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SysAdmin Tricks

Serial console w/ ESXi, USB, OpenBSD, tmux & tip
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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
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-window -d -n serialhost-2 "tip serialhost-2"
  set-window-option -t tip:0 monitor-activity
  ```

  ```
  new-window -d -n serialhost-1 "tip serialhost-1"
  set-window-option -t tip:0 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:

  ```bash
  @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!

Active tmux window

Window with Activity