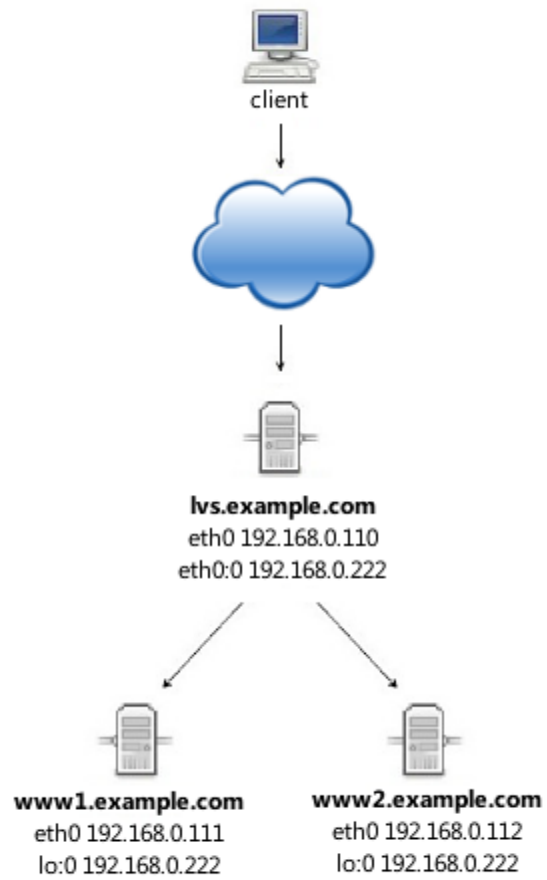


# Instalacija i konfiguracija LVS (Linux Virtual Server) na CentOS Linux 6



## **1. Instalacija CentOS Linux-a na serverima**

- Podešavanje servera

## **2. Instalacija LVS managera**

- Instalacija LVS managera
- Kreiranje konfiguracije
- Dodavanje servisa u startup

## **3. Demonstracija**

- Startovanje LVS managera
- Monitoring LVS-a
- Otkazivanje jednog od web servera
- Vraćanje web servera u konfiguraciju

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

## 1. Instalacija CentOS Linux-a na serverima

Ugasite SELinux (www1, www2, lvs)

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

Potrebno je uključiti IP forwarding (lvs)

```
sed -i 's/net.ipv4.ip_forward = 0/net.ipv4.ip_forward = 1/g' /etc/sysctl.conf
```

Potrebno je ugasiti ARP zahteve (www1, www2)

```
echo "net.ipv4.conf.all.arp_ignore = 1" >> /etc/sysctl.conf
```

```
echo "net.ipv4.conf.all.arp_announce = 2" >> /etc/sysctl.conf
```

```
echo "net.ipv4.conf.eth0.arp_ignore = 1" >> /etc/sysctl.conf
```

```
echo "net.ipv4.conf.eth0.arp_announce = 2" >> /etc/sysctl.conf
```

Podesite /etc/hosts fajl (www1, www2, lvs)

```
echo "192.168.0.110 lvs.example.com" >> /etc/hosts
```

```
echo "192.168.0.111 www1.example.com" >> /etc/hosts
```

```
echo "192.168.0.112 www2.example.com" >> /etc/hosts
```

```
echo "192.168.0.222 www.example.com" >> /etc/hosts
```

Dodavanje virtuelne IP adrese (lvs)

```
echo "ifconfig eth0:0 192.168.0.222 netmask 255.255.255.0" >> /etc/rc.local
```

Dodavanje virtuelne IP adrese (www1, www2)

```
echo "ifconfig lo:0 192.168.0.222 netmask 255.255.255.255" >> /etc/rc.local
```

Ugasite nepotrebne servise (www1, www2, lvs)

```
chkconfig iptables off
```

```
chkconfig ip6tables off
```

Potrebno je instalirati Apache i PHP (www1, www2)

```
yum install httpd mod_php
```

```
chkconfig httpd on
```

Napravite fajl /var/www/html/index.php (www1, www2)

```
<?php echo "You are now on <strong>" . exec('hostname') . "</strong>"; ?>
```

Nakon toga restartujte servere (www1, www2, lvs)

```
reboot
```

## 2. Instalacija LVS managera (lvs)

Instalacija LVS managera

```
wget http://default.rs/~mstrugarevic/ldirectord-3.0.10-1.fc13.i686.rpm  
yum localinstall ldirectord-3.0.10-1.fc13.i686.rpm
```

Kreiranje konfiguracije `/etc/ha.d/ldirectord.cf`

```
checktimeout=10  
checkinterval=2  
autoreload=yes  
logfile="/var/log/ldirectord.log"  
quiescent=yes
```

```
virtual=192.168.0.222:80  
real=192.168.0.111:80 gate 1  
real=192.168.0.112:80 gate 1  
checktype=negotiate  
service=http  
request="test.html"  
receive="OK"  
scheduler=rr  
protocol=tcp
```

Kreiranje `test.html` fajlova (www1, www2)

```
echo "OK" > /var/www/html/test.html
```

Dodavanje potrebnih LVS servisa

```
chkconfig ldirectord on
```

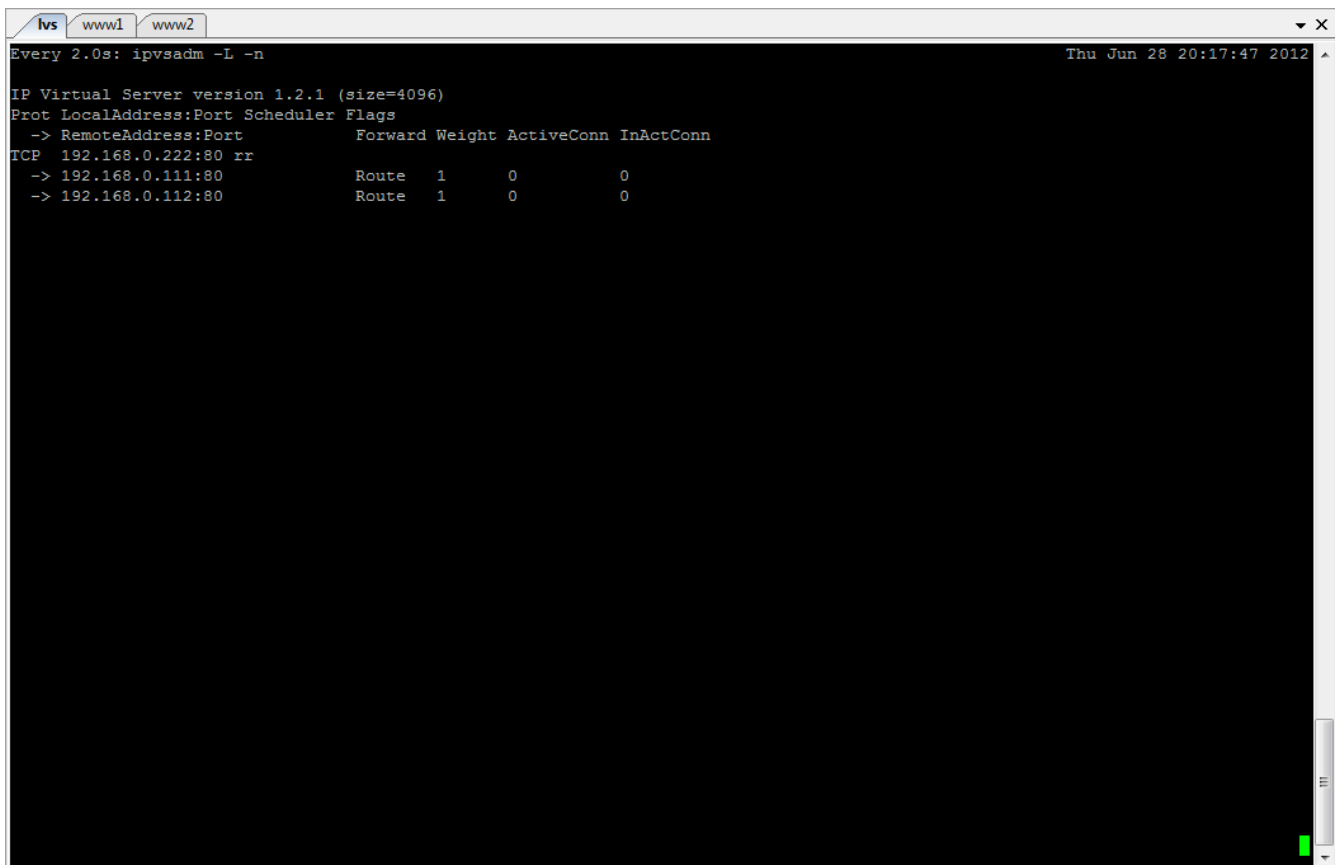
### 3. Demonstracija

Startovanje LVS managera

**service ldirectord start**

Monitoring LVS servisa

**watch ipvsadm -L -n**



The image shows a terminal window with the following content:

```
Every 2.0s: ipvsadm -L -n Thu Jun 28 20:17:47 2012 ^
IP Virtual Server version 1.2.1 (size=4096)
Prot LocalAddress:Port Scheduler Flags
-> RemoteAddress:Port Forward Weight ActiveConn InActConn
TCP 192.168.0.222:80 rr
-> 192.168.0.111:80 Route 1 0 0
-> 192.168.0.112:80 Route 1 0 0
```

Otkazivanje jednog od web servera

**service httpd stop**

Vraćanje web servera u konfiguraciju

**service httpd start**

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