

SVN Installation

1. Check the httpd is installed or not, if yes then goto step 2, if not enter below command for install httpd.

yum install httpd

```
login as: centos
Authenticating with public key "imported-openssh-key"
[centos@ip-172-31-46-161 ~]$ sudo -i
[root@ip-172-31-46-161 ~]# yum install httpd ✓
Loaded plugins: fastestmirror
Determining fastest mirrors
 * base: mirror.cs.pitt.edu
 * extras: mirror.genesisadaptive.com
 * updates: mirror.math.princeton.edu
```

2. Go to **/etc** folder and check the **httpd** folder is present or not, if yes then continue with step

```
[root@ip-172-31-46-161 ~]# cd /etc/
[root@ip-172-31-46-161 etc]# ls
adjtime                hosts.deny              python
aliases                httpd ✓                 qemu-ga
aliases.db             idmapd.conf            rc0.d
alternatives           init.d                 rc1.d
anacrontab             inittab               rc2.d
audisp                 inputrc               rc3.d
audit                 iproute2              rc4.d
bash_completion.d     issue                 rc5.d
```

3. Use below command to check the httpd service is up or not. It is up result will be like below and continue with 4 step

service httpd status

Result:-

```
[root@ip-172-31-46-161 etc]# service httpd status ✓
Redirecting to /bin/systemctl status httpd.service
• httpd.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
  Active: inactive (dead)
  Docs: man:httpd(8)
        man:apachectl(8)
```

steps for start ,stop and status for httpd:

service httpd start

service httpd stop

service httpd status

```
[root@ip-172-31-46-161 etc]# service httpd start ✓
Redirecting to /bin/systemctl start httpd.service

[root@ip-172-31-46-161 etc]# service httpd status ✓
Redirecting to /bin/systemctl status httpd.service
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: active (running) since Mon 2018-10-29 20:02:32 UTC; 2min 7s ago
     Docs: man:httpd(8)
           man:apachectl(8)
  Main PID: 1257 (httpd)
    Status: "Total requests: 0; Current requests/sec: 0; Current traffic:  0 B/sec"
    CGroup: /system.slice/httpd.service
            └─1257 /usr/sbin/httpd -DFOREGROUND
              └─1258 /usr/sbin/httpd -DFOREGROUND
                └─1259 /usr/sbin/httpd -DFOREGROUND
                  └─1260 /usr/sbin/httpd -DFOREGROUND
                    └─1261 /usr/sbin/httpd -DFOREGROUND
                      └─1262 /usr/sbin/httpd -DFOREGROUND

Oct 29 20:02:32 ip-172-31-46-161.us-east-2.compute.internal systemd[1]: Starting The Apache HTTP Server...
Oct 29 20:02:32 ip-172-31-46-161.us-east-2.compute.internal systemd[1]: Started The Apache HTTP Server.
```

4. Install SVN using below command. Once it is installed continue with step 5.

yum install mod_dav_svn subversion

```
[root@ip-172-31-46-161 ~]# yum install mod_dav_svn subversion ✓
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirror.cs.pitt.edu
 * extras: mirror.genesisadaptive.com
 * updates: mirror.math.princeton.edu
Resolving Dependencies
--> Running transaction check
---> Package mod_dav_svn.x86_64 0:1.7.14-14.el7 will be installed
--> Processing Dependency: subversion-libs(x86-64) = 1.7.14-14.el7 for package: mod_dav_svn-1.7.14-14.el7.x86_64
--> Processing Dependency: libsvn_subr-1.so.0()(64bit) for package: mod_dav_svn-1.7.14-14.el7.x86_64
--> Processing Dependency: libsvn_repos-1.so.0()(64bit) for package: mod_dav_svn-1.7.14-14.el7.x86_64
   perl-Time-HiRes.x86_64 4:1.9725-3.el7
   perl-macros.x86_64 4:5.16.3-292.el7
   perl-threads-shared.x86_64 0:1.43-6.el7
   perl-Time-Local.noarch 0:1.2
   perl-parent.noarch 1:0.225-2
   subversion-libs.x86_64 0:1.7
Complete! ✓
```

check it is installed or not using below command

svn --version

Result:-

```
[root@ip-172-31-46-161 ~]# svn --version
svn, version 1.7.14 (r1542130)
   compiled Apr 11 2018, 02:40:28

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file for more information.
Subversion is open source software, see http://subversion.apache.org/

The following repository access (RA) modules are available:

* ra_neon : Module for accessing a repository via WebDAV protocol using Neon.
  - handles 'http' scheme
  - handles 'https' scheme
* ra_svn : Module for accessing a repository using the svn network protocol.
  - with Cyrus SASL authentication
  - handles 'svn' scheme
* ra_local : Module for accessing a repository on local disk.
  - handles 'file' scheme
```

Default svn location /etc/subversion

```
[root@ip-172-31-46-161 etc]# ls
adjtime          cron.weekly      fstab             httpd             logrotate.conf   nsswitch.conf.bak rc0.d            security         sysctl.conf
aliases          crypttab         GeoIP.conf        init.d            logrotate.d      openldap          rc1.d            security         sysctl.d
aliases.db       crypttab         GeoIP.conf.default inittab           machine-id       opt              rc2.d            selinux         systemd
alternatives     csh.cshrc       gnupg             inputrc           magedumpfile.conf.sample pam.d            rc3.d            services        system-release
anacrontab       dbus-1          GREP_COLORS       iproute2          mailcap          makedumpfile.conf.sample passw            rc4.d            sestatus.conf  system-releas
audisp           default         groff             issue            man_db.conf     mke2fs.conf      passwd          rc5.d            shadow         tcsh.conf
bash_completion.d depmod.d         group            issue.net         mime.types       mke2fs.conf      pkcs11          rc6.d            shells         terminfo
bashrc           dhcp            group            kernel            modprobe.d      modules-load.d   polkit-1        rc.d             skel           tmpfiles.d
blint.d          DIR_COLORS      grub2.cfg         krb5.conf         motd             my.cnf.d         popt.d          rc.local         ssh            tuned
centos-release   DIR_COLORS.256color dracut.conf       ld.so.cache      mtab             rpm              postfix         redhat-release  ssl            udev
centos-release-upstream DIR_COLORS.lightbgcolor dracut.conf.d    ld.so.conf       my.cnf           rpm              request-key.conf statetab        subgid         vconsole.conf
chkconfig.d      dracut.conf     gshadow          ld.so.conf.d     mtabs            rpm              request-key.d   statetab.d     subuid         virc
chrony.conf      dracut.conf.d   gshadow          ld.so.conf.d     my.cnf           rpm              resolv.conf     statetab.d     subuid         wpa_supplican
chrony.keys      e2fsck.conf     gshadow          ld.so.conf.d     my.cnf           rpm              rpc             subuid         xdg            xinetd.d
cloud            environment     gssproxy         libaudit.conf    netconfig        rpm              rsyslog.conf   sudo.conf      yum.conf       yum.repos.d
cron.d           exports.d       host.conf        libuser.conf     NetworkManager  rpm              rsyslog.d      sudoers        yum.conf       yum.repos.d
cron.daily       favicon.png     hosts            locale.conf      nfs.conf         rpm              rsyslog.d      sudoers        yum.conf       yum.repos.d
cron.deny        firewalld       hosts.allow      localtime        nfs.conf         rpm              rsyslog.d      sudoers        yum.conf       yum.repos.d
cron.hourly      firewalld       hosts.deny       login.defs       nsswitch.conf    rpm              rsyslog.d      sudoers        yum.conf       yum.repos.d
cron.monthly     firewalld       hosts.deny       login.defs       nsswitch.conf    rpm              rsyslog.d      sudoers        yum.conf       yum.repos.d
```

5. Goto **/etc/httpd/conf.d** and create **subversion.conf** file using vi editor and paste the below content and save it (subversion.conf file not present in **/etc/httpd/conf.d** folder, we need to create it).

<Location /svn>

DAV svn

SVNParentPath /var/www/svn

AuthType Basic

AuthName "subversion repos"

AuthUserFile /etc/svn-users-SVN

AuthzSVNAccessFile /etc/svn-access-control-SVN

Require valid-user

</Location>

```
[root@ip-172-31-46-161 ~]# cd /etc/httpd/conf.d ✓
[root@ip-172-31-46-161 conf.d]# vi subversion.conf file ✓
<Location /svn>
    DAV svn
    SVNParentPath /var/www/svn
    AuthType Basic
    AuthName "subversion repos"
    AuthUserFile /etc/svn-users-SVN
    AuthzSVNAccessFile /etc/svn-access-control-SVN
    Require valid-user
</Location>
```

6. Create single users for svn using below commands.

For single user:- **htpasswd -cm /etc/svn-users-SVN <username>**

it is asking new passwd:

once provided the password, then same username automatically created under **/etc/svn-users-SVN** folder with key(please note svn-users-SVN file will create automatically after enter the above htpasswd command).

```
[root@ip-172-31-46-161 conf.d]# htpasswd -cm /etc/svn-users-SVN praveen ✓
New password:
Re-type new password:
Adding password for user praveen ✓
```

For Multiple users creation:- **htpasswd -m /etc/svn-users-SVN <username>**

7. Got to **/etc** folder and create **svn-access-control-SVN** file using vi editor and give the read/write permissions to above created users.

[/]

<username> = rw

```
[root@ip-172-31-46-161 conf.d]# cd /etc/
[root@ip-172-31-46-161 etc]# vi svn-access-control-SVN
```

```
[/]
praveen=rw
```

```
█
```

```
~
```

```
~
```

```
~
```

```
~
```

```
~
```

```
~
```

8. Create **svn** folder under **/var/www**. Previously we don't have svn folder under /var/www So we need to create the svn folder using mkdir command.

go to **/var/www** and create **svn** folder

```
[root@ip-172-31-46-161 etc]# cd /var/www/  
[root@ip-172-31-46-161 www]# mkdir svn  
[root@ip-172-31-46-161 www]# cd svn/  
[root@ip-172-31-46-161 svn]#
```

a. Goto **/var/www/svn** folder and create the repository using below command.

svnadmin create <repository name>

and then change the ownership for above created repository using below command

command: **chown -R apache:apache REPO**

and then restart the httpd

command: **service httpd restart**

```
[root@ip-172-31-46-161 svn]# svnadmin create REPO  
[root@ip-172-31-46-161 svn]# chown -R apache:apache REPO  
[root@ip-172-31-46-161 svn]# service httpd restart  
Redirecting to /bin/systemctl restart httpd.service
```

9. Once step 8 completed follow the below steps.

Go to **/var/www/svn/REPO/conf** and open **svnserve.conf** using vi editor and uncomment below lines

anon-access = read

auth-access = write

authz-db = authz

```
[root@ip-172-31-46-161 svn]# cd /var/www/svn/REPO/conf  
[root@ip-172-31-46-161 conf]# ls  
authz  passwd  svnserve.conf ✓  
[root@ip-172-31-46-161 conf]# vi svnserve.conf
```

```

### users have read-only access to the repository, while authenticated
### users have read and write access to the repository.
anon-access = read
auth-access = write
### The password-db option controls the location of the password
### database file. Unless you specify a path starting with a /,
### the file's location is relative to the directory containing
### this configuration file.
### If SASL is enabled (see below), this file will NOT be used.
### Uncomment the line below to use the default password file.
# password-db = passwd
### The authz-db option controls the location of the authorization
### rules for path-based access control. Unless you specify a path
### starting with a /, the file's location is relative to the the
### directory containing this file. If you don't specify an
### authz-db, no path-based access control is done.
### Uncomment the line below to use the default authorization file.
authz-db = authz
### This option specifies the authentication realm of the repository.
### If two repositories have the same authentication realm, they should

```

10. And try to checkout the svn repository using below command.

svn co <http://10.209.6.21/svn/REPO>

revision 0 it comes

```

[root@ip-172-31-46-161 conf]# svn co http://172.31.46.161/svn/REPO
Authentication realm: <http://172.31.46.161:80> subversion repos
Password for 'root':
Authentication realm: <http://172.31.46.161:80> subversion repos
Username: centos
Password for 'centos':
Authentication realm: <http://172.31.46.161:80> subversion repos
Username: praveen
Password for 'praveen':

-----
ATTENTION! Your password for authentication realm:

    <http://172.31.46.161:80> subversion repos

can only be stored to disk unencrypted! You are advised to configure
your system so that Subversion can store passwords encrypted, if
possible. See the documentation for details.

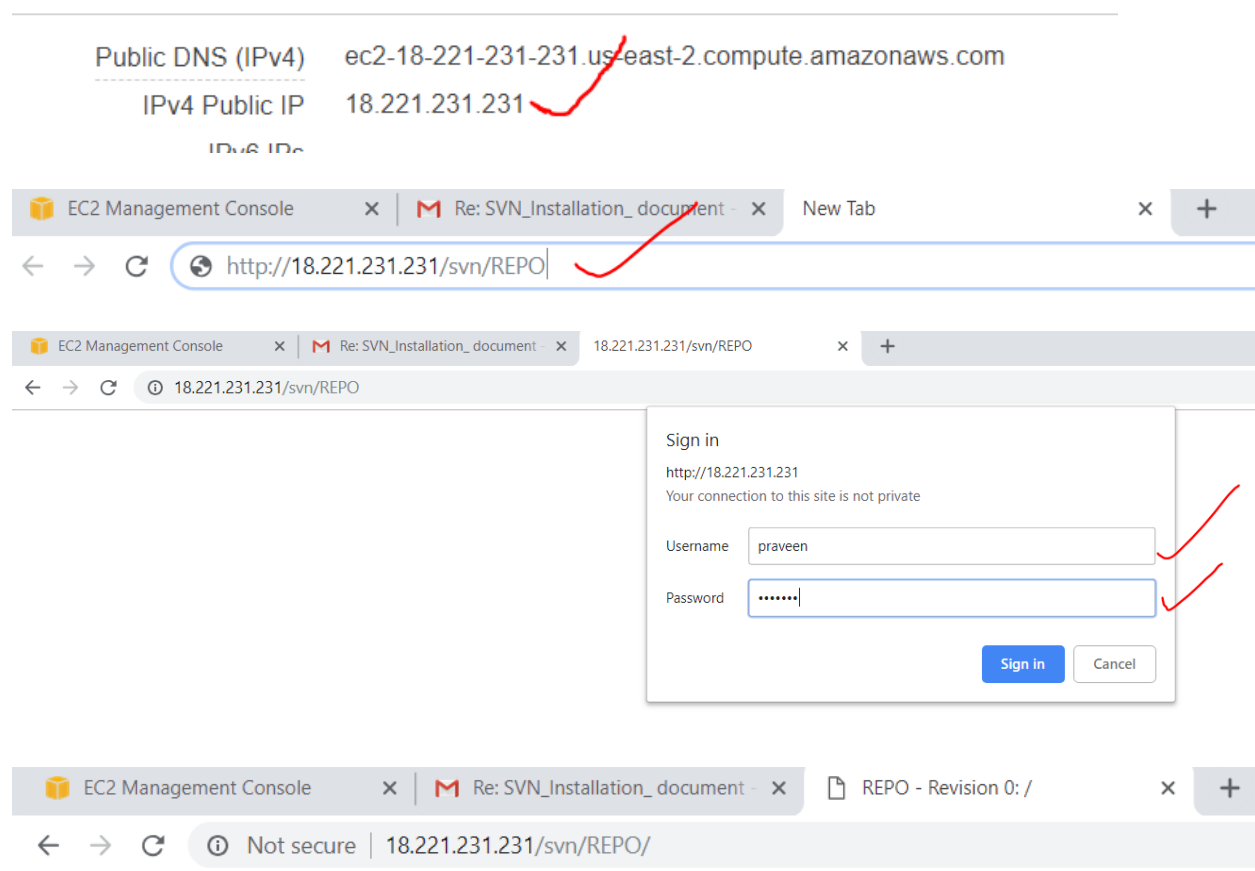
You can avoid future appearances of this warning by setting the value
of the 'store-plaintext-passwords' option to either 'yes' or 'no' in
'/root/.subversion/servers'.

-----
Store password unencrypted (yes/no)? y
Checked out revision 0.
[root@ip-172-31-46-161 conf]# clear
[root@ip-172-31-46-161 conf]# svn co http://172.31.46.161/svn/REPO
Checked out revision 0.

```

11. Try to login below url in browser.

<http://10.209.6.21/svn/REPO>



REPO - Revision 0: /

12. If you are not able to commit any folders/files into repository and getting below error. Please enter below mentioned command.

Error:- could not begin a transaction error, we need to

Command:- **chcon -R -t httpd_sys_content_rw_t repo path**