Network Clients

Web Client

- **Firefox is web browser**

- **Other web browsers**

- **Non-GUI web browsers**

- **wget**

None Gui Web Browser

- **Links**

    - **Provided by the elinks rpm**

    - **Full support for frames and ssl**

- **Examples**

    - **Links http://www.shokeenda.org**

    - **Links –dump http://www.shokeenda.org**

    - **Links –source http://www.shokeenda.org**

Wget command

- **Retrieves files via HTTP and FTP**

- **Non-interactive –useful in shell scripts**

- **Can follow links and traverse directory trees on the remote server-useful for mirroring web and FTP sites**

Emailing and Messaging

- **Evolution**

- **Other email clients**

- **Non-GUI email clients**

- **Gaim**

Evolution

- **Default email and groupware tool**

- **Provides email, calendar, tasks and contacts**

- **Can maintain multiple accounts at once**

- **Supports GnuPG encryption and signatures**

- **"Trainable" Bayesian spam filters**

- **Task/Calendar notifications in Gnome clock**

- **Can sync with many PDAs**

Configuring Evolution

- **Defining accounts**

    - **Tools ->setting -> mail accounts**

    - **Supports IMAP, pop, novell Gropware, usenet and local email accounts**

    - **MS Exchange support via plug-in**

        - **Provided by evolution-connector rpm**

        - **Install before configuring other accounts**

- **Other GUI mailThunderbird**

    - **Standalone Mozilla email clients**

- **Kmail**

KDE email client Clients

Non-GUI mail Clients

- **Mutt**

    - **Supports pop, imap, and local mailboxes**

    - **Highly configurable**

    - **Mappable hotkeys**

    - **Message threading and colorizing**

    - **GnuPG integration**

    - **Context-sensitive help with '?'**

Gaim

- **Multi-protocol instant messaging client**

- **Available in Red Hat Enterprise Linux client**

- **Supports AIM, MSN, ICQ, Yahoo, jabber, gadu-gadu, SILC, Group wise messenger, IRC and Zephyr Networks.**

- **Plugins can be used to add functionality**

OpenSSH: Secure Remote Shell

- **Secure replacement for older remote-access tools**

- **Allows authenticated, encrypted access to remote systems**

    - **Ssh [user@] hostname**

    - **Ssh [user@] hostname command**

scp: Secure File Transfer

- **Secure replacement for rcp**

- **Layered on top of ssh**

    - **Scp source destination**

    - **Remote files can be specified using:**

        - **[user@]host:/path/to/file**

    - **Use –r to enable recursion**

    - **Use –p to preserve times and permissions**

    - **Use –c to compress DataStream**

rsync: Efficient File sync

- **Efficiently copies files to or from remote sysetms**

- **Uses secure ssh connections for transport**

    - **rsync*.conf barney:/home/joe/configs/**

- **Faster than scp –copies differences in like files**

OpenSSH key-based Authentication

- **Optional, password-less, but still secure, authentication**

- **Uses two keys generated by ssh-keygen:**

    - **Private key stays on your system**

        - **Usually pass phrase-protected (recommended)**

    - **Public key is copied to destination with ssh-copy-id**

        - **Ssh-copy-id [user@]host**

OpenSSH key-based Authentication Continued

- **An authentication agent stores decrypted Private keys**

- **Thus, passphrase only needs to be entered once**
- **An agent is provided automatically in GNOME**
- **Otherwise run ssh-agent bash**
- **Keys are added to the agent with ssh-add**

FTP Clients

- **CLI: lftp**

  $ lftp ftp.exmple.com

  $ lftp -u joe ftp.example.com

  - **Automated transfers with lftpget**
- **GUI: gFTP**

  - **Applications -> internet -> gFTP**
  - **Allow drag and drop Transfers**
  - **Anonymous or authenticated access**
  - **Optional Secure transfer via ssh (sftp)**

Smbclient

- **FTP-like client to access SMB/CIFS resources**
- **Examples:**

  - **Smbclient –L server1 lists snares on server1**
  - **Smbclient –u student //server1/homes accesses a share**

File Transfer with Nautilus

- **File/connect to server**
- **Graphically browse with multiple protocols**
- **Allows drag and drop file transfers**
- **Supported connection types: FTP, SFTP, SMB, WebDAV, Secure webDAV**

- **Can also Connect via url:**

  - **File/Open Location**

Xorg Clients

- **All graphical applications are X clients**

  - **Can connect to remote X servers via tcp/ip**

  - **Data is not encrypted but can be tunneled securely over an ssh connection**

    - **Ssh –X user@hostB xterm &**

- **xterm will display on hostA's X server**

- **Transmitted data will be encrypted through the ssh connection**

Network Diagnostic Tools

- **ping**

- **traceroute**

- **host**

- **dig**

- **netstat**

- **gnome-nettool (GUI)**