

# OpenNOP Demo Lab in Vmware

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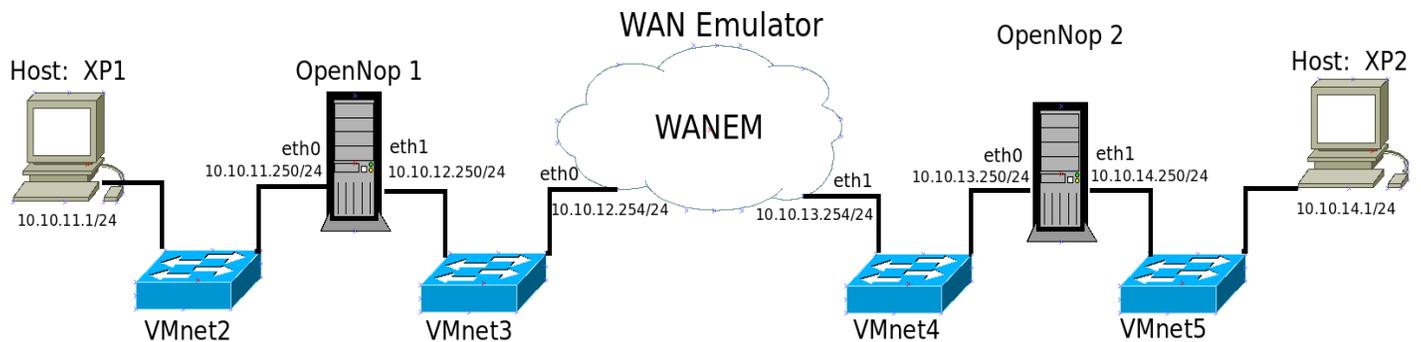
Looking for a free solution to optimize WAN links (yesterday) I found the following page:

<http://forums.whirlpool.net.au/archive/1865277>

The page talk about three solutions ( Opennop, WANProxy and TrafficSqueezer) which most caught my attention was Opennop.

In order to test OpenNOP I built a Virtual Lab in Vmware Workstation with excellent results :) and now i want to share with you.

Below is the diagram of the virtual network:



There are 5 virtual machines:

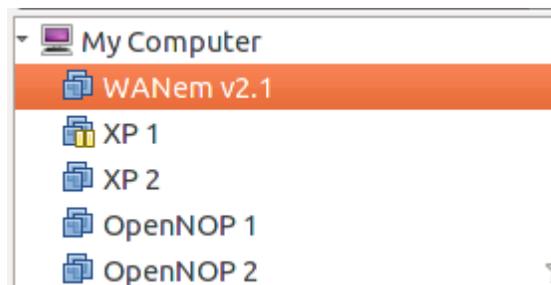
**XP1** and **XP2** are Windows XP virtual machines

**OpenNop1** and **OpenNop2** are OpenNop virtual appliances in routing mode

**WANEM** is an open source emulator running as a virtual machine.

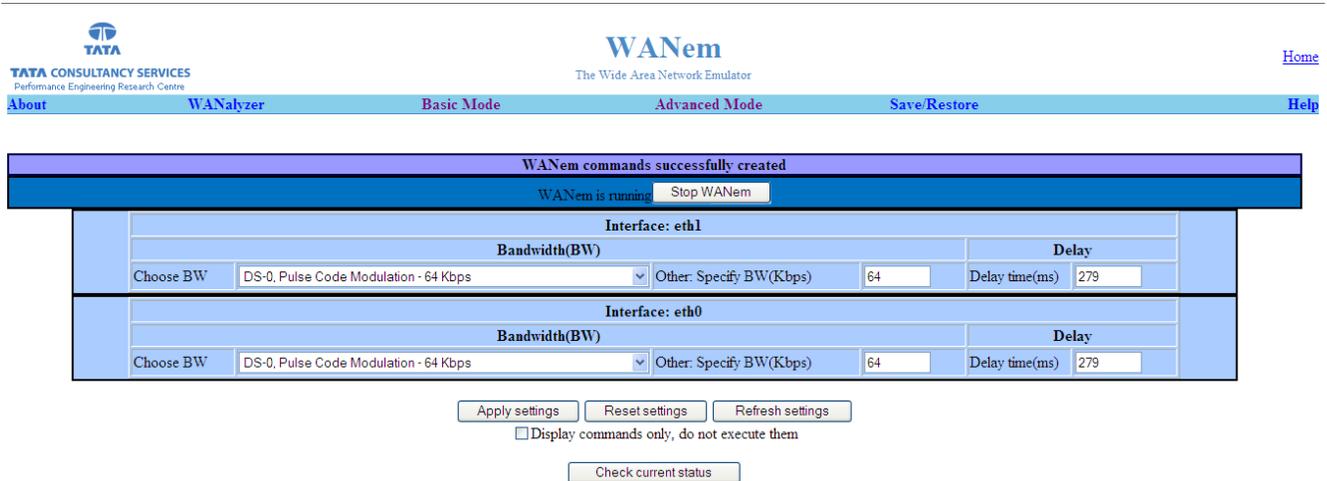
(<http://wanem.sourceforge.net>)

Below you will see a list of Vmx on Vmware Workstation:

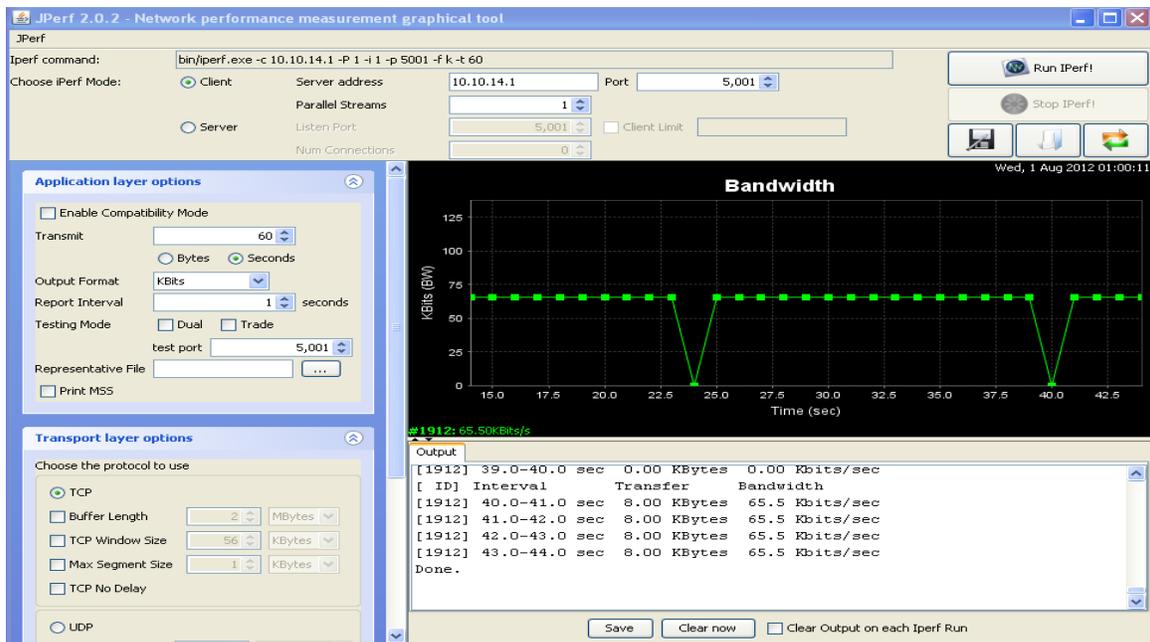


There are 4 Vmware Virtual Swiches “host-only mode”, you need add in the virtual Network Editor ( Menu Edit – Virtual Network Editor) because Vmware by default only have Vmnet0 (bridged), Vmnet8 (NAT) and vmnet1 (host-only)

I configured WANEM to emulate a Satellite link (64 kbits with 270 ms of delay)

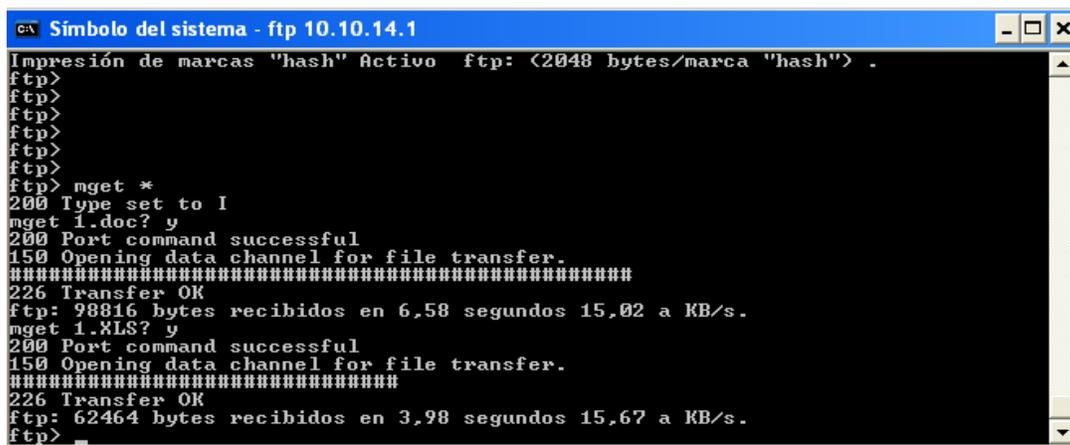


And installed JPERF in both XP Machine to test bandwidth first with OpenNop deactivated:





And then the same files with OpenNop activated:



```
CA Símbolo del sistema - ftp 10.10.14.1
Impresión de marcas "hash" Activo ftp: <2048 bytes/marca "hash"> .
ftp>
ftp>
ftp>
ftp>
ftp>
ftp>
ftp> mget *
200 Type set to I
mget 1.doc? y
200 Port command successful
150 Opening data channel for file transfer.
#####
226 Transfer OK
ftp: 98816 bytes recibidos en 6,58 segundos 15,02 a KB/s.
mget 1.XLS? y
200 Port command successful
150 Opening data channel for file transfer.
#####
226 Transfer OK
ftp: 62464 bytes recibidos en 3,98 segundos 15,67 a KB/s.
ftp>
```

Not bad I think :D

And that was my first encounter with OpenNop, it goes very closely