

SSHFS - Simple Remote Filesystem Access

Written by Gene Cooper

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An easy way to access remote Linux filesystems from another Linux computer is to use SSHFS. It is probably easier than implementing NFS or SMB and it is far more secure as it only requires the SSH port (22) to be open.

Suse to SME Server Example (Beta) On the SME 7.x Server

Install the Remote User Access contrib:

```
yum install -y --enablerepo=smecontribs smeserver-remoteuseraccess
```

Enable the bash shell for the user to give remote access and modify the chroot as appropriate...probably /home/e-smith/files/home or /home/e-smith/files.

Create a new file /usr/local/bin/sftp-wrapper

```
vi /usr/local/bin/sftp-wrapper
```

then add:

```
#!/bin/sh
umask 002
exec /usr/libexec/sftp-server &quot;${@}&quot;
```

Set the permissions:

```
chmod 755 /usr/local/bin/sftp-wrapper
```

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On the Suse 10.1 Workstation

As root, install the sshfs and fuse rpms.

```
yast --install sshfs fuse
```

As the regular user, perform the following commands. Create a mount point to mount the server's filesystem.

```
mkdir -p ~/servername/filesystemname
```

(ex: `mkdir -p ~/linus/company`)

If an ssh key pair already exists, skip this step. Hit 'enter' when prompted for a passphrase.

```
ssh-keygen -t rsa  
cat ~/.ssh/id_rsa.pub
```

Use copy/paste to import the workstation user's public key into the server user's `authorized_keys` (keyring) using the new Server-Manager Remote User Access panel.

Add the following (plus a space) to the beginning of the new key.

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```
command="usr/local/bin/sftp-wrapper";
```

(ex: command="usr/local/bin/sftp-wrapper"; ssh-rsa ...)◆

Mount the remote filesystem.

```
su -c 'modprobe fuse' (if the new fuse kernel module is not already loaded)
sshfs username@servername:/path/to/filesystem /path/to/mountpoint
```

(ex: sshfs gcooper@linus:/home/e-smith/files/ibays/
company/files ~/linus/company)

Unmount remote filesystems.

```
fusermount -u /path/to/mountpoint
```

Mount Script

```
#!/bin/bash
# mount.sh
# Gene Cooper (gcooper AT sonoracomm.com)
# 5/31/06
# This script mounts sshfs file shares from a server.
# Install sshd on the server. Install fuse and sshfs on the workstation.
#
# install workstation user's public key to server's authorized_keys2 file
#
# set umask to 002 so files created on the server are group-writable
umask 002
#
# mount the shares to mountpoints in home directory
sshfs gcooper@sol:/home/e-smith/files/ibays/family/files ~/sol/family
```

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```
sshfs gcooper@sol:/home/e-smith/files/ibays/pub/files ~/sol/pub
sshfs gcooper@sol:/home/e-smith/files/users/gcooper/home ~/sol/home
```

Dismount Script

```
#!/bin/bash
# mount.sh
# Gene Cooper (gcooper AT sonoracomm.com)
# 5/31/06
#
# This script dismounts sshfs file shares from a server
#
# dismount the shares like this
fusermount -u ~/sol/family
fusermount -u ~/sol/pub
fusermount -u ~/sol/home
```

KDE Integration (beta)

Create startup and shutdown scripts and place them in the regular user's .kde/Autostart and .kde/shutdown directories.

```
#!/bin/bash
sshfs gcooper@linus:/home/e-smith/files/ibays/company/files ~/linus/company
```

and

```
#!/bin/bash
fusermount -u ~/linus/company
```

Gnome Integration (beta)

Within Gnome

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Desktop -> Preferences -> More Prefs -> Sessions -> Add

```
/usr/bin/sshfs -f user@host:/path /mountpoint
```

Modify the \$HOME/.Xclients-default script to unmount the filesystem upon logging out. Note that this file is rewritten when using the switchdesk utility.

```
# dismount sshfs filesystems
for p in $WMPATH ; do
[ -x $p/$WM ] && $p/$WM; fusermount -u /mountpoint; exit 0
done
```

More Info

[Here.](#) 