### **‘keepalived’ failover setup on Ubuntu**

### **Requirements**

You'll need the following to get started with keepalived:

* 2 servers in the same network

I'll be using Ubuntu 16.04 servers in this example. These servers are in the 192.168.32.0 network. The virtual IP will be 192.168.33.71.

### **Install packages**

Use apt to install the required packages:

apt-get install keepalived

### **Configuring keepalived**

Create the config file on the first server (192.168.33.59):

vim /etc/keepalived/keepalived.conf

Edit and paste the following config:

vrrp\_instance VI\_1 {  
 state MASTER  
 interface eth0  
 virtual\_router\_id 51  
 priority 150  
 advert\_int 1  
 authentication {  
 auth\_type PASS  
 auth\_pass $ place secure password here.  
 }  
 virtual\_ipaddress {  
 192.168.33.71  
 }  
}

Create the config file on the second server (192.168.33.69):

vim /etc/keepalived/keepalived.conf

Edit and paste the following config:

vrrp\_instance VI\_1 {  
 state MASTER  
 interface eth0  
 virtual\_router\_id 51  
 priority 100  
 advert\_int 1  
 authentication {  
 auth\_type PASS  
 auth\_pass $ place secure password here.  
 }  
 virtual\_ipaddress {  
 192.168.33.71  
 }  
}

The priority must be highest on the server you want to be the master/primary. It can be 150 on the master, and 100, 99, 98, 97 on the slaves. The virtual\_router\_id must be the same on all nodes and the auth\_pass must also be the same. My network configuration is on eth0, change it if yours is on another one.

#### **sysctl**

In order to be able to bind on a IP which is not yet defined on the system, we need to enable non local binding at the kernel level.

Temporary:

echo 1 > /proc/sys/net/ipv4/ip\_nonlocal\_bind  
Permanent:

Add this to /etc/sysctl.conf:

net.ipv4.ip\_nonlocal\_bind = 1  
Enable with:

sysctl -p

**Start & Failover**

When the website is set up we can start both NGINX and Keepalived on both servers:

service keepalived start

Visit the IP you configured as a failover IP in your browser. You should see the page for server 1.

Let's do a test failover. On server 1, stop keepalived:

service keepalived stop

You can see virtual ip getting assigned to second server.