

# **Instalacija i konfiguracija RedHat Cluster servisa (HA) na RedHat Enterprise Linux Server 6.3**



## **1. Instalacija RHEL 6.3 na serverima (node01, node02)**

- Podešavanje servera

## **2. Konfigurisanje clustering softwera**

- Kreiranje clustera i dodavanje nodova
- Dodavanje Failover Domena
- Dodavanje resursa (IP, Apache)
- Dodavanje Servis Grupe

## **3. Demonstracija**

- Startovanje resursa
- Stopiranje resursa
- Migriranje resursa sa jednog na drugi server (node)
- Monitoring clustering servisa

## **4. Pitanja, predlozi, ispravke?**

## 1. Instalacija RHEL 6.3 na serverima (node01, node02)

Ugasite SELinux (node01, node02)

```
sed -i s/SELINUX=enforcing/SELINUX=disabled/g /etc/selinux/config
```

Podesite /etc/hosts fajl (node01, node02)

```
echo "192.168.0.111 node01.example.com" >> /etc/hosts
```

```
echo "192.168.0.112 node02.example.com" >> /etc/hosts
```

Ugasite nepotrebne servise (node01, node02)

```
chkconfig abrt-ccpp off
```

```
chkconfig abrt-oops off
```

```
chkconfig abrttd off
```

```
chkconfig acpid off
```

```
chkconfig atd off
```

```
chkconfig auditd off
```

```
chkconfig autofs off
```

```
chkconfig cpuspeed off
```

```
chkconfig certmonger off
```

```
chkconfig crond off
```

```
chkconfig cups off
```

```
chkconfig haldaemon off
```

```
chkconfig ip6tables off
```

```
chkconfig iptables off
```

```
chkconfig irqbalance off
```

```
chkconfig kdump off
```

```
chkconfig libvirt-guests off
```

```
chkconfig mdmonitor off
```

```
chkconfig messagebus off
```

```
chkconfig netfs off
```

```
chkconfig nfslock off
```

```
chkconfig portreserve off
```

```
chkconfig postfix off
```

```
chkconfig rpcbind off
```

```
chkconfig rpcgssd off
```

```
chkconfig rpcidmapd off
```

```
chkconfig sysstat off
```

```
chkconfig udev-post off
```

Dodajte cluster servise u startup (node01)

```
chkconfig luci on  
chkconfig ricci on  
chkconfig cman on  
chkconfig rgmanager on
```

Dodajte cluster servise u startup (node02)

```
chkconfig ricci on  
chkconfig cman on  
chkconfig rgmanager on
```

Podesite password za korisnika ricci (node01, node02)

```
passwd ricci
```

Podesite Apache **/etc/httpd/conf/httpd.conf** (node01, node02)

```
Listen 192.168.0.222:80
```

Napravite fajl **/var/www/html/index.php** (node01, node02)

```
<?php echo "Apache is running on <strong>" . exec('hostname') . "</strong>"; ?>
```

Ugasite nepotrebne Apache module (node01, node02)

```
cd /etc/httpd/conf.d  
mkdir disabled  
mv webalizer.conf wsgi.conf perl.conf ssl.conf disabled/
```

Nakon toga restartujte servere (node01, node02)

```
reboot
```

## 2. Konfigurisanje clustering softwera

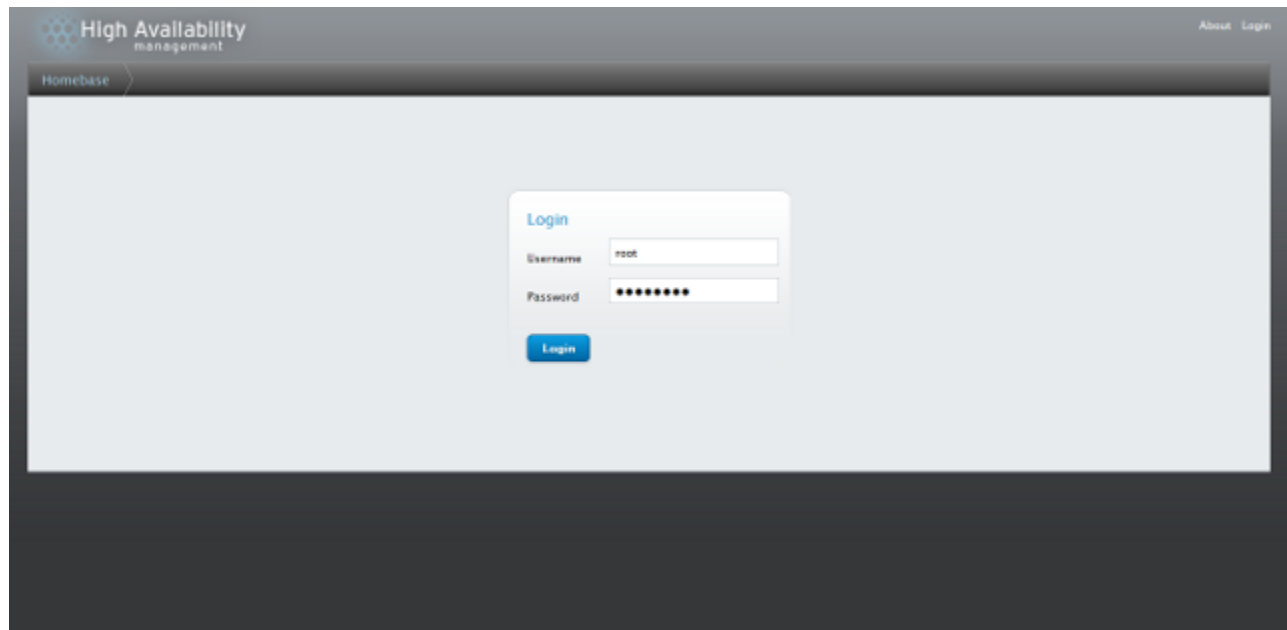
Pristupite web interjefsu za konfiguraciju clustera na sledeći način

**<https://192.168.0.111:8084>**

Unesite sledeće podatke

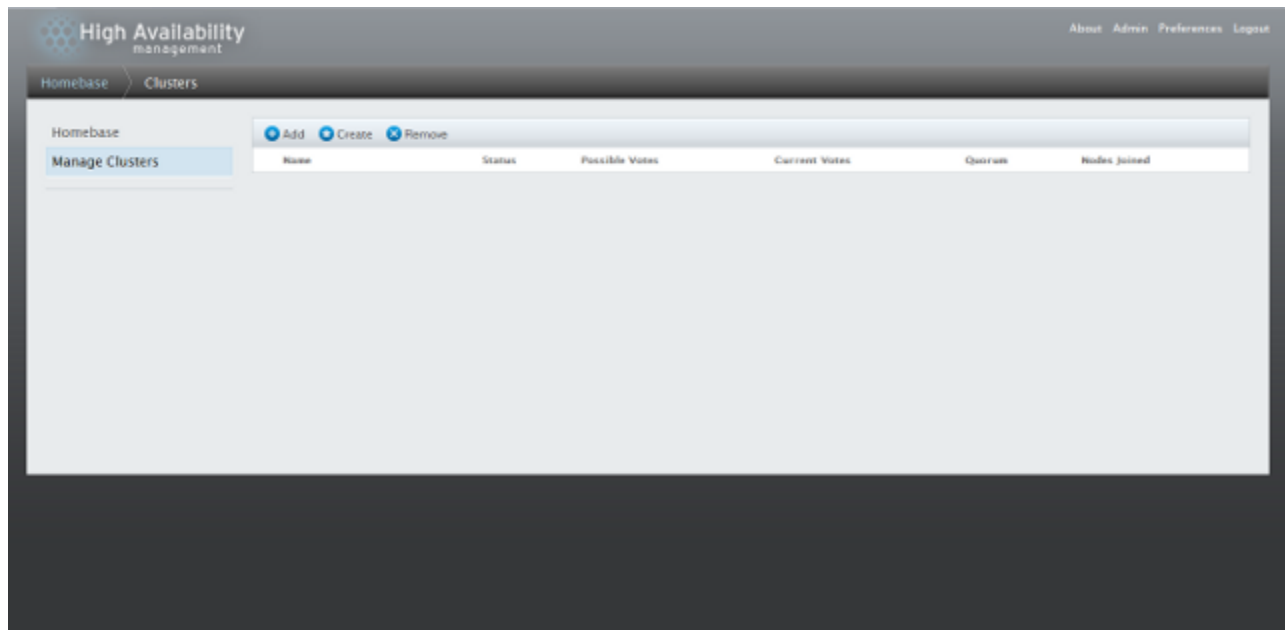
Username: **root**

Password: **password** zatim kliknite na **Login**.



The screenshot displays the 'High Availability management' web interface. At the top left is the logo and text 'High Availability management'. At the top right are links for 'About' and 'Login'. Below the header is a 'Homebase' breadcrumb. The main content area features a 'Login' form with the following fields: 'Username' containing 'root' and 'Password' containing masked characters (dots). A blue 'Login' button is positioned below the password field.

Da bi započeli konfiguraciju kliknite na **Manage Clusters** zatim na **Create**.



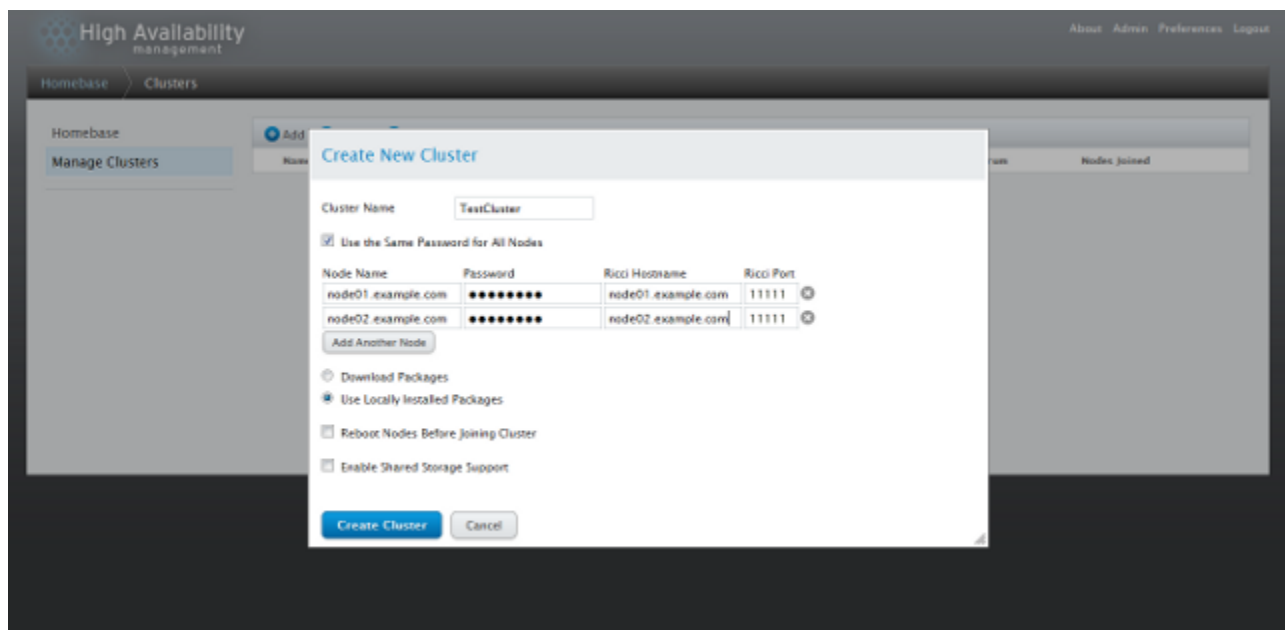
Kada se pojavi **Create New Cluster** unesite sledeće podatke

Cluster Name: **TestCluster**

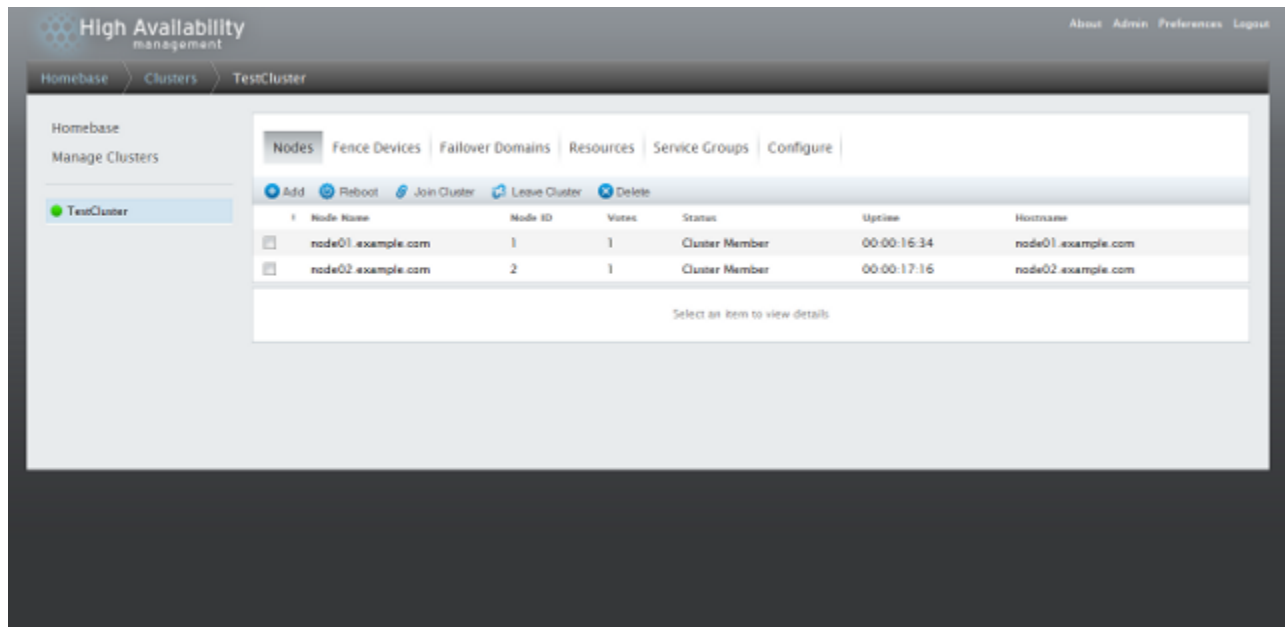
Odaberite **Use the Same Password for All Nodes** (password ricci korisnika)

Node Name: **node01.example.com, node02.example.com**

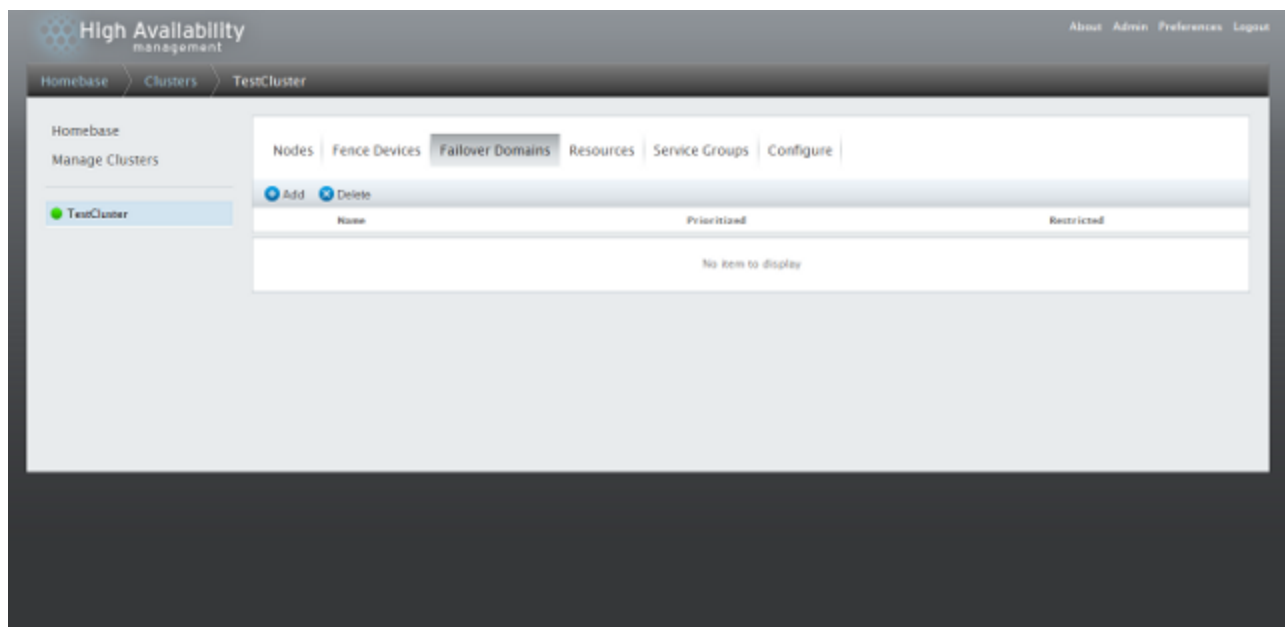
Odaberite **Use Locally Installed Packages** zatim kliknite na **Create Cluster**.



Kada se završi kreiranje osnovne konfiguracije prikazaće vam se informacije o članovima **TestCluster** clustera.



Nakon toga kliknite na **Failover Domains** zatim na **Add**.



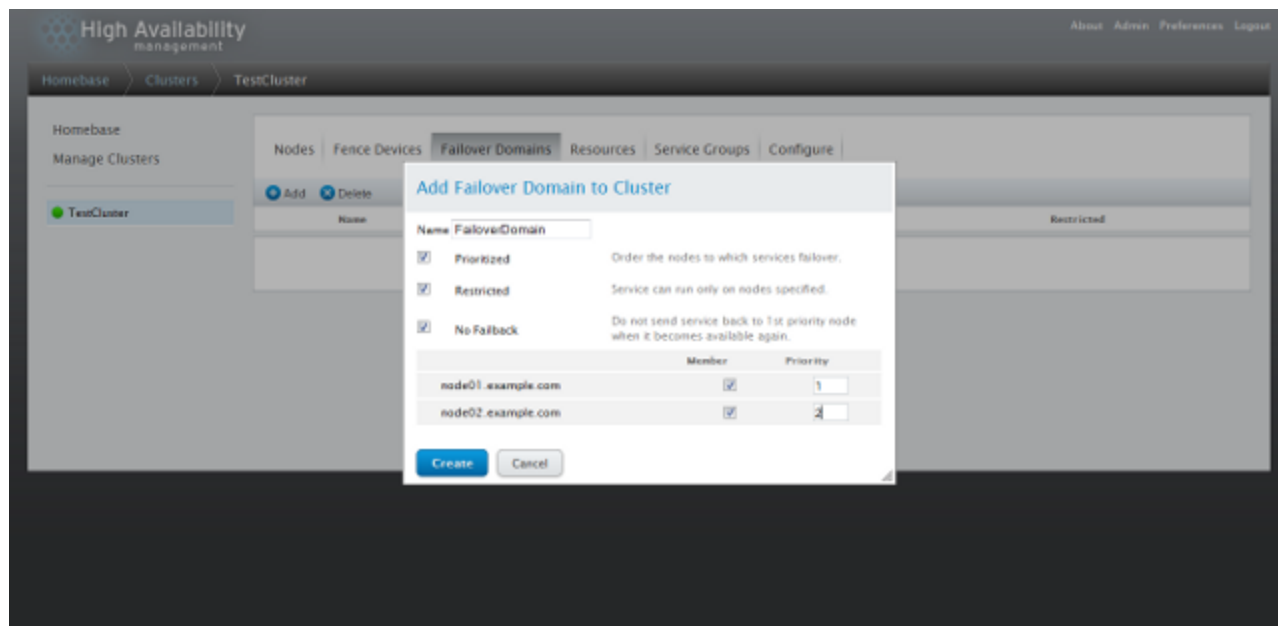
Kada se pojavi **Add Failover Domain to Cluster** unesite sledeće

Name: **FailoverDomain**

Odaberite **Prioritized**, **Restricted** i **No Failback**

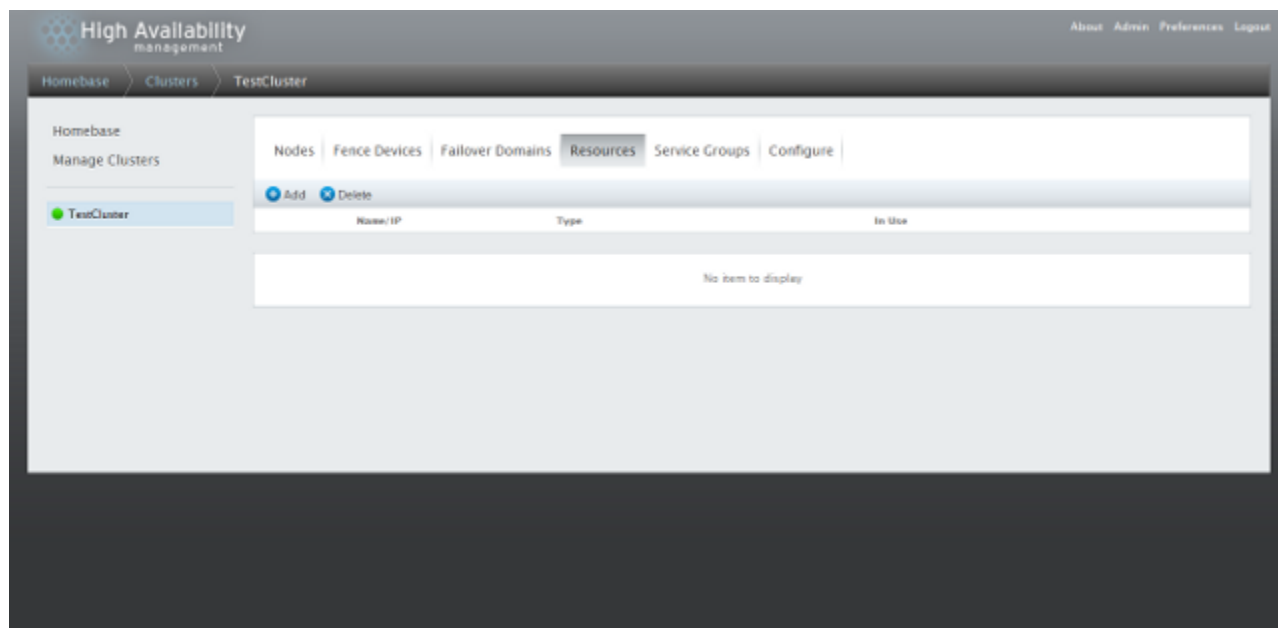
Selektujete oba servera (**node01**, **node02**) i postavite njihove prioritete (**1**, **2**)

Zatim kliknite na **Create**.

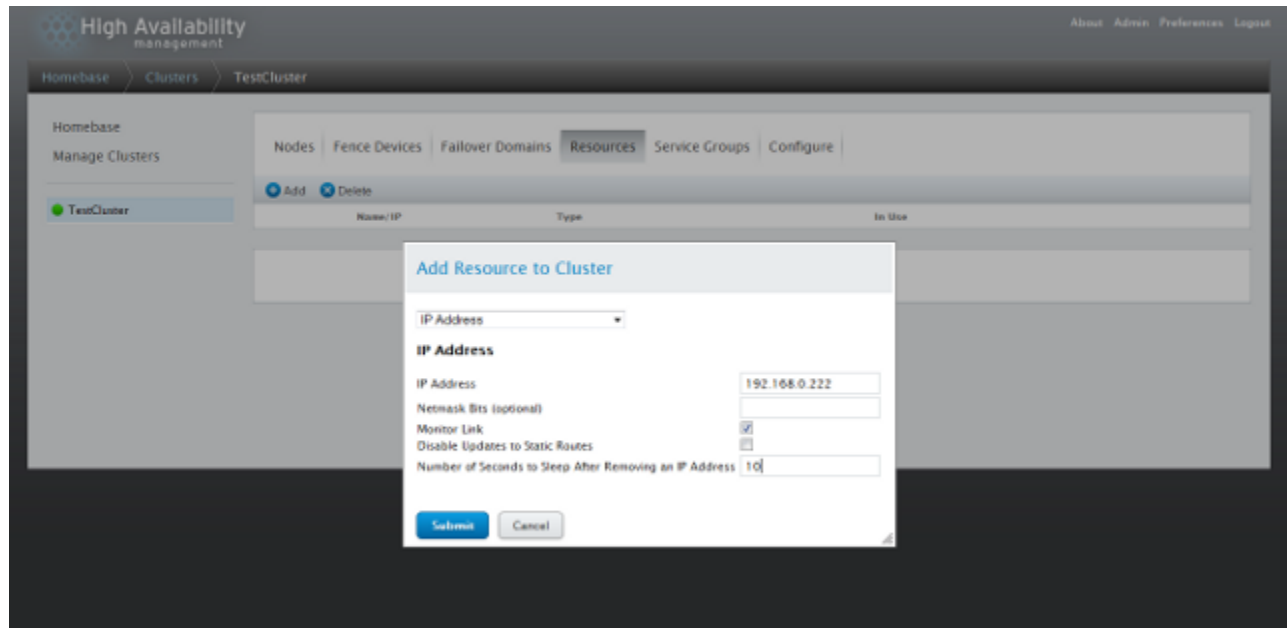


Nakon toga je potrebno dodati resurse (**service**) koje će cluster koristiti.

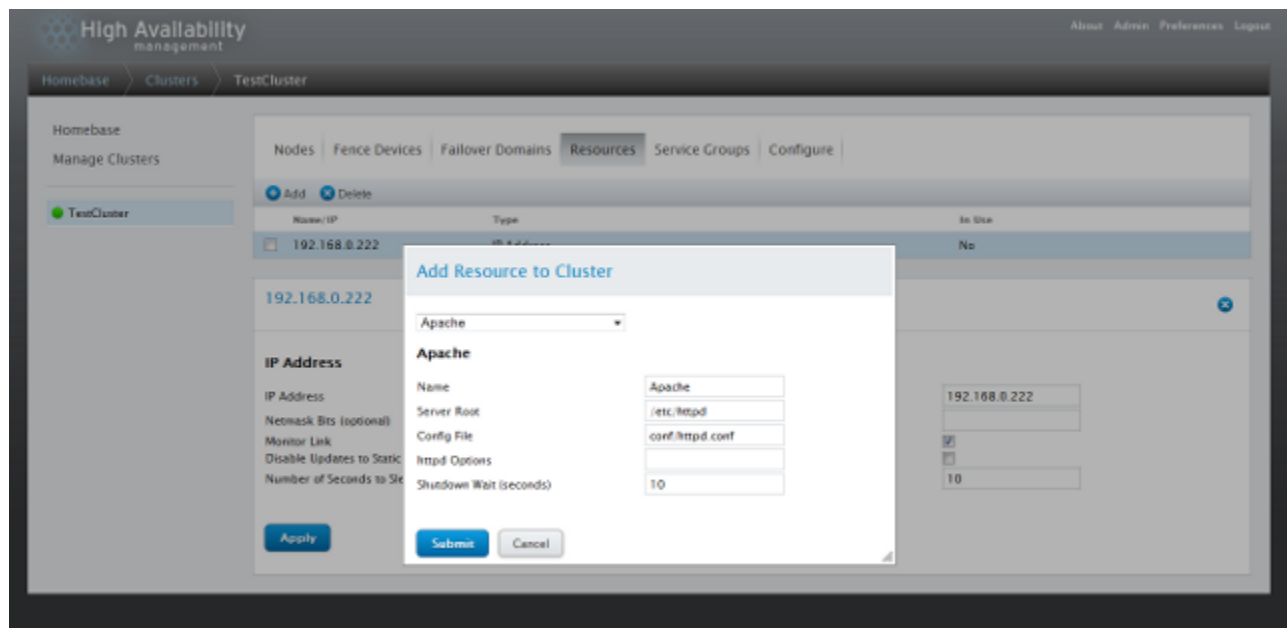
Kliknite na **Resources** zatim na **Add**.



Kada se pojavi **Add Resource to Cluster** izaberite sledeće  
Iz liste izaberite **IP Address** i unesite  
IP Address: **192.168.0.222** i selektujete **Monitor Link**  
Zatim kliknite na **Submit**.

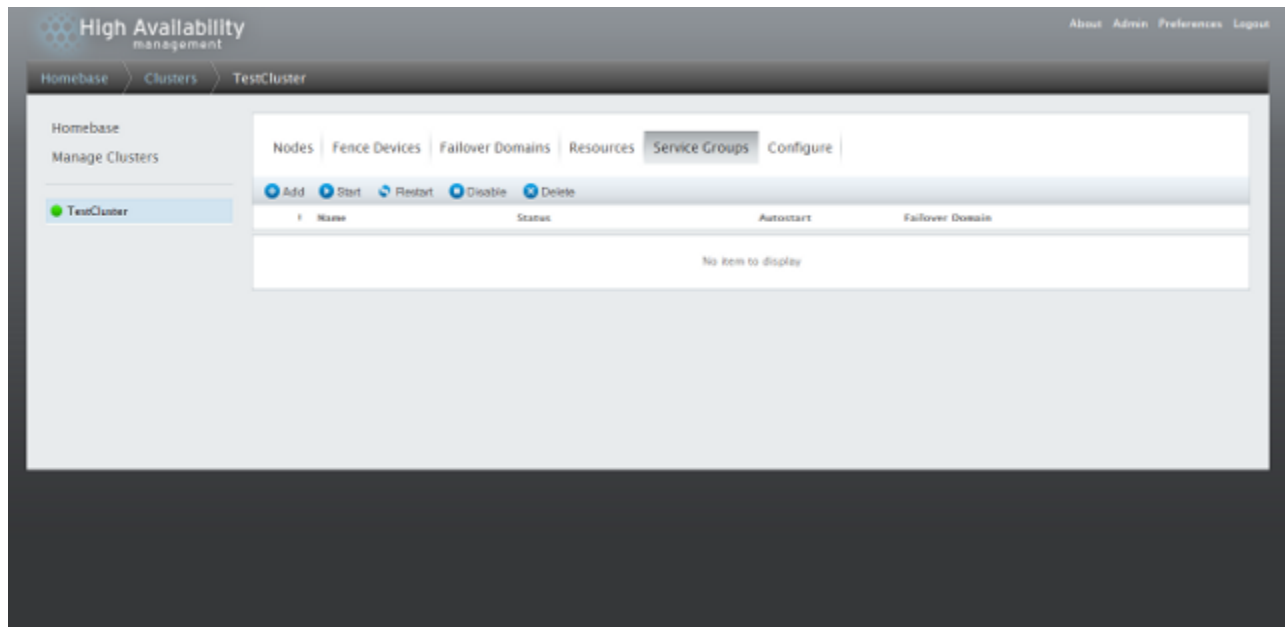


Ponovo kliknite na **Add**.  
Kada se pojavi **Add Resource to Cluster** izaberite sledeće  
Iz liste izaberite **Apache**. Unesite Name: **Apache** i Shutdown Wait (seconds): **10**  
Zatim kliknite na **Submit**.





Nakon toga kliknite na **Service Groups** zatim na **Add**.



Kada se pojavi **Add Service Group to Cluster** unesite sledeće

Service Name: **WebServer**

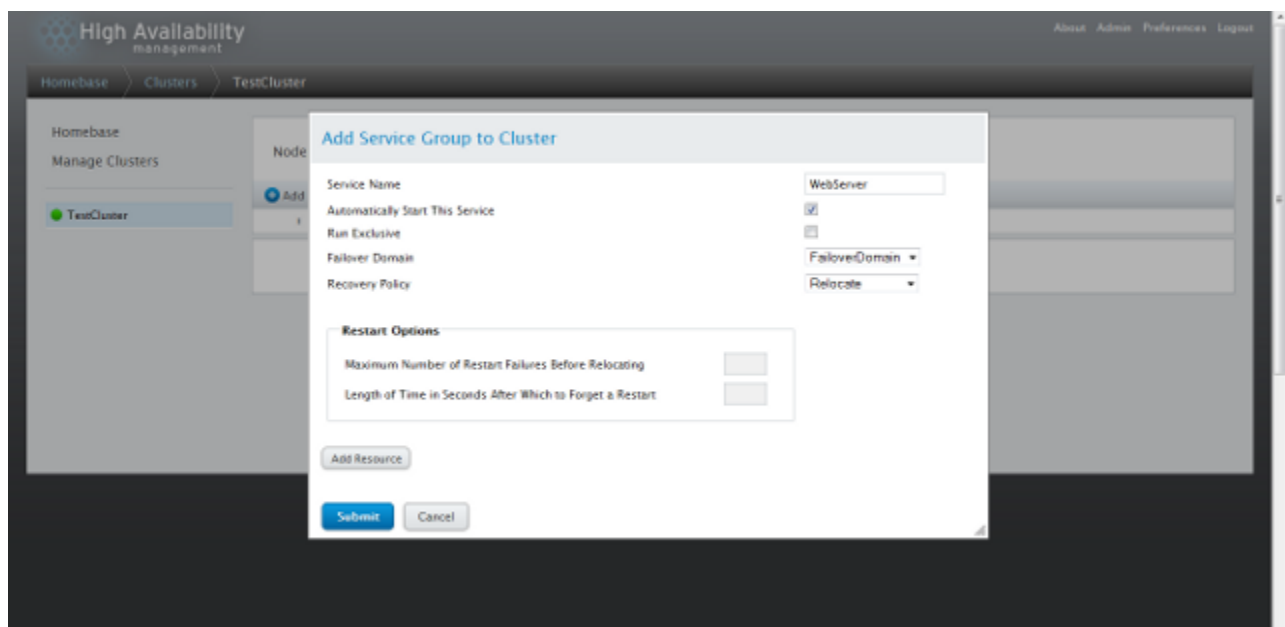
Izaberite **Automatically Start This Service**

Izaberite iz liste Failover Domain **FailoverDomain**

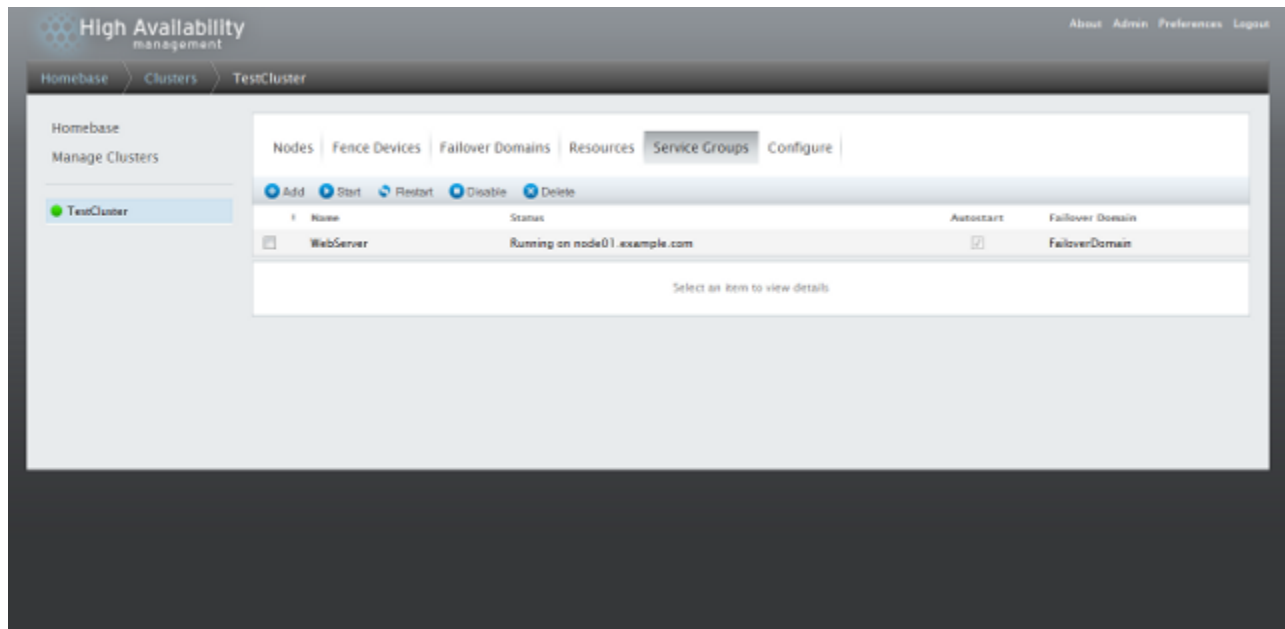
Zatim kliknite na **Add Resource** i izaberite **192.168.0.222**

Nakon toga kliknite na **Add Child Resource** i izaberite **Apache**.

Zatim kliknite na **Submit**.



Kada se završi kreiranje **Service Groups** dobićete sledeći ekran sa informacijama o status servisa.



### 3. Demonstracija

Stopiranje resursa (node01 ili node02)

**clusvcadm -s WebServer**

Startovanje resursa (node01 ili node02)

**clusvcadm -R WebServer**

Migriranje resursa sa jednog na drugi server (node01 ili node02)

**clusvcadm -r WebServer -m node02.example.com**

Monitoring clustering servisa

**cman\_tool nodes**

**clustat -i 1**