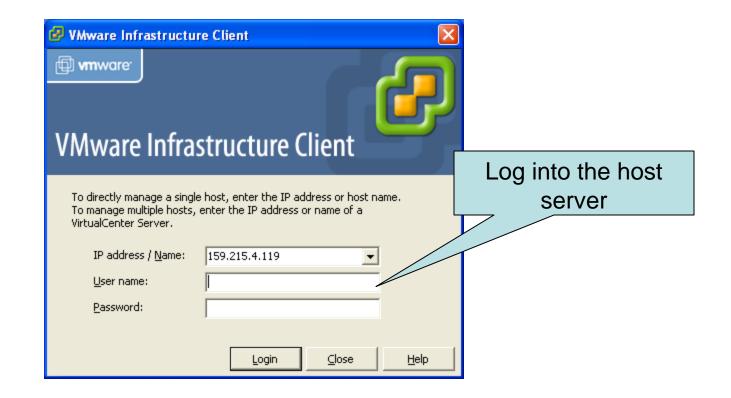
## How to install PowerChute Network Shutdown on VMware ESX 3.5i and 4.0i

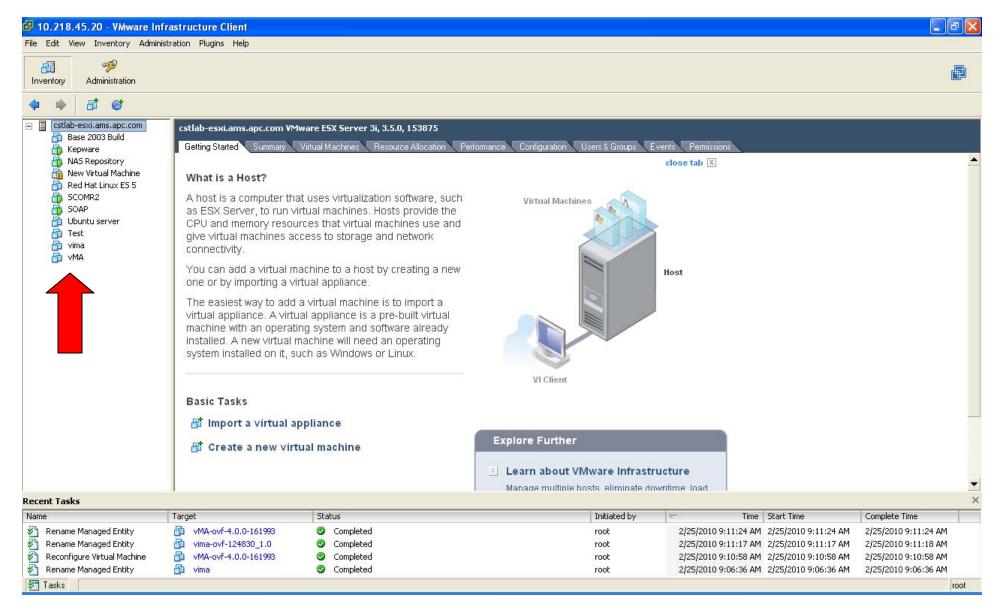


PowerChute network Shutdown (PCNS) 2.2.3 and above is required.
PowerChute Network Shutdown requires VMware Infrastructure Management Assistant (VIMA) 1.0 or vSphere Management Assistant (vMA) 4.0 install on the VMware ESXi host.
If you need help installing VIMA or vMA please contact VMware support or go to this site http://www.vmware.com/support/developer/vima/
The VIMA client requires AMD Opteron, Rev E or later CPU or Intel processors with EM64T and VT support
You will need VMware Infrastructure Client installed on your desktop / laptop to log into the host system. You can load the client by logging into the host via a web browser.
Communications ports 3052, 80 need to be open and 6547, 6548, 6549 depending on the number of instances being installed.



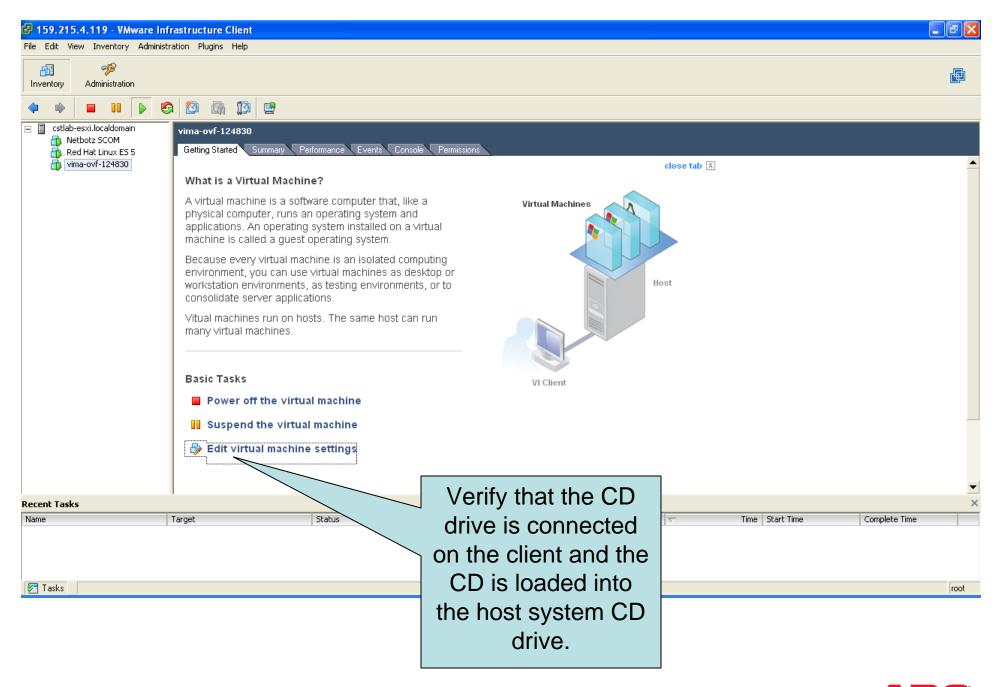




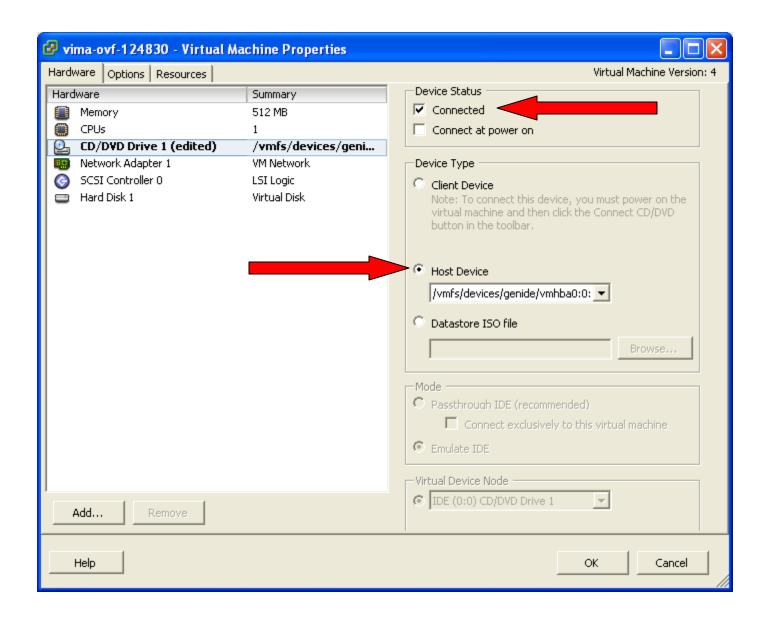


Select the VIMA or vMA client from the list of available virtual systems.

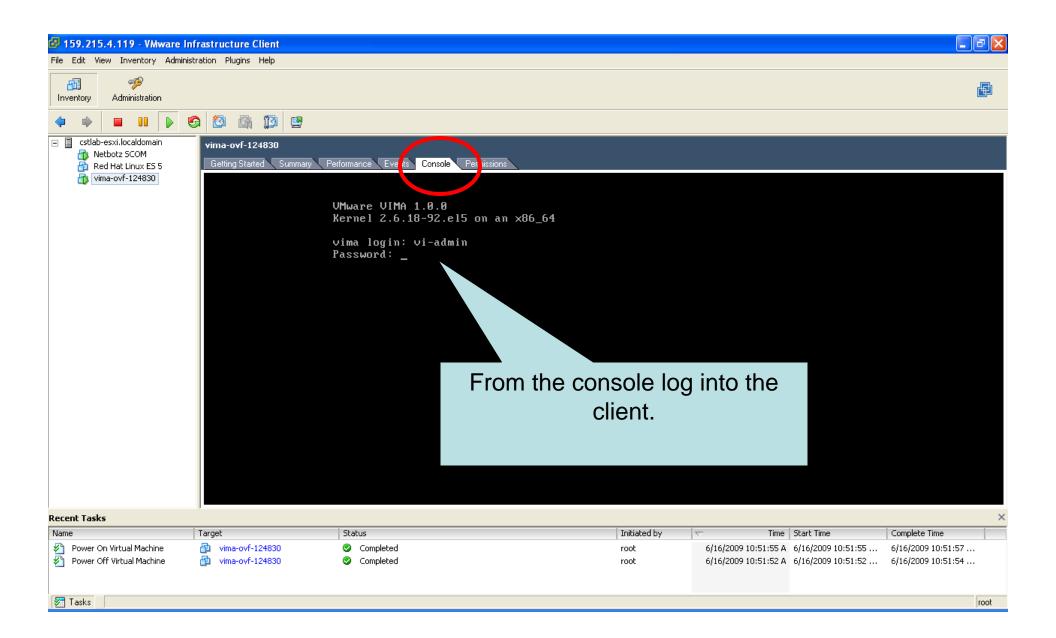




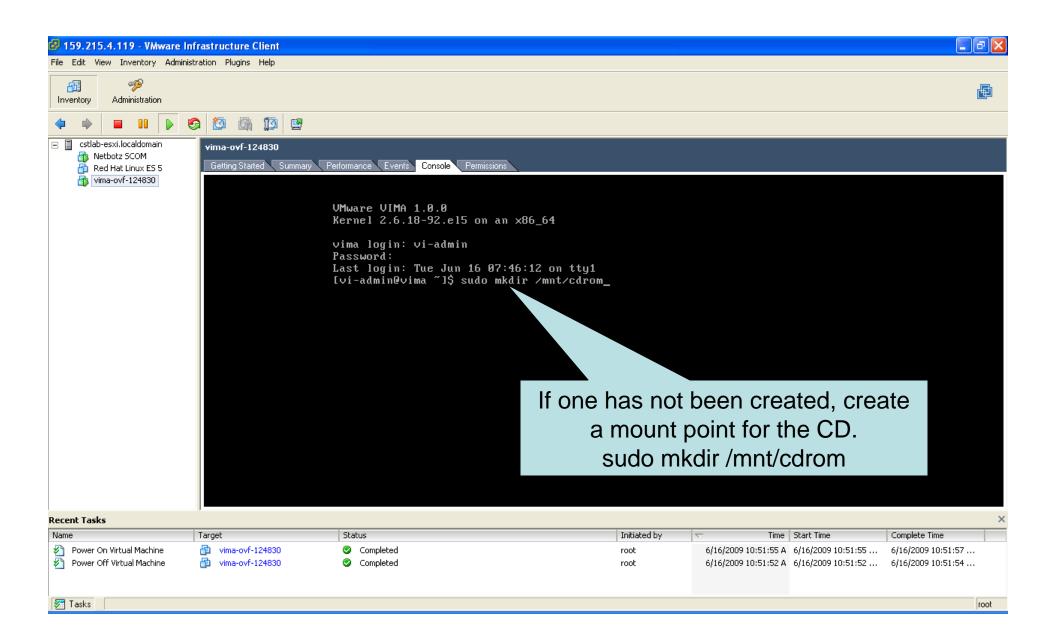




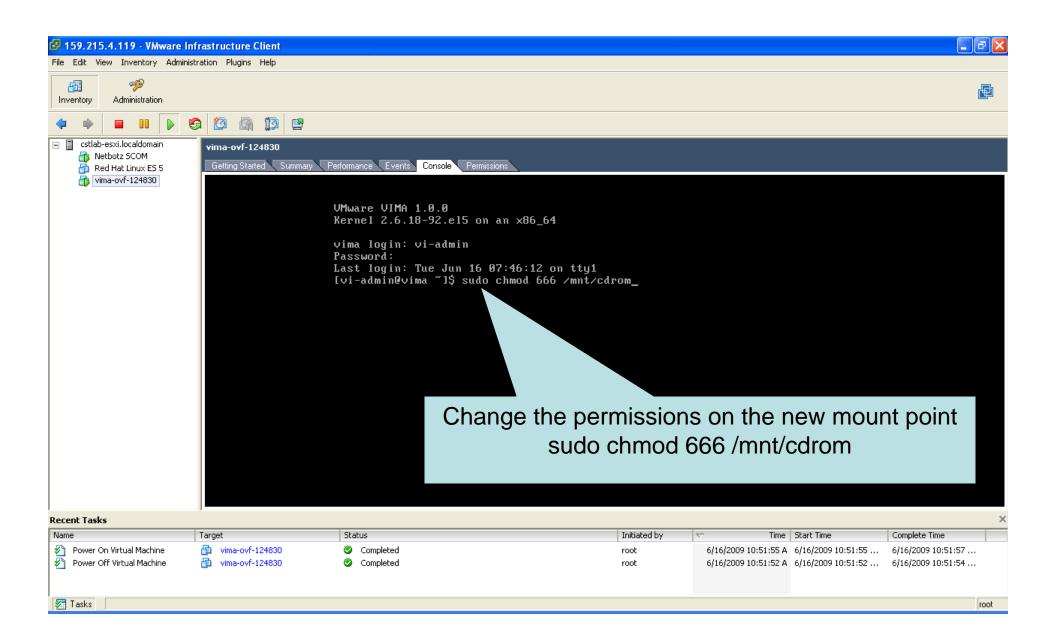




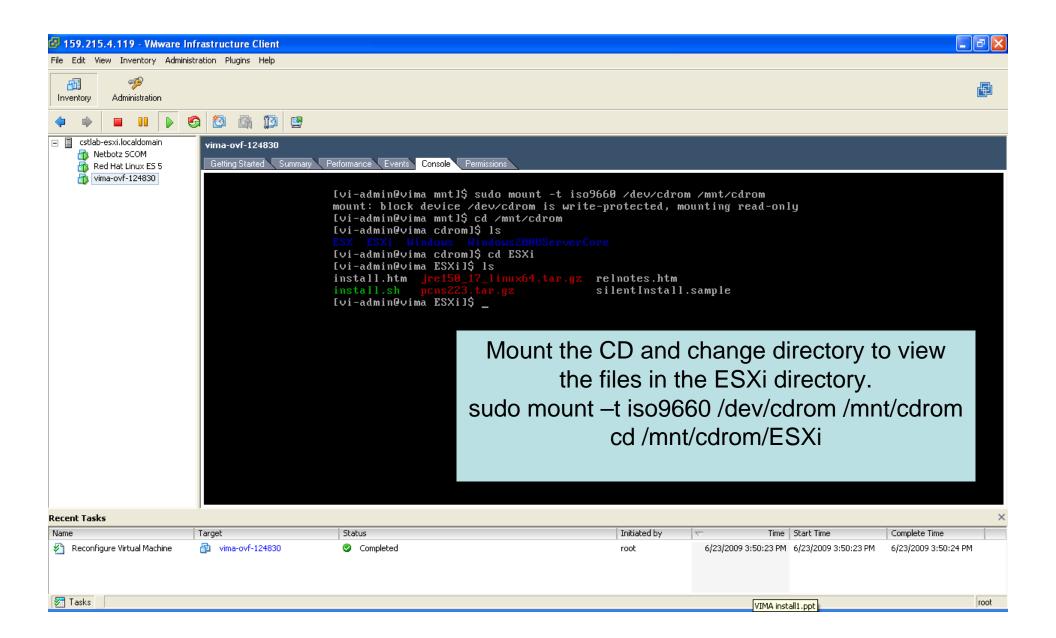




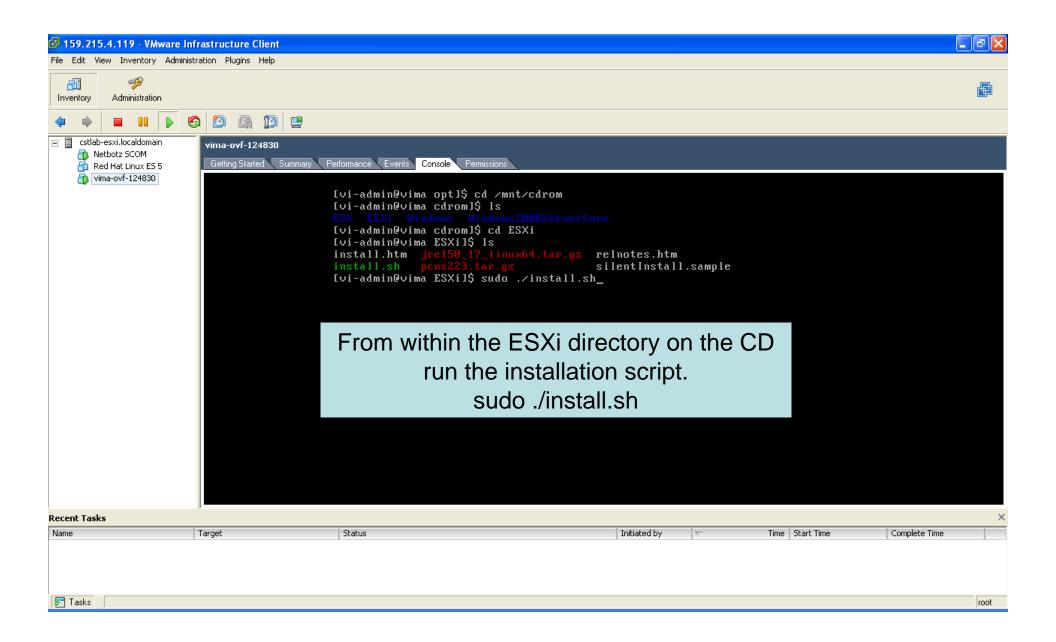




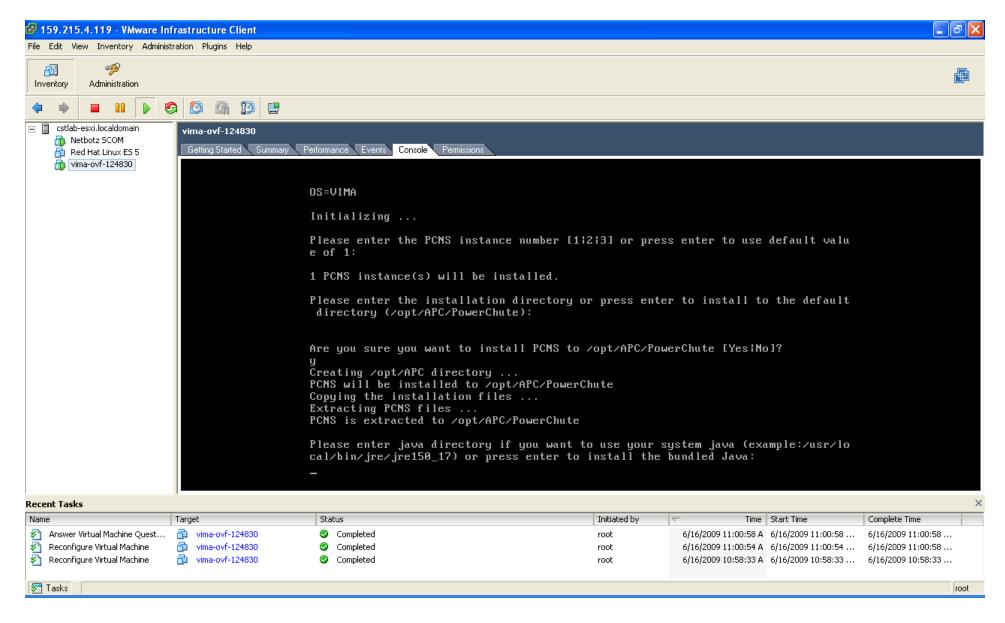






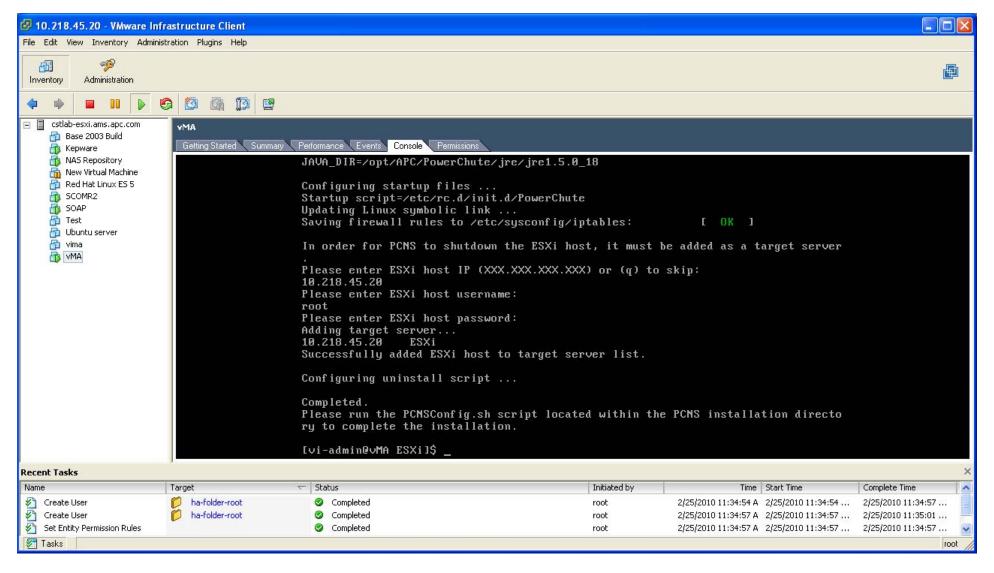






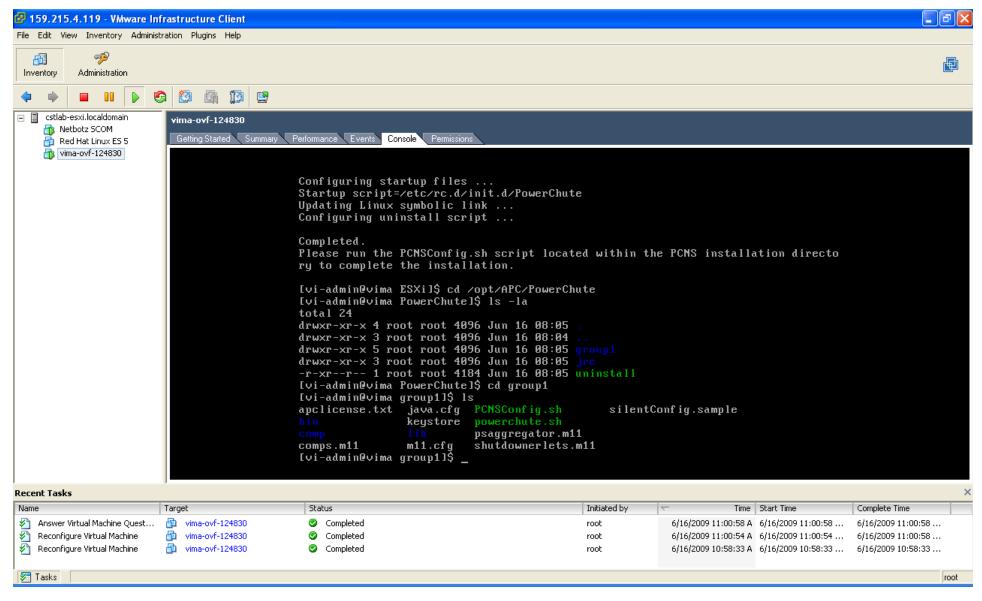
Answer the installation questions as they appear on the console.





When installing PCNS 2.2.4 be sure when asked to enter the host server ipaddress, user name, and password. This enables communication between the vMA / VIMA client and the host server. When installing PCNS 2.2.3 or if you choose not to enter the host info during the 2.2.4 installation you will need to establish communications between the vMA / VIMA client and the host server manually. Please see pages 25 and 26 for instructions.

by Schneider Electric



Once the installation is complete verify that the needed communications ports are open and then run the configuration script found in /opt/APC/PowerChute/group1

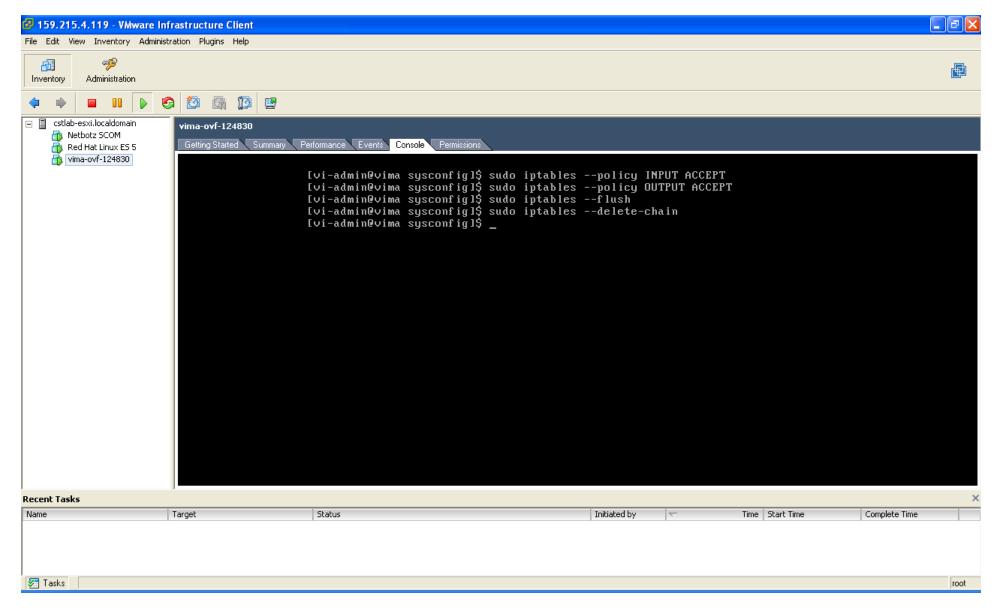


- ☐ To verify the needed communications ports are open run this sudo /sbin/iptables –L
- NOTE: When Installing PCNS 2.2.4 the iptable is edited automatically by the installer. For PCNS 2.2.3 the iptable has to be edited by the user. PCNS 2.2.4 users can skip to page 21.
- If the iptable has been edited have the administrator add ports TCP 80, TCP & UDP 3052 and TCP 6547, 6548, 6549 as needed for the instances installed.

```
Chain apc (1 references)
target
           prot opt source
                                        destination
ACCEPT
           tcp -- 159.215.0.0/16
                                        anywhere
                                                             top dpt:apc-3052
ACCEPT
                                                            udp dpt:apc-3052
           udp -- 159.215.0.0/16
                                        anywhere
                                                            tcp dpt:apc-6547
ACCEPT
           tcp -- 159.215.0.0/16
                                        anuwhere
ACCEPT
           tcp -- 159.215.0.0/16
                                        anywhere
                                                            tcp dpt:http
ACCEPT
           tcp -- 159.215.0.0/16
                                        anywhere
                                                            tcp dpt:ssh
ACCEPT
           udp -- 159.215.0.0/16
                                        anywhere
                                                            udp dpt:ssh
Chain sustem (1 references)
           prot opt source
                                        destination
target
           all -- anywhere
ACCEPT
                                        anywhere
ACCEPT
                                        anywhere
                                                            state ESTABLISHED
           all --
                   anywhere
ACCEPT
                                                            state RELATED
           all -- anuwhere
                                         anywhere
```

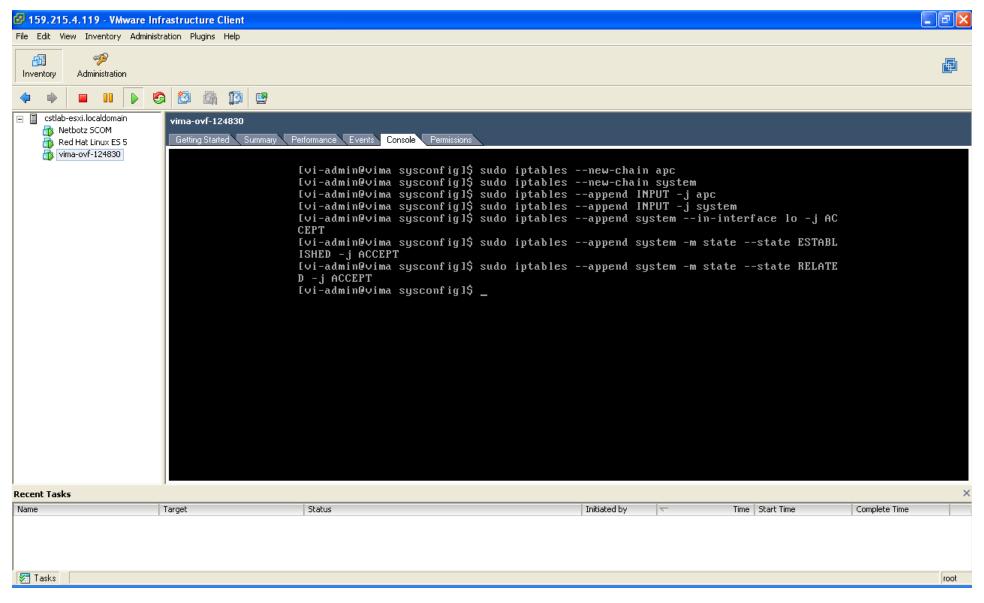
In this example port 80, 3052 are open along with 6547 since this is a single instance installation. Also open is port 22 to allow for SSH connections (port 22 is optional). All of these ports have a restrictions that only allows for connections from IPaddress range 159.215.X.X with a subnet mask of 255.255.0.0





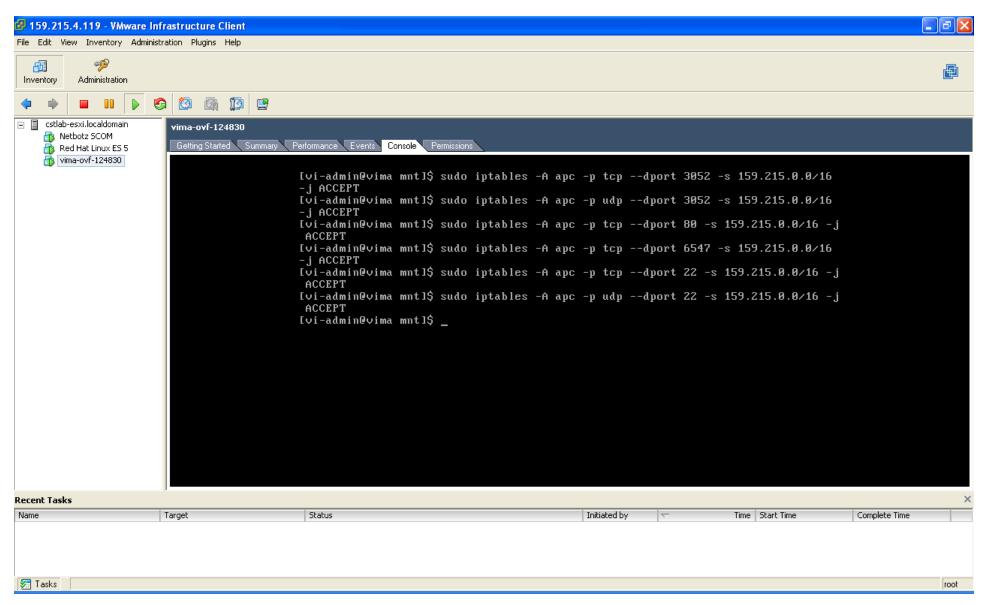
In the example above we edited the iptables. Since this is a new install I am first opening all of the ports, flushing any default setting, and deleting any default chains. Flushing the filters and deleting the chains is important since rules are checked in sequential order and we don't want any old filter to deny packets to the ports we are about to open.

by Schneider Electric



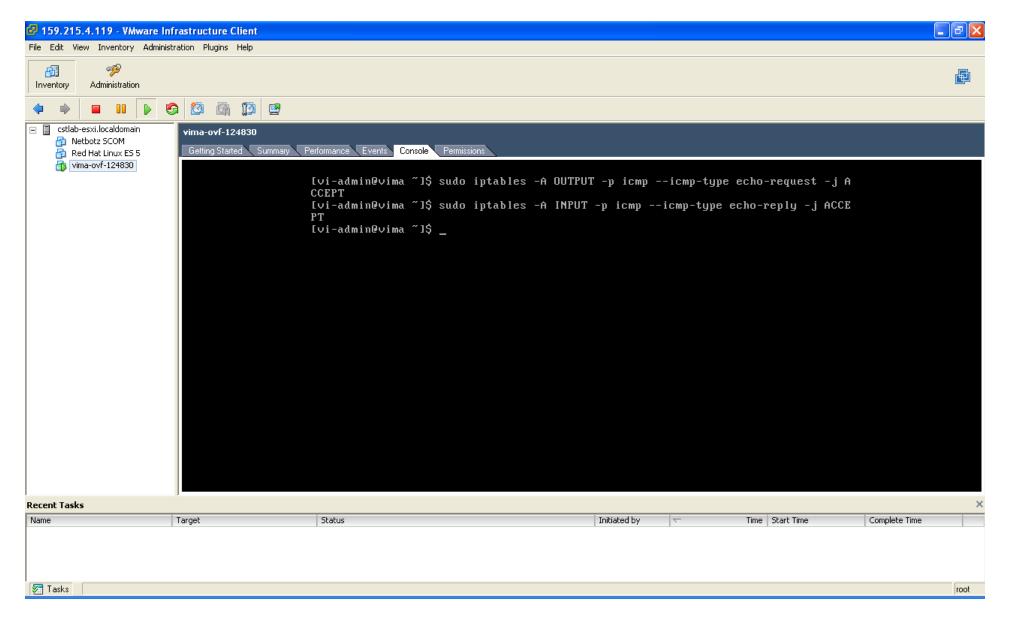
Above we have created 2 new chains. 1 named apc and 1 named system. The system chain was created to allow the system to communicate with itself, and the apc chain was created to allow communications the PCNS.





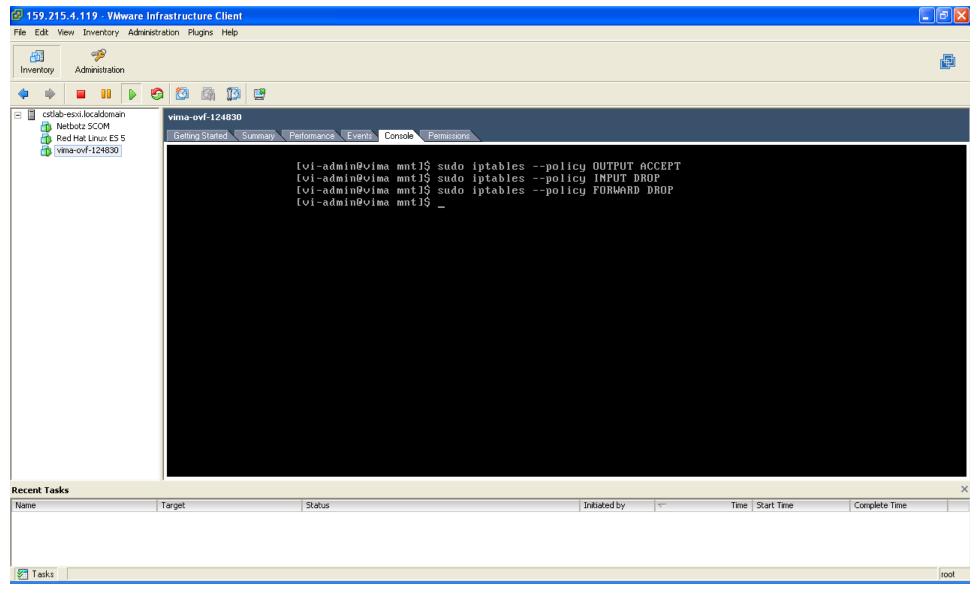
Above we have opened ports 3052, 80, 22 and 6547, assigned them to the apc chain, and restricted communications for ipaddresses 159.215.X.X





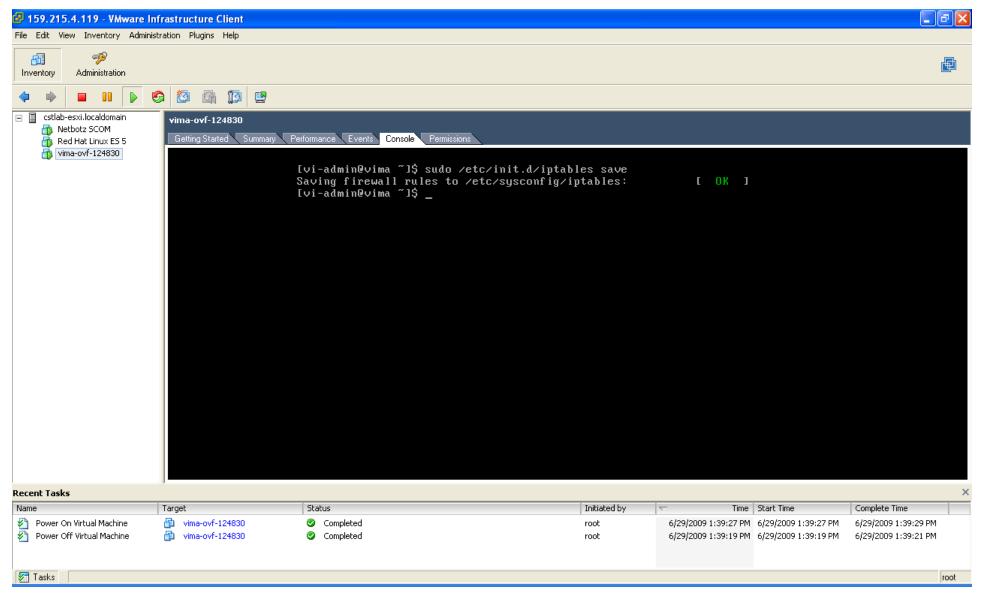
Above we have opened the iptables to allow icmp echo request and replies (Pings) for troubleshooting





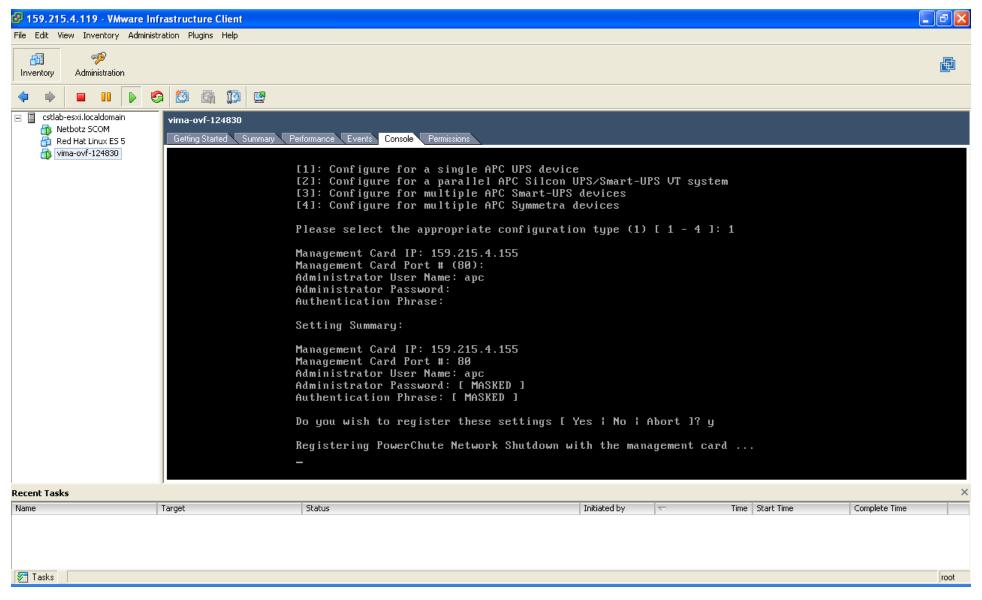
Above we have allowed output from all and blocked input and forwarding from all except from the ports specified in the apc and system chains created earlier.





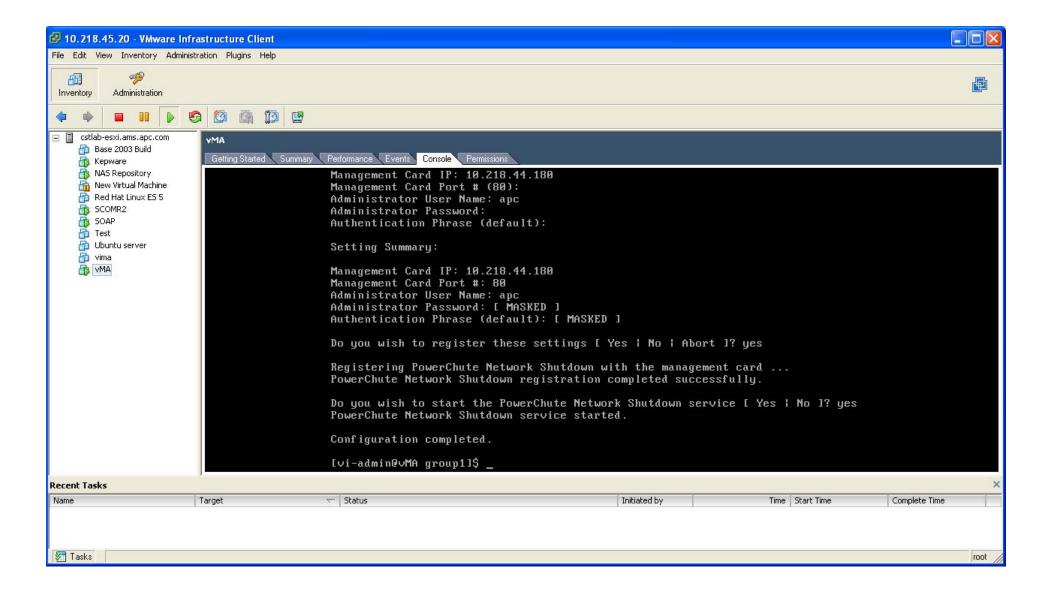
The final step in editing the iptables is to save the file. If this step is skipped the next time the VIMA client is rebooted the changes will be lost.





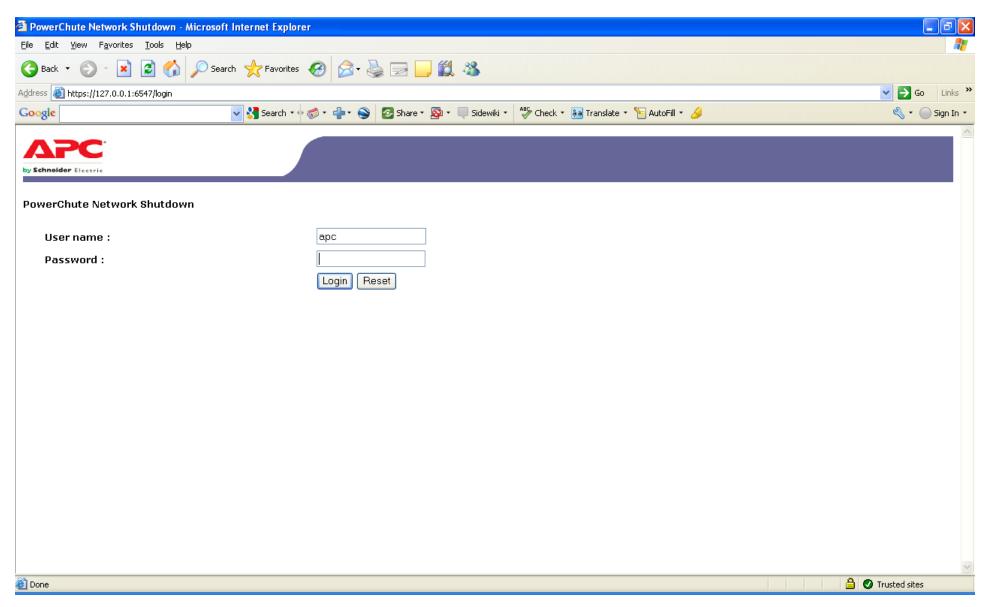
Once the ports have been opened run the configuration script in /opt/APC/PowerChute/group1 Answer the configuration questions as they appear in the console and the installation is complete.





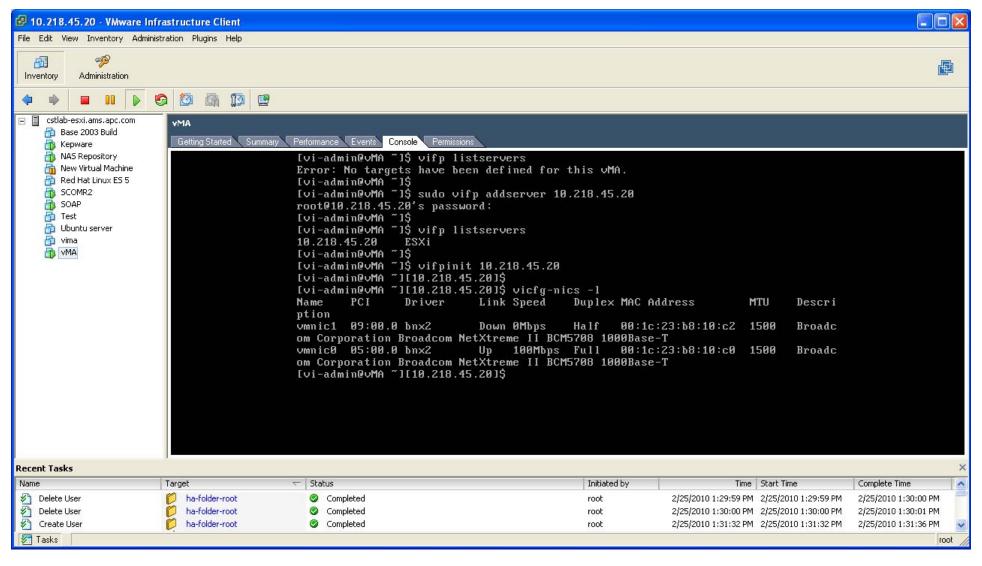
Be sure to select yes to start the PCNS services.





Once PCNS has been started you can no log into the PCNS client via your web browser.

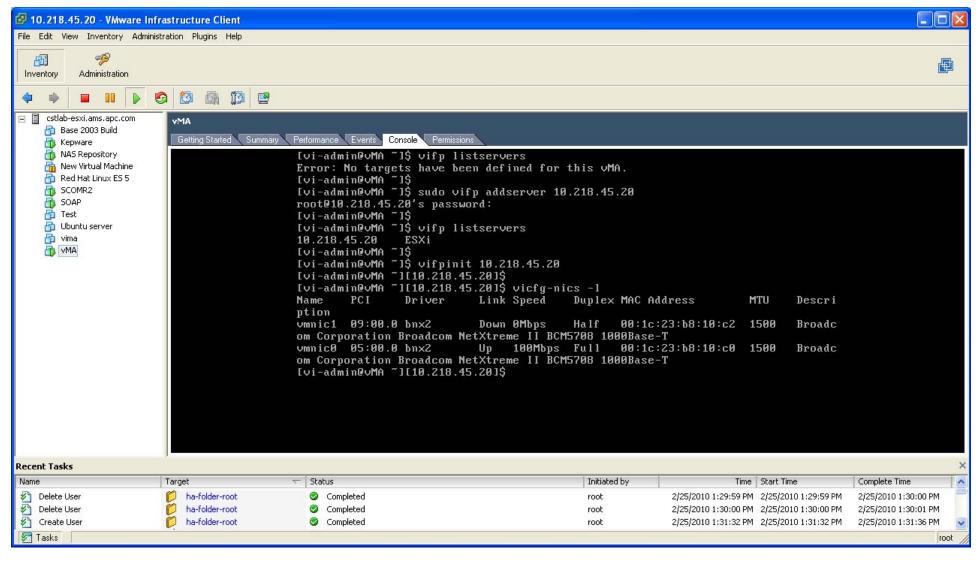




To manually add the host server as first check to be sure the server is not already in the server list vifp listservers

If the server is not in the list add the server to the list sudo vifp addserver 10.218.45.20 Verify the server has been added vifp listservers





Next you need to add the server to the fasspass list vifpinit 10.218.45.20

To verify there is communications between the cleint and the host Vicfg-nics –I (lower case letter I) Should display a lst of the host NICs.

