修改配置文件：

cd /etc/keepalived

vi keepalived.conf

版本一：未显示vip

```
! Configuration File for keepalived

global_defs {
   router_id lvs-node01
}

local_address_group laddr_g1 {
  10.2.1.221
}

virtual_server_group shanks1 {
  10.2.1.110
}
vrrp_instance VI_1 {
    state MASTER
    interface eth2
    virtual_router_id 66
    priority 150
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
        10.2.1.110 80
    }
}

virtual_server 10.2.1.110 80 {
    delay_loop 6
    lb_algo rr
 lb_kind FNAT
```

```
    protocol TCP
    syn_proxy
    laddr_group_name  laddr_g1
    real_server 10.2.1.214 80 {
        weight 10
        TCP_CHECK {
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
            connect_prot 80
        }
    }

virtual_server 10.2.1.110 80 {
    delay_loop 6
    lb_algo rr
    lb_kind FNAT
    protocol TCP
    syn_proxy
    laddr_group_name  laddr_g1
    real_server 10.2.1.215 80 {
        weight 10
        TCP_CHECK {
            connect_timeout 3
            nb_get_retry 3
            delay_before_retry 3
            connect_prot 80
        }
    }

}


```

版本二：显示vip，可访问，需要在RS上加上路由

```
! Configuration File for keepalived

global_defs {
```

```
   router_id lvs-node01
}

local_address_group laddr_g1 {
  10.2.1.221
}

virtual_server_group shanks1 {
  10.2.1.112 80
}

vrrp_instance VI_1 {
    state MASTER
    interface eth2
    virtual_router_id 51
    priority 150
    advert_int 1
    authentication {
        auth_type PASS
        auth_pass 1111
    }
    virtual_ipaddress {
        10.2.1.112/24
    }
}

virtual_server 10.2.1.112 80 {
    delay_loop 6
    lb_algo rr
    lb_kind FNAT
    protocol TCP
    syn_proxy
    real_server 10.2.1.215 80
   {
         weight 1
    }
}
virtual_server 10.2.1.112 80 {
    delay_loop 6
    lb_algo rr
```

```
    lb_kind FNAT
    protocol TCP
    syn_proxy
    real_server 10.2.1.214 80
   {
         weight 1
    }
}

```

在RS：214,215上加路由(配置正确后在keepalived主机上执行systemctl restart keepalived.service。从client上执行curl 10.2.1.112发现还是无法访问。这是由于real_server在接收到请求包后找不到路由进行数据返回，此时需要将keepalived主机作为网关，在real_server上添加回程路由route add default gw 10.2.1.112。10.2.1.112即为keepalived主机。考虑keepalived主机一般双机，因此此处可以用keepalived主机的虚拟IP。 现在再执行就可以正常返回。

```
route add default gw 10.2.1.112
```

Host解析修改：

```
[root@lvs-node01 ~]# vim /etc/hosts
127.0.0.1   localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
10.2.1.221 lvs-node01
10.2.1.220 lvs-node02
```

修改防火墙设置：

```
 vi /etc/selinux/config
将enforcing改为Disabled
重启:
reboot
```

```
[root@lvs-node01 ~]# /etc/init.d/iptables status
iptables: Firewall is not running.
```

```
[root@localhost keepalived]# service keepalived stop
Stopping keepalived: [ OK ]
[root@localhost keepalived]# vi keepalived.conf
[root@localhost keepalived]# service keepalived start
Starting keepalived: [ OK ]
[root@localhost keepalived]# ipvsadm -l
IP Virtual Server version 1.2.1 (size=1048576)
Prot LocalAddress:Port Scheduler Flags
  -> RemoteAddress:Port Forward Weight ActiveConn InActConn
TCP 10.2.1.110:http rr synproxy
  -> 10.2.1.214:http FullNat 10 0 0
  -> 10.2.1.215:http FullNat 10 0 0
[root@localhost keepalived]# ping 10.2.1.110
PING 10.2.1.110 (10.2.1.110) 56(84) bytes of data.
From 10.2.1.221 icmp_seq=2 Destination Host Unreachable
From 10.2.1.221 icmp_seq=3 Destination Host Unreachable
From 10.2.1.221 icmp_seq=4 Destination Host Unreachable
^C
--- 10.2.1.110 ping statistics ---
4 packets transmitted, 0 received, +3 errors, 100% packet loss, time
3833ms
pipe 3
[root@localhost keepalived]# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UNKNOWN
qlen 1000
    link/ether 00:50:56:84:32:25 brd ff:ff:ff:ff:ff:ff
    inet 10.2.1.221/24 brd 10.2.1.255 scope global eth2
    inet6 fe80::250:56ff:fe84:3225/64 scope link
       valid_lft forever preferred_lft forever
```

```
3: eth3: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN qlen 1000
    link/ether 00:50:56:84:3d:49 brd ff:ff:ff:ff:ff:ff
[root@localhost keepalived]# vi /etc/selinux/config
```

配置文件配置完成启动**keepalived**

```
[root@lvs-node03 ~]# /etc/init.d/keepalived start
Starting keepalived:                                       [  OK  ]
[root@lvs-node03 ~]# chkconfig keepalived on
[root@lvs-node03 ~]# chkconfig --list keepalived
keepalived      0:off       1:off       2:on       3:on       4:on
5:on       6:off
```

检查fullnat模式效果

```
[root@lvs-node01 ipvsadm]# ipvsadm -L
IP Virtual Server version 1.2.1 (size=4194304)
Prot LocalAddress:Port Scheduler Flags
  -> RemoteAddress:Port           Forward Weight ActiveConn InActConn
TCP  10.2.1.221:http rr synproxy
  -> lvs-node02:http              FullNat 10     0          0
  -> lvs-node03:http              FullNat 10     0          0
```

```
root@lvs-node01 ~]# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth2: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP qlen
1000
    link/ether 00:50:56:84:32:25 brd ff:ff:ff:ff:ff:ff
    inet 10.2.1.221/24 brd 10.2.1.255 scope global eth2
```

```
    inet 10.2.1.112/32 scope global eth2
    inet6 fe80::250:56ff:fe84:3225/64 scope link
       valid_lft forever preferred_lft forever
3: eth3: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN qlen 1000
    link/ether 00:50:56:84:3d:49 brd ff:ff:ff:ff:ff:ff

 查看进程，正常情况下keepalived应该有三个进程：
[root@lvs-node01 ~]# ps -e|grep keepalived
31989 ?        00:00:00 keepalived
31991 ?        00:00:00 keepalived
31992 ?        00:00:00 keepalived

```