OpenSUSE and Kali simple NFS connection

The presentation enables OpenSUSE Linux to be an NFS server. The presentation enables NFS client on Kali. The presentation connects the OpenSUSE and Kali through NFS.

Hardware/Software in this presentation
Operating System: OpenSUSE Leap 42.2 （M State Moorhead spring 2017 version)
Operating System: Kali 2016.2 （M State Moorhead spring 2017 version）

Preuss
4/27/2017

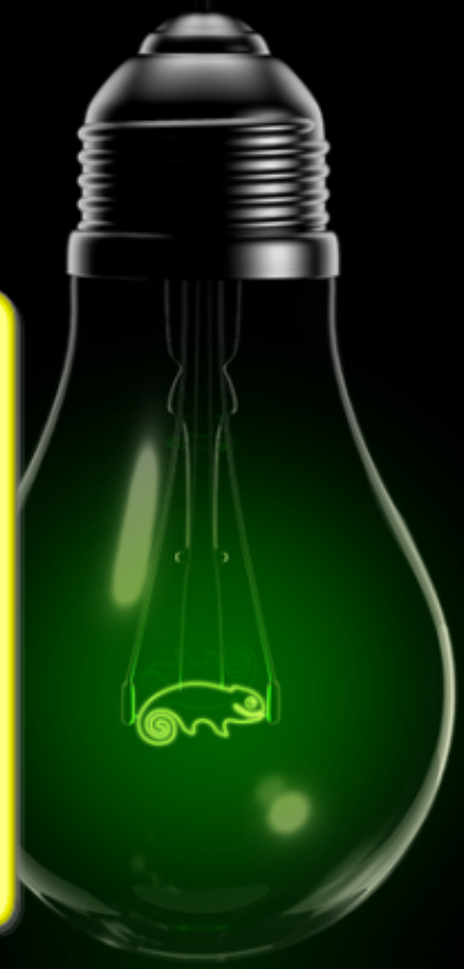
opensus-s2017a - VMware Workstation 12 Player (Non-commercial use only)

Player

Home

Trash

The presentation logs into OpenSUSE Linux.



12:34 PM

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Home

Trash

preuss — Dolphin

Find Preview Split Control

Places

Home
Network
Root
Trash

Recently Saved

Today
Yesterday
This Month
Last Month

Search For

Documents
Images
Audio Files
Videos

Devices

28.0 GiB Hard Drive
10.0 GiB Hard Drive

/home/preuss/

bin
Desktop
Documents
Downloads
example_scripts
GNUstep
Music
setup
share
Templates

The presentation creates a new folder named "share" on OpenSUSE.

share (folder)

7.7 GiB free

preuss — Dolphin

12:55 PM

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Player

Home

Trash

share — Dolphin

Find Preview Split Control

Places

Home
Network
Root
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Today
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This Month
Last Month

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Images
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Videos

Devices

28.0 GiB Hard Drive
10.0 GiB Hard Drive

/home/preuss/share/

cutecom-0.22.0.tar.gz

rhash-1.3.4-src.tar.gz

The presentation copies files into the new folder "share".

2 Files (266.2 KiB)

7.7 GiB free

share — Dolphin

12:55 PM

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Player

preuss : bash — Konsole

File Edit View Bookmarks Settings Help

```
preuss@opensuse-s2017:~> /sbin/ip a sh
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:34:61:8e brd ff:ff:ff:ff:ff:ff
    inet 192.168.241.132/24 brd 192.168.241.255 scope global eth0
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe34:618e/64 scope link
       valid_lft forever preferred_lft forever
preuss@opensuse-s2017:~>
```

The presentation gets the IP address of the OpenSUSE system.

preuss : bash

preuss — Dolphin | preuss : bash — Konsole | 12:56 PM

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Player

Home

Trash

YaST Control Center @ opensuse-s2017

Search

Software

Hardware

System

Network Services

Security and Users

Virtualization

Support

Miscellaneous

Network Services

FTP Server

HTTP Server

Hostnames

LDAP and Kerberos Client

Mail Server

NFS Client

NFS Server

Configure an NFS server

NTP Configuration

Proxy

Samba Server

VPN Gateway and Clients

iSCSI Initiator

Security and Users

The presentation opens "YaST". Under "Network Services", the presentation launches "NFS Server".

preuss — Dolphin

YaST2 - NFS Server

YaST Control Center @ opensuse-...

12:57 PM

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Player

Home

YaST2 - NFS Server

NFS Server Configuration

NFS Server

Start

Do Not Start

Firewall Settings for SuSEfirewall2

Open Port in Firewall

Firewall Details...

Firewall port is open on all interfaces

Enable NFSv4

Enable NFSv4

Enter NFSv4 domain name:

localdomain

Enable GSS Security

Help

Cancel

Back

Next

The presentation sets the "NFS Server Configuration" as shown. This is a very simple configuration. The presentation selects "Next" to continue.

preuss — Dolphin

YaST2 - NFS Server

YaST Control Center @ opensuse-...

12:57 PM

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Player

Home

YaST2 - NFS Server

Directories to Export

Directories

Select the Directory to Export

Look in: /home/preuss/share

Computer

root

Name	Size	Type	Date Modified
cutecom-0.22.0.tar.gz	22 KB	gz File	1/16/1...:44 AM
rhash-1.3.4-src.tar.gz	243 KB	gz File	12/5/16 3:04 PM

Choose

Cancel

Edit

Delete

Cancel

Back

Finish

Under "Directories", the presentation selects "Add Directory". The presentation navigates to the "share" folder as shown. The presentation selects "choose" to continue.

preuss — Dolphin

YaST2 - NFS Server

Select the Directory to Export

YaST Control Center @ open...

12:58 PM

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Player

Home

YaST2 - NFS Server

Directories to Export

Directories

YaST2

Directory to Export

/home/preuss/share

Browse...

OK

Cancel

Host Wild Card

Options

Add Host

Edit

Delete

Help

Cancel

Back

Finish

The presentation confirms this is the correct folder by selecting "OK".

preuss — Dolphin

YaST2 - NFS Server

YaST Control Center @ opensuse-...

12:58 PM

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Player

Home

YaST2 - NFS Server

Directories to Export

Directories

/home/preuss/share

/home/preuss/share

Host Wild Card	Options
*	ro,root_squash,sync,no_subtree_check

Add Host | Edit | Delete

Help | Cancel | Back | Finish

YaST2

Host Wild Card

*

Options

root_squash,sync,no_subtree_check

OK | Cancel

The presentation will allow any IP address to connect to the NFS /home/preuss/share folder. This is the meaning of "Host Wild Card".

The presentation makes no changes to the "Options" The presentation selects "OK" to continue.

preuss — Dolphin | YaST2 - NFS Server | YaST Control Center @ opensuse-... | 12:58 PM

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Player

Home

YaST2 - NFS Server

Directories to Export

Directories

/home/preuss/share

Add Directory | Edit | Delete

/home/preuss/share

Host Wild Card	Options
*	ro,root_squash,sync,no_subtree_check

Add Host | Edit | Delete

Help | Cancel | Back | Finish

The presentation selects "Finish" to continue.

preuss — Dolphin | YaST2 - NFS Server | YaST Control Center @ opensuse-...

12:58 PM

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Thu 12:59 1

The presentation logs into Kali Linux.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:00 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# mkdir -p /mnt/nfs/data
root@kali-s2017b:~#
```

faraday IDE

The presentation creates an empty folder to map to the NFS server folder. The presentation creates /mnt/nfs/data as shown.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player | Applications | Places | Terminal | Thu 13:01 | 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# mkdir -p /mnt/nfs/data
root@kali-s2017b:~# ls /mnt/nfs/data/*
ls: cannot access '/mnt/nfs/data/*': No such file or directory
root@kali-s2017b:~# ls /mnt/nfs/
data
root@kali-s2017b:~#
```

The presentation confirms the folder /mnt/nfs/data is empty.

faraday IDE

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player | Applications | Places | Terminal | Thu 13:08 | 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# apt install nfs-common
```

The presentation needs to install NFS on Kali. The presentation uses the command shown to download and install NFS on Kali.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:09 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
Created symlink /etc/systemd/system/sockets.target.wants/rpcbind.socket → /lib/s
ystemd/system/rpcbind.socket.
update-rc.d: As per Kali policy, rpcbind init script is left disabled.
insserv: warning: current start runlevel(s) (empty) of script `rpcbind' override
s LSB defaults (S).
insserv: warning: current stop runlevel(s) (0 1 6 S) of script `rpcbind' overrid
es LSB defaults (0 1 6).
Setting up nfs-common (1:1.3.4-2.1) ...

Creating config file /etc/idmapd.conf with new version
Adding system user `statd' (UID 136) ...
Adding new user `statd' (UID 136) with group `nogroup'
Not creating home directory `/var/lib/nfs'.
update-rc.d: As per Kali policy, nfs-common init script
insserv: warning: current start runlevel(s) (empty) of
ides LSB defaults (S).
insserv: warning: current stop runlevel(s) (0 1 6 S) o
rides LSB defaults (0 1 6).
nfs-utils.service is a disabled or a static unit, not
Processing triggers for libc-bin (2.24-10) ...
Processing triggers for systemd (232-22) ...
root@kali-s2017b:~#
```

NFS is now installed on Kali Linux.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:09 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# service portmap status
● rpcbind.service - RPC bind portmap service
   Loaded: loaded (/lib/systemd/system/rpcbind.service; disabled; vendor preset:
   Active: inactive (dead)
     Docs: man:rpcbind(8)
lines 1-4/4 (END)
```

The presentation sees NFS is not running or active at this time. The presentation selects the letter "q" to exit the report screen and get the prompt.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:09 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# service portmap status
● rpcbind.service - RPC bind portmap service
   Loaded: loaded (/lib/systemd/system/rpcbind.service; disabled; vendor preset:
   Active: inactive (dead)
     Docs: man:rpcbind(8)
root@kali-s2017b:~# service portmap start
```

The presentation uses the command shown to start NFS on Kali.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:09 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# service portmap status
● rpcbind.service - RPC bind portmap service
   Loaded: loaded (/lib/systemd/system/rpcbind.service; disabled; vendor preset:
   Active: inactive (dead)
     Docs: man:rpcbind(8)
root@kali-s2017b:~# service portmap start
root@kali-s2017b:~#
```

The NFS service is now active.

beef xss framework

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player

Applications Places Terminal Thu 13:10 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# mount 192.168.241.132:/home/preuss/share /mnt/nfs/data
```

The presentation uses the command shown to mount the NFS share folder.

192.168.241.132:/home/preuss/share is on the NFS server.

/mnt/nfs/data is on the Kali Linux.

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Player

Applications Places Terminal Thu 13:10 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# mount 192.168.241.132:/home/preuss/share /mnt/nfs/data
root@kali-s2017b:~# ls /mnt/nfs/data/
cutecom-0.22.0.tar.gz  rhash-1.3.4-src.tar.gz
root@kali-s2017b:~#
```

The presentation verifies the connection is currently active as shown.

kali-2017b - VMware Workstation 12 Player (Non-commercial use only)

Player | Applications | Places | Terminal | Thu 13:11 | 1

root@kali-s2017b: ~

File Edit View Search Terminal Help

```
root@kali-s2017b:~# service portmap stop
Warning: Stopping portmap.service, but it can still be activated by:
  rpcbind.socket
root@kali-s2017b:~#
```

The presentation choose to disable NFS services once the work with the connection is done.