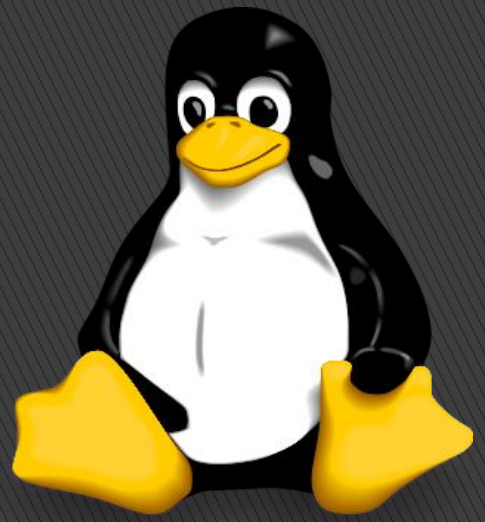
Package Management

What is package

All software on a Linux system is divided into packages that can be installed, uninstalled or upgrade.

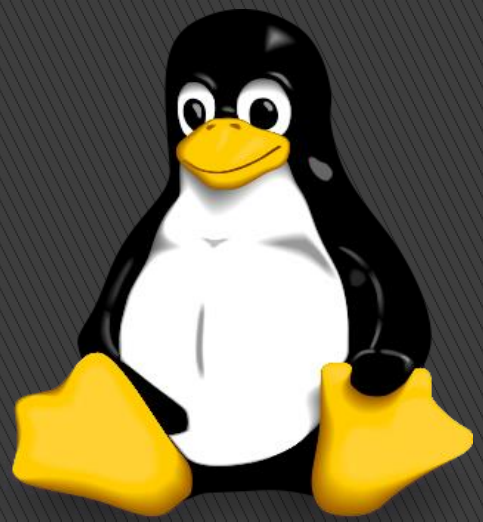
In Linux distributions, a “package” refers to a compressed file archive containing all of the files that come with a particular application.



Package Architecture

httpd-tools-2.4.6-7.el8.x86_64.rpm

Name version.release architecture extention



Method for install package

1. Standalone installation-

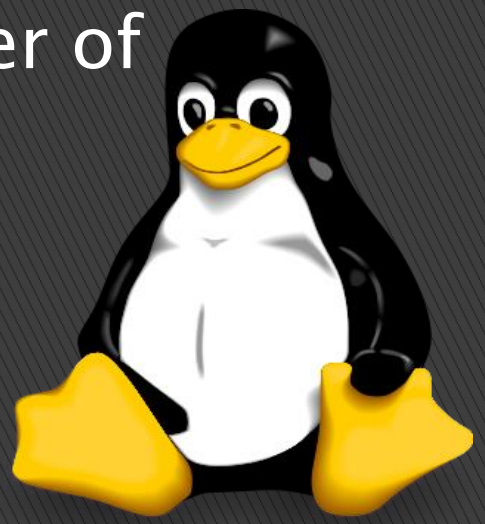
This method use for single or few no of computers.

Eg. Cd, dvd, pd etc.

2. Network Installation-

This method is used for large number of computers.

Eg. Centralized Server



Standalone installation

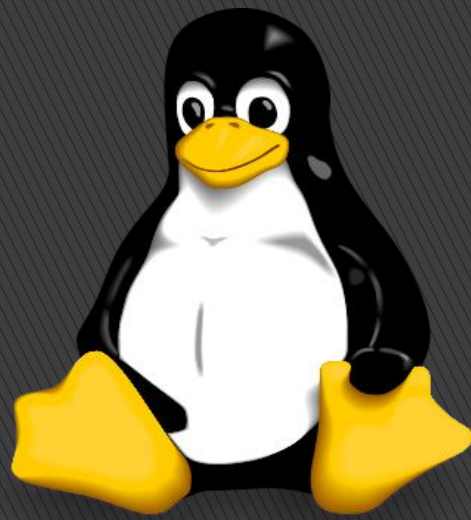
rpm : (Red Hat Package Manager)

RPM command is used to install package in Linux like (RHEL, CentOS and Fedora).

rpm command use for standalone installation.

Drawback of rpm command :

1. We Cant install dependent software in single shot
2. It Does not wait for user confirmation.

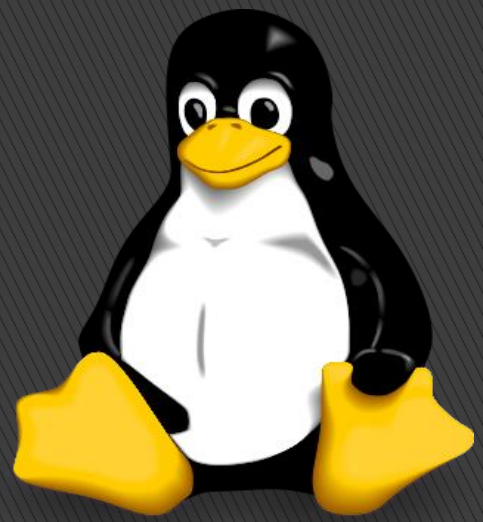


rpm command syntax

#rpm <option> <name of package>

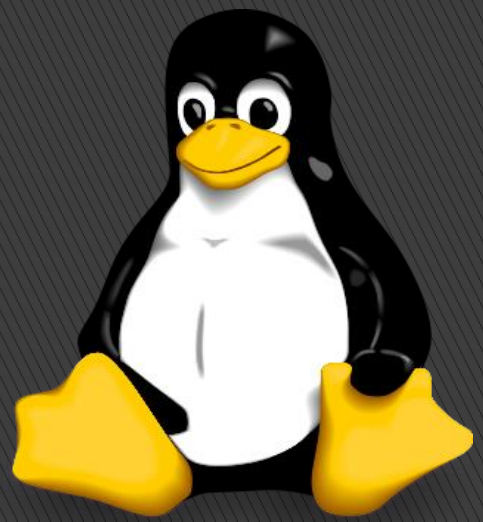
Option:

i -for install
v -for verbose
h -for hashes
e -for erase
q -for query



Install package with rpm

#rpm -ivh httpd-tools-2.4.6-7.el7.x86_64.rpm



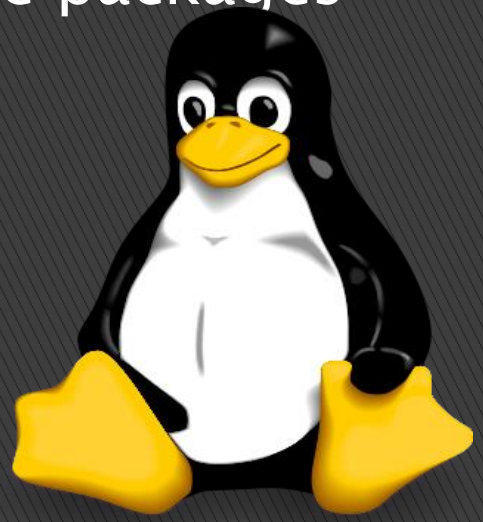
2. Network Installation

Yum: (Yellowdog Updater, Modified)

YUM is an open source package management tool for install rpm based packages in linux system

Yum overcome all drawback of rpm command.

It allows users and system administrator to easily install, update, remove or search software packages on a systems.

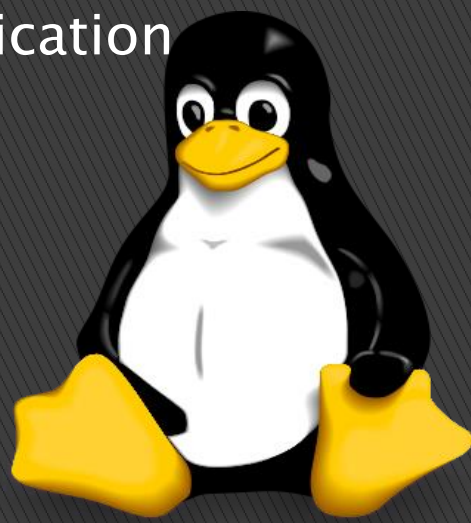


Yum command syntax:

#yum <option> <Name of Package>

Options :

install	-for install
remove	-for uninstall
upgrade	-for upgrade
groupinstall	-for install group of application
groupremove	-for uninstall group of application
grouplist	-for show list of group
clean all	-for clean repository cache
list	-for show package list

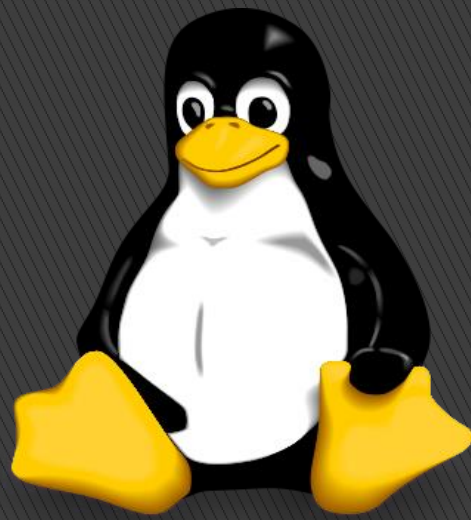


Install package with yum

#yum install httpd*

Note :

For install package with yum command we need to set yum path of centralized server in our system (repo)

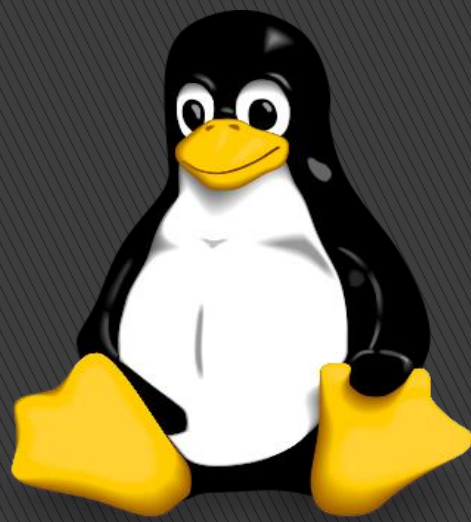


Steps For create repository file (repo)

Step 1: Insert rhel 8.0 dvd and start VM:
attach RHEL8 iso file in VM.

Step 2: For show DVD mount point
#lsblk

Step 3: Go to yum repository
#cd /etc/yum.repos.d/
#rm -rvf *



For create repository file (repo)

Step 5: Create repo file

#vim server.repo

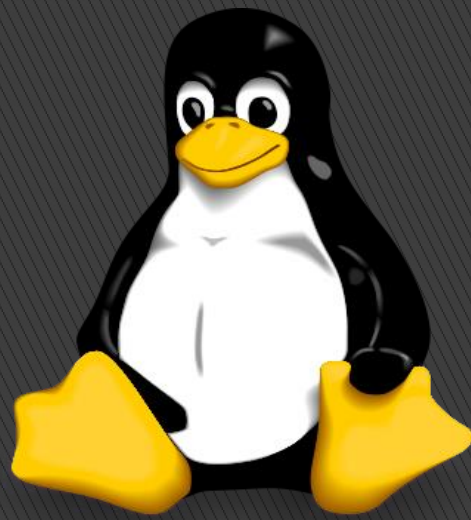
```
[app]
name=appstrea
baseurl=file:///run/media/root/RHEL-8-0-0-BaseOS-X86_64/AppStream
enabled=1
gpgcheck=0
[base]
name=baseos
baseurl=file:///run/media/root/RHEL-8-0-0-BaseOS-X86_64/BaseOS
enabled=1
gpgcheck=0
```

:wq

Step 6: #yum clean all

#yum repolist

#yum list



For create repository file (repo)

Setup static ip to server and client OS

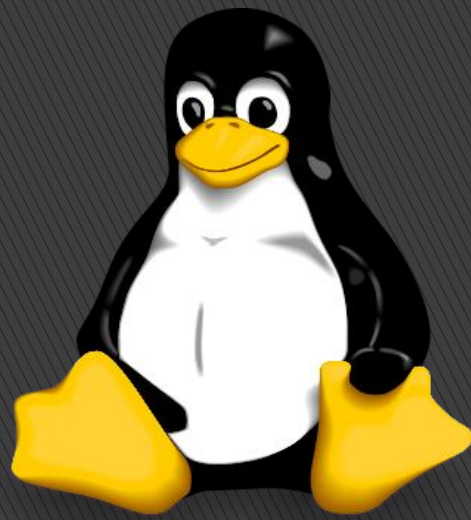
Eg. 192.168.1.2

Install Web server Package and start enable service

```
#yum      install      httpd*
#systemctl       start       httpd
#systemctl       enable     httpd
```

Copy and paste all package in /var/www/html/

```
#cd   /run/media/root/RHEL-8-0-0-BaseOS-X86_64/
#cp   -rvf   AppStream      /var/www/html/
#cp   -rvf   BaseOS        /var/www/html/
```



For create repository file (repo)

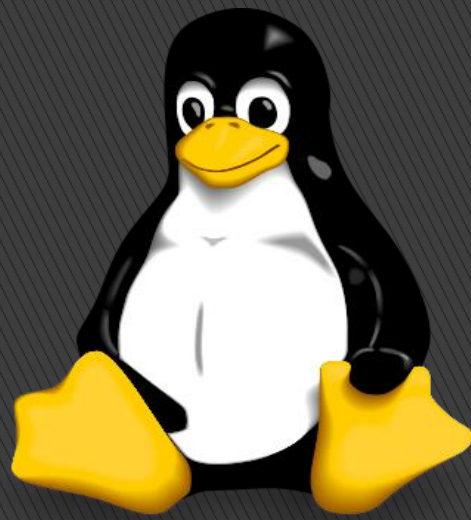
Create Repo file

```
#cd   /etc/yum.repos.d/
#vim  server.repo
    [app]
    name=appstream
    baseurl=http://192.168.1.2/AppStream
    enabled=1
    gpgcheck=0

    [base]
    name=baseos
    baseurl=http://192.168.1.2/BaseOS
    enabled=1
    gpgcheck=0
```

Setup Firewall Rule :

```
#firewall-cmd  --permanent   --add-service=http
#firewall-cmd   --reload
#systemctl   restart   httpd
```

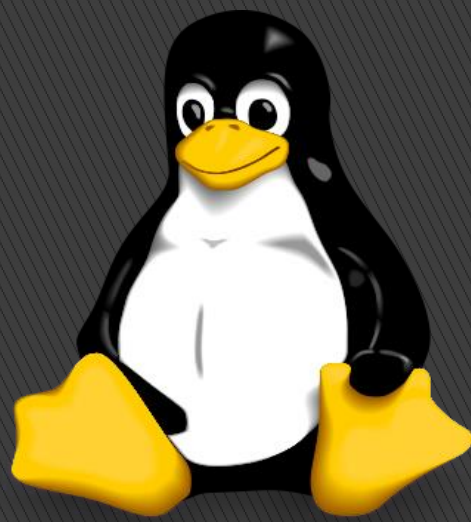


Configure client side yum repo

```
#vim  /etc/yum.repos.d/
#rm  -rvf   *

#vim servers.repo
    [app]
    name=appstream
    baseurl=http://192.168.1.2/AppStream
    enabled=1
    gpgcheck=0

    [base]
    name=baseos
    baseurl=http://192.168.1.2/BaseOS
    enabled=1
    gpgcheck=0
:wq
```



Configure client side yum repo

```
#yum    clean  all
#yum    repolist
#yum   install    http*
```