Switching Users and Running Commands as Others

**su**

One way to start a session as another user on the system is to use the su command. If no arguments are supplied to su , it assumes you are trying to become the superuser. Executing su is the same as executing su root . Your current environment is passed to the new shell unless you specify a hyphen (- ). In that case, su creates an environment like you would expect to see had you logged in as that user.

su [username] - Change user ID or become superuser Common su options:

- - A hyphen is used to provide an environment similar to what the user would expect had the user logged in directly.

-c command - Specify a command to be executed. If the command is more than one word in length, it needs to be quoted.

bob@linuxsvr:~$ export TEST=1 bob@linuxsvr:~$ su oracle Password:

oracle@linuxsvr:/home/bob$ echo $TEST 1

oracle@linuxsvr:/home/bob$ pwd

/home/bob oracle@linuxsvr:/home/bob$ exit exit

bob@linuxsvr:~$ su - oracle Password:

oracle@linuxsvr:~$ echo $TEST

oracle@linuxsvr:~$ pwd

/home/oracle oracle@linuxsvr:~$ exit

bob@linuxsvr:~$ su -c 'echo $ORACLE\_HOME' oracle Password:

bob@linuxsvr:~$ su -c 'echo $ORACLE\_HOME' - oracle Password:

/u01/app/oracle/product/current bob@linuxsvr:~$

If you want to know what user you are working as, run the whoami command.

whoami - Displays the effective username.

$ whoami bob

$ su oracle Password:

$ whoami oracle

$

# Sudo - Super User Do

Another way to switch users or execute commands as others is to use the sudo command. Sudo

allows you to run programs with the security privileges of another user. Like su , if no username is specified it assumes you are trying to run commands as the superuser. This is why sudo is referred to as super user do. It is commonly used to install, start, and stop applications that require superuser privileges.

sudo - Execute a command as another user, typically the superuser.

One advantage of using sudo over the su command is that you do not need to know the password of the other user. This can eliminate the issues that arise from using shared passwords and generic accounts. When you execute the sudo command you are prompted for your password. If the sudo configuration permits access, the command is executed. The sudo configuration is typically controlled by the system administrator and requires root access to change.

# Using Sudo

Here are the common ways to use the sudo command.

sudo -l - List available commands.

sudo command - Run command as the superuser. sudo -u root command - Same as sudo command`. sudo -u user command - Run command as user. sudo su - Switch to the superuser account.

sudo su - - Switch to the superuser account with an environment like you would expect to see had you logged in as that user.

sudo su - username - Switch to the username account with an environment like you would expect to see had you logged in as that user.

$ sudo -l

User bob may run the following commands on this host: (root) NOPASSWD: /etc/init.d/apache2

(fred) NOPASSWD: /opt/fredApp/bin/start (fred) NOPASSWD: /opt/fredApp/bin/stop (root) /bin/su - oracle

$ sudo /etc/init.d/apache2 start

\* Starting web server apache2

$ sudo -u fred /opt/fredApp/bin/start Fred's app started as user fred.

$ sudo su - oracle [sudo] password for bob:

oracle@linuxsvr:~$ whoami oracle

oracle@linuxsvr:~$ exit

$ whoami bob

$

The output of sudo -l displays what commands can be executed with sudo and under which account. In the above example, sudo will not prompt for a password for the commands preceded with NOPASSWD . This type of configuration may be required to automate jobs via cron that require escalated privileges.

# Deep Dive

 [The su command](http://www.linfo.org/su.html)

 [Sudo](http://www.sudo.ws/sudo/) - The official sudo website.

 [Ubuntu Sudo Documentation](https://help.ubuntu.com/community/RootSudo) [http://www.LinuxTrainingAcademy.com](http://www.linuxtrainingacademy.com/)