Heartbeat

- Can be used to auto failover for drbd
- Need to create the following files:
  - `/etc/heartbeat/haresources`
    ```plaintext
    mysql IPaddr::144.38.219.211/27/eth0 drbddisk
    Filesystem::/dev/drbd1::/srv/data::ext2::defaults mysql
    ```
    - mysql is the primary node name, IPaddr is the IP that your mysql server should listen on (not the same as eth0). Should be an IP address that is in your range, not being used anywhere else. The 27 is CIDR notation for the mask. Heartbeat will create a virtual nic and listen on that IP address above when it runs. drbddisk is some script that runs. Filesystem line auto mounts that filesystem, mysql is the name of script to run to bring up/down mysql server
    - make sure you have put ext2 or ext3 depending on what you formatted your fs as.
  - `/etc/heartbeat/ha.cf` (note that mysql and mysql2 are my node names)
    ```plaintext
    logfacility     local0
    keepalive 2
deadtime 30
warnotime 10
initdead 120
bcast eth0
node mysql
node mysql2
    ```
  - `/etc/heartbeat/authkeys` (this will need to chmod 600)
    ```plaintext
    auth 2
    2 crc
    ```
  - Those files should be EXACT same on both nodes.
  - Also need to have this script in `/etc/heartbeat/resource.d/mysql.resource`
    ```bash
    #!/bin/bash
    . /etc/ha.d/shellfunc
    case "$1" in
    start)
    res=`/etc/init.d/mysql start`
    ret=$?
    ha_log $res
    exit $ret
    ;;
    stop)
    res=`/etc/init.d/mysql stop`
    ret=$?
    ha_log $res
    exit $ret
    ;;
    status)
    if [[ `ps -ef | grep '[m]ysqld'` > 1 ]]; then
    echo "running"
    else
    echo "stopped"
    fi
    ;;
    *)
    echo "Usage: mysql {start|stop|status}"
    exit 1
    ;;
esac
    ```
- Make sure that you do not have your drbd filesystem mounted anywhere. Make sure that `cat /proc/drbd` lists a primary and secondary.

- Then start up heartbeat on both nodes and pray that it works `/etc/init.d/heartbeat start`. Heartbeat should load up fine, but you will need to check to see that it brought up a virtual interface on a node. To get mine working, I had to reboot both nodes. It does take a minute or two for it to come up. Once it does come up, you should see if mysql works on the primary node. You can do a restart of heartbeat on the primary node and it should failover to the secondary. My new interface did NOT come up with a simple start of heartbeat; however, when I restarted both nodes heartbeat worked perfectly.

- (You can simulate a network failover by stopping heartbeat on the primary, rebooting primary, shutdown interface on primary, etc...)

- Here are my files
  - haresources
  - ha.cf
  - authkeys