

IT Technology Networks

Special Subject 3

PaloAlto



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0 HLD (HIGH LEVEL DESIGN)

1 Introduction HLD

This document is a brief overview about the design of the network we are going to implement. In this case we are going to test a Paloalto Firewall so we need an isolated system because the Paloalto firewall will be connect directly to internet.

2 Network overview

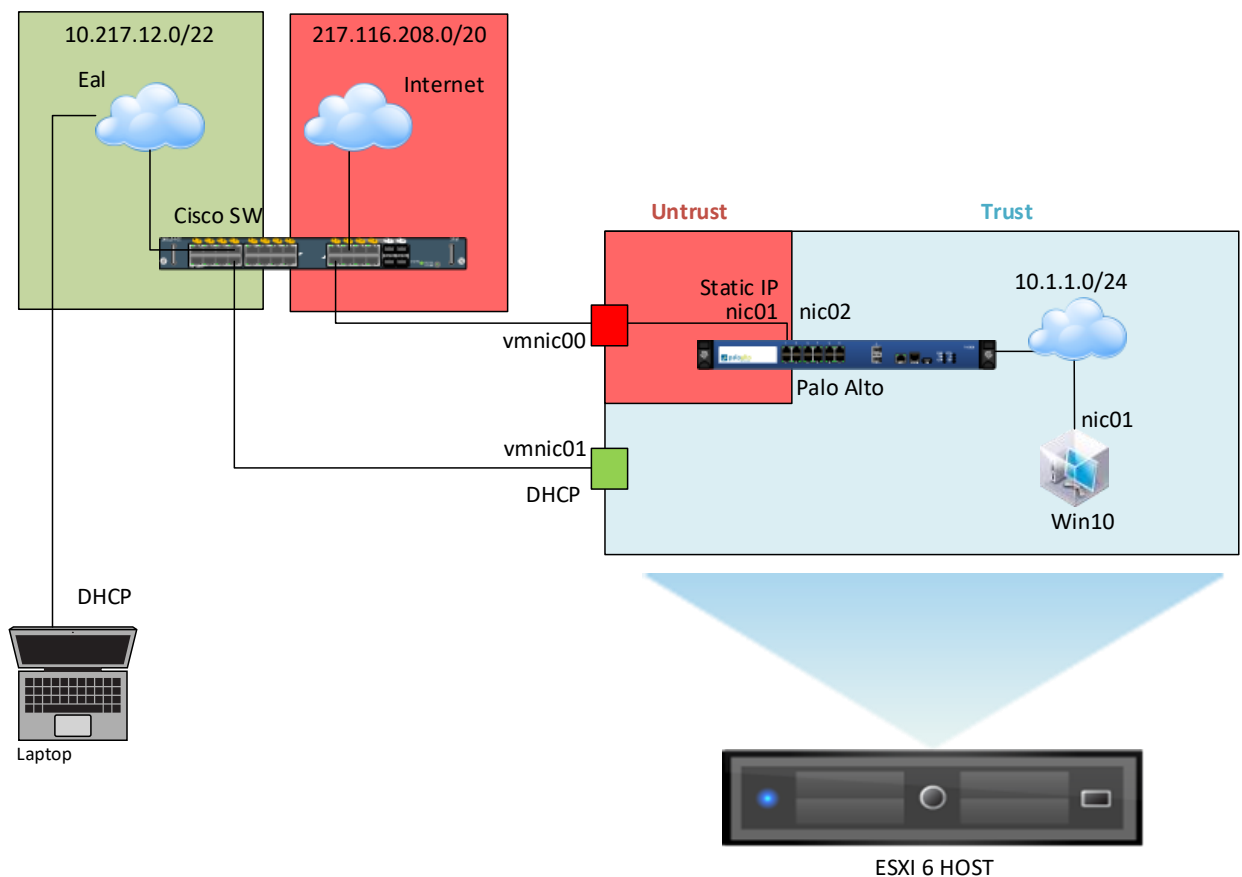


Figure 1. Network Plan

On Figure 1 we can see the Network Plan to implement our network to start testing the Palo Alto firewall.

We can see the ESXI host that is a ACER server have two networks interfaces vmnic01 Connect to EAL network and vmnic00 connect directly to internet. Both interfaces vmnic00 and vmnic01 are connected to a Cisco Switch.

In our hypervisor ESXI 6 will be running a virtual machine Paloalto and Windows 10. We can see this two virtual machines are no connected to EAL network so we can be sure that our network is isolated.

The EAL network is just to access to EXSI host so we can manage the virtual machines through vsphere client app or web.

3 Performance

In our topology we will use a CAT5e Ethernet cables.

From the internet connection we have 1 Mbit connection and the virtual machines are connecting to vswitches and this virtual connection will be a 1Gbit connections.

4 Hardware



Figure 2. ACER AW170H F2

On Figure 2 we can see the server where we run our system.

The next table show a resume of the hardware we run

RESUME	
Manufacturer	Acer Inc.
Model	AW170h F2
CPU Cores	16 CPUs x 2,194 GHz
Processor Type	Intel® Xeon® CPU E5-26600 @ 2.20GHZ
Processor Sockets	2
Cores per Socket	8
Logical Processors	32
Hyperthreading	Active
Number of NICs	2
RAM Memory	64 GB
HDD	2 TB

For more info:

http://static.acer.com/up/Resource/Acer/Servers/Gemini/AW2000H_AW170H_F2/Docs/20120717/AW2000h_w_AW170h%20F2%20long%20spec%20v1.0.pdf

5 Protocols and standards

The protocols used in this network will be TCP, IP, DHCP, and the hardware standard used 802.3 Ethernet

6 IP layout and VLAN layout

Device	Ip Network
EXSI host	10.217.12.0/22
Cisco Switch	217.116.208.0/20
Palo Alto	10.1.1.0/24 217.116.208.0/20
Windows 10	10.1.1.0/24