공개 S/W 기술지원
(주)씨디네트웍스

한국소프트웨어진흥원
공개SW기술지원센터

<Revision 정보>

일자	VERSION	변경내역	작성자
2007.02.27	0.1	초기 작성	이은성

	공개SW 기술지원	
	구분 : 기술지원	단계:
	작성자: 이은성	작성일: 2007.02.27
	검토자:	검토일:
	승인자:	승인일:

1. 대상기업/기관 정보

구분	항목	내용	비고
기업/기관 정보	지역		
	기업/기관 명칭	(주)씨디네트웍스	
	부서	서비스기술팀	
	직책	과장	
	담당자 이름	김 욱	
	전화번호 / 팩스번호	02-3441-0593 / 02-569-5832	
	E-Mail		

2. 대상기업/기관 지원사항

구분	항목	내용	비고
기업/기관 지원사항	접수내용	① MySQL DB서버 Active/StandBy HA 클러스터 구축	
	지원내역	1. MySQL DB서버 Active/StandBy HA 클러스터 구축 [root@krkt06uldh02 EnCluster]# rpm -Uvh perl-DBI-1.40-8.x86_64.rpm [root@krkt06uldh02 EnCluster]# rpm -Uvh perl-DBD-MySQL-2.9004-3.1.x86_64.rpm mysqlclient10-3.23.58-4.RHEL4.1.x86_64.rpm [root@krkt06uldh02 EnCluster]# ./setup ==== EnCluster HA Installer ==== ### SELECT ONE ON MENU ### 1. Install PERL Module 2. Install EnCluster Admin	

```
   3. Install EnCluster HA
   4. Install ERBD (Replication)
   5. Configuration
   6. EXIT

   ############################
     :2

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install CMDB Cluman
   2. Config CIP
   3. Input the License KEY
   4. Patch
   5. go to MAIN MENU

   ############################
     :1
Install CMDB Cluman


==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install CMDB Cluman
   2. Config CIP
   3. Input the License KEY
   4. Patch
   5. go to MAIN MENU

   ############################
     :2
Config CIP
   Please input the Cluster IP Address!          ex)
192.168.123.100        : 61.78.57.170
```

```
Your Cluster IP is 61.78.57.170
Do you want to continue.. Please press any keys !!

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install CMDB Cluman
   2. Config CIP
   3. Input the License KEY
   4. Patch
   5. go to MAN MENU

   ############################
     :3
Config the License KEY
   Please input the EnCluster HA License!          ex)
ENC16-XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install CMDB Cluman
   2. Config CIP
   3. Input the License KEY
   4. Patch
   5. go to MAN MENU

   ############################
     :4
Patch
Patch is completed !!Do you want to continue.. Please
press any keys !!

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###
```

```
   1. Install CMDB Cluman
   2. Config CIP
   3. Input the License KEY
   4. Patch
   5. go to MAIN MENU

   ############################
     :5

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install PERL Module
   2. Install EnCluster Admin
   3. Install EnCluster HA
   4. Install ERBD (Replication)
   5. Configuration
   6. EXIT

   ############################
     :3


==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install PERL Module
   2. Install EnCluster Admin
   3. Install EnCluster HA
   4. Install ERBD (Replication)
   5. Configuration
   6. EXIT

   ############################
     :4
```

```
==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install ERBD Replication
   2. go to MAIN MENU

   ############################
     :1
Install ERBD Replication


==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install PERL Module
   2. Install EnCluster Admin
   3. Install EnCluster HA
   4. Install ERBD (Replication)
   5. Configuration
   6. EXIT

   ############################
     :5

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Configure
   2. go to MAIN MENU

   ############################
     :1
Configuration
Do you want to continue.. Please press any keys !!
```

```
==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Configure
   2. go to MAIN MENU

   ############################
     :2

==== EnCluster HA Installer ====

   ### SELECT ONE ON MENU ###

   1. Install PERL Module
   2. Install EnCluster Admin
   3. Install EnCluster HA
   4. Install ERBD (Replication)
   5. Configuration
   6. EXIT

   ############################
     :6

[root@krkt06uldh02 clx]# ps -ef
UID        PID  PPID  C STIME TTY          TIME CMD
root         1     0  0 Feb14 ?        00:00:00 init [3]

root         2     1  0 Feb14 ?        00:00:02
[migration/0]
root         3     1  0 Feb14 ?        00:00:00
[ksoftirqd/0]
root         4     1  0 Feb14 ?        00:00:02
[migration/1]
root         5     1  0 Feb14 ?        00:00:02
[ksoftirqd/1]
root         6     1  0 Feb14 ?        00:00:02
```

```
[migration/2]
root             7     1  0 Feb14 ?           00:00:02
[ksoftirqd/2]
root             8     1  0 Feb14 ?           00:00:02
[migration/3]
root             9     1  0 Feb14 ?           00:00:00
[ksoftirqd/3]
root            10     1  0 Feb14 ?           00:00:00
[events/0]
root            11     1  0 Feb14 ?           00:00:00
[events/1]
root            12     1  0 Feb14 ?           00:00:00
[events/2]
root            13     1  0 Feb14 ?           00:00:00
[events/3]
root            14    10  0 Feb14 ?           00:00:00
[khelper]
root            15    10  0 Feb14 ?           00:00:00 [kacpid]
root            54    10  0 Feb14 ?           00:00:00
[kblockd/0]
root            55    10  0 Feb14 ?           00:00:00
[kblockd/1]
root            56    10  0 Feb14 ?           00:00:00
[kblockd/2]
root            57    10  0 Feb14 ?           00:00:00
[kblockd/3]
root            58     1  0 Feb14 ?           00:00:00 [khubd]
root            85    10  0 Feb14 ?           00:00:00
[pdflush]
root            86    10  0 Feb14 ?           00:00:00
[pdflush]
root            89    10  0 Feb14 ?           00:00:00 [aio/0]
root            87     1  0 Feb14 ?           00:00:00
[kswapd1]
root            88     1  0 Feb14 ?           00:00:00
[kswapd0]
root            90    10  0 Feb14 ?           00:00:00 [aio/1]
root            91    10  0 Feb14 ?           00:00:00 [aio/2]
```

```
root        92    10  0 Feb14 ?        00:00:00 [aio/3]
root       236     1  0 Feb14 ?        00:00:00 [kseriod]
root       351     1  0 Feb14 ?        00:00:00 [scsi_eh_0]
root       352     1  0 Feb14 ?        00:00:00 [aacraid]
root       373    10  0 Feb14 ?        00:00:00 [ata/0]
root       374    10  0 Feb14 ?        00:00:00 [ata/1]
root       375    10  0 Feb14 ?        00:00:00 [ata/2]
root       376    10  0 Feb14 ?        00:00:00 [ata/3]
root       382     1  0 Feb14 ?        00:00:00 [scsi_eh_1]
root       383     1  0 Feb14 ?        00:00:00 [scsi_eh_2]
root       386     1  0 Feb14 ?        00:00:00 [scsi_eh_3]
root       387     1  0 Feb14 ?        00:00:00 [scsi_eh_4]
root       401     1  0 Feb14 ?        00:00:02 [kjournald]
root      1645     1  0 Feb14 ?        00:00:00 udevd
root      1882    11  0 Feb14 ?        00:00:00 [kauditd]
root      1963    13  0 Feb14 ?        00:00:00 [kmirrord]
root      1984     1  0 Feb14 ?        00:00:00 [kjournald]
root      1985     1  0 Feb14 ?        00:00:05 [kjournald]
root      1986     1  0 Feb14 ?        00:00:04 [kjournald]
root      1987     1  0 Feb14 ?        00:00:00 [kjournald]
root      2668     1  0 Feb14 ?        00:00:04 syslogd -m 0
root      2672     1  0 Feb14 ?        00:00:00 klogd -x
```

```
root         2682        1  0 Feb14 ?          00:00:00
irqbalance
rpc          2693        1  0 Feb14 ?          00:00:00 portmap
root         2712        1  0 Feb14 ?          00:00:00
rpc.statd
root         2742        1  0 Feb14 ?          00:00:00
rpc.idmapd
root         2814        1  0 Feb14 ?          00:00:00
/usr/sbin/acpid
root         2907        1  0 Feb14 ?          00:00:00 xinetd
-stayalive -pidfile /var/
root         2916        1  0 Feb14 ?          00:00:00 gpm -m
/dev/input/mice -t exps2
htt          2947        1  0 Feb14 ?          00:00:00
/usr/sbin/htt -retryonerror 0
htt          2948     2947  0 Feb14 ?          00:00:00
htt_server -nodaemon
root         2957        1  0 Feb14 ?          00:00:02 crond
xfs          2979        1  0 Feb14 ?          00:00:00 xfs
-droppriv -daemon
root         2996        1  0 Feb14 ?          00:00:00
/usr/sbin/atd
dbus         3005        1  0 Feb14 ?          00:00:00
dbus-daemon-1 --system
root         3059        1  0 Feb14 ?          00:01:55 hald
root         3068        1  0 Feb14 tty3       00:00:00
/sbin/mingetty tty3
root         3069        1  0 Feb14 tty4       00:00:00
/sbin/mingetty tty4
root         3070        1  0 Feb14 tty5       00:00:00
/sbin/mingetty tty5
root         3071        1  0 Feb14 tty6       00:00:00
/sbin/mingetty tty6
root         7887        1  0 Feb14 ?          00:00:00
/usr/sbin/sshd
root        23744        1  0 Feb15 ?          00:00:55
./fms_agent start
root        23745        1  0 Feb15 ?          00:00:00
```

```
./fms_ftp start
root       8961      1   0 Feb18 ?        00:00:00 cupsd
root      22978   7887   0 Feb20 ?        00:00:00 sshd:
cdnethyun [priv]
500       22987  22978   0 Feb20 ?        00:00:00 sshd:
cdnethyun@pts/0
500       22988  22987   0 Feb20 pts/0    00:00:00 -bash
root      23028  22988   0 Feb20 pts/0    00:00:00 su -
root      23029  23028   0 Feb20 pts/0    00:00:00 -bash
root      12280      1   0 Feb20 ?        00:00:00 /bin/sh
/usr/local/mysql/bin/mys
mysql     12307  12280   0 Feb20 ?        00:02:41
/usr/local/mysql/libexec/mysqld
root       9398      1   0 09:44 ?        00:00:59
./fms_manager start
root      28647  23029   0 10:43 pts/0    00:00:00 top
root      30531  23029   0 10:45 pts/0    00:00:00 ping
61.78.57.163
root      30574  23029   0 10:45 pts/0    00:00:00 ping
61.78.57.165
root      30762  23029   0 10:45 pts/0    00:00:00 ping
61.78.57.170
root      24892      1   0 14:26 ?        00:00:00 login --
root
root       6825  24892   0 15:48 tty1     00:00:00 -bash
root      30676      1   0 16:33 tty2     00:00:00
/sbin/mingetty tty2
root       1790   7887   0 16:39 ?        00:00:00 sshd:
clunix [priv]
clunix     1841   1790   0 16:39 ?        00:00:00 sshd:
clunix@pts/1
clunix     1842   1841   0 16:39 pts/1    00:00:00 -bash
root       1891   1842   0 16:39 pts/1    00:00:00 su -
root       1913   1891   0 16:39 pts/1    00:00:00 -bash
root       2022   6825   0 16:39 tty1     00:00:00 tail -f
/var/log/messages
root       3543   7887   0 16:42 ?        00:00:00 sshd:
clunix [priv]
```

```
clunix      3594   3543   0 16:42 ?          00:00:00 sshd:
clunix@pts/2
clunix     3595   3594   0 16:42 pts/2     00:00:00 -bash
clunix      4598   3595   0 16:44 pts/2      00:00:00 ssh
clunix@61.78.57.163 -p 3389
root        5649   7887   0 16:46 ?          00:00:00 sshd:
clunix [priv]
clunix      5735   5649   0 16:46 ?          00:00:00 sshd:
clunix@pts/3
clunix     5736   5735   0 16:46 pts/3     00:00:00 -bash
root        5770   5736   0 16:46 pts/3     00:00:00 su -
root        5785   5770   0 16:46 pts/3     00:00:00 -bash
root        9619   2957   0 16:53 ?          00:00:00 crond
root        9623   9619   0 16:53 ?          00:00:00 /bin/sh
/usr/local/fms64/sbin/li
root        9823   9623   0 16:53 ?          00:00:00 sleep 1
root        9824   1913   0 16:53 pts/1     00:00:00 ps -ef

[root@krkt06uldh02 etc]# vi clusterip
"clusterip" 1L, 13C61.78.57.170

[root@krkt06uldh02 etc]# vi ha.cf
"ha.cf" 19L, 236Clogfacility      daemon
logfile /usr/clx/log/ha-log
use_logd on
keepalive 2
deadtime 10
warntime 5
initdead 20
udpport 1001

#bcast eth0

#ucast eth0 192.168.123.102

baud 38400
serial /dev/ttyS0
```

```
auto_failback off
node     n1
node     n2


[root@krkt06uldh02 etc]# vi erbd.cf
"erbd.cf" 69L, 1654Cskip {
  As you can see, you can also comment chunks of text
  with a 'skip[optional nonsense]{ skipped text }' section.
  This comes in handy, if you just want to comment out
  some 'resource <some name> {...}' section:
  just precede it with 'skip'.

  The basic format of option assignment is
  <option name><linear whitespace><value>;

  It should be obvious from the examples below,
  but if you really care to know the details:

  <option name> :=valid options in the respective scope
  <value>    := <num>|<string>|<choice>|...depending on
the set of allowed valuesfor the respective option.
  <num>      := [0-9]+, sometimes with an optional suffix
of K,M,G
  <string> := (<name>|₩"([^₩"₩₩₩n]*|₩₩.)*₩")+
  <name>     := [/_.A-Za-z0-9-]+
}1,1Top}


resource drbd0 {
  protocol C;
  incon-degr-cmd "echo '!DRBD! pri on incon-degr' |
wall ; sleep 60 ; halt -f";
  startup {
    wfc-timeout 120;
    degr-wfc-timeout 120;
  }
```

```
  disk {
    on-io-error    detach;
  }

  net {
    # sndbuf-size 512k;
    # timeout60;     #  6 seconds  (unit = 0.1 seconds)
    # connect-int     10;       # 10 seconds  (unit = 1
second)
    # ping-int         10;       # 10 seconds  (unit = 1
second)
    # max-buffers      2048;
    # max-epoch-size   2048;
    # ko-count 4;22,145%     # max-epoch-size   2048;
    # ko-count 4;
    # on-disconnect reconnect;}yncer {rate 10M;group 1;
al-extents 257;
  }on n1 {   device      /dev/drbd0;
    disk/dev/sda7;
    address     192.168.123.101:7788;
    meta-disk   internal;
  }on      n2      {device                    /dev/drbd0;disk
/dev/hda7;address          192.168.123.102:7788;43,591disk
/dev/hda7;
    address    192.168.123.102:7788;
    meta-disk internal;
  }
}



[root@krkt06uldh02 etc]# vi hacommand.cf
"hacommand.cf"  1L,  91Cn1  192.168.123.100  drbddisk
Filesystem::/dev/drbd0::/data::ext3   mysqld   MysqlChecck
NetCheck


[root@krkt06uldh02 etc]# vi nodeinfo.cf
```

```
"nodeinfo.cf" 7L, 81CANODE=n1
SNODE=n2
SVCD=mysqld
SVCTRY=
CONNECTTRY=5
DBTRY=5
PINGD=192.168.123.254

[root@krkt06uldh02 etc]# modprobe drbd

[root@krkt06uldh02 etc]# lsmod
Module                  Size  Used by
drbd                  157324  0
md5                     5953  1
ipv6                  284193  22
parport_pc             29569  0
lp                     15345  0
parport                44493  2 parport_pc,lp
autofs4                24393  0
sunrpc                176441  1
ds                     21705  0
yenta_socket           23105  0
pcmcia_core            69841  2 ds,yenta_socket
dm_mirror              32721  0
dm_mod                 68609  1 dm_mirror
button                  9313  0
battery                11465  0
ac                      6985  0
ohci_hcd               24529  0
ehci_hcd               33989  0
tg3                   109509  0
ext3                  138193  5
jbd                    69105  1 ext3
sata_nv                12229  0
libata                 78345  1 sata_nv
aacraid                71745  7
sd_mod                 19393  9
scsi_mod              141457  3 libata,aacraid,sd_mod
```

```
[root@krkt06uldh02 etc]# /etc/rc.d/init.d/heartbeat
d/init.d/drbd ls
clusterip ha.cf license.key snapshot.cdb
wma_applist.dist
erbd.cf hacommand.cf nodeinfo.cf wma_applist
[root@krkt06uldh02 etc]# pwd
/usr/clx/etc
[root@krkt06uldh02 etc]# df -h
Filesystem Size Used Avail Use% Mounted on
/dev/sda1 8.7G 914M 7.4G 11% /
none 3.9G 0 3.9G 0% /dev/shm
/dev/sda7 24G 2.1G 21G 10% /home
/dev/sda3 12G 2.5G 8.6G 23% /usr
/dev/sda2 20G 225M 19G 2% /var
/dev/sdb1 68G 96M 64G 1% /data
[root@krkt06uldh02 etc]# cd /ad data/
[root@krkt06uldh02 data]# ls
lost+found mysql
[root@krkt06uldh02 data]# cd mysql/
[root@krkt06uldh02 mysql]# ls
fms_main krkt06uldh02.pid mysql-bin.000002
mysql-bin.index
ibdata1 mysql mysql-bin.000003
test
krkt06uldh02.err mysql-bin.000001 mysql-bin.000004
```