

# **ExpressCluster® X SingleServerSafe 2.1**

**Linux version**

**Quick Reference Guide for SSS installation &  
configuration of a sample service - Apache**

## Installing SSS

1. Install the SSS server rpm package

- `rpm -ivh expressclssss-2.1.0-1.i686.rpm`

The rpm package is different for 64 bit machine. Choose the one that matches CPU configuration.

2. After the installation is successful, register the license

- `clplcncs -i ECX2.1_trial_lin_SSS1.key -p XSS21`

Here ECX2.1\_trial\_lin\_SSS1.key is the license key name & XSS21 is the product id.

Similarly install other license applicable. If the license is installed properly then following message will displayed in the command terminal:

“Command Succeeded”

## Using SSS to configure application (Apache)

For details on how to start the web manger & definitions of features available. Refer the SSS manuals. Given below is a brief demonstration on how to configure SSS using sample service application.

Sample application being used is Apache web server

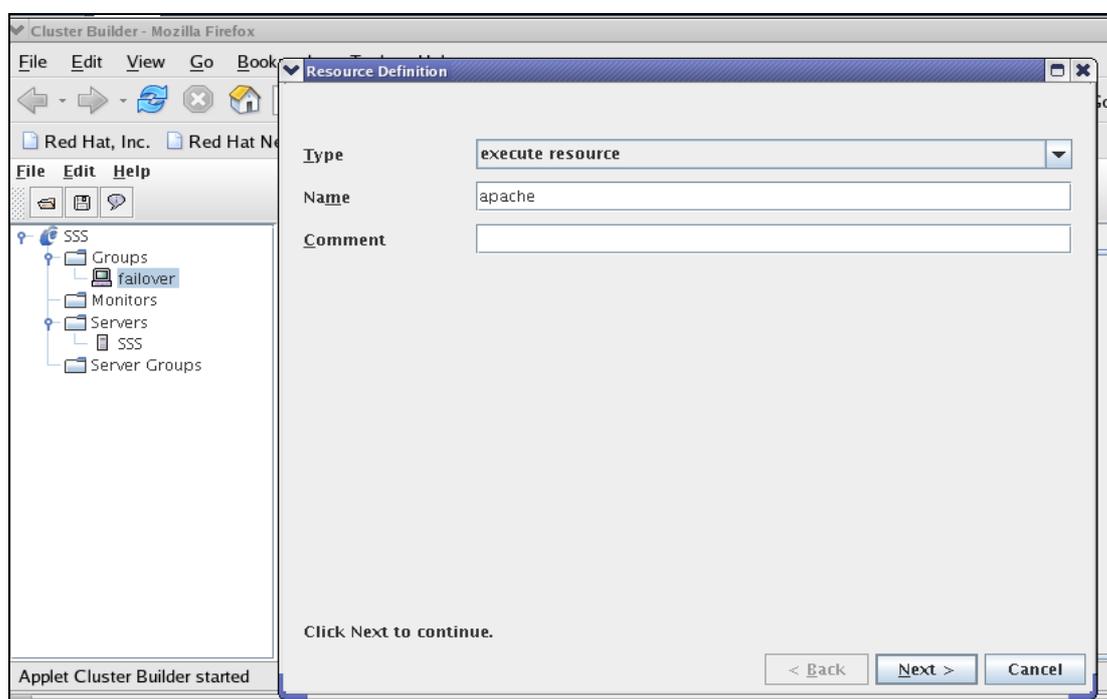
**Step 1:** using the cluster generation wizard, create new cluster using the server name of the server where SSS is installed. In this demo let's assume it to be "SSS"

**Step 2:** Add a failover group by right clicking the "Groups" icon.

**Step 3:** Once group is added the resources required to create the configuration is to be added.

Right click on failover & select "Add Resource".

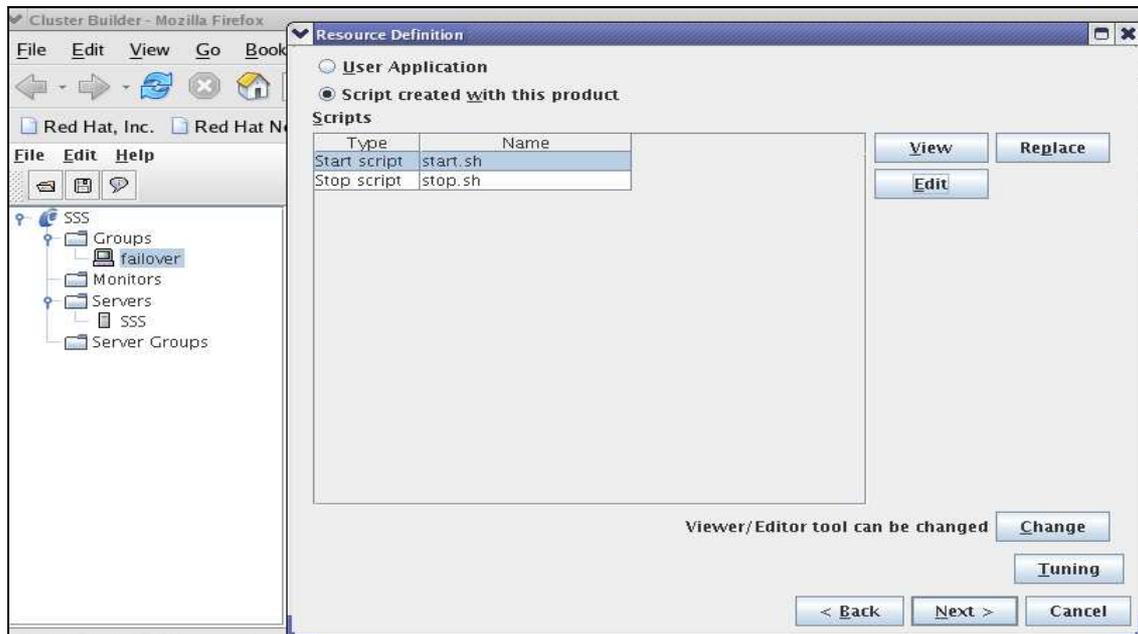
**Step 4:** A Resource definition window will pop up, select exec resource & type name you want to give to the resource (here its apache). Click next



**Step 5:** Apache being a service we can write a customized script to start the apache service. Check the radio button "Script created with this product"

Then select Start script & click on edit button. (This will open start.sh script with editor.

Modify this script as per the method in which the resource needs to be started)



Script is being used to start the Apache service, below is the snapshot of the script start.sh

```
Cluster Builder
ulimit -s unlimited
if [ "$CLP_EVENT" = "START" ]
then
    if [ "$CLP_DISK" = "SUCCESS" ]
    then
        echo "NORMAL1"
        if [ "$CLP_SERVER" = "HOME" ]
        then
            echo "NORMAL2"
            service httpd start
        else
            echo "ON_OTHER1"
        fi
    else
        echo "ERROR_DISK from START"
    fi
elif [ "$CLP_EVENT" = "FAILOVER" ]
then
    if [ "$CLP_DISK" = "SUCCESS" ]
    then
        echo "FAILOVER1"
        if [ "$CLP_SERVER" = "HOME" ]
        then
            echo "FAILOVER2"
            service httpd start
        else
            echo "ON_OTHER2"
        fi
    else
        echo "ERROR_DISK from FAILOVER"
    fi
else
    echo "NO_CLP"
fi
echo "EXIT"
exit 0
```

Here for event "Start" & "Failover", the command given is to start the httpd service

Similarly configure the stop.sh script to stop the apache service.

```
#!/bin/sh
#*****
#*          stop.sh          *
#*****

ulimit -s unlimited

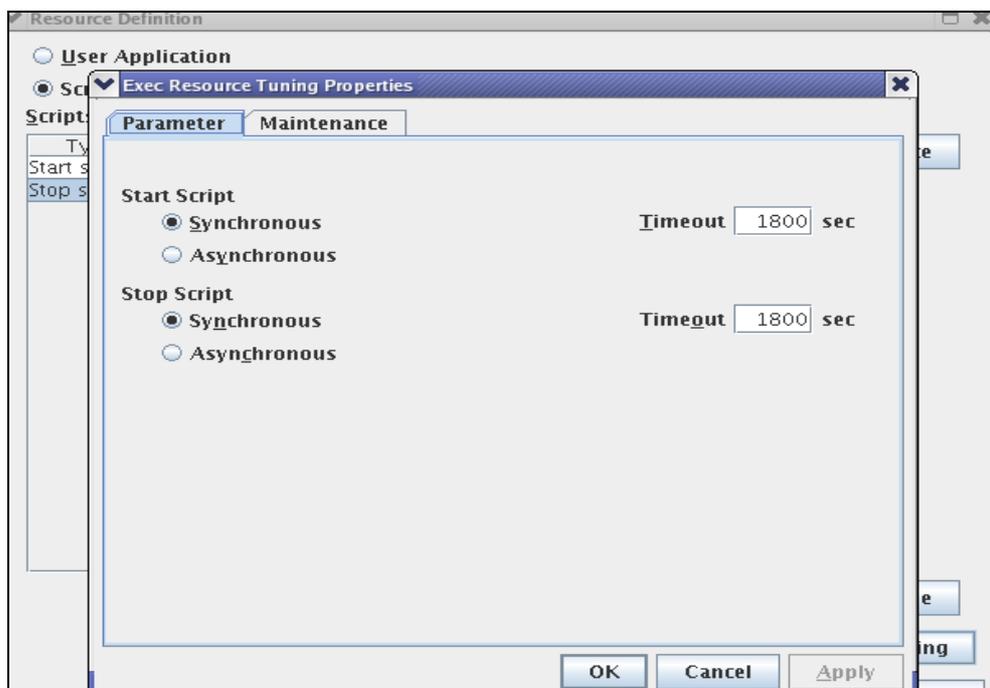
if [ "$CLP_EVENT" = "START" ]
then
    if [ "$CLP_DISK" = "SUCCESS" ]
    then
        echo "NORMAL1"
        if [ "$CLP_SERVER" = "HOME" ]
        then
            echo "NORMAL2"
            service httpd stop
        else
            echo "ON_OTHER1"
        fi
    else
        echo "ERROR_DISK from START"
    fi
elif [ "$CLP_EVENT" = "FAILOVER" ]
then
    if [ "$CLP_DISK" = "SUCCESS" ]
    then
        echo "FAILOVER1"
        if [ "$CLP_SERVER" = "HOME" ]
        then
            echo "FAILOVER2"
            service httpd stop
        else
            echo "ON_OTHER2"
        fi
    else
        echo "ERROR_DISK from FAILOVER"
```

**Step 6:** After editing the start & stop script, click on “Tuning” button to modify resource settings.

In the Parameter tab select radio button “Synchronous”

In the Maintenance tab select log output path if you need to generate log messages.

Then choose OK & click Next.



**Step 7** Choose “Retry count” value & the “Final Action” value. Please refer SSS guide to decide what to fill in these values. Click Next & then Finish.

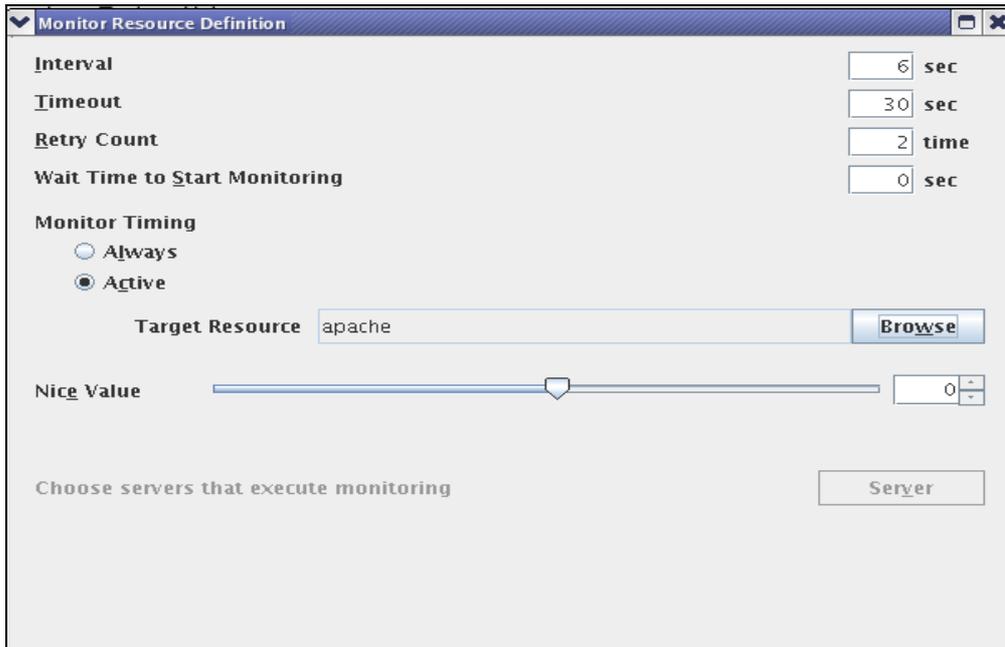
**Step 8** Resource has been added successfully. Let’s add the monitor for the resource now. Right click on “Monitor” & choose Add Monitor Resource

**Step 9** Choose the type as “Custom monitor” & assign any name in the Monitor name field. Click Next. (Here we chose Custom monitor option because we will write a customized monitor script for this resource)

**Step 10** Choose the radio button “Script created with this product” & click on edit button This will open the monitor script in editor. Modify the script accordingly.

Usually to write custom monitors one can work upon the return status of that command which is then passed to SSS in order to decide if its success or failure. See sample below to know more:





**Step 14** Browse & choose Recovery target as “failover”. Set Final action value as per requirement.

The configuration is now complete. Follow steps given in manual to save/upload config file & start the cluster.

## **End Result: What to expect?**

The Apache server has been successfully configured with SSS. When “Start Cluster” command is selected from the Web manager, the resource (httpd service in this case) will be invoked by SSS & httpd service will start running. This can be checked via command prompt using given command:

```
$ service httpd status
```

The status message of the resource can also be seen in the Web manager.

\* Before cluster is started make sure that httpd service is not running already!