OSDP Test VM Operating Guide

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Overview

- it's a 64-bit debian 7 vm.
- it's shipped as an ova file, exported from virtualbox
- it's set up to just run. You don't need to operate it. It was meant to be useful to share as a fixed-function VM e.g. useful for any dev team, linux or not.

Installation

TLS configuration

- fixed certs used, files shipped on the vm. test root included.
- uses gnutls latest configuration, supports TLS 1.2, AES-128-GCM
- configured with default pre-shared interim key from libosdp github repo

OSDP configuration

assumes pd is at address 0.
no secure channel (secured instead by TLS.)

vm set-up

```
ip address 10.2.0.200
gateway 10.0.0.1
dns: none
login: user osdp, password osdp.
  You have sudo.  Root password is also osdp.
```

vm configuration:

512meg
32gig hard disk (dynamic, expands to about 2.5 gig as released)

2 ethernet interfaces
various other vistigial vm configuration items e.g. floppy may be present but are not used.

vmware installation

(tested with vmware 12)

- make sure your vmware configuration (using the virtual network editor) is set up to have an appropriate interface (which might be bridged to an external ethernet connection.)
- open .ova file.
- click "retry" when it reports it fails compliance checks
- make sure there are 2 network interfaces and the first one is the one you'll use for OSDP and the second one is the NAT interface
-

virtualbox installation:

1. make sure virtualbox is running on your host platform
2. import the vm
3. make sure the vm's first ethernet interface is bridged to a real ethernet
4. start the vm
5. log into the vm and confirm the interface name is correct. it likely changes upon vm import. use procedure in appendix B below ("change ethernet interface name") to fix if necessary.
6. ping 10.2.0.200 from elsewhere on the network to confirm connectivity. It does respond to ping. Note: it's got ports 22,80 and 10443 open if you nmap scan it.

vm operation

- use a browser to access http://10.0.0.200/open-osdp-CP.html. There is a primitive html/cgi-based UI on an apache web server on port 80. No authentication, this is an un-insulated engineering testbed.
- the "display status" link will spawn a second page with current CP status

Demonstration

- start the vm
- ping it to confirm it's alive
- go to the web UI
- start the status page
- from a PD, connect to the CP.
    - console access can show the incoming connection
    - use network trace tool to show the TLS traffic
- from the PD, present a badge (raw format, 26 bit)
- observe the status change on the CP status web page.
    - console access can show the diagnostic log

Contents

- ova file, in 1.0 format, with a manifest (should work with vmware workstation 10 or later)
- /home/osdp is where everything is built
- setup directory is necessary extras
- includes open source
- includes platform set-up (apache config, etc.)
- libosdp-1.0build4 is sources
- runs out of /opt/open-osdp/run/CP
- started at boot time from /etc/rc.local (calls file /opt/open-osdp/bin/up.osdp)
- uses open source components: gnutls, nettle, libtasn, jansson

Appendix

A. Colophon

B. Linux Shell Cheatsheet

Powering off the VM:

log in as user osdp (password osdp)

issue the power off command (requires password again)

```
sudo poweroff
```

Testing the network:

log in (username osdp, password osdp)

list the interfaces (prompt is for your password, osdp)

```
sudo ifconfig -a
```

ping a test destination (remember linux ping is continuous, limit it to 4 in this command)

```
ping -c 4 10.0.0.1
```

Change ethernet interface name:

log in as user osdp (password osdp)

sudo to bash (requires password again)

```
sudo bash
```

list current ethernet interfaces (you should have a "#" prompt as you're sudo to root)

```
ip link
```

It should show 3 lines (1: lo: ... 2: eth0: ... 3:eth1:...) If the second entry isn't "eth0" you need to edit the start-up script. That file is /opt/open-osdp/bin/up.osdp. Change the "eth0" to whatever ethernet interface you have set as the bridged interface.