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SysAdmin Tricks

Serial console w/ ESXi, USB, OpenBSD, tmux & tip
Michael Erdely <mike@erdelynet.com>

Four Port USB to Serial Cable

- Order an OpenBSD compatible USB to Serial Cable
- Four Port Cable from Amazon: \$44.49
- <http://goo.gl/JdH54>



Null Modem Connectors

- The Four Port USB to Serial Adapter was not a null modem cable.
- Ordered from Amazon @ \$5.22 each
- <http://goo.gl/P0AmB>



Add USB Controller to VM

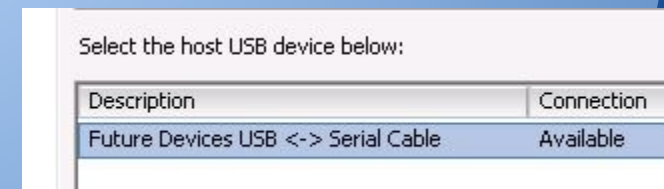


In vSphere, edit the settings of the VM and add a USB Controller.

This will allow you to attach USB devices connected to the ESXi server to your VM.

Add the USB Device Itself

- Add more hardware
- Choose "USB Device"
- Select the USB to Serial cable
- Boot your VM



Configure remote(5)

- Look at `dmesg(1)` to see new devices:

```
uftdi0 at uhub0 port 1 configuration 1 interface 0
    "UTEK USB <-> Serial Cable" rev 2.00/8.00 addr 2
ucom0 at uftdi0 portno 1
...
```

- The `ucom0` device maps to `cuaU0/ttyU0`
- Add to `/etc/remote`:

```
serialhost-1:\
:dv=/dev/cuaU0:br#9600:tc=direct:tc=unixhost:
```
- Serial device can now be addressed as "serialhost-1"
- Add users to dialer group in `/etc/group`

Optional: Create shared user

- If more than one administrator needs to manage these serial connections, a shared user can be used.
- Run: `useradd -G dialer -m serial`
- Copy SSH public key to
`~serial/.ssh/authorized_keys`

Configure tmux(1)

- Create `.tmux.conf` to load tip sessions:

```
new-session -d -s tip -n  
serialhost-1 "tip serialhost-1"
```

```
set-window-option -t tip:0  
monitor-activity
```

```
new-window -d -n serialhost-2 "tip  
serialhost-2"
```

```
set-window-option -t tip:1  
monitor-activity
```


Configure tmux(1)

- Create `.tmux.conf` to load tip sessions:

```
new-session -d -s tip -n serialhost-1 "tip serialhost-1"  
set-window-option -t tip:0 monitor-activity  
new-window -d -n serialhost-2 "tip serialhost-2"  
set-window-option -t tip:1 monitor-activity
```

- `new-session -d` (new -d): starts new tmux session in the background with window named "serialhost-1" running tip
- `new-window -d` (neww -d): starts new tmux window in the background
- `set-window-option` (setw): monitors for activity in the window

Configure crontab(5)

- cron(8) can be used to start tmux session upon reboot:

```
@reboot env SHELL=/bin/ksh /usr/bin/tmux start
```

- "> /dev/null 2>&1" can be added at the end to suppress output.

Connect to tmux

- SSH to the host system
- Run: `tmux attach`
(or `tmux a -t tip` if running multiple sessions)
- If using a shared user, run:
`sudo -u serial tip a`

Screen shot!

```
OpenBSD/i386 (chainmail-1.messagesystems.com) (tty00)
login: █
[tip] 0:chainmail-1* 1:chainmail-2 2:onager-1#- 3:onager-2
```

Active tmux window

Window with Activity

Questions

