2012 13:52	MF File	1 KB
PA-VM	1/11/2012 13:52	Open Virtualization Format Package	6 KB
PA-VM-disk1	1/11/2012 13:52	VMware virtual disk file	689,429 KB

Import your VM firewall into VMware workstation

- Start **VMware Workstation**
- From the **Menu**, select **File, Open** and browse to your temporary location
- Type a name for your virtual machine (PAN100VM), specify a storage location and click **Import**



- After you've imported the virtual machine, you can add additional network adapter to your virtual firewall. In my configuration, I've added an additional network adapter as you can see in following figure



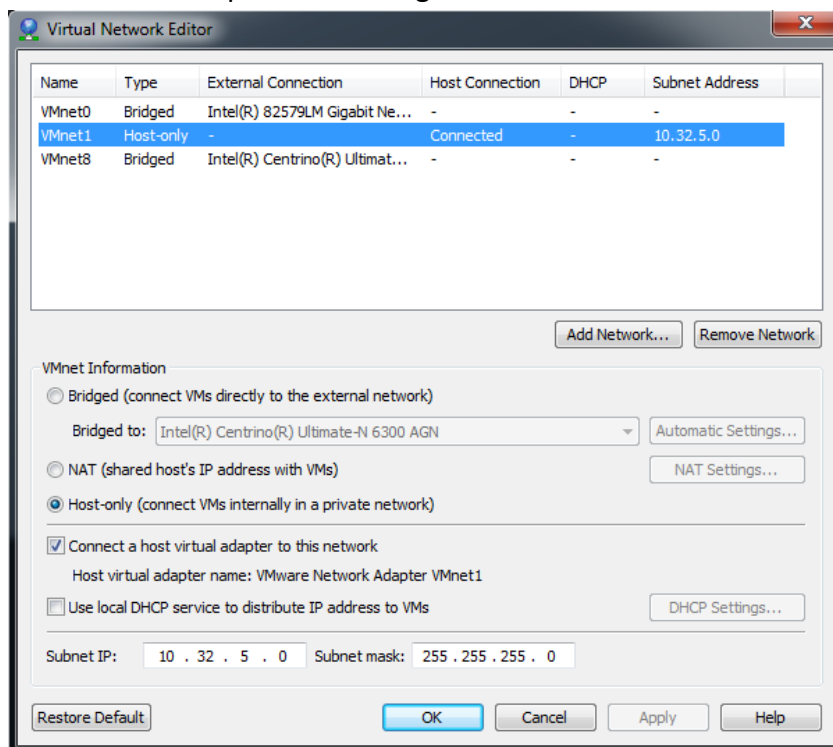
- After adding additional network adapters, be sure that these network adapters are configured using vmxnet3. Browse to the location of your virtual firewall and open the Virtual Machine Configuration file (PANVM100.vmx) as you can see in the following figure:

```

ethernet0.present = "TRUE"
ethernet0.virtualDev = "vmxnet3"
ethernet0.connectionType = "custom"
ethernet0.startConnected = "TRUE"
ethernet0.addressType = "generated"
ethernet1.present = "TRUE"
ethernet1.virtualDev = "vmxnet3"
ethernet1.connectionType = "custom"
ethernet1.startConnected = "TRUE"
ethernet1.addressType = "generated"
toolscripts.afterpoweron = "true"
toolscripts.afterresume = "true"
toolscripts.beforepoweroff = "true"
toolscripts.beforesuspend = "true"
extendedConfigFile = "PANVM100.vmx"
virtualHW.productCompatibility = "hosted"
ethernet0.vnet = "VMnet1"
ethernet1.vnet = "VMnet8"
ethernet2.present = "TRUE"
ethernet2.vnet = "VMnet1"
ethernet2.connectionType = "custom"
ethernet2.virtualDev = "vmxnet3"
ethernet2.wakeOnPcktRcv = "FALSE"
ethernet2.addressType = "generated"
floppy0.present = "FALSE"

```

- The network adapters are configured as follow:



Configure the Management interface

- Launch VMware Workstation and start the virtual machine PANVM100

- Logon into your VM
- After login, type **Configure** and press **Enter**
- In **Edit configuration mode**, configure the management interface as in following figure

```

Password:
Last login: Fri Dec 28 06:01:31 on tty1
Warning: Your device is still configured with the default admin account credentials. Please change your password prior to deployment.
admin@PA-UM> configure
Entering configuration mode
[edit]
admin@PA-UM# set deviceconfig system ip-address 10.32.5.5 netmask 255.255.255.0
default-gateway 10.32.5.254 dns-setting servers primary 10.32.5.3 secondary 208.
67.222.222
[edit]
admin@PA-UM# _

```

- Type **Commit**

```

commit      Commit current set of changes
copy        Copy a statement
delete      Delete a data element
edit        Edit a sub-element
exit        Exit from this level
load        Load configuration from disk
move        Move a node within an ordered collection
override    Override a template element
quit        Quit from this level
rename      Rename a statement
run         Run an operational-mode command
save        Save configuration to disk
set         Set a parameter
show        Show a parameter
top         Exit to top level of configuration
up          Exit one level of configuration

admin@PA-UM# commit

..98%.....100%
Configuration committed successfully

[edit]
admin@PA-UM# _

```

Register your firewall

- Logon to the Palo Alto website
- Under Manage Devices, select VM-Series Auth-Codes

Quantity	Part Description	Action
1	Palo Alto Networks VM-100, LAB Unit	Edit Register VM Download

- Select **Register VM**, type the UUID and CPUID. These values can be found in the **Web UI | Dashboard | General Information** and click on **Register**

*UUID

*CPUID

- After adding the above information click on **Activate**

Authorization Code Activation

Serial Number

*Authorization Code

- Type the Authorization Code and click **Activate**
- After successful activation, the following information is available

Subscriptions				
Model	Feature	Expiration	Remarks	Action
PA-VM-100	Threat Prevention	31 Dec 13		
	PAN-DB URL Filtering	31 Dec 13		
	Premium Support	31 Dec 13		Activate
	PA-VM	Perpetual		Edit
	Lab Bundle			Trial Licenses
	GlobalProtect Gateway	31 Dec 13		
	WildFire License	31 Dec 13		

- Download the PA-VM license file and import this file into your PA VM under **Device | Licenses | Upload**
- The management interface contact the updates server and download the updates

Upgrade your device

The device can be upgraded via a file or via the web UI.

Clone a licensed device

Two identifiers are used for each instance of the VM firewall. The Universally Unique ID (UUID) and the CPU ID. The UUID is dedicated to each virtual machine and the CPU ID is not unique since it belongs to the host CPU.

When you clone the VM, the UUID will change and the license is not valid anymore. The reason is that the license is bound to the UUID/serial number of the firewall. You cannot run two virtual machines with the same UUID.

Managing the device

Your firewall can be managed via a web browser. Configure a client computer within the same address range as the management interface. Open a web browser and login into the management UI.