A few Linux Basics

Network Startup Resource Center
www.ws.nsrc.org | nsrc.org

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Our Chosen Platform

Ubuntu Linux

- LTS = Long Term Support
- no GUI, we administer using ssh
- Ubuntu is Debian underneath

- There are other platforms you could use:
  - CentOS / RedHat, FreeBSD, …

- This isn't a UNIX admin course, but some knowledge is necessary:
  - Worksheets are mostly step-by-step
  - Please help each other or ask us for help

You need to be able to...

- Be *root* when necessary: `sudo <cmd>`
- Install packages

  `$ sudo apt-get install <pkg>`
- Edit files

  `$ sudo nano /etc/mailname`

  `$ sudo vi /etc/mailname`
- Check for the process "apache"

  `$ ps auxwww | grep apache`
- Start/Stop/Status of services

  `$ systemctl [start|stop|status] <NAME>`

nano editor

- Ctrl-x, "n" to quit without saving
- Ctrl-x, "y" to quit and save *(hit Enter to accept filename)*
- Ctrl-g for help
- Ctrl-w for searching
- Cursors work as you expect

vi editor

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

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Other tips

- Terminate foreground program:
  - `ctrl-c`
- Browse the filesystem:
  - `cd /etc`
  - `ls`
  - `ls -l`
- Delete and rename files
  - `mv file file.bak`
  - `rm file.bak`

Viewing files

Sometimes files are viewed through a pager program ("more", "less", "cat"). Example:

- `man sudo`
- Space bar for next page
- "b" to go backwards
- "/" and a pattern (/text) to search
- "n" to find next match
- "N" to find previous match
- "q" to quit

Using ssh

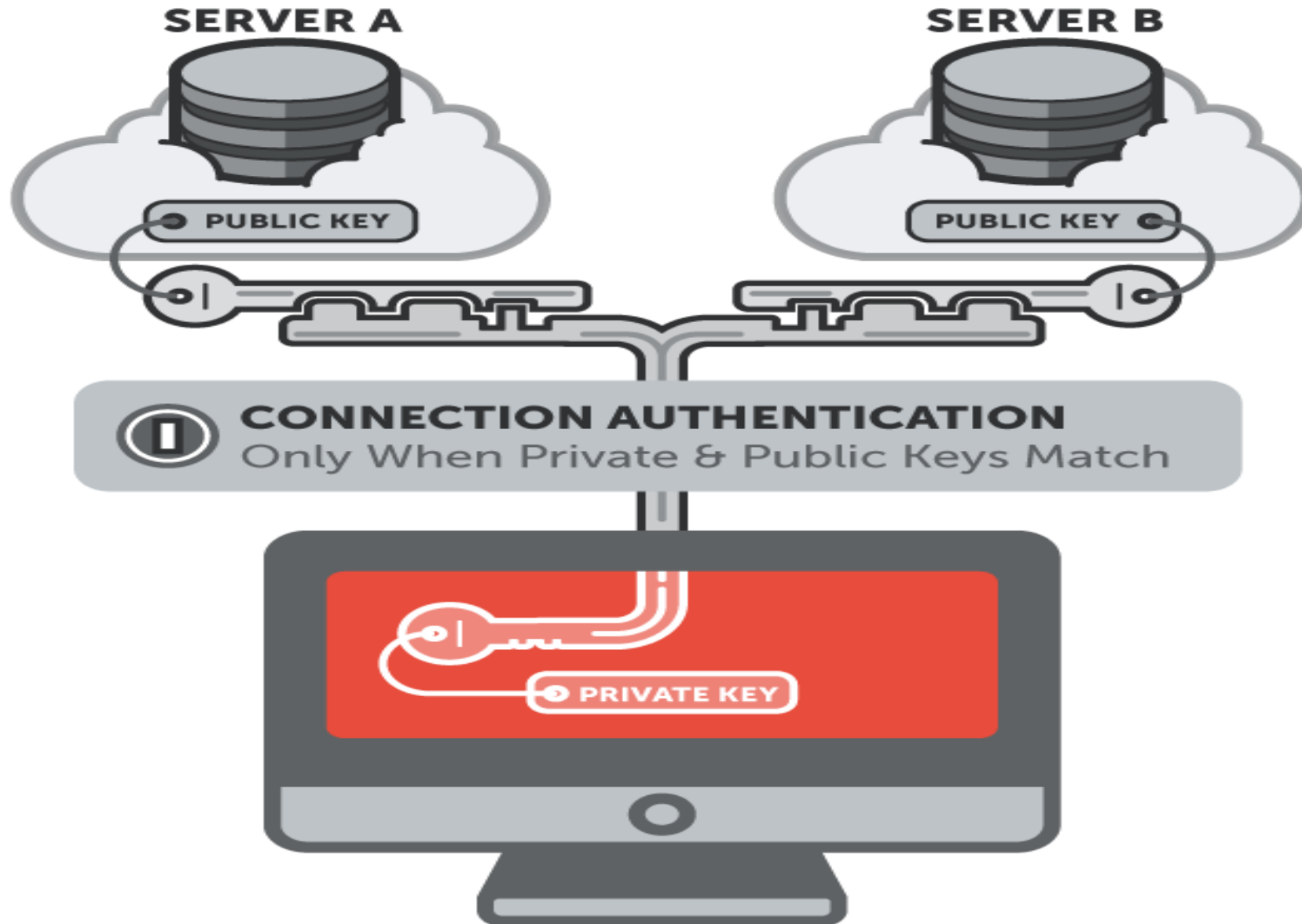*Configuring and using ssh incorrectly will guarantee a security compromise…*

<u>The wrong way:</u>
- Using simple passwords for users
- Allowing root to login with a password
- In reality – allowing *any* login with a password

<u>The right way:</u>
- Disable all password access
- Disable root access with password
- Some disable root access completely

No passwords are better

Finish host initial configuration

Now we'll do our initial host configuration, including:

- Software package database update
- nano editor software installation
- Install network time protocol service and update time
- Install mail server and utilities
- Practice using logs
- Practice using man

Questions

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