Installing Software Packages

Installing Perl

```
# yum install perl
```

Installing Nano (Text Editor)

```
# yum install nano
```

Installing VMware Tools

Yum Method

Yum is the package manager used to install, remove and update software for linux distributions based on Red Hat, like Centos and Fedora.
It allows an easy management of installations and most of all updates, since by using **yum upgrade** we can check our local software lists against the available public repositories, check for new versions, and update the easily.

However, usually CentOS virtual machines have their VMware tools installed via the local binaries available from vSphere. It's possible to configure Centos to install VMware Tools via yum.

First of all, we need to add the VMware repository. To do so, we create the file **/etc/yum.repos.d/vmware.repo** and we place this text in it:

```
# nano /etc/yum.repos.d/vmware.repo
```

If you use Putty can can copy the following text and paste it using Right Click on your mouse.

However I have noticed that if you choose to copy and paste it. For some reason on Line 2:

```
name=VMware Tools for Red Hat Enterprise Linux $releasever – $basearch shows up as name=VMware Tools
for Red Hat Enterprise Linux $releasever . $basearch
```

```
Make sure you change the . to a -
```

```
[vmware-tools]
name=VMware Tools for Red Hat Enterprise Linux $releasever – $basearch
baseurl=http://packages.vmware.com/tools/esx/latest/rhel6/$basearch
enabled=1
gpgcheck=1
gpgkey=http://packages.vmware.com/tools/VMWARE-PACKAGING-GPG-KEY.pub
```

To write out the newly created file press Ctrl-O

Then Ctrl-X to exit nano

We can now install VMware tools via yum:

```
yum install vmware-tools-esx-nox
```

In the first run, we will be asked to import the public key, and we have to answer **y**

After the install, it can happen the installer does not configure the daemon for automatic start. If we execute:

```
chkconfig --list
```

and we do not see vmware-tools in the list, we need to configure the auto-start. First of all we check if the startup script is present:

```
ll /etc/init.d/vmware-tools
```

If the script is there, we add it to the autostart list using these two commands, one after the other:

```
chkconfig --add vmware-tools
chkconfig vmware-tools on
```

We can finally start the daemon:

```
/etc/init.d/vmware-tools start
```

TAR Method

If you installed from the CentOS minimal build: You will need to install Perl in-order to install VMware tools.

1. In Sphere Client: Guest > Install/update VMware Tools
2. On the VM console in command line, being a server I do not have a GUI installed:
3. mkdir /cdrom, or anyother mount point you like
4. mount the vitural cdrom from step 1; mount /dev/cdrom /cdrom
5. cd /tmp
6. tar -xvf /cdrom/VMwareTools (tab to auto-complete)
7. cd vmware (tab to auto-complete)
8. ./vmware-install.pl; accept defaults, you might have to install peral as well
9. umount /cdrom
10. In Vsphere Client: Guest > Install/upVMware Tools > OK
11. To confirm the install; in the client > VM Summary tab and look for OK next to VMWare Tools
12. Restart VM

Uninstall VMware Tools (TAR Method)

If you already have VMware tools installed via the .tar file. We will need to remove them using **/usr/bin/vmware/vmware-uninstall-tools.pl**

```
# /usr/bin/vmware-uninstall-tools.pl
```

CD Image Method (Mount tools installer)

VMware Tools is a group of utilities that enhances the overall performance of the virtual machine's guest operating system (OS) and improves management of the virtual machine (VM). This is one of important components in order to provide perfect VM OS. Without the VMware Tools, guest OS performance will lacks some of the important functionality. Please follow below steps to install the VMware Tools on CentOS 6.3:

Install prerequisites :

```
[root@centos63 ~]# yum install perl gcc make kernel-headers kernel-devel -y
```

2. Right click on the VM, goto Guest, Install/Upgrade VMware tools.

3. Mount VMware-tool installer :

```
[root@centos63 ~]# mount /dev/cdrom /mnt
mount: block device /dev/sr0 is write-protected, mounting read-only
```

4. Extract and install :

```
[root@centos63 ~]# cd /mnt
[root@centos63 mnt]# cp VMwareTools-2.0.0-122956.tar.gz /tmp
[root@centos63 mnt]# cd /tmp
[root@centos63 tmp]# umount /mnt
[root@centos63 tmp]# tar xzvf VMwareTools-2.0.0-122956.tar.gz
[root@centos63 tmp]# cd vmware-tools-distrib
[root@centos63 vmware-tools-distrib]# ./vmware-install.pl
```

During the installation wizard, just press enter for default selection. For certain cases, you will get stuck on the following :

```
..
..
..
..
Stopping VMware Tools services in the virtual machine:
    Guest operating system daemon:                      [  OK  ]
None of the pre-built vmmemctl modules for VMware Tools is suitable for your
running kernel.  Do you want this program to try to build the vmmemctl module
for your system (you need to have a C compiler installed on your system)?
[yes]

Using compiler "/usr/bin/gcc". Use environment variable CC to override.

What is the location of the directory of C header files that match your running
kernel? [/usr/src/linux/include]
```

Solution :

What you can do is perform kernel updates, then reboot and finally re-run the VMware-tools installation script.

Steps
1. Perform update to kernel :

```
[root@centos63 vmware-tools-distrib]# yum update kernel -y
Loaded plugins: fastestmirror, presto
Loading mirror speeds from cached hostfile
 * base: mirrors.hostemo.com
 * extras: mirrors.hostemo.com
 * updates: mirrors.hostemo.com
file:///mnt/repodata/repomd.xml: [Errno 14] Could not open/read file:///mnt/repodata/repomd.xml
Trying other mirror.
Setting up Update Process
Resolving Dependencies
--> Running transaction check
---> Package kernel.i686 0:2.6.32-279.1.1.el6 will be installed
--> Processing Dependency: kernel-firmware >= 2.6.32-279.1.1.el6 for package: kernel-2.6.32-
279.1.1.el6.i686
--> Running transaction check
```

```
    ---> Package kernel-firmware.noarch 0:2.6.32-279.el6 will be updated
    ---> Package kernel-firmware.noarch 0:2.6.32-279.1.1.el6 will be an update
    --> Finished Dependency Resolution

    Dependencies Resolved

    ================================================================================
     Package                   Arch          Version                   Repository        Size
    ================================================================================
    Installing:
     kernel                    i686          2.6.32-279.1.1.el6        updates           23 M
    Updating for dependencies:
     kernel-firmware           noarch        2.6.32-279.1.1.el6        updates          8.7 M

    Transaction Summary
    ================================================================================
    Install       1 Package(s)
    Upgrade       1 Package(s)

    Total download size: 32 M
    Downloading Packages:
    Setting up and reading Presto delta metadata
    updates/prestodelta                                                | 41 kB     00:00
    Processing delta metadata
    Download delta size: 6.8 M
    (1/2): kernel-2.6.32-279.el6_2.6.32-279.1.1.el6.i686.drpm          | 5.6 MB    00:49
    (2/2): kernel-firmware-2.6.32-279.el6_2.6.32-279.1.1.el6.noarch.drpm | 1.2 MB  00:11
    Finishing rebuild of rpms, from deltarpms
                                                                       | 32 MB     00:20
    Presto reduced the update size by 79% (from 32 M to 6.8 M).
    Running rpm_check_debug
    Running Transaction Test
    Transaction Test Succeeded
    Running Transaction
      Updating   : kernel-firmware-2.6.32-279.1.1.el6.noarch                           1/3
      Installing : kernel-2.6.32-279.1.1.el6.i686                                      2/3
      Cleanup    : kernel-firmware-2.6.32-279.el6.noarch                               3/3
      Verifying  : kernel-firmware-2.6.32-279.1.1.el6.noarch                           1/3
      Verifying  : kernel-2.6.32-279.1.1.el6.i686                                      2/3
      Verifying  : kernel-firmware-2.6.32-279.el6.noarch                               3/3

    Installed:
      kernel.i686 0:2.6.32-279.1.1.el6

    Dependency Updated:
      kernel-firmware.noarch 0:2.6.32-279.1.1.el6
```

Complete!

2. Reboot the CentOS 6.3

3. Re-run VMware-Tools installation :

```
[root@centos63 vmware-tools-distrib]# ./vmware-install.pl
A previous installation of VMware Tools has been detected.

The previous installation was made by the tar installer (version 4).

Keeping the tar4 installer database format.

You have a version of VMware Tools installed.  Continuing this install will
first uninstall the currently installed version.  Do you wish to continue?
(yes/no) [yes]

Uninstalling the tar installation of VMware Tools.

Stopping services for VMware Tools

Stopping VMware Tools services in the virtual machine:
```

```
   Guest operating system daemon:                        [  OK  ]
```

File /usr/lib/vmware-tools/lib32/libconf/etc/pango/pangorc is backed up to
/usr/lib/vmware-tools/lib32/libconf/etc/pango/pangorc.old.2.

This program previously created the file
/usr/lib/vmware-tools/libconf/etc/gtk-2.0/gtk.immodules, and was about to
remove it. Somebody else apparently did it already.

File /usr/lib/vmware-tools/lib32/libconf/etc/pango/pangox.aliases is backed up
to /usr/lib/vmware-tools/lib32/libconf/etc/pango/pangox.aliases.old.2.

File /usr/lib/vmware-tools/lib32/libconf/etc/gtk-2.0/gdk-pixbuf.loaders is
backed up to
/usr/lib/vmware-tools/lib32/libconf/etc/gtk-2.0/gdk-pixbuf.loaders.old.2.

This program previously created the file
/usr/lib/vmware-tools/libconf/etc/pango/pangorc, and was about to remove it.
Somebody else apparently did it already.

This program previously created the file
/usr/lib/vmware-tools/libconf/etc/pango/pangox.aliases, and was about to remove
it. Somebody else apparently did it already.

This program previously created the file
/usr/lib/vmware-tools/lib32/libconf/etc/pango/pango.modules, and was about to
remove it. Somebody else apparently did it already.

This program previously created the file
/usr/lib/vmware-tools/libconf/etc/gtk-2.0/gdk-pixbuf.loaders, and was about to
remove it. Somebody else apparently did it already.

File /usr/lib/vmware-tools/lib32/libconf/etc/gtk-2.0/gtk.immodules is backed up
to /usr/lib/vmware-tools/lib32/libconf/etc/gtk-2.0/gtk.immodules.old.2.

The removal of VMware Tools 2.0.0 build-122956 for Linux completed
successfully.

Installing VMware Tools.

In which directory do you want to install the binary files?
[/usr/bin]

What is the directory that contains the init directories (rc0.d/ to rc6.d/)?
[/etc/rc.d]

What is the directory that contains the init scripts?
[/etc/rc.d/init.d]

In which directory do you want to install the daemon files?
[/usr/sbin]

In which directory do you want to install the library files?
[/usr/lib/vmware-tools]

In which directory do you want to install the documentation files?
[/usr/share/doc/vmware-tools]
The path "/usr/share/doc/vmware-tools" does not exist currently. This program
is going to create it, including needed parent directories. Is this what you
want? [yes]

The installation of VMware Tools 2.0.0 build-122956 for Linux completed
successfully. You can decide to remove this software from your system at any
time by invoking the following command: "/usr/bin/vmware-uninstall-tools.pl".

Before running VMware Tools for the first time, you need to configure it by
invoking the following command: "/usr/bin/vmware-config-tools.pl". Do you want
this program to invoke the command for you now? [yes]

It looks like you are trying to run this program in a remote session. This

```
program will temporarily shut down your network connection, so you should only
run it from a local console session. Are you SURE you want to continue?
[no] yes


Stopping VMware Tools services in the virtual machine:
    Guest operating system daemon:                         [  OK  ]
None of the pre-built vmmemctl modules for VMware Tools is suitable for your
running kernel.  Do you want this program to try to build the vmmemctl module
for your system (you need to have a C compiler installed on your system)?
[yes]


Using compiler "/usr/bin/gcc". Use environment variable CC to override.

What is the location of the directory of C header files that match your running
kernel?
[/lib/modules/2.6.32-279.1.1.el6.i686/build/include]


Extracting the sources of the vmmemctl module.


Building the vmmemctl module.


Using 2.6.x kernel build system.
make: Entering directory `/tmp/vmware-config0/vmmemctl-only'
make -C /lib/modules/2.6.32-279.1.1.el6.i686/build/include/.. SUBDIRS=$PWD SRCROOT=$PWD/. modules
make[1]: Entering directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
  CC [M]  /tmp/vmware-config0/vmmemctl-only/backdoorGcc32.o
In file included from /tmp/vmware-config0/vmmemctl-only/backdoor.h:29,
                 from /tmp/vmware-config0/vmmemctl-only/backdoorGcc32.c:45:
/tmp/vmware-config0/vmmemctl-only/vm_basic_types.h:108:7: warning: "__FreeBSD__" is not defined
  CC [M]  /tmp/vmware-config0/vmmemctl-only/os.o
In file included from /tmp/vmware-config0/vmmemctl-only/os.c:51:
/tmp/vmware-config0/vmmemctl-only/compat_wait.h:78: error: conflicting types for âpoll_initwaitâ
include/linux/poll.h:70: note: previous declaration of âpoll_initwaitâ was here
make[2]: *** [/tmp/vmware-config0/vmmemctl-only/os.o] Error 1
make[1]: *** [_module_/tmp/vmware-config0/vmmemctl-only] Error 2
make[1]: Leaving directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
make: *** [vmmemctl.ko] Error 2
make: Leaving directory `/tmp/vmware-config0/vmmemctl-only'
Unable to build the vmmemctl module.

The memory manager driver (vmmemctl module) is used by VMware host software to
efficiently reclaim memory from a virtual machine.
If the driver is not available, VMware host software may instead need to swap
guest memory to disk, which may reduce performance.
The rest of the software provided by VMware Tools is designed to work
independently of this feature.
If you want the memory management feature, you can install the driver by
running vmware-config-tools.pl again after making sure that gcc, binutils, make
and the kernel sources for your running kernel are installed on your machine.
These packages are available on your distribution's installation CD.
[ Press Enter key to continue ]

None of the pre-built vmxnet modules for VMware Tools is suitable for your
running kernel.  Do you want this program to try to build the vmxnet module for
your system (you need to have a C compiler installed on your system)? [yes]

Extracting the sources of the vmxnet module.

Building the vmxnet module.

Using 2.6.x kernel build system.
make: Entering directory `/tmp/vmware-config1/vmxnet-only'
make -C /lib/modules/2.6.32-279.1.1.el6.i686/build/include/.. SUBDIRS=$PWD SRCROOT=$PWD/. modules
make[1]: Entering directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
  CC [M]  /tmp/vmware-config1/vmxnet-only/vmxnet.o
In file included from /tmp/vmware-config1/vmxnet-only/vmxnet.c:48:
/tmp/vmware-config1/vmxnet-only/vm_basic_types.h:108:7: warning: "__FreeBSD__" is not defined
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_change_mtuâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:193: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_get_drvinfoâ:
```

```
/tmp/vmware-config1/vmxnet-only/vmxnet.c:267: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_set_tsoâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:305: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_link_checkâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:659: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_probe_deviceâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:841: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:993: warning: cast to pointer from integer of different
size
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1058: error: âstruct net_deviceâ has no member named âopenâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1059: error: âstruct net_deviceâ has no member named
âhard_start_xmitâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1060: error: âstruct net_deviceâ has no member named âstopâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1061: error: âstruct net_deviceâ has no member named
âget_statsâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1062: error: âstruct net_deviceâ has no member named
âset_multicast_listâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1064: error: âstruct net_deviceâ has no member named
âchange_mtuâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1067: error: âstruct net_deviceâ has no member named
âtx_timeoutâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1071: error: âstruct net_deviceâ has no member named
âpoll_controllerâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1075: error: âstruct net_deviceâ has no member named
âset_mac_addressâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_remove_deviceâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1142: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_init_ringâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1213: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_openâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1338: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âcheck_tx_queueâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1594: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_txâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:1658: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_rxâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2057: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_interruptâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2232: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_closeâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2314: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_load_multicastâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2404: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_set_multicast_listâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2465: error: âstruct net_deviceâ has no member named âprivâ
/tmp/vmware-config1/vmxnet-only/vmxnet.c: In function âvmxnet_get_statsâ:
/tmp/vmware-config1/vmxnet-only/vmxnet.c:2545: error: âstruct net_deviceâ has no member named âprivâ
make[2]: *** [/tmp/vmware-config1/vmxnet-only/vmxnet.o] Error 1
make[1]: *** [_module_/tmp/vmware-config1/vmxnet-only] Error 2
make[1]: Leaving directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
make: *** [vmxnet.ko] Error 2
make: Leaving directory `/tmp/vmware-config1/vmxnet-only'
Unable to build the vmxnet module.

The fast network device driver (vmxnet module) is used only for our fast
networking interface. The rest of the software provided by VMware Tools is
designed to work independently of this feature.
If you wish to have the fast network driver enabled, you can install the driver
by running vmware-config-tools.pl again after making sure that gcc, binutils,
make and the kernel sources for your running kernel are installed on your
machine. These packages are available on your distribution's installation CD.
[ Press Enter key to continue ]

None of the pre-built vmblock modules for VMware Tools is suitable for your
running kernel.  Do you want this program to try to build the vmblock module
for your system (you need to have a C compiler installed on your system)?
[yes]

Extracting the sources of the vmblock module.

Building the vmblock module.
```

```
Using 2.6.x kernel build system.
make: Entering directory `/tmp/vmware-config2/vmblock-only'
make -C /lib/modules/2.6.32-279.1.1.el6.i686/build/include/.. SUBDIRS=$PWD SRCROOT=$PWD/. modules
make[1]: Entering directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
  CC [M]  /tmp/vmware-config2/vmblock-only/linux/block.o
In file included from /tmp/vmware-config2/vmblock-only/linux/os.h:35,
                 from /tmp/vmware-config2/vmblock-only/linux/block.c:26:
/tmp/vmware-config2/vmblock-only/./include/compat_wait.h:78: error: conflicting types for
âpoll_initwaitâ
include/linux/poll.h:70: note: previous declaration of âpoll_initwaitâ was here
In file included from /tmp/vmware-config2/vmblock-only/linux/vmblockInt.h:40,
                 from /tmp/vmware-config2/vmblock-only/linux/block.c:29:
/tmp/vmware-config2/vmblock-only/./include/vm_basic_types.h:108:7: warning: "__FreeBSD__" is not
defined
make[2]: *** [/tmp/vmware-config2/vmblock-only/linux/block.o] Error 1
make[1]: *** [_module_/tmp/vmware-config2/vmblock-only] Error 2
make[1]: Leaving directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
make: *** [vmblock.ko] Error 2
make: Leaving directory `/tmp/vmware-config2/vmblock-only'
Unable to build the vmblock module.

The vmblock module enables dragging or copying files from within a host and
dropping or pasting them onto your guest (host to guest drag and drop and file
copy/paste).  The rest of the software provided by VMware Tools is designed to
work independently of this feature (including guest to host drag and drop and
file copy/paste).

If you would like the host to guest drag and drop and file copy/paste features,
you can install the driver by running vmware-config-tools.pl again after making
sure that gcc, binutils, make and the kernel sources for your running kernel
are installed on your machine. These packages are available on your
distribution's installation CD.
[ Press Enter key to continue ]

[EXPERIMENTAL] The VMware FileSystem Sync Driver (vmsync) is a new feature that
creates backups of virtual machines. Please refer to the VMware Knowledge Base
for more details on this capability. Do you wish to enable this feature?
[no]

None of the pre-built vmci modules for VMware Tools is suitable for your
running kernel.  Do you want this program to try to build the vmci module for
your system (you need to have a C compiler installed on your system)? [yes]

Extracting the sources of the vmci module.

Building the vmci module.

Using 2.6.x kernel build system.
make: Entering directory `/tmp/vmware-config3/vmci-only'
make -C /lib/modules/2.6.32-279.1.1.el6.i686/build/include/.. SUBDIRS=$PWD SRCROOT=$PWD/. modules
make[1]: Entering directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
  CC [M]  /tmp/vmware-config3/vmci-only/kernelStubsLinux.o
In file included from /tmp/vmware-config3/vmci-only/kernelStubs.h:35,
                 from /tmp/vmware-config3/vmci-only/kernelStubsLinux.c:28:
/tmp/vmware-config3/vmci-only/vm_basic_types.h:108:7: warning: "__FreeBSD__" is not defined
  CC [M]  /tmp/vmware-config3/vmci-only/vmciDatagram.o
In file included from /tmp/vmware-config3/vmci-only/vmciDatagram.c:42:
/tmp/vmware-config3/vmci-only/vm_basic_types.h:108:7: warning: "__FreeBSD__" is not defined
In file included from /tmp/vmware-config3/vmci-only/vmci_kernel_if.h:41,
                 from /tmp/vmware-config3/vmci-only/vmciDatagram.c:45:
/tmp/vmware-config3/vmci-only/compat_wait.h:78: error: conflicting types for âpoll_initwaitâ
include/linux/poll.h:70: note: previous declaration of âpoll_initwaitâ was here
In file included from /tmp/vmware-config3/vmci-only/vmci_queue_pair.h:36,
                 from /tmp/vmware-config3/vmci-only/vmciGuestKernelAPI.h:43,
                 from /tmp/vmware-config3/vmci-only/vmciUtil.h:33,
                 from /tmp/vmware-config3/vmci-only/vmciDatagram.c:48:
/tmp/vmware-config3/vmci-only/vm_atomic.h:329:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:333:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:401:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:407:7: warning: "_MSC_VER" is not defined
```

```
/tmp/vmware-config3/vmci-only/vm_atomic.h:506:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:595:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:684:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:773:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:775:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:860:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:862:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:945:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:947:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1028:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1030:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1223:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1227:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1536:7: warning: "_MSC_VER" is not defined
/tmp/vmware-config3/vmci-only/vm_atomic.h:1663:7: warning: "_MSC_VER" is not defined
make[2]: *** [/tmp/vmware-config3/vmci-only/vmciDatagram.o] Error 1
make[1]: *** [_module_/tmp/vmware-config3/vmci-only] Error 2
make[1]: Leaving directory `/usr/src/kernels/2.6.32-279.1.1.el6.i686'
make: *** [vmci.ko] Error 2
make: Leaving directory `/tmp/vmware-config3/vmci-only'
Unable to build the vmci module.

The communication service is used in addition to the standard communication
between the guest and the host.  The rest of the software provided by VMware
Tools is designed to work independently of this feature.
If you wish to have the VMCI feature, you can install the driver by running
vmware-config-tools.pl again after making sure that gcc, binutils, make and the
kernel sources for your running kernel are installed on your machine. These
packages are available on your distribution's installation CD.
[ Press Enter key to continue ]

No X install found.

   Checking acpi hot plug                                   [  OK  ]
Starting VMware Tools services in the virtual machine:
   Switching to guest configuration:                        [  OK  ]
   Guest operating system daemon:                           [  OK  ]

The configuration of VMware Tools 2.0.0 build-122956 for Linux for this running
kernel completed successfully.

You must restart your X session before any mouse or graphics changes take
effect.

You can now run VMware Tools by invoking the following command:
"/usr/bin/vmware-toolbox" during an X server session.

You will need to either manually start /usr/bin/vmware-user or log out and log
back in to this desktop session to obtain the following features: guest
resolution fit, drag and drop, and file and text copy/paste.  vmware-user is
configured to automatically start at a graphical login, but that won't take
effect until the next login.

Enjoy,

--the VMware team
```

Set up LDAP access

First we have to install the pam_ldap package

```
yum install pam_ldap nss-pam-ldapd
```

Next we need to conifigure Authentication

```
authconfig-tui
```

Uncheck everything but:

Use MD5 Passwords
Use Shadow Passwords
Use LDAP Authentication

Choose Next

Enter Server: (for security reasons this is no displayed here)
Base DN: ou=people,dc=syr,dc=edu

Once Authentication is configured we need to add users we want to allow access to

```
useradd thiernetid
```

Adding users to the Wheel group

```
usermod -a -G wheel thiernetid
```

Giving the Wheel group access to run commands we will need sudo for this

```
yum install sudo
```

Once sudo is install we can now edit the /etc/sudoers file to allow wheel group sudo access

```
nano /etc/sudoers

## Uncomment to allow people in the wheel group to run all commands
# %wheel  ALL=(ALL)       ALL

## So it will look like:
%wheel  ALL=(ALL)       ALL

Ctrl O to write out the file
Ctrl X to exit
```