

# AIX ?????

## Install package lsof

Where to download the lsof, bind, rsyslog, openssh, openssl, etc packages?

- URL:

[https://www.ibm.com/resources/mrs/assets/packageList?source=aixbp&lang=en\\_US](https://www.ibm.com/resources/mrs/assets/packageList?source=aixbp&lang=en_US)

lsof\_4.892.tar

```
tar xf lsof_4.892.tar
cd lsof_4.892
installp -acgXYd . lsof.base lsof.license lsof.man.en_US
lsof -v
```

```
tar xf lsof_4.892.tar
cd lsof_4.892
smitty installp

# Install Software
# INPUT device / directory for software  [.] << Input a dot
# SOFTWARE to install                    [_all_latest] << Esc + 4, Esc + 7
# ACCEPT new license agreements?         yes
```

## User & Group

```
# Create a new user
mkuser admin="false" pgrp="staff" gecos="Test User" test3
mkuser admin="false" pgrp="staff" groups="sshsusers" gecos="Test User" test3

# Remove a user
rmuser -p <user-name>
```

# Network

## Check the interface

```
lsdev -Cc if
lsdev -Cc adapter
lscfg -vpl ent0
lsattr -El ent0
lsattr -El en0
```

## Set the network

```
# Set the ip/netmask/gateway
/usr/sbin/mktcpip -h'aixvm' -a'192.168.99.100' -m'255.255.255.0' -i'en0' -g'192.168.99.1' -A'no' -t'N/A'

# Set the DNS server addr
echo "nameserver 1.1.1.1" > /etc/resolv.conf
```

# LVM

## PV

```
# Add a disk hdisk3 to a PV
## NOTE:  disk PV lsvg lsvg pv-id
cvgmgr
chdev -l hdisk3 -a pv=yes
lsvg

# Remove a PV from a disk hdisk3
## If done, the pv-id appears 'none'
chdev -l hdisk3 -a pv=clear
lsvg
```

## VG

```
# Create VG with 128M(PP size)
mkvg -y <vg-name> -s 128 hdisk1 hdisk2
```

```
# Add PVs hdisk3, hdisk4 to specific VG
extendvg <vg-name> hdisk3 hdisk4

# Remove a VG with PVs hdisk3, hdisk4
reducevg <vg-name> hdisk3 hdisk4
```

## LV

```
# Create LV with 5G
## mklv -y <lv-name> -t jfs2 <vg-name> [LP-number|GB-size]
/usr/sbin/mklv -y'siview_lv' -tjfs2 smapvg 80
/usr/sbin/mklv -y'siview_lv' -tjfs2 smapvg 10G

# Remove a LV
rmlv <lv-name>
```

## Filesystem

```
# Create a filesystem with /data
## -A: Whether the filesystem is mounted at each system restart.
## crfs -v jfs2 -A yes -d <lv-name> -m <mount-point> -a logname=INLINE
/usr/sbin/crfs -v 'jfs2' -A'yes' -d'siview_lv' -m'/home/siview' -a logname=INLINE
mount /home/siview

# Extend the size of 1024MB for specified filesystem
chfs -a size=+1024M /home
## Alternatively, resizing to specified number
chfs -a size=2048M /home

# Remove a filesystem
## Check if the mount-point has been closed/syncd
lslv -l <vg-name>
rmfs <mount-point>
```

## ??????

```
# Login Failed
who /etc/security/failedlogin | tail -50
```

```
# Check the number of previous unsuccessful logins for the account to confirm it is blocked
```

```
lsuser -a account_locked unsuccessful_login_count {ALL|user_name}
```

```
# Reset unsuccessful login counter
```

```
chsec -f /etc/security/lastlog -a unsuccessful_login_count=0 -s {user_name}
```

```
# Unlock the locked account
```

```
chuser account_locked=false {user_name}
```

```
# Lock account
```

```
chuser account_locked=true {user_name}
```

```
# List the locked accounts
```

```
lsuser ALL | sed -n '/account_locked=true/p' | sed '/sshd/d' | awk '{print $1}'
```

??????????

- ???????????
- ???retry ????????????????????????
- ?????????????????

```
chuser loginretries=5 <username>
```

```
lsuser -a loginretries <username>
```

## ?? errpt

### Sample #1

```
#!/usr/bin/env bash
```

```
#
```

```
# $0 = errptcheck_v3.sh
```

```
#
```

```
# Created: 05/16/2005 A-lang Hsu.
```

```
# Updated:
```

```
# - v4, 11/19/2015 A-Lang
```

```
# - v5, 11/17/2020 A-Lang
```

```
#
```

```
#
```

```

# This script will check the error log
# for new entries. Upon finding them, it will send an email to
# administrators containing a message indicating the change
# in errlog status, as well as the offending lines.
#
PATH=/bin:/sbin:/usr/bin:/usr/sbin:/usr/local/bin:/usr/es/sbin/cluster/utilities

tmpfile="errptcheck.$$"
trap "rm -f $tmpfile" EXIT

today="$(date +%Y-%m-%d)"
nowtime="$(date +%T)"

# Excluded identifier id
# 573790AA - The default log file has been changed.
# A3B02BE6 - sddsrv CAN'T WRITE ITS LOG FILE
#
#EXCLUDE_ID=" \
#573790AA \
#A3B02BE6 \
#"
EXCLUDE_ID=""

#
if $(which get_local_nodename >/dev/null 2>&1); then
    my_hostname=`hostname`#`get_local_nodename`
else
    my_hostname=`hostname`
fi

mail_subject="Warning:Hardware/Software error notification for host $my_hostname"
mail_to="alang@mycom.com"

#ec=`errpt -dH,S,U,O | grep -v "IDENTIFIER TIMESTAMP" | wc -l`
ERRGREP=""
n=0
for i in $EXCLUDE_ID;do
    n=$((n+1))
    if [ "$n" -eq 1 ];then
        ERRGREP="$i"
    fi
done

```

```

else
    ERRGREP="$ERRGREP|$i"
fi
done
if [ -z "$ERRGREP" ]; then
    ec=`errpt -dH,S,U,O | grep -v "IDENTIFIER TIMESTAMP" | wc -l`
else
    ec=`errpt -dH,S,U,O | grep -v "IDENTIFIER TIMESTAMP" | grep -vE "$ERRGREP" | wc -l`
fi

if [ "$ec" -ne "0" ] ; then
    ec=`echo $ec | bc`
    cat <<EOF > $tmpfile
#####
    This message was generated automatically by host ${my_hostname}.
    Please don't reply to this message.
#####

    The checked time is ${today} ${nowtime}
    ${ec} new errors have been found on $my_hostname.
    EOF

    errlogl=`errpt -dH,S,U,O -a`
    cat <<EOF >> $tmpfile
Errlog details below:
${errlogl}
EOF
    mail -s "$mail_subject" "$mail_to" < $tmpfile;

    cat $tmpfile
fi

```

## Sample #2

```

#!/bin/ksh
#
# $0 = errmon.sh
#
# Written 11/3/1998 Bill Verzal.
#

```

```

# This script will run every [interval] and check the error log
# for new entries. Upon finding them, it will send an email to
# administrators containing a message indicating the change
# in errlog status, as well as the offending lines.
#
if [ "$1" = "-v" ] ; then
    set -x
fi
lc="NULL"
tc="$lc"
# lc="last count"
# tc="this count"
#interval=900
interval=300
# Divide interval by 60 to get number of minutes.
me="$0 - Hardware error monitoring"
myname=`hostname`
args="$*"
#mailto="root"
mailto="alert"
true=0
false=1
boj=`date`

echo "$me started.\nThis message goes to $mailto." | mail -s "Errlog monitoring for $myname" $mailto
logger "$0 started"

while [ "$true" != "$false" ] ; do
    tc=`errpt -dH,S,U,O | wc -l`
    if [ "$lc" = "NULL" ] ; then
        lc="$tc"
    fi
    if [ "$lc" -ne "$tc" ] ; then
        foo=`echo "$tc-$lc"|bc`
        msg="$foo new errors have been found on $myname"
        page_msg="$foo new errors have been found on $myname"
        errlogl=`errpt -dH,S,U,O -a`
        if [ "$tc" -eq "0" ] ; then
            msg="$msg\n Errlog was cleared"
        else

```

```

logger $msg
msg=" $msg \n Errlog details below:\n $errlogl \n"
echo "$msg" | mail -s "Errlog status change on host $myname" $mailto
fi
fi
lc="$tc"
sleep $interval
done

```

## ?? HMC root

- [?? HMC8 ? HMC9 ? root ??](#)

## Restrictd users to switch to root

```

# Create a group sysadm
mkgroup sysadm

# Add the user1 that is allowed to su to root into the group sysadm
chgrpmem -m + user1 sysadm
lsgroup sysadm

chsec -f /etc/security/user -s root -a sugroups=sysadm
# Reset to the default, sugroups=ALL
# Alternatively
smitty user
# Change / Show Characteristics of a User
# User Name                [root]
# SU GROUPS                 [sysadm]

```

## Restricted Shell

???????????????? Shell ???????

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- [How to Use a Restricted Shell](#)

Defaul Shell?



```
# Change the default shell for the user to the restricted shell such as rksh or Rsh.
chuser shell=/usr/bin/rksh <user-name>

# OR
chsh <user-name> /usr/bin/rksh
```

.profile?

```
# Add the commands that are allowed to run by the user into the directory.
mkdir /usr/bin/restricted
cd /usr/bin/restricted
ln -s /usr/bin/date date

# Create a .profile in the user's home directory and set the PATH environment variable to
# a directory containing all of the commands you want the user to be able to run
export PATH=/usr/bin/restricted
```

## Core dump

```
# ☐ core file
dbx -C ./core

(dbx) corefile

(dbx) dump

(dbx) quit
```

## System dump

errpt:

```
67145A39 0413095315  U  S  SYSDUMP  SYSTEM DUMP
```

Copy the dump from the dump device to a file using the `savecore` command:

```
savecore .
```



Yes, the period is necessary. It indicates you want the dump copied to your current directory

savecore will copy the dump to your current directory, and name it:

```
vmcore.0.BZ
```

Uncompress the dump using the dmpuncompress command:

```
dmpuncompress vmcore.0.BZ
```

Lastly, format the dump:

```
/usr/lib/ras/dmptns/dmpfmt -c vmcore.0
```

Reading a Dump

```
kdb vmcore.0 vmunix.0
```

????

Memory - svmon

```
# For a summary of the top 15 processes using memory on the system
svmon -Pt15 | perl -e 'while(<>){print if($.==2||$&&&!$s++);$s.=0 if(/^-$$/)}'
```

-----									
Pid	Command	Inuse	Pin	Pgsp	Virtual	64-bit	Mthrd	16MB	
18547096	db2sysc	3956861	12944	282407	4007901	Y	Y	Y	N
19333470	db2sysc	690873	12944	26772	688572	Y	Y	Y	N
19726694	db2sysc	271696	12944	6198	287133	Y	Y	Y	N
13500914	db2sysc	263458	12943	18957	285159	Y	Y	Y	N
1966448	shlap64	109377	12900	3432	122071	Y	N	N	
13631924	db2vend	105589	12900	597	115784	Y	N	N	
19005734	db2sysc	105082	12902	409	114965	Y	Y	N	
20709798	db2sysc	105071	12900	409	114953	Y	N	N	
20119938	db2sysc	105071	12900	409	114953	Y	N	N	
20185458	db2sysc	105071	12900	408	114953	Y	N	N	
15597848	db2vend	104222	12900	1771	115608	Y	N	N	

21430722	db2sysc	103728	12900	1576	114777	Y	N	N
21037528	db2sysc	103724	12902	1576	114773	Y	Y	N
14025064	db2sysc	103696	12900	1608	114777	Y	N	N
18350424	db2sysc	103696	12900	1608	114777	Y	N	N

## Sar

- [sar ?? - IBM ????](#)

```
''' ??? sar: 0551-201 Cannot open /var/adm/sa/sa09????? sar -o
/var/adm/sa/sa09 10
```

```
# CPU
sar -u 2 10

# Mmemory
sar -r 2 10

# I/O
sar -b 2 10
```

## iostat

```
iostat 2 10
```

## Perl ??

??????????

```
perl -e "use LWP::UserAgent;"
perl -e "use DBI;"
```

## HTTP GET request

```
use LWP::UserAgent;

my $ua = LWP::UserAgent->new;
```

```

my $server_endpoint = "http://192.168.1.1:8000/service";

# set custom HTTP request header fields
my $req = HTTP::Request->new(GET => $server_endpoint);
$req->header('content-type' => 'application/json');
$req->header('x-auth-token' => 'kfksj48sdfj4jd9d');

my $resp = $ua->request($req);
if ($resp->is_success) {
    my $message = $resp->decoded_content;
    print "Received reply: $messagen";
}
else {
    print "HTTP GET error code: ", $resp->code, "n";
    print "HTTP GET error message: ", $resp->message, "n";
}

```

## HTTP POST request

```

use LWP::UserAgent;

my $ua = LWP::UserAgent->new;

my $server_endpoint = "http://192.168.1.1:8000/service";

# set custom HTTP request header fields
my $req = HTTP::Request->new(POST => $server_endpoint);
$req->header('content-type' => 'application/json');
$req->header('x-auth-token' => 'kfksj48sdfj4jd9d');

# add POST data to HTTP request body
my $post_data = '{ "name": "Dan", "address": "NY" }';
$req->content($post_data);

my $resp = $ua->request($req);
if ($resp->is_success) {
    my $message = $resp->decoded_content;
    print "Received reply: $messagen";
}
else {

```

```
print "HTTP POST error code: ", $resp->code, "n";  
print "HTTP POST error message: ", $resp->message, "n";  
}
```

## NFS

“ Can't mount remotely Linux host on AIX

Try to run the following commands on your AIX.

```
nfso -o nfs_use_reserved_ports=1  
nfso -o portcheck=1
```

## AIX Toolbox

- [AIX Toolbox for Open Source Software : Downloads alpha \(ibm.com\)](#)
- [Configuring YUM and creating local repositories on IBM AIX - IBM Developer](#)
- [Tips for Installing Python or other AIX Toolbox for Open Source Software](#)

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