

DNS/DNSSEC Workshop

A few UNIX basics

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Our chosen platform

- FreeBSD 9.x 64 bit
 - UNIX OS, BSD variant
 - 30 year history
 - no GUI, we administer using SSH
- There are other platforms you could use:
 - Ubuntu, Debian, CentOS/RedHat, ...
- This isn't a UNIX admin course
 - Worksheets are mostly step-by-step
 - Please help each other or ask us for help



Some things we'll need to do...

Be *root* when necessary: `sudo <cmd>`

Install packages:

```
pkg add <package_name>
```

Edit files:

```
sudo ee /etc/motd
```

```
sudo vi /etc/motd
```

Installed editors include ee, jed, joe and vi*



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vi editor

- The default editor for all UNIX systems
 - Can be difficult to use
 - If you know it and prefer to use vi please do
- We provide a PDF reference in the materials on the workshop wiki



Other editors

- ee
 - ESC brings up the editor menu
 - Cursors work as you expect
- jed
 - F10 brings up the editor menu
 - Cursors work as you expect
- joe
 - Ctrl-k-h brings up the editor menu
 - Ctrl-c aborts
 - Cursors work as you expect



Other tools

Terminate foreground program: CTRL+C

```
$ ping yahoo.com
PING yahoo.com (67.195.160.76): 56 data bytes
64 bytes from 67.195.160.76: icmp_seq=0 ttl=45 time=221.053 ms
64 bytes from 67.195.160.76: icmp_seq=1 ttl=45 time=224.145 ms
^C
```

← here press CTRL + C

Browse the filesystem:

```
cd /etc
ls
ls -l
```

Rename and delete files

```
mv file file.bak
rm file.bak
```

Starting and stopping services

- Standard method

```
sudo service named [stop|start|  
restart]
```



Check for a process by name

- `ps auxwww | grep http`

```
gollum# ps auxwww | grep http
root      2694  0.0  0.2 147672  6592 ??  Ss   5:32AM  0:00.03 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2695  0.0  0.2 147672  6900 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2696  0.0  0.2 147672  6900 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2697  0.0  0.2 147672  6588 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2698  0.0  0.2 147672  6588 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2699  0.0  0.2 147672  6588 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2700  0.0  0.2 147672  6908 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2701  0.0  0.2 147672  6780 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2702  0.0  0.2 147672  6704 ??  I    5:32AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
www       2749  0.0  0.2 147672  6896 ??  I    5:34AM  0:00.00 /usr/local/sbin/httpd -DNOHTTPACCEPT
root      4072  0.0  0.0  10056  1088 v0  I+   5:40AM  0:00.00 tail -f /var/log/httpd-access.log
root      4091  0.0  0.0  16424   1472  2  S+   5:44AM  0:00.00 grep http
```



Viewing files

- Sometimes files are viewed through a pager program (“more”, “less”, “cat”).
- Examples:
 - `cat /etc/motd`
 - `less /usr/local/etc/nagios/nagios.cfg-sample`
 - Space bar for next page
 - “b” to go backwards
 - “q” to quit
 - “/” and a pattern (/text) to search



Troubleshooting: Logfiles

- Log files are critical to solve problems. They reside (largely) in `/var/log/`
- Some popular log files include:
 - `/var/log/messages`
 - `/var/log/httpd-error.log`
 - `/var/log/maillog`
 - `/etc/namedb/log/*` (this class only)
- To view the last entry in a log file:
`tail /var/log/messages`
- To view new entries as they happen:
`tail -f /var/log/messages`



Connecting via SSH to machines

- Login to your virtual machine using ssh
- On Windows use putty.exe - download from:
<http://the.earth.li/~sgtatham/putty/latest/x86/putty.exe>
or
<http://noc.ws.nsrc.org/>
- Connect as user “adm” to:
auth1.grpX => 10.10.X.1
auth2.grpX => 10.10.X.2
resolv.grpX => 10.10.X.3
- where “X” is your group number.
- The password is given in class.



Logging in

- Linux/MacOS
 - First, open a terminal, then:
 - `ssh adm@auth1.grpX.dns.nsrc.org`
- Windows
 - Putty (or other SSH program) connect to:
 - `auth1.grpX.dns.nsrc.org`
 1. As user "adm"
 2. Accept the key
 3. Repeat for `resolv.grpX` and `auth2.grpX` (if configured)
- "X" is the number of your group



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After you are logged in...

- Experiment with the ee editor
 - ... or vi or joe or jed if you prefer
- Edit the “message of the day” to identify your virtual machine as yours:
 - `sudo ee /etc/motd`
- Log out and log in again to see your changes. Repeat this for each virtual machine...



Questions?

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