

NAME

asmmenu - launch Advanced System Management menu

SYNOPSIS

asmmenu --ip *IP-address* [**--help**]

DESCRIPTION

asmmenu launches the Advanced System Management (ASM) interface for a managed system using the browser on the Hardware Management Console (HMC).

OPTIONS

--ip The IP address or host name of the service processor for the managed system for which to launch the ASM browser interface.

EXAMPLES

Launch the ASM browser interface for the managed system's service processor which has the IP address 192.168.131.25:

asmmenu --ip 192.168.131.25

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

bkconsdata - back up console data

SYNOPSIS

```
bkconsdata -r { dvd | ftp | nfs | none }  
[-h host-name] [-u user-ID] [--passwd password]  
[-l mount-resource-location] [-o "mount-command-options"]  
[-d remote-directory]  
[--help]
```

DESCRIPTION

bkconsdata backs up critical Hardware Management Console (HMC) data, which is HMC data that is stored on the HMC hard disk. This backup data may be used to restore the HMC if the HMC needs to be reinstalled from the HMC recovery CDs in the event of an HMC hard disk failure.

OPTIONS

- r** The archive option for the backup data. Valid values are **dvd** for the DVD drive on the HMC, **ftp** for a remote FTP site, **nfs** for an NFS mounted remote file system, or **none**. The **none** option is used to remove the backup task lock allowing this task to be re-executed immediately.
- h** The host name or IP address of the remote FTP or NFS server.

This option is required when backing up the data to a remote FTP site or NFS file system. Otherwise, this option is not valid.
- u** The user ID to use to log in to the remote FTP site.

This option is required when backing up the data to a remote FTP site. Otherwise, this option is not valid.
- passwd**
The password to use to log in to the remote FTP site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when backing up the data to a remote FTP site.
- l** The mount resource location defined on the NFS server where the backup data will be written.

This option is required when backing up the data to a remote NFS file system. Otherwise, this option is not valid.
- o** Options to be passed to the **mount** command used to mount the remote NFS file system where the backup data will be written. The options must be enclosed in double quotes.

This option is only valid when backing up the data to a remote NFS file system.
- d** The directory on the remote FTP or NFS server to which to write the backup data. If this option is not specified when backing up the data to a remote FTP site, the backup data will be written to the user's home directory. If this option is not specified when backing up the data to a remote NFS file system, the backup data will be written to the *mount-resource-location* on the NFS server.

This option is only valid when backing up the data to a remote FTP site or NFS file system.
- help** Display the help text for this command and exit.

EXAMPLES

Back up critical HMC data to DVD:

```
bkconsdata -r dvd
```

Back up critical HMC data to a remote FTP site:

```
bkconsdata -r ftp -h ftpserver -u ftpuser  
--passwd ftppassword
```

Back up critical HMC data to an NFS mounted remote file system:

```
bkconsdata -r nfs -h 9.3.145.52 -l /home/hmc/backups
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

bkprofdata - back up profile data

SYNOPSIS

bkprofdata -m *managed-system* **-f** *file* [**--force**] [**--help**]

DESCRIPTION

bkprofdata backs up profile data for the *managed-system*.

The **rstprofdata** command can be used to restore profile data for the *managed-system*.

The **rmprofdata** command can be used to remove a profile data backup file.

OPTIONS

-m The name of the managed system for which to back up profile data. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-f The name of the backup file where the profile data is to be written. If *file* is not fully qualified, *file* will be written to the */var/hsc/profiles/serial-number* directory on the HMC (*serial-number* is the serial number of the managed system).

If *file* already exists, this command will fail unless the **--force** option is specified.

To back up the profile data to removable media, the media must be present in the removable media device and the device must be mounted with the **mount** command before this command is issued. The **lsmediadev** command can be used to display all of the removable media devices on the HMC.

--force This option allows the specified backup file to be overwritten if it already exists. If the specified backup file already exists and this option is not specified, the backup will fail.

--help Display the help text for this command and exit.

EXAMPLES

Back up the profile data to a file called **myFile** on a floppy diskette (a floppy diskette must have already been inserted into the diskette drive):

```
mount /media/floppy
```

```
bkprofdata -m mySystem -f /media/floppy/myFile
```

Back up the profile data to a file called **backup1** (the file will be written to the */var/hsc/profiles/3413444* directory on the HMC):

```
bkprofdata -m 9406-570*3413444 -f backup1
```

Back up the profile data to a file called **backup1** (the file will be written to the */var/hsc/profiles/3413444* directory on the HMC). The file **backup1** will be overwritten if it already exists:

```
bkprofdata -m 9406-570*3413444 -f backup1 --force
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsmediadev, rmprofdata, rstprofdata

NAME

chaccfg - change access control configuration

SYNOPSIS

```
chaccfg -t { resourcerole | taskrole }  
  { -f configuration-file | -i "configuration-data" }  
  [--help]
```

DESCRIPTION

chaccfg changes the configuration of an access control role.

OPTIONS

- t** The type of access control role to change. Valid values are **resourcerole** for managed resource role and **taskrole** for task role.
- f** The name of the file containing the configuration data needed to change the access control role. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. These attribute name/value pairs form a configuration record. A line feed marks the end of a configuration record. There can only be one configuration record in the file.

The format of a configuration record is as follows:

```
attribute-name=value,attribute-name=value,...<LF>
```

Note that certain attributes accept a comma separated list of values, as follows:

```
"attribute-name=value,value,...",...<LF>
```

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

If `'+='` is used in the attribute name/value pair instead of `'='`, then the specified *value* is added to the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the specified *value(s)* is added to the existing list.

If `'-='` is used in the attribute name/value pair instead of `'='`, then the specified *value* is subtracted from the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the specified *value(s)* is deleted from the existing list.

The `'+='` and `'-='` operators can only be used when changing a managed resource role.

Attribute names for managed resource roles:

- name**
name of the managed resource role to change (required)
- resources**
comma separated list of managed resource objects (required)

Attribute names for task roles:

- name**
name of the task role to change (required)
- resources**
comma separated list of tasks (required)

The **-f** and the **-i** options are mutually exclusive.

- i** This option allows you to enter configuration data on the command line, instead of using a file. Data entered on the command line must follow the same format as data in a file, and must be enclosed in double quotes.

The **-i** and the **-f** options are mutually exclusive.

- help** Display the help text for this command and exit.

EXAMPLES

Change the managed resource objects for the managed resource role **lpar_role** where **XXX** is a resource name returned from **lsaccfg -t resource --script**:

```
chaccfg -t resourcerole -i "name=lpar_role,resources=XXX"
```

Add a managed resource object to the managed resource role **mr1** where **XXX** is a resource name returned from **lsaccfg -t resource --script**:

```
chaccfg -t resourcerole -i "name=mr1,resources+=XXX"
```

Change the task role **tr1**:

```
chaccfg -t taskrole -i "name=tr1,"resources=  
cec:ChangeCECProperty+CECPowerOn+CECPowerOff,  
lpar:ChangeLPARProperty+ChangeProfileProperty""
```

Change a task role using the configuration data in the file **/tmp/cfgFile**:

```
chaccfg -t taskrole -f /tmp/cfgFile
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsaccfg, **mkaccfg**, **rmaccfg**

NAME

chcod - change Capacity on Demand

SYNOPSIS

To enter a CoD code:

```
chcod -o e -m managed-system -k CoD-code
```

To activate or change the amount of On/Off CoD resources:

```
chcod -o a -m managed-system -c onoff -r {mem | proc}  
-q quantity-of-resources -d number-of-days
```

To activate or change the number of Reserve CoD or Utility CoD processors:

```
chcod -o a -m managed-system -c {reserve | utility}  
-r proc -q quantity-of-processors
```

To deactivate all On/Off CoD, all Reserve CoD, all Trial CoD, or all Utility CoD resources:

```
chcod -o d -m managed-system  
-c {onoff | reserve | trial | utility}  
-r {mem | proc}
```

To set or disable a Utility CoD processor minute usage limit:

```
chcod -o s -m managed-system -c utility -r proc  
-l number-of-processor-minutes
```

DESCRIPTION

chcod performs Capacity on Demand (CoD) operations on the *managed-system*.

chcod is used to enter a CoD code for the *managed-system*. It is also used to activate On/Off CoD, Reserve CoD, or Utility CoD resources, or to deactivate On/Off CoD, Reserve CoD, Trial CoD, or Utility CoD resources. CoD resources are either memory or processors.

chcod is also used to set or disable a Utility CoD processor minute usage limit.

Reserve CoD is only supported on POWER5 servers. Utility CoD is only supported on POWER6 servers.

OPTIONS

-o The CoD operation to perform. Valid values are **e** to enter a CoD code, **a** to activate or change the number of On/Off CoD, Reserve CoD, or Utility CoD resources, **d** to deactivate all On/Off CoD, all Reserve CoD, all Trial CoD, or all Utility CoD resources, and **s** to set or disable a Utility CoD processor minute usage limit.

To change the number of On/Off CoD resources or days that are currently activated, specify an activate operation with this option, specify the total number of activated On/Off CoD resources that you want with the **-q** option, and specify the number of days that you want them for with the **-d** option. An activate operation is to be used regardless of whether the total number of activated On/Off CoD resources is being increased, decreased, or kept the same. A deactivate operation is to be used only when you no longer want to have any activated On/Off CoD resources.

To change the number of Reserve CoD or Utility CoD processors that are currently activated, specify an activate operation with this option, and specify the total number of activated Reserve CoD or Utility CoD processors that you want with the **-q** option. An activate operation is to be used regardless of whether the total number of activated Reserve CoD or Utility CoD processors is being increased or decreased. A deactivate operation is to be used only when you no longer want to have any activated Reserve CoD or Utility CoD processors in the shared processor pool.

Note that CUoD and Trial CoD resources are activated by entering CoD codes.

- m** The name of the managed system for which the CoD operation is to be performed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- k** The CoD code (key) to enter. Letters may be entered in either upper case or lower case.
- c** The CoD type. Valid values are **onoff** for On/Off CoD, **reserve** for Reserve CoD, **trial** for Trial CoD, and **utility** for Utility CoD.

Reserve CoD is only supported on POWER5 servers. Utility CoD is only supported on POWER6 servers.
- r** The CoD resource type. Valid values are **mem** for memory and **proc** for processors.
- q** The quantity of On/Off CoD, Reserve CoD, or Utility CoD resources requested. The value specified must be a whole number which is greater than 0.

When requesting On/Off CoD memory, the value specified must be in megabytes, and it must be a multiple of 1024 megabytes.
- d** The number of days for which the On/Off CoD resources are requested.
- l** The number of processor minutes to set as the Utility CoD processor minute usage limit.

To disable the Utility CoD processor minute usage limit, specify a 0 with this option.
- help** Display the help text for this command and exit.

EXAMPLES

Enter a CoD code:

```
chcod -m sys1 -o e -k AlphaNumericString12345
```

Activate 2 GB of On/Off CoD memory for 10 days:

```
chcod -m 9406-570*1001CA -o a -c onoff -r mem -q 2048 -d 10
```

Increase to 5 GB of On/Off CoD memory for 3 days:

```
chcod -m 9406-570*1001CA -o a -c onoff -r mem -q 5120 -d 3
```

Activate 4 On/Off CoD processors for 5 days:

```
chcod -m sys1 -o a -c onoff -r proc -q 4 -d 5
```

Decrease to 1 On/Off CoD processor for 5 days:

```
chcod -m sys1 -o a -c onoff -r proc -q 1 -d 5
```

Activate 3 Reserve CoD processors:

```
chcod -m 9406-570*1001CA -o a -c reserve -r proc -q 3
```

Decrease the number of activated Reserve CoD processors to 1:

chcod -m sys1 -o a -c reserve -r proc -q 1

Activate 1 Utility CoD processor:

chcod -m 9117-MMA*10BACEC -o a -c utility -r proc -q 1

Activate 2 more Utility CoD processors for a total of 3 Utility CoD processors:

chcod -m 9117-MMA*10BACEC -o a -c utility -r proc -q 3

Decrease the number of activated Utility CoD processors to 2:

chcod -m 9117-MMA*10BACEC -o a -c utility -r proc -q 2

Deactivate all On/Off CoD processors:

chcod -m sys1 -o d -c onoff -r proc

Deactivate all Reserve CoD processors:

chcod -m sys1 -o d -c reserve -r proc

Deactivate all Utility CoD processors:

chcod -m sys1 -o d -c utility -r proc

Deactivate all Trial CoD memory and stop the trial:

chcod -m 9406-570*1001CA -o d -c trial -r mem

Set a Utility CoD processor minute usage limit of 100 processor minutes:

chcod -m sys1 -o s -c utility -r proc -l 100

Disable the Utility CoD processor minute usage limit:

chcod -m sys1 -o s -c utility -r proc -l 0

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lscod

NAME

chhmc - change Hardware Management Console (HMC) configuration information

SYNOPSIS

To change remote access settings:

```
chhmc -c {ssh | xntp}  
-s {enable | disable | modify}  
[--sshprotocol {1 | 2 | all}]  
[--help]
```

To change remote web browser access:

```
chhmc -c remotewebui  
-s {enable | disable}  
-i interface  
[-a {IPv4-address | IPv6-address[/prefix-length]}]  
[-nm IPv4-network-mask]  
[--help]
```

To add or remove an entry in the syslog configuration file:

```
chhmc -c syslog  
-s {add | remove}  
{-a IP-address | -h host-name}  
[--help]
```

To add or remove an entry in the network time protocol configuration file:

```
chhmc -c xntp  
-s {add | remove}  
{-a {IPv4-address | IPv6-address[/prefix-length]} |  
-h host-name}  
[--ntpversion {1 | 2}]  
[-nm IPv4-network-mask]  
[-i interface]  
[--help]
```

To configure whether keyboard mapping configuration will occur at the next reboot:

```
chhmc -c kbdcfg  
-s {enable | disable}  
[--help]
```

To configure the network as a startup device:

```
chhmc -c netboot  
-s {enable | disable}  
[--help]
```

To configure an alternate disk partition on the HMC as a startup device:

```
chhmc -c altdiskboot  
-s {enable | disable}  
--mode {install | upgrade}  
[--help]
```

To permit or deny IP addresses from utilizing HMC services:

```
chhmc -c {ssh | service}  
-s {add | remove}  
-a {IPv4-address | IPv6-address[/prefix-length]}  
[-nm IPv4-network-mask]
```

[-i interface]
[--help]

If **-nm** is omitted, the default IPv4 network mask will be **255.255.255.255**.

If *prefix-length* is omitted, the default IPv6 prefix length will be **128**.

If **-i** is omitted, the rule will be applied to all interfaces.

To add or remove entries from the DNS server search order or the domain suffix search order:

chhmc -c network
-s {add | remove}
[-ns DNS-server]
[-ds domain-suffix]
[--help]

To change network settings for a specific network interface:

chhmc -c network
-s modify
-i interface
[-a {none | list}]
[-nm IPv4-network-mask]
 [--ipv6auto {on | off}]
 [--ipv6privacy {on | off}]
 [--ipv6dhcp {on | off}]
 [--ipv4dhcp {on | off}]
 [--lparcomm {on | off}]
[--help]

To change other network settings:

chhmc -c network
-s modify
[-h host-name]
[-d network-domain-name]
[-g gateway]
[--help]

To change the locale for the HMC:

chhmc -c locale
-s modify
-l locale
[--help]

To change the HMC date and time, or time zone:

chhmc -c date
-s modify
 [--datetime date-time]
 [--clock {local | utc}]
 [--timezone {time-zone | none}]
[--help]

To change the HMC Kerberos configuration:

```
chhmc -c kerberos  
-s {add | modify | remove}  
[{-a KDC-IPv4-address[:port] |  
-h KDC-host-name[:port]}]  
[--realm realm]  
[--defaultrealm realm]  
[--clockskew clock-skew]  
[--ticketlifetime ticket-lifetime]  
[--help]
```

DESCRIPTION

chhmc changes Hardware Management Console (HMC) configuration information, such as remote access settings and network settings.

OPTIONS

- c** The type of configuration to be modified. Valid values are **ssh**, **syslog**, **xntp**, **network**, **kbdcfg**, **netboot**, **altdiskboot**, **locale**, **service**, **date**, **remotewebui**, and **kerberos**.
- s** The new state value of the configuration. Valid values are **enable**, **disable**, **add**, **modify**, and **remove**.
- i** The interface to configure, such as **eth0** or **sl0**.
- a** The network IP address.

For network interface configuration, this is the static IP address configuration. Valid values are:

- none** - no static IP address configured
- list* - specify a comma-separated list of static IP addresses. The list can contain zero or one static IPv4 address and zero or more static IPv6 addresses in the following format:
static-address/prefix-length

For all other operations except Kerberos configuration, an IPv4 or IPv6 address can be specified.

For Kerberos configuration, use this option to specify the IPv4 address of the Key Distribution Center (KDC). An optional port number can be specified following the IPv4 address. If the KDC has an IPv6 address, then you cannot use this option to specify the IP address of the KDC. You must use the **-h** option to specify the host name of the KDC instead. Either this option or the **-h** option to specify the KDC is required for a Kerberos add or remove operation. This option is not valid for a Kerberos modify operation.

- nm** The IPv4 network mask.
- ipv6auto**
The IPv6 autoconfiguration setting for the network interface.

Valid values are:

- on** - autoconfigure IPv6 addresses
- off** - do not autoconfigure IPv6 addresses

- ipv6privacy**
The IPv6 privacy extension setting for the network interface.

Valid values are:

- on** - use privacy extensions for autoconfiguration
- off** - do not use privacy extensions for autoconfiguration

--ipv6dhcp

The IPv6 DHCP setting for the network interface.

Valid values are:

- on** - obtain an IPv6 address automatically via DHCP
- off** - do not obtain an IPv6 address automatically via DHCP

--ipv4dhcp

The IPv4 DHCP setting for the network interface.

Valid values are:

- on** - obtain an IPv4 address automatically via DHCP
- off** - do not obtain an IPv4 address automatically via DHCP

This option cannot be used if a static IPv4 address has also been specified with the **-a** option.

--lparcomm

The LPAR communication setting for the network interface.

-d The network domain name.

-h The host name.

For Kerberos configuration, use this option to specify the host name of the Key Distribution Center (KDC). An optional port number can be specified following the host name. Also, either this option or the **-a** option to specify the KDC is required for a Kerberos add or remove operation. This option is not valid for a Kerberos modify operation.

-g The default gateway IP address.

-ns The nameserver IP address to add or remove.

-ds The domain suffix to add or remove.

--ntpversion

The ntp version if the server is not at NTP version 3 and above.

--mode The mode to use when startup from the alternate disk partition. Default value is **upgrade**. Valid values are **install** and **upgrade**.

-l The locale. For a list of all locales supported by the HMC, issue the **lshmc -L** command.

For the new locale to take effect for the local HMC console, you must log off the console and log back on. For the new locale to take effect for the HMC command line, you must reboot the HMC.

--datetime

The new date and time to set on the HMC's clock. *date-time* must be specified using the following format:

MMDDhhmm[[*CC*]*YY*][*.ss*]

where *MM* is the month, *DD* is the day, *hh* is the hour in 24 hour format, *mm* is the minutes, *CC* is the century, *YY* is the year, and *ss* is the seconds.

This option is required when the **--clock** option is specified.

You must reboot the HMC after setting the date and time.

--clock The BIOS clock type. Valid values are **local** and **utc**.

--timezone

The time zone to set for the HMC. *time-zone* must be specified in *continent/city* format. Specify **none** to remove the time zone setting.

You must reboot the HMC after setting the time zone.

--realm

The Kerberos realm name.

When the first Kerberos realm and KDC is added to the HMC, that realm is set as the default realm and Kerberos is automatically enabled on the HMC. When the last Kerberos realm and KDC is removed from the HMC, Kerberos is automatically disabled on the HMC. Then, if another Kerberos realm and KDC is added to the HMC, Kerberos will automatically be enabled again, and the default realm will be set to the new realm. There is no other way to enable or disable Kerberos on the HMC.

This option is required for a Kerberos add or remove operation. This option is not valid for a Kerberos modify operation.

--defaultrealm

The Kerberos default realm name.

When no realms exist on the HMC, the default realm is automatically set to the next realm that is added to the HMC.

This option is not valid for a Kerberos add or remove operation.

--clockskew

The Kerberos clock skew value in seconds. This is the maximum allowable amount of clock skew before Kerberos considers messages invalid. The clock skew is set to the default value of 120 seconds whenever Kerberos is enabled on the HMC, unless this option is specified.

This option is not valid for a Kerberos remove operation.

--ticketlifetime

The Kerberos ticket lifetime value (**lifetime for credentials**). The format of this value is a whole number followed by **s** for seconds, **m** for minutes, **h** for hours, or **d** for days. The ticket lifetime is set to the default value of **2d** (2 days) whenever Kerberos is enabled on the HMC, unless this option is specified.

This option is not valid for a Kerberos remove operation.

--sshprotocol

The SSH protocol to use. Valid values are **1** for version 1, **2** for version 2, or **all** for both versions 1 and 2. The default value is **2**.

--help Display the help text for this command and exit.

EXAMPLES

To change the Hardware Management Console host name:

```
chhmc -c network -s modify -h mynewhost
```

To set the IP address and network mask for network interface eth0:

```
chhmc -c network -s modify -i eth0 -a 10.10.10.1  
-nm 255.255.255.0
```

To enable remote access via ssh:

chhmc -c ssh -s enable

To disable remote web browser access from all IP addresses over network interface eth0:

chhmc -c remotewebui -s disable -i eth0

To add host myhost.company.com to the syslog configuration file, for remote logging:

chhmc -c syslog -s add -a 10.10.10.2

To enable keyboard mapping configuration to occur on the next reboot:

chhmc -c kbdcfg -s enable

To permit a single IP address to use the ssh service over network interface eth0:

**chhmc -c ssh -s add -a 10.10.10.3 -nm 255.255.255.255
-i eth0**

To enable Network Time Protocol service:

chhmc -c xntp -s enable

To add a Network Time Protocol server to the configuration file:

chhmc -c xntp -s add -h mytimeserver.company.com

Specify the hostname will not change firewall rule settings. It is assumed that the user will use the Customize Network Settings to change firewall settings.

To add a Network Time Protocol server to the configuration file, using IP address and at the same time enable firewall access through network interface eth0:

chhmc -c xntp -s add -a 10.10.10.32 -i eth0

To remove a Network Time Protocol server from the configuration file:

chhmc -c xntp -s remove -h mytimeserver.company.com

To set the current locale to Spanish:

chhmc -c locale -s modify -l es_ES

To set the network as a startup device on the next HMC boot:

chhmc -c netboot -s enable

To set the alternate disk partition on HMC as a startup device on the next HMC boot:

chhmc -c altdiskboot -s enable --mode upgrade

To update the HMC clock to January 25, 2007 14:30:50 (the current year is 2007):

chhmc -c date -s modify --datetime 01251430.50 or

chhmc -c date -s modify --datetime 012514302007.50 or

chhmc -c date -s modify --datetime 0125143007.50

To update the HMC clock to December 8, 2008 09:45, local time:

chhmc -c date -s modify --datetime 120809452008 --clock local

To update the HMC time zone to United States, Central time:

chhmc -c date -s modify --timezone America/Chicago

To remove the time zone setting from the HMC:

chhmc -c date -s modify --timezone none

To add a Kerberos realm and KDC to the HMC:

chhmc -c kerberos -s add --realm EXAMPLE.COM -a 10.10.0.20

To add a Kerberos realm and KDC and set the clock skew to 140 seconds and ticket lifetime to 1 day:

**chhmc -c kerberos -s add --realm EXAMPLE.COM
-h kdc.example.com:88 --clockskew 140
--ticketlifetime 1d**

To remove a Kerberos realm and KDC from the HMC:

**chhmc -c kerberos -s remove --realm EXAMPLE.COM
-h kdc.example.com**

To modify the Kerberos default realm on the HMC:

chhmc -c kerberos -s modify --defaultrealm EXAMPLE2.COM

To modify the Kerberos clock skew to 60 seconds on the HMC:

chhmc -c kerberos -s modify --clockskew 60

To modify the Kerberos ticket lifetime to 12 hours on the HMC:

chhmc -c kerberos -s modify --ticketlifetime 12h

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshmc

NAME

chhmcfs - free up space in HMC file systems

SYNOPSIS

```
chhmcfs -o f { -d days | -h hours | -s size }  
[-f file-system] [--help]
```

DESCRIPTION

chhmcfs frees up space in Hardware Management Console (HMC) file systems. Space is freed by removing temporary HMC files that are used for HMC and managed system firmware problem analysis from the HMC hard disk.

This command can only free up space in the following file systems: **/var**, **/dump**, and **/**. The temporary files that can be removed from the **/var** file system include HMC trace and log files. The temporary files that can be removed from the **/dump** file system include managed system dumps and debug data collected using the HMC **pedbg** command. The temporary files that can be removed from the **/** file system include HMC Java core dump and heap dump files.

This command will not remove temporary HMC trace and log files that are in use.

OPTIONS

-o The operation to perform. The only valid value is **f** to free up file system disk space by removing temporary HMC files from the hard disk.

-d Remove temporary HMC files which have not been modified during the specified number of *days* prior to now.

If **0** is specified with this option, all temporary HMC files will be removed.

Specifying **-d 1** is equivalent to specifying **-h 24**.

The **-d**, **-h**, and **-s** options are mutually exclusive.

-h Remove temporary HMC files which have not been modified during the specified number of *hours* prior to now.

If **0** is specified with this option, all temporary HMC files will be removed.

The **-d**, **-h**, and **-s** options are mutually exclusive.

-s Remove temporary HMC files, starting with the oldest file, to free up to *size* megabytes in each file system.

The **-d**, **-h**, and **-s** options are mutually exclusive.

-f The file system from which to remove files. Valid values are **/var**, **/dump**, and **/**.

If this option is omitted, files will be removed from all file systems that have temporary HMC files that can be removed.

--help Display the help text for this command and exit.

EXAMPLES

Remove temporary HMC files which have not been modified during the last day (24 hours) from all file systems:

```
chhmcfs -o f -d 1
```

Remove all temporary HMC files from all file systems:

chhmcfcs -o f -d 0

Remove temporary HMC files which have not been modified during the last 36 hours from the **/var** file system:

chhmcfcs -o f -h 36 -f /var

Remove temporary HMC files from the **/dump** file system to free up to 100 MB:

chhmcfcs -o f -s 100 -f /dump

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshmcfs

NAME

chhmclldap - change HMC LDAP configuration

SYNOPSIS

To set HMC LDAP configuration attributes:

```
chhmclldap -o s [--primary LDAP-server-URI]  
  [--backup LDAP-server-URI] [--basedn base-DN]  
  [--timelimit time-limit]  
  [--bindtimelimit bind-time-limit]  
  [--loginattribute login-attribute]  
  [--referrals {0 | 1}] [--starttls {0 | 1}]
```

To remove an LDAP resource or the LDAP configuration from the HMC:

```
chhmclldap -o r -r { backup | ldap }
```

DESCRIPTION

chhmclldap changes the Hardware Management Console (HMC) Lightweight Directory Access Protocol (LDAP) client configuration.

By default, LDAP is not configured on the HMC. The HMC can only be configured as an LDAP client. To configure the HMC as an LDAP client, issue this command and specify both the primary LDAP server and the base Distinguished Name (base DN) at a minimum.

The **getfile** command can be used to deploy an LDAP Certificate Authority (CA) certificate file on the HMC.

OPTIONS

- o** The operation to perform. Valid values are **s** to set an HMC LDAP configuration attribute, and **r** to remove an LDAP resource or the LDAP configuration from the HMC.
- r** The LDAP resource to remove. Valid values are **backup** to remove the backup LDAP server, and **ldap** to unconfigure LDAP on the HMC.

This option is required for a remove operation. This option is not valid for a set operation.

--primary

The primary LDAP server. The Uniform Resource Identifier (URI) scheme may be **ldap://** for LDAP over TCP, or **ldaps://** for LDAP over SSL. The URI format is **ldap://LDAP-server[:port-number]** or **ldaps://LDAP-server[:port-number]**. *LDAP-server* can either be the host name or the IP address of the LDAP server. The port number is optional. If the port number is omitted, port 389 is used for the **ldap://** scheme and port 636 is used for the **ldaps://** scheme. If Start TLS is enabled, the URI must use the **ldap://** scheme.

If LDAP is not configured on the HMC, both this option and the **--basedn** option must be specified to configure LDAP on the HMC.

This option is only valid for a set operation.

--backup

The backup LDAP server. The URI scheme may be **ldap://** for LDAP over TCP, or **ldaps://** for LDAP over SSL. The URI format is **ldap://LDAP-server[:port-number]** or **ldaps://LDAP-server[:port-number]**. *LDAP-server* can either be the host name or the IP address of the LDAP server. The port number is optional. If the port number is omitted, port 389 is used for the **ldap://** scheme and port 636 is used for the **ldaps://** scheme. If Start TLS is enabled, the URI must use the **ldap://** scheme.

This option is only valid for a set operation. Setting a backup LDAP server is optional.

--basedn

The default base DN to use when performing LDAP operations. The base DN must be specified in LDAP format (e.g. **dc=ldapclient,dc=example,dc=com**).

If LDAP is not configured on the HMC, both this option and the **--primary** option must be specified to configure LDAP on the HMC.

This option is only valid for a set operation.

--timelimit

The LDAP search time limit in seconds. A value of 0 means there is no time limit. If this option is not specified when LDAP is configured, the search time limit is set to 30 seconds.

This option is only valid for a set operation.

--bindtimelimit

The LDAP server bind time limit in seconds. If this option is not specified when LDAP is configured, the bind time limit is set to 30 seconds.

This option is only valid for a set operation.

--loginattribute

The login attribute to use to authenticate LDAP users on the HMC. The value of the login attribute stored on the LDAP server is compared with the HMC user name. If a match is found on the LDAP server, then authentication with the LDAP server is attempted.

If this option is not specified when LDAP is configured, the login attribute is set to **uid**.

This option is only valid for a set operation.

--referrals

Specifies whether automatic referral chasing is to be enabled or disabled. Valid values are **0** to disable automatic referral chasing, and **1** to enable it. If this option is not specified when LDAP is configured, automatic referral chasing is enabled.

This option is only valid for a set operation.

--starttls

Specifies whether Start Transport Layer Security (TLS) is to be enabled or disabled. Valid values are **0** to disable Start TLS, and **1** to enable it. This option can only be enabled if the LDAP server supports the Start TLS protocol. When Start TLS is enabled, a connection is opened using the normal LDAP port. Then, when needed (for example when binding), the connection is converted to a SSL connection using the Start TLS protocol. This functionality exists, for example, in OpenLDAP. When Start TLS is enabled, the URI scheme **ldap://** must be used.

If this option is not specified when LDAP is configured, Start TLS is disabled.

This option is only valid for a set operation.

--help Display the help text for this command and exit.

EXAMPLES

Configure LDAP on the HMC for the first time and enable Start TLS:

```
chhmclldap -o s --primary ldap://ldap.example.com --basedn  
dc=example,dc=com --starttls 1
```

Set a backup LDAP server using the **ldap://** URI scheme:

chhmcdap -o s --backup ldap://ldap2.example.com

Set the primary LDAP server using the **ldaps://** URI scheme and port number **625**:

chhmcdap -o s --primary ldaps://ldap.example.com:625

Set the login attribute to **notesshortname**:

chhmcdap -o s --loginattribute notesshortname

Set both the time limit and bind time limit to **40** seconds and disable referrals:

chhmcdap -o s --timelimit 40 --bindtimelimit 40 --referrals 0

Remove the backup LDAP server:

chhmcdap -o r -r backup

Unconfigure LDAP on the HMC:

chhmcdap -o r -r ldap

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshmcdap, getfile, rmfile

NAME

chhmcusr - change a Hardware Management Console user

SYNOPSIS

```
chhmcusr -u user-name
-t {assign | desc | name | passwd | pwage | taskrole |
auth | remoteuser}
[-o {a | r}] [-r {resource | resourcerole}]
[-v new-attribute-value]
[--remoteuser remote-user-name] [--localpasswd password]
[--help]
```

DESCRIPTION

chhmcusr changes an attribute of a Hardware Management Console (HMC) user.

OPTIONS

- u** The user name of the HMC user to change.
- t** The user attribute to change. Valid values are **assign** for the user's access control managed resource object assignment or managed resource role assignment, **desc** for the user's description, **name** for the user's user name, **passwd** for the user's password, **pwage** for the number of days until the user's password expires, **taskrole** for the user's access control task role, **auth** for the user's authentication type, and **remoteuser** for the user's remote user ID used for remote Kerberos authentication.

Only users that have the **hmcsuperadmin** task role, or that have the **ManageAllUserPasswords** task in their task role, are authorized to change other user's passwords.
- o** The managed resource object or role assignment operation to perform. Valid values are **a** to add a managed resource object or role to the user and **r** to remove a managed resource object or role from the user.

This option is required when changing the user's managed resource object assignment or managed resource role assignment. This option is not valid when changing any other user attribute.
- r** The type of access control assignment to change. Valid values are **resource** for managed resource object assignment and **resourcerole** for managed resource role assignment.

This option is required when changing the user's managed resource object assignment or managed resource role assignment. This option is not valid when changing any other user attribute.
- v** The new value for the attribute being changed.

When changing the user's managed resource object assignment, specify the managed resource object to be added or removed.

When changing the user's managed resource role assignment, specify the managed resource role to be added or removed.

When changing the user's description, specify the new description with this option. The new description can be any string.

When changing the user's user name, specify the new user name with this option. The new user name must not be longer than 32 characters, and it must begin with a letter.

When changing the user's password, you can either specify the new password with this option, or you can omit this option and you will be prompted to enter the password. The new password must be at least 7 characters in length.

When changing the number of days until the user's password expires, specify the new number of days with this option.

When changing the user's access control task role, specify the new task role with this option. Valid values are **hmcsuperadmin**, **hmcoperator**, **hmcviewer**, **hmcpe**, **hmcserviceprep**, or a user-defined task role.

When changing the user's authentication type, specify the new authentication type with this option. Valid values are **local**, **kerberos**, or **ldap**.

When changing the user's remote user ID used for remote Kerberos authentication, specify the new remote user ID with this option.

This option is required when changing any user attribute other than the user's password.

--remoteuser

The remote user ID used for remote Kerberos authentication for this user. This is the user's Kerberos principal. The format of a typical Kerberos principal is *primary/instance@REALM*.

This option is required when changing the user's authentication type to remote Kerberos authentication. This option is not valid when changing any other user attribute.

--localpasswd

The password for this user. If this option is omitted, you will be prompted to enter the password. The password must be at least 7 characters in length.

This option is only valid when changing the user's authentication type to local authentication.

--help Display the help text for this command and exit.

EXAMPLES

Add the managed resource role **lpar_role** to the user **hmcuser1**:

```
chhmcusr -u hmcuser1 -t assign -o a -r resourcerole -v lpar_role
```

Change the password for the user **tester** (the new password must be entered when prompted):

```
chhmcusr -u tester -t passwd
```

Change the number of days until the password expires for the user **hmcuser1** to be **180**:

```
chhmcusr -u hmcuser1 -t pwage -v 180
```

Change the task role for the user **tester** to **hmcoperator**:

```
chhmcusr -u tester -t taskrole -v hmcoperator
```

Change the remote user ID for the user **krbuser** to **krbuser@EXAMPLE.ORG**:

```
chhmcusr -u krbuser -t remoteuser -v krbuser@EXAMPLE.ORG
```

Change the remotely authenticated Kerberos user **user1** to a locally authenticated user (the password must be entered when prompted):

```
chhmcusr -u user1 -t auth -v local
```


Change the locally authenticated user **user2** to a remotely authenticated Kerberos user and set the remote user ID to **user2@EXAMPLE.ORG**:

```
chhmcusr -u user2 -t auth -v kerberos --remoteuser  
user2@EXAMPLE.ORG
```

Change the locally authenticated user **user3** to a remotely authenticated LDAP user:

```
chhmcusr -u user3 -t auth -v ldap
```

Change the remotely authenticated LDAP user **user4** to a locally authenticated user:

```
chhmcusr -u user4 -t auth -v local --localpasswd jk3ds00b
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshmcusr, mkhmcusr, rmhmcusr, lsacfg

NAME

chhwres - change hardware resources

SYNOPSIS

To add, remove, or move a physical I/O slot:

```
chhwres -r io -m managed-system -o { a | r | m }  
  { -p partition-name | --id partition-ID }  
  [{ -t target-partition-name |  
    --tid target-partition-ID }]  
  -l slot-DRC-index [-a "attributes"]  
  [-w wait-time] [-d detail-level] [--force]
```

To set physical I/O attributes:

```
chhwres -r io -m managed-system -o s  
  { -p partition-name | --id partition-ID }  
  --subtype { iopool | taggedio }  
  -a "attributes"
```

To add or remove a virtual I/O adapter:

```
chhwres -r virtualio -m managed-system -o { a | r }  
  { -p partition-name | --id partition-ID }  
  [--subtype { eth | scsi | serial }]  
  [-s virtual-slot-number] [-a "attributes"]  
  [-w wait-time] [-d detail-level] [--force]
```

To set virtual I/O attributes:

```
chhwres -r virtualio -m managed-system -o s  
  [{ -p partition-name | --id partition-ID }]  
  --subtype { eth | hsl | virtualopti }  
  -a "attributes"
```

To add or remove a virtual switch (POWER6 servers only):

```
chhwres -r virtualio -m managed-system -o { a | r }  
  --subtype vswitch --vswitch virtual-switch  
  [--force]
```

To set virtual switch attributes (POWER6 servers only):

```
chhwres -r virtualio -m managed-system -o s  
  --subtype vswitch --vswitch virtual-switch  
  [-a "attributes"]
```

To add, remove, or move memory:

```
chhwres -r mem -m managed-system -o { a | r | m }  
  { -p partition-name | --id partition-ID }  
  [{ -t target-partition-name |  
    --tid target-partition-ID }]  
  -q quantity  
  [-w wait-time] [-d detail-level] [--force]
```

To set memory attributes:

```
chhwres -r mem -m managed-system -o s  
  -a "attributes"
```

To add, remove, or move processing resources:

```
chhwres -r proc -m managed-system -o { a | r | m }
```

```
{-p partition-name | --id partition-ID}
[{-t target-partition-name |
--tid target-partition-ID}]
[--procs quantity] [--procunits quantity]
[--5250cpwpercent percentage]
[-w wait-time] [-d detail-level] [--force]
```

To set processing attributes:

```
chhwres -r proc -m managed-system -o s
{-p partition-name | --id partition-ID}
-a "attributes"
```

To set shared processor pool attributes (POWER6 servers only):

```
chhwres -r procpool -m managed-system -o s
[--poolname pool-name | --poolid pool-ID]
-a "attributes"
```

To set shared processor pool attributes for a partition (POWER6 servers only):

```
chhwres -r procpool -m managed-system -o s
{-p partition-name | --id partition-ID}
-a "attributes"
```

To add, remove, or move a Host Ethernet Adapter (HEA) logical port (POWER6 servers only):

```
chhwres -r hea -m managed-system -o {a | r | m}
{-p partition-name | --id partition-ID}
[{-t target-partition-name |
--tid target-partition-ID}]
-l HEA-adapter-ID
[--physport physical-port-ID]
-g port-group --logport logical-port-ID
-a "attributes"
[-w wait-time] [-d detail-level] [--force]
```

To set HEA attributes (POWER6 servers only):

```
chhwres -r hea -m managed-system -o s
-l HEA-adapter-ID
[--physport physical-port-ID]
-g port-group -a "attributes"
```

DESCRIPTION

chhwres changes the hardware resource configuration of the *managed-system*. **chhwres** is used to perform dynamic logical partitioning (DLPAR) operations.

OPTIONS

-r The type of hardware resources to change. Valid values are **io** for physical I/O, **virtualio** for virtual I/O, **mem** for memory, **proc** for processing resources, **procpool** for shared processor pool, and **hea** for Host Ethernet Adapter (HEA) resources.

HEA resources are only supported on POWER6 servers. Shared processor pool operations are only supported on POWER6 servers.

--subtype

The subtype of hardware resources to change. Valid physical I/O resource subtypes are **slot** for I/O slots, **iopool** for I/O pools, and **taggedio** for tagged I/O resources. Valid virtual I/O resource subtypes are **eth** for virtual ethernet, **scsi** for virtual SCSI, **serial** for virtual serial, **hsl** for High Speed Link (HSL) OptiConnect, **virtualopti** for virtual OptiConnect, and **vswitch** for virtual

switch resources.

This option is required for physical I/O and virtual I/O set operations, for virtual I/O add operations, and for virtual switch operations. This option is not valid for memory, processor, shared processor pool, or HEA operations.

Virtual switch resources are only supported on POWER6 servers.

- m** The name of the managed system for which the hardware resource configuration is to be changed. The name may either be the user-defined name for the managed system, or be in the form *ttt-**mmm*****sssssss***, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-**mmm*****sssssss*** form must be used if there are multiple managed systems with the same user-defined name.
- o** The operation to perform. Valid values are **a** to add hardware resources, **r** to remove hardware resources, **m** to move hardware resources from one partition to another, and **s** to set hardware resource related attributes.
- p** The name of the partition for which the operation is to be performed. For a move operation, this is the source partition (the partition the resources will be moved from) for the operation. To perform an add, remove, or move operation, the partition must be in the running state.

You can either use this option to specify the name of the partition for which the operation is to be performed, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.

- id** The ID of the partition for which the operation is to be performed. For a move operation, this is the source partition (the partition the resources will be moved from) for the operation. To perform an add, remove, or move operation, the partition must be in the running state.

You can either use this option to specify the ID of the partition for which the operation is to be performed, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.

- t** The name of the target partition for a move operation. The partition must be in the running state.

You can either use this option to specify the name of the target partition, or use the **--tid** option to specify the ID of the partition. The **-t** and the **--tid** options are mutually exclusive.

A target partition is required to be specified with this option or the **--tid** option for a move operation. This option is not valid for any other operation.

- tid** The ID of the target partition for a move operation. The partition must be in the running state.

You can either use this option to specify the ID of the target partition, or use the **-t** option to specify the name of the target partition. The **--tid** and the **-t** options are mutually exclusive.

A target partition is required to be specified with this option or the **-t** option for a move operation. This option is not valid for any other operation.

--poolname

The name of the shared processor pool for which to set attributes.

You can either use this option to specify the name of the shared processor pool, or use the **--poolid** option to specify the ID of the shared processor pool. The **--poolname** and the **--poolid** options are mutually exclusive.

A shared processor pool is required to be specified with this option or the **--poolid** option when setting the attributes for a shared processor pool. This option is not valid for any other operation.

--poolid

The ID of the shared processor pool for which to set attributes.

You can either use this option to specify the ID of the shared processor pool, or use the **--pool-name** option to specify the name of the shared processor pool. The **--poolid** and the **--poolname** options are mutually exclusive.

A shared processor pool is required to be specified with this option or the **--poolname** option when setting the attributes for a shared processor pool. This option is not valid for any other operation.

- l** When adding, removing, or moving a physical I/O slot, use this option to specify the DRC index of the slot.

When performing an HEA operation, use this option to specify the adapter ID of the HEA for which the operation is to be performed.

This option is not valid for any other operation.

- s** The virtual slot number of the virtual I/O adapter to add or remove.

When adding a virtual I/O adapter, if this option is not specified then the next available virtual slot number will be assigned to the virtual I/O adapter.

When removing a virtual I/O adapter, this option is required.

- q** The quantity of memory to add, remove, or move. The *quantity* specified must be in megabytes, it must be a multiple of the memory region size for the *managed-system*, and it must be greater than 0.

- procs** When adding or removing processing resources to or from a partition using dedicated processors, or when moving processing resources from a partition using dedicated processors to another partition using dedicated processors, use this option to specify the quantity of dedicated processors to add, remove, or move.

When adding or removing processing resources to or from a partition using shared processors, or when moving processing resources from a partition using shared processors to another partition using shared processors, use this option to specify the quantity of virtual processors to add, remove, or move.

When moving processing resources from a partition using dedicated processors to a partition using shared processors, use this option to specify the quantity of dedicated processors to be moved from the source partition and added as shared processors to the target partition.

This option is not valid when moving processing resources from a partition using shared processors to a partition using dedicated processors. The **--procunits** option must be used instead.

The *quantity* of processing resources specified with this option must be a whole number greater than 0.

--procunits

When adding or removing processing resources to or from a partition using shared processors, or when moving processing resources from a partition using shared processors to another partition using shared processors, use this option to specify the quantity of processing units to add, remove, or move.

When moving processing resources from a partition using shared processors to a partition using

dedicated processors, use this option to specify the quantity of shared processors to be moved from the source partition and added as dedicated processors to the target partition.

This option is not valid when moving processing resources from a partition using dedicated processors to a partition using shared processors. The **--procs** option must be used instead.

When moving processing resources from a partition using shared processors to a partition using dedicated processors, the *quantity* of processing units specified with this option must be a whole number. Otherwise, the *quantity* of processing units specified with this option can have up to 2 decimal places. In either case, the *quantity* specified must be greater than 0.

--5250cpwpercent

The percentage of 5250 Commercial Processing Workload (CPW) to add, remove, or move. The *percentage* specified can have up to 2 decimal places, and it must be greater than 0.

This option is only valid for i5/OS partitions and can only be used when the *managed-system* supports the assignment of 5250 CPW percentages to partitions.

--physport

The ID of the HEA physical port. This option is required when adding an HEA logical port to a partition. This option is also required when setting HEA physical port attributes. This option is not valid for any other operation.

-g The HEA port group. This option is required for all HEA operations, and is not valid for any other operation.

--logport

The ID of the HEA logical port to add, remove, or move.

This option is required for an HEA add, remove, or move operation. This option is not valid for any other operation.

--vswitch

The virtual switch name.

This option is required for all virtual switch operations. This option is not valid for any other operation.

-w The elapsed time, in minutes, after which an add, remove, or move operation will be stopped.

wait-time must be a whole number. If *wait-time* is 0, the operation will not be timed out.

If this option is not specified, a default value of 5 minutes is used.

This option is valid for all add, remove, and move operations for AIX, Linux, and virtual I/O server partitions. This option is also valid for memory add, remove, and move operations for i5/OS partitions.

-d The level of detail to be displayed upon return of an add, remove, or move operation. Valid values are **0** (none) through **5** (highest).

If this option is not specified, a default value of 0 is used.

This option is valid for all add, remove, and move operations for AIX, Linux, and virtual I/O server partitions.

--force This option allows you to force a remove or move operation to be performed for a physical I/O slot that is currently in use (varied on) by an i5/OS partition.

This option also allows you to force an add, remove, or move operation to be performed for an AIX, Linux, or virtual I/O server partition that does not have an RMC connection to the HMC. If this command completes successfully, you will need to restart your operating system for the change to take affect. You should only use this option if you intentionally configured your LAN to isolate the HMC from the operating system of your partition.

This option also allows you to force a virtual switch to be removed when one or more inactive partitions have virtual ethernet adapters that are configured to use the virtual switch.

- a The configuration data needed to create virtual I/O adapters or set hardware resource related attributes. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. The configuration data must be enclosed in double quotes.

The format of the configuration data is as follows:

```
attribute-name=value,attribute-name=value,...
```

Note that certain attributes accept a comma separated list of values, as follows:

```
"attribute-name=value,value,...",...
```

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a '\ ' character.

If '+=' is used in the attribute name/value pair instead of '=' , then the specified *value* is added to the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the specified *value(s)* is added to the existing list.

If '-=' is used in the attribute name/value pair instead of '=' , then the specified *value* is subtracted from the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the specified *value(s)* is deleted from the existing list.

Valid attribute names for attributes that can be set when adding, removing, or moving a physical I/O slot:

slot_io_pool_id

Valid attribute names for setting I/O pool attributes:

lpar_io_pool_ids

comma separated

Valid attribute names for setting tagged I/O resources (i5/OS partitions only):

load_source_slot

DRC index of I/O slot, or virtual slot
number

alt_restart_device_slot

DRC index of I/O slot, or virtual slot
number

console_slot

DRC index of I/O slot, DRC index
of HEA logical port (POWER6 servers
only), virtual slot number, or
the value **hmc**

alt_console_slot

DRC index of I/O slot

op_console_slot
DRC index of I/O slot

Valid attribute names for adding a virtual ethernet adapter:

ieee_virtual_eth
Valid values:
0 - not IEEE 802.1Q compatible
1 - IEEE 802.1Q compatible
Required

port_vlan_id
Required

addl_vlan_ids

is_trunk
Valid values:
0 - no
1 - yes

trunk_priority
Valid values are integers between **1**
and **15**, inclusive
Required for a trunk adapter

vswitch
POWER6 servers only

Valid attribute names for adding a virtual SCSI adapter:

adapter_type
Valid values are **client** or **server**
Required

remote_lpar_id | **remote_lpar_name**
One of these attributes is required for a
client adapter

remote_slot_num
Required for a **client** adapter

Valid attribute names for adding a virtual serial adapter:

adapter_type
Valid values are **client** or **server**
Required

remote_lpar_id | **remote_lpar_name**
One of these attributes is required for a
client adapter

remote_slot_num
Required for a **client** adapter

supports_hmc
The only valid value is **0** for no.

Valid attribute names for setting virtual ethernet attributes:

mac_prefix

Valid attribute names for setting HSL OptiConnect attributes (i5/OS partitions only):

hsl_pool_id
Valid values are:
0 - HSL OptiConnect is disabled
1 - HSL OptiConnect is enabled

Valid attribute names for setting virtual OptiConnect attributes (i5/OS partitions only):

virtual_opti_pool_id

Valid values are:

0 - virtual OptiConnect is disabled

1 - virtual OptiConnect is enabled

Valid attribute names for setting virtual switch attributes:

new_name

Valid attribute names for setting memory attributes:

requested_num_sys_huge_pages

Valid attribute names for setting processing attributes:

sharing_mode

Valid values for partitions using dedicated processors are:

keep_idle_procs - never share processors

share_idle_procs - share processors only when partition is inactive

share_idle_procs_active - share processors only when partition is active (POWER6 servers only)

share_idle_procs_always - always share processors (POWER6 servers only)

Valid values for partitions using shared processors are:

cap - capped

uncap - uncapped

uncap_weight

Valid attribute names for setting shared processor pool attributes:

new_name

max_pool_proc_units

reserved_pool_proc_units

Valid attribute names for setting shared processor pool attributes for a partition:

shared_proc_pool_name | **shared_proc_pool_id**

Valid attribute names when adding an HEA logical port:

vlan_id_list

comma separated

lhea_capabilities

Comma separated list of Logical Host Ethernet adapter (LHEA) capabilities, with each capability having one of the following formats:

capability

or

5lieq/nieq/qpl/cq/mr

where *ieq* (interruptible event queues), *nieq* (non-interruptible event queues), *qp* (queue pairs), *cq* (completion queues), and *mr* (memory regions) each specify the resource amount in addition to the base minimum.

Valid values for *capability*:

- 0** - base minimum
- 1** - low
- 2** - medium
- 3** - high
- 4** - dedicated

For example:

5/22/128/1021/1019/63424

Valid attribute names for setting HEA physical port attributes:

conn_speed

Valid values are:

- auto** - system selects automatically
- 10** - 10 Mbps
- 100** - 100 Mbps
- 1000** - 1 Gbps
- 10000** - 10 Gbps

duplex

Valid values are:

- auto** - system selects automatically
- full** - full duplex

max_rcv_packet_size

Valid values are:

- 1500** - 1500 bytes per frame (non-jumbo)
- 9000** - 9000 bytes per frame (jumbo)

flow_control

Valid values are:

- 0** - disable flow control
- 1** - enable flow control

promisc_lpar_name | promisc_lpar_id

Valid attribute names for setting HEA port group attributes:

pend_port_group_mcs_value

--help Display the help text for this command and exit.

EXAMPLES

Add the I/O slot with DRC index **21010001** to partition **p1** and set the I/O pool ID for the slot to **3**:

```
chhwres -r io -m sys1 -o a -p p1 -l 21010001  
-a "slot_io_pool_id=3"
```

Add I/O pools **2** and **3** to the I/O pools in which partition **p1** is participating:

```
chhwres -r io --subtype iopool -m 9406-520*1234321A -o s  
-p p1 -a ""lpar_io_pool_ids+=2,3""
```

Add a virtual ethernet adapter to the partition with ID 3:

```
chhwres -r virtualio -m 9406-520*1234321A -o a --id 3
--subtype eth -a "ieee_virtual_eth=1,
port_vlan_id=4,"addl_vlan_ids=5,6",is_trunk=1,
trunk_priority=1"
```

Remove the virtual adapter in slot 3 from partition p1:

```
chhwres -r virtualio -m sys1 -o r -p p1 -s 3
```

Enable HSL OptiConnect for the i5/OS partition i5_p1:

```
chhwres -r virtualio -m sys1 -o s -p i5_p1
--subtype hsl -a "hsl_pool_id=1"
```

Add the virtual switch vs1:

```
chhwres -r virtualio --subtype vswitch -m sys1 -o a --vswitch vs1
```

Add 128 MB of memory to the partition with ID 1, and time out after 10 minutes:

```
chhwres -r mem -m sys1 -o a --id 1 -q 128 -w 10
```

Remove 512 MB of memory from the AIX partition aix_p1 and return a detail level of 5:

```
chhwres -r mem -m 9406-520*1234321A -o r -p aix_p1 -q 512
-d 5
```

Set the number of pages of huge page memory requested for the managed system to 2 (the managed system must be powered off):

```
chhwres -r mem -m sys1 -o s
-a "requested_num_sys_huge_pages=2"
```

Move 1 processor from partition p1 to partition p2 (both partitions are using dedicated processors):

```
chhwres -r proc -m 9406-520*1234321A -o m -p p1 -t p2
--procs 1
```

Move .5 processing units from the partition with ID 1 to the partition with ID 2 (both partitions are using shared processors):

```
chhwres -r proc -m sys1 -o m --id 1 --tid 2 --procunits .5
```

Add .25 processing units to the i5/OS partition i5_p1 and add 10 percent 5250 CPW:

```
chhwres -r proc -m sys1 -o a -p i5_p1 --procunits .25
--5250cpwpercent 10
```

Configure the shared processor pool with ID 1:

```
chhwres -r procpool -m sys1 -o s --poolid 1 -a "new_name=
pool1,max_pool_proc_units=2,reserved_pool_proc_units=.5"
```

Move the partition **sharedlpar1** to shared processor pool **pool1**:

```
chhwres -r procpool -m sys1 -o s -p sharedlpar1
-a "shared_proc_pool_name=pool1"
```

Add logical port **4** for physical port **0** belonging to port group **2** of the HEA with an adapter ID of **23000020** to partition **p1**. Also set the LHEA capability level to low:

```
chhwres -r hea -m mySystem -o a -p p1 -l 23000020
--physport 0 -g 2 --logport 4 -a "lhea_capabilities=1"
```

Remove logical port **1** belonging to port group **2** of the HEA with an adapter ID of **23000020** from the partition with ID **8**:

```
chhwres -r hea -m 9117-MMA*123432C -o r --id 8 -l 23000020
-g 2 --logport 1
```

Set physical port attributes for port group **2** of physical port **1** of the HEA with an adapter ID of **23000020**:

```
chhwres -r hea -m mySystem -o s -l 23000020 -g 2
--physport 1 -a "conn_speed=auto,duplex=auto,
flow_control=1"
```

Set port group attributes for port group **1** of the HEA with an adapter ID of **23000030**:

```
chhwres -r hea -m sys1 -o s -l 23000030 -g 1
-a "pend_port_group_mcs_value=4"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshwres, **rsthwres**, **chsyscfg**, **lssyscfg**

NAME

chkmedia - check media readiness

SYNOPSIS

```
chkmedia -r { dvd | diskette | usbdiskette | usbflashmem }  
[--help]
```

DESCRIPTION

chkmedia allows a user to test for media readiness on the Hardware Management Console (HMC). The media devices that can be tested for readiness are the DVD drive (DVD-RAM media only), the internal diskette drive, a USB diskette drive, and a USB flash memory device. In order to test for media readiness, a small amount of data is written to, read from, then deleted from the specified media. No other diagnostic actions are performed on the media or the media device.

OPTIONS

- r** The media device to be tested for readiness. Valid values are **dvd** for the internal DVD drive, **diskette** for the internal diskette drive, **usbdiskette** for an external diskette drive connected to the HMC with a USB cable, or **usbflashmem** for a flash memory device that is connected to a USB port on the HMC.
- help** Display the help text for this command and exit.

EXAMPLES

Check the DVD drive for media readiness:

```
chkmedia -r dvd
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

chled - change LED

SYNOPSIS

```
chled -r sa -t {phys | virtuallpar | virtualsys}  
-m managed-system -o {on | off}  
[-p partition-name | --id partition-ID] [--help]
```

DESCRIPTION

chled changes the state of an LED on the *managed-system*.

OPTIONS

- r** The type of LED resource to change. The only valid value is **sa** for System Attention (SA) LED.
- t** The type of System Attention (SA) LED to change. Valid values are **phys** for the physical SA LED for the *managed-system*, **virtuallpar** for a virtual partition SA LED, or **virtualsys** for the virtual SA LED for the *managed-system*.
- m** The name of the managed system on which to change the LED. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- o** The operation to perform on the LED. Valid values are **on** to activate the LED, and **off** to deactivate the LED.

The value **on** is not valid when changing the physical SA LED for the *managed-system*.

- p** The name of the partition for which the virtual partition SA LED is to be changed.

To change a virtual partition SA LED, you must either use this option to specify the name of the partition for which the LED is to be changed, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.

This option is not valid when changing the physical SA LED or the virtual SA LED for the *managed-system*.

- id** The ID of the partition for which the virtual partition SA LED is to be changed.

To change a virtual partition SA LED, you must either use this option to specify the ID of the partition for which the LED is to be changed, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.

This option is not valid when changing the physical SA LED or the virtual SA LED for the *managed-system*.

- help** Display the help text for this command and exit.

EXAMPLES

Deactivate the physical SA LED for the system:

```
chled -m 9406-570*100103C -r sa -t phys -o off
```

Activate the virtual partition SA LED for partition **lpar3**:

```
chled -m system1 -r sa -t virtuallpar -o on -p lpar3
```

Deactivate the virtual partition SA LED for the partition with ID **3**:

chled -m system1 -r sa -t virtuallpar -o off --id 3

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsled

NAME

chlpoutil - change utilization data collection settings

SYNOPSIS

```
chlpoutil -r config [-m managed-system] -s sample-rate
[--help]
```

DESCRIPTION

chlpoutil changes the Hardware Management Console (HMC) settings for utilization data collection for managed systems.

OPTIONS

-r The type of utilization data collection resources to change. The only valid value is **config** for configuration settings.

-m The name of the managed system for which the settings for utilization data collection are to be changed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name, or if the HMC does not currently have a connection to the managed system.

If this option is not specified, then the HMC settings for utilization data collection for all of the systems currently managed by this HMC, and for all of the systems for which utilization data has been previously collected by this HMC will be changed. Even though utilization data collection is enabled for a managed system, the HMC will only collect utilization data for that managed system if the HMC currently has a connection to that managed system.

This command only changes the settings for utilization data collection for this HMC. Utilization data collection by other HMCs for the same managed systems is not affected.

-s The rate, in seconds, at which to sample the utilization data. Sample rates of **0**, **30** (30 seconds), **60** (60 seconds), **300** (5 minutes), **1800** (30 minutes), and **3600** (1 hour) are supported. A sample rate of **0** disables utilization data collection.

--help Display the help text for this command and exit.

EXAMPLES

Enable the collection of utilization data with a sample rate of 1 hour for all managed systems:

```
chlpoutil -r config -s 3600
```

Enable the collection of utilization data with a sample rate of 60 seconds for the managed system **mySystem**:

```
chlpoutil -r config -s 60 -m mySystem
```

Disable the collection of utilization data for the managed system with the type, model, and serial number **9406-520*98765432**:

```
chlpoutil -r config -s 0 -m 9406-520*98765432
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsparutil, rmlparutil

NAME

chpwrmgmt - change power management settings

SYNOPSIS

```
chpwrmgmt -m managed-system -r sys -o {enable | disable}  
[--help]
```

DESCRIPTION

chpwrmgmt configures the power management settings for the *managed-system*. Power management settings can only be configured for managed systems that are capable of POWER6 Power Management.

OPTIONS

- m** The name of the managed system for which to configure power management settings. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- r** The type of resource for which to configure power management settings. The only valid value is **sys** for managed system.
- o** The operation to perform. Valid values are **enable** to enable the power saver mode and **disable** to disable the power saver mode on the *managed-system*. When the power saver mode on a managed system is enabled, the processor voltage and clock frequency are lowered to reduce the power consumption of the processors in the managed system.
- help** Display the help text for this command and exit.

EXAMPLES

Enable the power saver mode on managed system **system1**:

```
chpwrmgmt -m system1 -r sys -o enable
```

Disable the power saver mode on managed system **9117-MMA*1234567**:

```
chpwrmgmt -m 9117-MMA*1234567 -r sys -o disable
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lspwrmgmt

NAME

chsacfg - change Service Agent configuration

SYNOPSIS

To change customer email notification settings:

```
chsacfg -t email  
-o {enable | disable | setsmtp | add |  
  remove | test}  
[-a {email-address | all}]  
[--events {all | callhome}]  
[-h host-name [-p port-number]]
```

To change FTP firewall settings:

```
chsacfg -t ftpfirewall  
[-o {add | remove}]  
[-h host-name] [-p port-number]  
[-u user-ID] [--passwd password]  
[--passive passive-mode]  
[--fwtype firewall-type] [-n name]
```

To change FTP offload server settings:

```
chsacfg -t ftpoffload  
[-o {enable | disable}]  
[-h host-name] [-p port-number]  
[-u user-ID] [--passwd password]  
[--passive passive-mode] [-d directory]
```

To change SNMP trap configuration:

```
chsacfg -t snmp  
-o {add | remove}  
-a {SNMP-address | all}  
[--events SNMP-trap-list]
```

DESCRIPTION

chsacfg changes the Service Agent configuration.

OPTIONS

- t The type of Service Agent configuration information to change. Valid values are **email** for customer email notification settings, **ftpfirewall** for FTP firewall settings, **ftpoffload** for FTP offload server settings, and **snmp** for SNMP trap configuration.
- o The operation to perform. Valid values are:
 - enable** - enable customer email notification or FTP offload of service information
 - disable** - disable customer email notification or FTP offload of service information
 - setsmtp** - set the SMTP server information for customer notification email
 - add** - add a notification email address, add a name to the exclusion list for the FTP firewall server, or add an address for SNMP trap notifications
 - remove** - remove a notification email address, remove a name from the exclusion list for the FTP firewall server, or remove an address from the SNMP trap notification list

test - send a test email to a notification email address

- a The email address to add, remove, or test for customer notification email or the SNMP address to add or remove for SNMP trap notifications. SNMP addresses are specified in the form *Community-Name@IP-Address*.

When performing a remove or test operation for a customer notification email address, **all** can be specified with this option instead of a specific email address. If **all** is specified, then the remove or test operation will be performed for all notification email addresses.

When performing a remove operation for an SNMP address, **all** can be specified with this option instead of a specific SNMP address. If **all** is specified, then the remove operation will be performed for all SNMP trap notification addresses.

This option is required when adding, removing, or testing a customer notification email address or when adding or removing an SNMP trap notification address. This option is not valid for any other operation.

--events

When adding a customer email notification address, specify the type of problem events for which the email address is to be notified. Valid values are **all** for all problem events, and **callhome** for only call home problem events. If this option is not specified, then the email address will be notified for all problem events.

When adding an address for SNMP trap notifications, specify the list of SNMP traps for which the SNMP address is to be notified. If there is more than one SNMP trap, the SNMP traps must be separated by blanks. The defined SNMP traps can be listed by issuing the command **issacfg -t snmptrapnames**.

This option is only valid when adding a customer email notification address or when adding an SNMP address for SNMP trap notifications.

- h When enabling customer email notification or setting the SMTP server information for customer notification email, use this option to specify the host name or IP address of the SMTP server.

When changing the FTP firewall settings, use this option to specify the host name or IP address of the firewall server.

When changing the FTP offload server settings, use this option to specify the host name or IP address of the FTP offload server.

This option is required when setting the SMTP server information for customer notification email.

- p When setting the SMTP server information for customer notification email, use this option to specify the port number to use on the SMTP server. The default port number for an SMTP server is 25.

When changing the FTP firewall settings, use this option to specify the port number to use on the firewall server.

When changing the FTP offload server settings, use this option to specify the port number to use on the FTP offload server.

The default port number for an FTP offload server or firewall server is 21.

-u When changing the FTP firewall settings, use this option to specify the user ID to use to log in to the firewall server.

When changing the FTP offload server settings, use this option to specify the user ID to use to log in to the FTP offload server.

--passwd

When changing the FTP firewall settings, use this option to specify the password to use to log in to the firewall server. If this option is omitted, you will be prompted to enter the password.

When changing the FTP offload server settings, use this option to specify the password to use to log in to the FTP offload server. If this option is omitted, you will be prompted to enter the password.

-d The directory to use on the FTP offload server.

--passive

When changing the FTP firewall settings, use this option to specify the passive mode to use. Valid values are **on** for always use PASV, **off** for always use PORT, and **optional** for try PASV then PORT.

When changing the FTP offload server settings, use this option to specify the passive mode to use. Valid values are **on** for always use PASV and **off** for always use PORT.

--fwtype

The FTP firewall type to use when offloading service information. Valid values are:

- 0** - do not use a firewall
- 1** - connect to firewall server, but send "USER user@real.host.name"
- 2** - connect to firewall server, log in with "USER fwuser" and "PASS fwpassword", and then "USER user@real.host.name"
- 3** - connect to and log in to firewall server, and then use "SITE real.host.name" followed by "USER user" and "PASS password"
- 4** - connect to and log in to firewall server, and then use "OPEN real.host.name" followed by "USER user" and "PASS password"
- 5** - connect to firewall server, but send "USER user@fwuser@real.host.name" and "PASS pass@fwpass" to log in
- 6** - connect to firewall server, but send "USER fwuser@real.host.name" and "PASS fwpass" followed by "USER user" and "PASS password" to complete the login
- 7** - connect to firewall server, but send "USER user@real.host.name fwuser" and "PASS pass" followed by "ACCT fwpass" to complete the login

This option is only valid when changing the FTP firewall settings.

-n The host name or domain name to add to or remove from the exclusion list for the firewall server. The exclusion list is a list of domains or hosts where the firewall should not be used.

This option is required when adding or removing a name in the exclusion list for the FTP firewall server. This option is not valid for any other operation.

--help Display the help text for this command and exit.

EXAMPLES

Enable customer email notification for problem events:

```
chsacfg -t email -o enable
```

Set the SMTP server information for customer notification email:

```
chsacfg -t email -o setsmtp -h mycompany.com -p 30
```

Add an email address to be notified when call home problem events occur:

```
chsacfg -t email -o add -a addr1@mycompany.com  
--events callhome
```

Send a test email to all customer notification email addresses:

```
chsacfg -t email -o test -a all
```

Enable the use of FTP to offload service information and set the FTP server information:

```
chsacfg -t ftpoffload -o enable -h ftphost -u ftpuser  
--passwd userpwd
```

Set the FTP firewall server information to be used when offloading service information:

```
chsacfg -t ftpfirewall --fwtype 1 -h ftpfirewall  
-u ftpuser --passwd userpwd
```

Add a name to the exclusion list for the FTP firewall server:

```
chsacfg -t ftpfirewall -o add -n excludedhost
```

Disable the use of an FTP firewall when offloading service information:

```
chsacfg -t ftpfirewall --fwtype 0
```

Add an SNMP notification to community **mySNMP** at IP address **target.com** for SNMP traps 1, 2 and 7:

```
chsacfg -t snmp -o add -a mySNMP@target.com  
--events Trap1 Trap2 Trap7
```

Remove all SNMP trap notification addresses:

```
chsacfg -t snmp -o remove -a all
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO
lssacfg

NAME

chsvcevent - updates serviceable events on the HMC

SYNOPSIS

```
chsvcevent -o {close | closeall}
[-p problem-number -h analyzing-HMC] [--help]
```

DESCRIPTION

chsvcevent closes serviceable events on the Hardware Management Console (HMC).

OPTIONS

- o** The operation to perform. Valid values are **close** to close the serviceable event specified using the **-p** and **-h** options, and **closeall** to close all serviceable events on this HMC.
- p** The problem number of the serviceable event to close. This option is required when closing a single serviceable event. This option is not allowed when closing all serviceable events.

The problem number can be obtained using the **lssvcevents** command.
- h** The analyzing HMC for the serviceable event to close. This option is required when closing a single serviceable event. This option is not allowed when closing all serviceable events.

The analyzing HMC can be obtained using the **lssvcevents** command.
- help** Display the help text for this command and exit.

EXAMPLES

To close the serviceable event with problem number **1048** and analyzing HMC **7315-C02/KLRMT0L**:

```
chsvcevent -p 1048 -h 7315-C02/KLRMT0L -o close
```

To close all serviceable events on this HMC:

```
chsvcevent -o closeall
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssvcevents

NAME

chsyscfg - change system resources

SYNOPSIS

```
chsyscfg -r {lpar | prof | sys | sysprof | frame}
           {-m managed-system | -e managed-frame}
           {-f configuration-file | -i "configuration-data"}
           [--help]
```

DESCRIPTION

chsyscfg changes the attributes of partitions, partition profiles, or system profiles for the *managed-system*. It can also change the attributes of the *managed-system*.

chsyscfg can also change the attributes of the *managed-frame*.

OPTIONS

- r** The type of resources to change. Valid values are **lpar** for partitions, **prof** for partition profiles, **sys** for the managed system, **sysprof** for system profiles, and **frame** for the managed frame.
- m** The name of either the managed system to be changed, or the managed system which has the system resources to be changed. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when changing the attributes of partitions, partition profiles, system profiles, or the managed system. This option is not valid otherwise.
- e** The name of the managed frame to be changed. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

This option is required when changing the attributes of the managed frame. This option is not valid otherwise.
- f** The name of the file containing the configuration data needed to change the resources. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. These attribute name/value pairs form a configuration record. A line feed marks the end of a configuration record. The file must contain one configuration record for each resource to be changed, and each configuration record must be for the same resource type. If the resource type is the managed system or the managed frame, then the file must contain only one configuration record.

The format of a configuration record is as follows:

```
attribute-name=value,attribute-name=value,...<LF>
```

Note that certain attributes accept a comma separated list of values, as follows:

```
"attribute-name=value,value,...",...<LF>
```

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

If `'+='` is used in the attribute name/value pair instead of `'='`, then the specified *value* is added to the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the

specified *value(s)* is added to the existing list.

If '=' is used in the attribute name/value pair instead of '=', then the specified *value* is subtracted from the existing value for the attribute if the attribute is numerical. If the attribute is a list, then the specified *value(s)* is deleted from the existing list.

Attribute names for partitions:

name | lpar_id

name or ID of the partition to
change (required)

new_name

default_profile

ipl_source

i5/OS only

Valid values are **a**, **b**, **c**, or **d**

allow_perf_collection

Valid values are:

0 - do not allow

1 - allow

This attribute replaces the

shared_proc_pool_util_auth attribute.

Setting this attribute also sets the

shared_proc_pool_util_auth attribute
to the same value.

shared_proc_pool_util_auth

Valid values are:

0 - do not allow authority

1 - allow authority

This attribute has been deprecated. Use

the **allow_perf_collection** attribute

instead. Setting this attribute also

sets the **allow_perf_collection**

attribute to the same value.

work_group_id

lpar_avail_priority

POWER6 servers only

Valid values are **0** - **255**.

electronic_err_reporting

i5/OS only, POWER6 servers only

Valid values are:

0 - disable

1 - enable

misp

Virtual I/O server only, POWER6 servers
only

Valid values are:

0 - the partition is not a mover service
partition

1 - the partition is a mover service
partition

time_ref

POWER6 servers only

Valid values are:

0 - the partition is not a time reference

partition
1 - the partition is a time reference
partition

Attribute names for partition profiles:

name
name of the partition profile to
change (required)

lpar_name | lpar_id
name or ID of the partition for
which the profile to change is
defined (required)

new_name

min_mem
megabytes

desired_mem
megabytes

max_mem
megabytes

min_num_huge_pages
AIX and Linux only

desired_num_huge_pages
AIX and Linux only

max_num_huge_pages
AIX and Linux only

bsr_arrays
POWER6 servers only

proc_mode
Valid values are:
ded - dedicated processors
shared - shared processors

min_procs

desired_procs

max_procs

min_proc_units

desired_proc_units

max_proc_units

min_5250_cpw_percent
Only valid for i5/OS partitions in
managed systems that support the
assignment of 5250 CPW percentages

desired_5250_cpw_percent
Only valid for i5/OS partitions in
managed systems that support the
assignment of 5250 CPW percentages

max_5250_cpw_percent
Only valid for i5/OS partitions in
managed systems that support the
assignment of 5250 CPW percentages

sharing_mode
Valid values for partitions using
dedicated processors are:
keep_idle_procs - never share
processors

share_idle_procs - share processors only
when partition is inactive

share_idle_procs_active - share
processors only when partition
is active (POWER6 servers only)

share_idle_procs_always - always share
processors (POWER6 servers only)

Valid values for partitions using shared
processors are:

cap - capped

uncap - uncapped

uncap_weight

shared_proc_pool_name | **shared_proc_pool_id**
POWER6 servers only

io_slots

Comma separated list of I/O slots, with
each I/O slot having the following
format:

*slot-DRC-index[slot-IO-pool-ID]/
is-required*

Both '/' characters must be present, but
optional values may be omitted. Optional
values are *slot-IO-pool-ID*.

Valid values for *is-required*:

0 - no

1 - yes

For example:

21010003/3/1 specifies an I/O slot with a
DRC index of **21010003**, it is assigned to
I/O pool **3**, and it is a required slot.

lpar_io_pool_ids

comma separated

load_source_slot

i5/OS only

DRC index of I/O slot, or virtual slot
number

alt_restart_device_slot

i5/OS only

DRC index of I/O slot, or virtual slot
number

console_slot

i5/OS only

DRC index of I/O slot, DRC index
of HEA logical port (POWER6 servers
only), virtual slot number, or
the value **hmc**

alt_console_slot

i5/OS only

DRC index of I/O slot

op_console_slot

i5/OS only
DRC index of I/O slot

auto_start

Valid values are:

0 - off

1 - on

boot_mode

AIX, Linux, and virtual I/O server only

Valid values are:

norm - normal

dd - diagnostic with default boot list

ds - diagnostic with stored boot list

of - Open Firmware OK prompt

sms - System Management Services

power_ctrl_lpar_ids | **power_ctrl_lpar_names**

comma separated

conn_monitoring

Valid values are:

0 - off

1 - on

hsl_pool_id

i5/OS only

Valid values are:

0 - HSL OptiConnect is disabled

1 - HSL OptiConnect is enabled

virtual_opti_pool_id

i5/OS only

Valid values are:

0 - virtual OptiConnect is disabled

1 - virtual OptiConnect is enabled

max_virtual_slots

virtual_eth_adapters

Comma separated list of virtual ethernet adapters, with each adapter having the following format:

virtual-slot-number[*is-IEEE*]/*port-vlan-ID*/
[*additional-vlan-IDs*]/[*trunk-priority*]/
is-required[/*virtual-switch*]

The first 5 '/' characters must be present. The last '/' character is optional, but it must be present if *virtual-switch* is specified. Optional values may be omitted. Optional values are *additional-vlan-IDs*, *trunk-priority*, and *virtual-switch*.

Valid values for *is-IEEE* and *is-required*:

0 - no

1 - yes

Valid values for *trunk-priority*:

0 - this adapter is not a trunk adapter

1 - 15 - this adapter is a trunk adapter with the specified priority

For example:

13/1/5/'6,7'/2/1

specifies a virtual ethernet adapter with a virtual slot number of **13**, is IEEE 802.1Q compatible, has a port virtual LAN ID of **5**, additional virtual LAN IDs of **6** and **7**, it is a trunk adapter with a trunk priority of **2**, and it is required.

virtual_scsi_adapters

Comma separated list of virtual SCSI adapters, with each adapter having the following format:

```
virtual-slot-number/client-or-server/  
[remote-lpar-ID]/[remote-lpar-name]/  
[remote-slot-number]/is-required
```

All 5 '/' characters must be present, but optional values may be omitted. Optional values for server adapters are *remote-lpar-ID*, *remote-lpar-name*, and *remote-slot-number*. Optional values for client adapters are *remote-lpar-ID* or *remote-lpar-name* (one of those values is required, but not both).

Valid values for *client-or-server*:

client
server

Valid values for *is-required*:

0 - no
1 - yes

For example:

14/client/2//13/0

specifies a virtual SCSI **client** adapter with a virtual slot number of **14**, a remote (server) partition ID of **2**, a remote (server) slot number of **13**, and it is not required.

virtual_serial_adapters

Comma separated list of virtual serial adapters, with each adapter having the following format:

```
virtual-slot-number/client-or-server/  
[supports-HMC]/[remote-lpar-ID]/  
[remote-lpar-name]/[remote-slot-number]/  
is-required
```

All 6 '/' characters must be present, but optional values may be omitted. Optional values for server adapters are *supports-HMC*, *remote-lpar-ID*, *remote-lpar-name*, and *remote-slot-number*. Optional values for client adapters are *remote-lpar-ID* or *remote-lpar-name* (one of those values is required, but not both), and the *supports-HMC* value is not allowed.

Valid values for *client-or-server*:

client
server

Valid values for *supports-HMC*:

0 - no

Valid values for *is-required*:

0 - no

1 - yes

For example:

14/server/0///0

specifies a virtual serial **server** adapter with a virtual slot number of **14**, it does not support an HMC connection, any client adapter is allowed to connect to it, and it is not required.

hca_adapters

AIX, Linux, and virtual I/O server only
Comma separated list of Host Channel adapters (HCA), with each adapter having the following format:

adapter-ID/GUID/capability

All 3 values must be specified for each adapter.

Valid values for *capability*:

1 - low

2 - medium

3 - high

4 - dedicated

For example:

23000cff/2550000000609/3 specifies an HCA with an adapter ID of **23000cff**, a Globally Unique ID (GUID) of 2:55:00:00:00:06:09, and a capability setting of high.

lhea_logical_ports

POWER6 servers only

Comma separated list of Logical Host Ethernet adapter (LHEA) logical ports, with each logical port having the following format:

*adapter-ID/port-group/physical-port-ID/
logical-port-ID[allowed-VLAN-IDs]*

All 4 '/' characters must be present, but optional values may be omitted. Optional values are *allowed-VLAN-IDs*.

For example:

23000000/2/0/1/3 specifies logical port **1** for physical port **0** belonging to port group **2** of the Host Ethernet adapter (HEA) with an adapter ID of **23000000**. This logical port is only allowed to participate in the VLAN with an ID of **3**.

lhea_capabilities

POWER6 servers only

Comma separated list of LHEA capabilities, with each capability having one of the following formats:

adapter-ID/capability

or

adapter-ID/5/ieq/nieq/qp/cq/mr

where *ieq* (interruptible event queues), *nieq* (non-interruptible event queues), *qp* (queue pairs), *cq* (completion queues), and *mr* (memory regions) each specify the resource amount in addition to the base minimum.

Valid values for *capability*:

0 - base minimum

1 - low

2 - medium

3 - high

4 - dedicated

For example:

23000000/3 sets the LHEA capability for the HEA with an adapter ID of **23000000** to high.

sni_device_ids

AIX, Linux, and virtual I/O server only

Comma separated list of Switch Network Interface (SNI) adapter device IDs

work_group_id
redundant_err_path_reporting

Valid values are:

0 - disable

1 - enable

electronic_err_reporting

i5/OS only, POWER6 servers only

Valid values are:

0 - disable

1 - enable

lpar_proc_compat_mode

POWER6 servers only

Valid values are:

default - default architected
processor mode

POWER6_enhanced - POWER6 enhanced
processor mode

Attribute names for a managed system:

new_name

power_off_policy

Valid values are:

0 - power off after all partitions are
shut down

1 - do not power off after all partitions
are shut down

service_lpar_id

Specify **none** to remove the service
partition assignment

service_lpar_name

power_on_option

Valid values are **autostart** or **standby**

power_on_side

Valid values are **perm** or **temp**

power_on_speed

Valid values are **slow** or **fast**

power_on_speed_override

Valid values are **none**, **slow**, or **fast**

sp_failover_enabled

Valid values are:

0 - disable service processor failover

1 - enable service processor failover

addr_broadcast_perf_policy

POWER6 servers only

Valid values are:

chip_affinity

no_affinity

node_affinity

max_lpars_per_hca

POWER6 servers only

The managed system must be restarted for
this change to take effect.

Attribute names for system profiles:

name
name of the system profile to
change (required)
new_name
lpar_names | lpar_ids
comma separated
profile_names
comma separated

Attribute names for a managed frame:

new_name
frame_num

The **-f** and the **-i** options are mutually exclusive.

- i** This option allows you to enter configuration data on the command line, instead of using a file. Data entered on the command line must follow the same format as data in a file, and must be enclosed in double quotes.

When this option is used, only a single resource can be changed.

The **-i** and the **-f** options are mutually exclusive.

- help** Display the help text for this command and exit.

EXAMPLES

Change the managed system's user-defined name and power off policy:

```
chsyscfg -r sys -m 9406-570*89320051 -i "new_name=sys1,  
power_off_policy=1"
```

Change partitions using the configuration data in the file **/tmp/lparfile**:

```
chsyscfg -r lpar -m sys1 -f /tmp/lparfile
```

Change a partition profile's memory amounts (reduce the profile's current memory amounts each by 256 MB), and number of desired processors:

```
chsyscfg -r prof -m sys1 -i "name=profile1,  
lpar_name=partition3,min_mem-=256,desired_mem-=256,  
max_mem-=256,desired_procs=2"
```

Change a system profile (add 2 new partition profiles):

```
chsyscfg -r sysprof -m sys1 -i "name=sysprof1,  
"lpar_names+=partition3,partition4",  
"profile_names+=3_prof1,4_defaultProf""
```

Change the managed frame's user-defined name and frame number:

```
chsyscfg -r frame -e 9119-59*1234567 -i "new_name=frame1,  
frame_num=1"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssyscfg, mksyscfg, rmsyscfg, chhwres

NAME

chsyspwd - change system password

SYNOPSIS

```
chsyspwd -t {access | admin | general}
          {-m managed-system | -e managed-frame}
          [--passwd current-password] [--newpasswd new-password]
          [--help]
```

DESCRIPTION

chsyspwd changes a password for the *managed-system* or the *managed-frame*.

OPTIONS

- t** The password to change. Valid values are **access** for the Hardware Management Console (HMC) Access password, **admin** for the Advanced System Management (ASM) Administrator password, and **general** for the ASM General password.
- m** The name of the managed system for which to change the password. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

The **-m** and the **-e** options are mutually exclusive.
- e** The name of the managed frame for which to change the password. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

The **-e** and the **-m** options are mutually exclusive.
- passwd** The current password. If this option is omitted, you will be prompted to enter the current password.
- newpasswd** The new password. If this option is omitted, you will be prompted to enter the new password.

The new password must be at least 4 characters in length, and cannot be longer than 63 characters.
- help** Display the help text for this command and exit.

EXAMPLES

Change the HMC Access password for the managed system **system1**:

```
chsyspwd -m system1 -t access --passwd sys1pw --newpasswd
sys1newpw
```

Change the ASM Administrator password (the current and new passwords must be entered when prompted) for the managed system **9406-520*10013CA**:

```
chsyspwd -m 9406-520*10013CA -t admin
```

Change the HMC Access password for the managed frame **frame1**:

```
chsyspwd -e frame1 -t access --passwd frame1pw --newpasswd
frame1newpw
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

chsysstate - change partition state or system state

SYNOPSIS

To power on a managed system:

```
chsysstate -m managed-system -r sys  
-o { on | onstandby | onsysprof | onhwdisc }  
[-f system-profile-name]  
[-k keylock-position]
```

To power off a managed system:

```
chsysstate -m managed-system -r sys  
-o off [--immed]
```

To restart a managed system:

```
chsysstate -m managed-system -r sys  
-o off --immed --restart
```

To rebuild a managed system or a managed frame:

```
chsysstate {-m managed-system | -e managed-frame}  
-r {sys | frame} -o rebuild
```

To recover partition data for a managed system:

```
chsysstate -m managed-system -r sys -o recover
```

To initiate service processor failover for a managed system:

```
chsysstate -m managed-system -r sys -o spfailover
```

To set the keylock position for a managed system or a partition:

```
chsysstate -m managed-system -r {sys | lpar}  
-o chkey -k keylock-position  
[-n partition-name | --id partition-ID]
```

To activate a partition:

```
chsysstate -m managed-system -r lpar -o on  
{-n partition-name | --id partition-ID}  
[-f partition-profile-name]  
[-k keylock-position]  
[-b boot-mode] [-i IPL-source]
```

To shut down or restart a partition:

```
chsysstate -m managed-system -r lpar  
-o {shutdown | osshutdown | dumprestart |  
retrydump}  
{-n partition-name | --id partition-ID}  
[--immed] [--restart]
```

To perform an operator panel service function on a partition:

```
chsysstate -m managed-system -r lpar  
-o {dston | remotedstoff | remotedston |  
consoleservice | iopreset | iopdump}  
{-n partition-name | --id partition-ID}
```

To validate or activate a system profile:

```
chsysstate -m managed-system -r sysprof
```

-n *system-profile-name*
[**-o on**] [**--continue**] [**--test**]

To power off all of the unowned I/O units in a managed frame:

chsysstate -e managed-frame -r frame -o unownedioff

DESCRIPTION

chsysstate changes the state of a partition, the *managed-system*, or the *managed-frame*.

OPTIONS

- m** The name of the managed system on which to perform the operation. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- This option is required when performing a partition, system profile, or managed system operation. This option is not valid otherwise.
- e** The name of the managed frame on which to perform the operation. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.
- This option is required when performing a managed frame operation. This option is not valid otherwise.
- r** The type of resource on which to perform the operation. Valid values are **lpar** for partition, **sys** for managed system, **sysprof** for system profile, and **frame** for managed frame.
- o** The operation to perform. Valid values are:
- on** - activates a partition or a system profile, or powers on the *managed-system*. When powering on the *managed-system*, partitions that are marked as auto start and partitions that were running when the system was powered off are activated.
 - onstandby** - powers on the *managed-system* to Standby state.
 - onsysprof** - powers on the *managed-system* then activates a system profile. Only those partitions in the system profile are activated.
 - onhwdisc** - powers on the *managed-system* and runs the hardware discovery process. When the hardware discovery process completes, the *managed-system* will be in Operating state, but no partitions will be automatically started.
 - off** - powers off the *managed-system*. If the **--immed** option is specified, a fast power off (operator panel function 8) is performed, otherwise a normal power off is performed. If both the **--immed** and the **--restart** options are specified, a restart (operator panel function 3) of the

managed-system is performed.

rebuild - rebuilds the *managed-system* or the *managed-frame*.

recover - recovers partition data for the *managed-system* by restoring the data from the backup file on the HMC.

spfailover - initiates service processor failover for the *managed-system*.

chkey - sets the keylock position for a partition or the *managed-system*.

shutdown - shuts down a partition. If the **--immed** option but not the **--restart** option is specified, an immediate shutdown (operator panel function 8) is performed. If the **--restart** option but not the **--immed** option is specified, a **dumpprestart** operation (operator panel function 22) is performed. If both the **--immed** and the **--restart** options are specified, an immediate restart (operator panel function 3) of the partition is performed. If neither the **--immed** nor the **--restart** option is specified, a delayed shutdown is performed.

osshutdown - issues the operating system "shutdown" command to shut down an AIX, Linux, or virtual I/O server partition. If the **--immed** option is specified, the operating system "shutdown -F" command is issued to immediately shut down the partition. If the **--restart** option is specified, the "r" option is included on the operating system "shutdown" command to restart the partition.

dumpprestart - initiates a dump on the partition and restarts the partition when the dump is complete (operator panel function 22).

retrydump - retries the dump on the partition and restarts the partition when the dump is complete (operator panel function 34). This operation is valid for i5/OS partitions only.

dston - activates dedicated service tools for the partition (operator panel function 21). This operation is valid for i5/OS partitions only.

remotedstoffs - disables a remote service session for the partition (operator panel function 65). This operation is valid for i5/OS partitions only.

remotedston - enables a remote service session for the partition (operator panel function 66). This operation is valid for i5/OS partitions only.

consoleservice - enables console service functions for the partition (operator panel function 65 followed by 21). This operation is valid for i5/OS partitions only.

iopreset - resets or reloads the failed IOP (operator panel function 67). This operation is valid for i5/OS partitions only.

iopdump - allows use of the IOP control storage dump (operator panel function 70). This operation is valid for i5/OS partitions only.

unownediooff - powers off all of the unowned I/O units in a managed frame.

- f** When activating a partition, use this option to specify the name of the partition profile to use. This option is required unless the *managed-system* is in the manufacturing default configuration. If the *managed-system* is in the manufacturing default configuration and this option is not specified, the partition will be activated with no configuration changes and the *managed-system* will remain in the manufacturing default configuration. If the *managed-system* is in the manufacturing default configuration and this option is specified, the partition will be activated with the configuration specified by *partition-profile-name* and the manufacturing default configuration will be permanently exited.

When powering on a managed system with a system profile, use this option to specify the name of the system profile to use. This option is required.

- k** The keylock position to set. Valid values are **manual** and **norm** for normal.

This option is required when setting the keylock position for a partition or a managed system. This option is optional when powering on a managed system or activating a partition.

--immed

If this option is specified when powering off a managed system, a fast power off is performed.

This option must be specified when restarting a managed system.

If this option is specified when shutting down or restarting a partition, an immediate shutdown or restart is performed.

--restart

If this option is specified, the partition or managed system will be restarted.

- n** When performing a system profile operation, use this option to specify the name of the system profile on which to perform the operation.

When performing a partition operation, use either this option to specify the name of the partition on which to perform the operation, or use the **--id** option to specify the partition's ID. The **-n** and the **--id** options are mutually exclusive for partition operations.

- id** When performing a partition operation, use either this option to specify the ID of the partition on which to perform the operation, or use the **-n** option to specify the partition's name. The **--id** and the **-n** options are mutually exclusive for partition operations.

- b** The boot mode to use when activating an AIX, Linux, or virtual I/O server partition. Valid values are **norm** for normal, **dd** for diagnostic with default boot list, **ds** for diagnostic with stored boot list, **of** for Open Firmware OK prompt, or **sms** for System Management Services.

- i** The IPL source to use when activating an i5/OS partition. Valid values are **a**, **b**, **c**, or **d**.
- test** If this option is specified when performing a system profile operation, the system profile is validated.
- continue**
If this option is specified when activating a system profile, remaining partitions will continue to be activated after a partition activation failure occurs.
- help** Display the help text for this command and exit.

EXAMPLES

Power on a managed system and auto start partitions:

```
chsysstate -m 9406-520*10110CA -r sys -o on
```

Power on a managed system with a system profile:

```
chsysstate -m sys1 -r sys -o onsysprof -f mySysProf
```

Power off a managed system normally:

```
chsysstate -m sys1 -r sys -o off
```

Power off a managed system fast:

```
chsysstate -m sys1 -r sys -o off --immed
```

Restart a managed system:

```
chsysstate -m 9406-570*12345678 -r sys -o off --immed  
--restart
```

Rebuild a managed system:

```
chsysstate -m 9406-570*12345678 -r sys -o rebuild
```

Recover partition data for a managed system:

```
chsysstate -m sys1 -r sys -o recover
```

Initiate service processor failover for a managed system:

```
chsysstate -m myServer -r sys -o spfailover
```

Set the keylock position for a managed system:

```
chsysstate -m sys1 -r sys -o chkey -k manual
```

Activate i5/OS partition **p1** using partition profile **p1_prof1** and IPL source **b**:

```
chsysstate -m sys1 -r lpar -o on -n p1 -f p1_prof1 -i b
```

Shut down the partition with ID **1**:

```
chsysstate -m 9406-570*12345678 -r lpar -o shutdown --id 1
```

Issue the AIX shutdown command to immediately shut down the AIX partition **aix_p1**:

```
chsysstate -m 9406-570*12345678 -r lpar -o osshutdown  
-n p1 --immed
```

Immediately restart the partition with ID 1:

```
chsysstate -m 9406-570*12345678 -r lpar -o shutdown --id 1  
--immed --restart
```

Enable a remote service session for the i5/OS partition **mylpar**:

```
chsysstate -m sys1 -r lpar -o remoteston -n mylpar
```

Validate system profile **sp1**:

```
chsysstate -m sys1 -r sysprof -n sp1 --test
```

Validate then activate system profile **sp1**:

```
chsysstate -m sys1 -r sysprof -n sp1 -o on --test
```

Activate system profile **mySysProf** and continue activating remaining partitions if a partition activation failure occurs:

```
chsysstate -m 9406-570*12345678 -r sysprof -n mySysProf  
-o on --continue
```

Rebuild a managed frame:

```
chsysstate -e myFrame -r frame -o rebuild
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssyscfg

NAME

chusrzca - displays welcome text at local console login or displays text when remotely login using SSH.

SYNOPSIS

```
chusrzca [-o { a | r | ab | rb }]  
[-f welcome-file] [-b banner-file]  
[-c] [--help]
```

DESCRIPTION

chusrzca provides a method to deploy text file(s) containing welcome or warning message and present to all users who login locally on the Hardware Management Console (HMC). The text file must be named **WelcomeFile.txt**. A banner file can also be specified, to have its contents displayed prior to login with SSH. The banner file must first be copied to the HMC, then it will be copied to a location accessible by SSH daemon. The banner file must be named **BannerFile.txt**.

OPTIONS

- o** Adds (**a**) or removes (**r**) the text file containing the welcome text. Add banner (**ab**) and remove banner (**rb**) can only be specified when deploying a banner file.
- f** The text file whose contents will be used as welcome, when login locally on the HMC, must be named **WelcomeFile.txt**.
- b** The text file whose contents will be used as banner, when remotely login using SSH, must be named **BannerFile.txt**.
- c** Removes the welcome or the banner file from the HMC filesystem. This option requires the **-f** or **-b** flags.
- help** Displays the help text for this command and exit.

EXAMPLES

Adds welcome text. The file is on floppy:

```
mount /mnt/floppy
```

```
chusrzca -o a -f /mnt/floppy/WelcomeFile.txt
```

Use scp to copy the **WelcomeFile.txt** file to /tmp on the HMC, then adds welcome text then removes it:

```
scp someID@someHost:/tmp/WelcomeFile.txt /tmp
```

```
chusrzca -o a -f /tmp/WelcomeFile.txt -c
```

Removes welcome text from the HMC. The welcome text will no longer be displayed:

```
chusrzca -o r
```

Removes banner text from the HMC. The banner text will no longer be displayed:

```
chusrzca -o rb
```

Use scp to copy the banner file to /tmp on the HMC, then deploy it:

```
scp someID@someHost:/tmp/BannerFile.txt /tmp
```

```
chusrzca -o ab -b /tmp/BannerFile.txt -c
```

Removes banner text file from the HMC:

chusrta -c -b /tmp/BannerFile.txt

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

chvet - activate Capacity on Demand advanced functions

SYNOPSIS

chvet -o e -m *managed-system* -k *activation-code* [--help]

DESCRIPTION

chvet performs activation of Capacity on Demand (CoD) advanced functions on the *managed-system*. CoD advanced functions include Advanced POWER Virtualization and Enterprise Enablement.

CoD advanced functions are sometimes referred to as Virtualization Engine systems technologies.

OPTIONS

- o** The operation to perform. The only valid value is **e** to enter an activation code.
- m** The name of the managed system for which the activation is to be performed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- k** The activation code (key) to enter. Letters may be entered in either upper case or lower case.
- help** Display the help text for this command and exit.

EXAMPLES

Enter an activation code:

```
chvet -m mySystem -o e -k AlphaNumericString12345
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsvet, **lssyscfg**

NAME

cpdump - copy dumps

SYNOPSIS

```
cpdump -r {dvd | ftp} -f "file1 file2 ...fileN"  
[-h host-name] [-u user-ID] [--passwd password]  
[-d directory] [--help]
```

DESCRIPTION

cpdump copies managed system dumps and managed frame dumps from the Hardware Management Console (HMC) to DVD or a remote FTP site.

Use the **lsdump** command to list the managed system dumps and managed frame dumps that reside on the HMC.

OPTIONS

-r The storage location to where the dumps will be copied. Valid values are **dvd** for the DVD drive on the HMC and **ftp** for a remote FTP site.

-f The file name of the dump to be copied. If multiple dumps are to be copied, the file names must be separated by blanks and enclosed in double quotes.

-h The host name or IP address of the remote FTP site.

This option is required when copying a dump to a remote FTP site. Otherwise, this option is not valid.

-u The user ID to use to log in to the remote FTP site.

This option is required when copying a dump to a remote FTP site. Otherwise, this option is not valid.

--passwd

The password to use to log in to the remote FTP site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when copying a dump to a remote FTP site.

-d The directory on the FTP server to where the dumps will be copied. If this option is omitted, the dumps will be copied to the home directory of the user.

This option is only valid when copying a dump to a remote FTP site.

--help Display the help text for this command and exit.

EXAMPLES

Copy dump files to the DVD drive on the HMC:

```
cpdump -r dvd -f "FSPDUMP.100072A.01000019.20040629205455  
SYSDUMP.100072A.01000019.20040630183112"
```

Copy a dump file to a remote FTP site:

```
cpdump -r ftp -f "FSPDUMP.100072A.01000019.20040629205455"  
-h ftpserver -u ftpuser --passwd ftppassword  
-d /tmp/dumpfiles/
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsdump

NAME

cpsysplan - copy system plan

SYNOPSIS

```
cpsysplan -r { ftp | media } -f file-name  
-o { import | export }  
[-h host-name] [-p ftp-port-number] [-u user-ID]  
[--passwd password] [-d directory]  
[--check] [--help]
```

DESCRIPTION

cpsysplan copies a system plan file between the Hardware Management Console (HMC) and either removable media or a remote host.

OPTIONS

- r** The location where the system plan file will be copied to or from. Valid values are **ftp** for a remote FTP site and **media** for removable media. If **media** is specified, the media must be present in the removable media device and the device must be mounted with the **mount** command before this command is issued. The **lsmediadev** command can be used to display all of the removable media devices on the HMC.
- f** Specifies the name of the system plan file that is to be copied. The filename itself is restricted to the alphanumeric (upper and lower) as well as a set of special characters (comma, period, hyphen, underscore, and space). Of this set, there are the positional restriction in that the name cannot begin with period nor hyphen.

cpsysplan performs a raw file copy. It does not parse or validate the system plan file content.

The file will be searched for in the system plan file directory on the HMC when copying from the HMC. When copying to the HMC, the file will be written to this directory. If the file already exists, it will be overwritten unless the **--check** option is specified.

The file name must end with the **.sysplan** suffix.

- o** Specifies if the file is to be copied to or from the system plan file directory on the HMC. Valid values are **export** to copy the file from the HMC to the resource location specified or **import** to copy the file from the resource location specified to the system plan file directory on the HMC.
- h** The host name or IP address of the remote FTP site.

This option is required when copying a file to or from a remote FTP site. Otherwise, this option is not valid.
- p** The port number to use for the remote FTP site. If this option is omitted, the default FTP port 21 will be used.

This option is only valid when copying a file to or from a remote FTP site.
- u** The user ID to use to log in to the remote FTP site.

This option is required when copying a file to or from a remote FTP site. Otherwise, this option is not valid.

--passwd

The password to use to log in to the remote FTP site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when copying a file to or from a remote FTP site.

-d The optional directory to use when copying a file to or from a remote FTP site.

This option is required when copying a system plan file to or from media. The directory is the name of the mounted removable media where the file is read from when **-o import** is specified or written to when **-o export** is specified.

--check

Specifies that when importing a file, this command should check the system plan directory and fail with an error if the file with the name specified with the **-f** option already exists.

This option is only valid when **-o import** is specified.

--help Display the help text for this command and exit.

EXAMPLES

Copy the system plan file **sysplan.sysplan** to a remote FTP site:

```
cpsysplan -r ftp -f sysplan.sysplan -o export -h ftpserver -u ftpuser --passwd ftppassword
```

Copy the system plan file **sysplan.sysplan** to a remote FTP site:

```
cpsysplan -r ftp -f sysplan.sysplan -o export -h 9.3.145.52 -d /home/user/systemplans
```

Copy the system plan file **sysplan.sysplan** from a remote FTP site:

```
cpsysplan -r ftp -f sysplan.sysplan -o import -h ftpserver -p 9922 -u ftpuser --passwd ftppassword
```

Copy the system plan file **sysplan.sysplan** from CD-ROM (the CD must be present in the drive). Don't overwrite **sysplan.sysplan** if the file already exists in the system plan directory:

```
mount /media/cdrom
```

```
cpsysplan -r media -f sysplan.sysplan -o import -d /media/cdrom --check
```

Copy the system plan file **sysplan.sysplan** to a USB key device (the USB key must already be connected to the HMC):

```
mount /media/sda1
```

```
cpsysplan -r media -f sysplan.sysplan -o export -d /media/sda1
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

deploysysplan, mksysplan, lssysplan, rmsysplan, rmsysplanres, defsysplanres, lssysplanres, lsmediadev

NAME

defsysplanres - define system plan resource

SYNOPSIS

```
defsysplanres -r osinstall -n resource-name  
-v "resource-value" [-d "resource-description"] [--help]
```

DESCRIPTION

defsysplanres defines a system plan resource for use by system plans deployed from the Hardware Management Console (HMC).

OPTIONS

-r Specifies the type of system plan resource to define. The only valid value is **osinstall** for an operating system (OS) installation resource.

This command does not create the resource. It sets the reference to an OS installation resource that can later be used within system plans that are deployed from the HMC where the resource has been defined. This resource is defined only to the HMC and not to any system plan or managed system. If the resource defined appears with a location attribute in a system plan, the plan location will be used instead.

-n Specifies the name of the system plan resource to define. This will be used to get the plan resource location attribute when a system plan that needs to use the resource is deployed.

Specify **vios** with this option to define the OS installation resource for installing a Virtual I/O Server with a system plan.

Specify **i5osv5r3m0** with this option to define the OS installation resource for installing the i5/OS V5R3M0 release with a system plan.

Specify **sles9** with this option to define the OS installation resource for installing the SLES9 LINUX operating system with a system plan.

Specify **rhel4** with this option to define the OS installation resource for installing the Red Hat 4 LINUX operating system with a system plan.

Specify **aix52** with this option to define the OS installation resource for installing the AIX V5R2 operating system with a system plan.

Specify **aix53** with this option to define the OS installation resource for installing the AIX V5R3 operating system with a system plan.

Otherwise the name specified with this option is the name of the resource to define.

-v Specifies the value of the resource. This value is not checked for validity by the command. It is treated as a string value.

-d Specifies a description for the resource. This is an open text description field.

--help Display the help text for this command and exit.

EXAMPLES

Define the osinstall type plan resource used as the Red Hat install source on this HMC:

```
defsysplanres -r osinstall -n rhel4  
-v "nfs://network/installsources/rhel43"  
-d "Red hat install source"
```

Define the osinstall type plan resource used as the AIX V5R3 install source on this HMC:

```
defsysplanres -r osinstall -n aix53  
-v "file://temp/aixsource/aix53install"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

deploysysplan, lssysplanres, lssysplan, rmsysplanres

NAME

deploysysplan - deploy system plan

SYNOPSIS

```
deploysysplan -f file-name -o { dv | v | d }  
[-m managed-system] [--force]  
[--plan plan-number] [-v]  
[-i ["deployment-plan-step-identifier"]]  
[--help]
```

DESCRIPTION

deploysysplan deploys a managed system's partition plan from a system plan file.

OPTIONS

- f** Specifies the name of the file that contains the system plan that is to be deployed. The file must exist in the system plan file directory on the Hardware Management Console (HMC). This file will not be changed by the **deploysysplan** command.
- The file name must end with the **.sysplan** suffix.
- o** Specifies the deployment option to be used when deploying the system plan.
- Use the **dv** option to validate the system plan on the managed system, and if it is valid, to deploy it.
- Use the **v** option to validate the system plan on the managed system but not deploy it.
- Use the **d** option to skip validation of the system plan against the managed system, and just deploy the plan-specified partitions and profiles on the managed system.
- m** Specifies the managed system's name where the plan should be deployed. The system plan optionally specifies the managed system's name where that system plan was intended to be deployed. If a managed system name is specified with this option, that name would override the plan-provided name. If no managed system name was specified in the system plan file then this option is required.
- The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- force** If the managed system has existing partitions that the system plan contains that are in an active state, this option allows this command to proceed. Otherwise, if active partitions are found, this command will fail with an error message.
- plan** System plan files can contain more than one system plan. If the file contains more than one plan, this option specifies the **name** of the system plan to deploy. If this **name** is not specified, then the first system plan in the file is deployed. If there is only one system plan in the file, this option is ignored.
- v** When **-o v** is specified, this option specifies that a list of identifiers that identify the steps of the validated system plan should be written to stdout. These steps are part of the plan but not yet implemented on the managed system. Otherwise, this list will not be written out.
- When **-o dv** or **-o d** is specified, this option specifies that a list of log entries that record the steps performed as part of deploying the system plan should be written to stdout. Otherwise, this list will not be written out.
- i** A delimiter separated list of identifiers representing the desired steps in the specified system plan to implement on the managed system. If this option is specified without any identifiers, then all of

the steps in the plan will be performed as it is deployed on the managed system. If this list is not specified, then all the steps in the plan will be performed.

The values representing the system plan steps to be performed will be separated by a blank delimiter and the entire list must be enclosed in double quotes.

When this option is specified, only the system plan steps identified in this list will be performed. The system plan steps can be specified in any order but must identify deployment steps that appear in the system plan specified by the input file. The command processing will fail and none of the identified steps will be performed if an identifier is passed that does not identify a step in the system plan file.

Steps specified might be determined by command processing that already have been completed on the managed system. That will be logged by the command processing, however, is not an error.

This option is useful when only specific steps in a system plan file are desired to be performed. The command processing does not validate that the resulting deployment is valid but it will determine that dependent steps in the system plan will be checked for and enforced. The command processing will fail and none of the identified steps will be performed if there are dependent steps that are not specified. (For example a partition profile must exist before a system plan step to install its OS can be specified.)

--help Display the help text for this command and exit.

EXAMPLES

Deploy a system plan from the file **mysysplan.sysplan** onto the managed system configured in the file. Validate the plan against the managed system before deploying it:

```
deploysysplan -f mysysplan.sysplan -o dv
```

Deploy a system plan from the file **mysysplan.sysplan** onto managed system **mySystem**. Validate the plan against the managed system before deploying it. Deploy the plan, if valid, even though there might be active partitions on the managed system:

```
deploysysplan -f mysysplan.sysplan -o dv -m mySystem --force
```

Deploy a system plan from the file **mysysplan.sysplan** onto the managed system identified by the machine type, model, and serial number **9406-570*34134888**. Validate the plan against the managed system before deploying it. Write any errors found in validation or deployment to stdout:

```
deploysysplan -f mysysplan.sysplan -o dv -m 9406-570*34134888 -v
```

Validate the ability to deploy a system plan from the file **multisysplan.sysplan** onto managed system **mySystem**. Use the third system plan that appears in this file (the system plan file has at least three system plans). Validate the plan specified against the managed system to determine if that plan can be deployed there but do not actually deploy the plan:

```
deploysysplan -f multisysplan.sysplan -o v -m mySystem --plan 3
```

Validate the ability to deploy a system plan from the file **mysysplan.sysplan** onto managed system **mySystem**. Validate the plan against the managed system to determine if that plan can be deployed there but do not actually deploy the plan. Write out the steps in the system plan that are part of the plan but not yet implemented to stdout. Write any errors found in validation or deployment to stdout:

```
deploysysplan -f mysysplan.sysplan -o v -m mySystem -v
```

Deploy a system plan from the file **mysysplan.sysplan** onto managed system **mySystem**. Do not validate the plan against the managed system to determine if that plan can be deployed there. Write information about the steps performed in deployment to stdout. Write any errors found in validation or deployment to stdout. Deploy the plan, if valid, even though there might be active partitions on the managed system:

```
deploysysplan -f mysysplan.sysplan -o d -m mySystem -v --force
```

Deploy a system plan from the file **mysysplan.sysplan** onto managed system **mySystem**. Validate the plan against the managed system before deploying it. Deploy the plan, if valid, even though there might be active partitions on the managed system. Only deploy those steps from the system plan that have been identified by the **-i** option:

```
deploysysplan -f mysysplan.sysplan -o dv -m mySystem --force -i "23 45 33 465 99 3 4"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

cpsysplan, lssysplan, mksysplan, rmysysplan, rmysysplanres, defsysplanres, lssysplanres

NAME

dump - perform dump operation

SYNOPSIS

```
dump -m managed-system -t sys -o set -a "attributes"  
[--help]
```

DESCRIPTION

dump sets the system dump parameters for the *managed-system*. This operation is only supported for POWER6 servers.

OPTIONS

- m** The name of the managed system for which to set the system dump parameters. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- t** The type of dump for which to set the dump parameters. Valid values are **sys** for system dump.
- o** The dump operation to perform. Valid values are **set** to set the system dump parameters. The **set** operation is only supported for POWER6 servers.
- a** The configuration data needed to set the system dump parameters. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. The configuration data must be enclosed in double quotes.

The format of the configuration data is as follows:

```
attribute-name=value,attribute-name=value,...
```

Valid attribute names:

as_needed

Specifies when to collect system dumps.

Valid values:

0 - do not collect system dumps

1 - collect system dumps as necessary

Setting **as_needed** to **0** will remove the ability of service personnel to diagnose server errors. Do not set **as_needed** to **0** unless directed to do so by your hardware service representative.

sys_hardware

Specifies how much hardware data to collect when a system dump occurs.

Valid values:

auto - collect hardware data based on the system dump event that occurred

max - collect as much hardware data as possible

Setting **sys_hardware** to **max** will cause system dumps to take longer to complete. Do not set **sys_hardware** to **max** unless directed to do so by your hardware

service representative.

sys_firmware

Specifies how much system firmware data to collect when a system dump occurs.

Valid values:

- auto** - collect the primary data in memory owned by system firmware
- max** - collect the primary data in memory owned by system firmware plus all TCEs
- io** - collect the primary data in memory owned by system firmware plus all PCI TCEs
- virtualio** - collect the primary data in memory owned by system firmware plus all virtual I/O TCEs
- hps** - collect the primary data in memory owned by system firmware plus all High Performance Switch (HPS) TCEs
- hcaio** - collect the primary data in memory owned by system firmware plus all Host Channel Adapter (HCA) TCEs

Setting **sys_firmware** to **max**, **io**, **virtualio**, **hps**, or **hcaio** will cause system dumps to take longer to complete. Do not set **sys_firmware** to one of these values unless directed to do so by your hardware service representative.

--help Display the help text for this command and exit.

EXAMPLES

Set the system dump parameters for managed system **sys1**:

```
dump -m sys1 -t sys -o set -a "sys_hardware=auto,  
sys_firmware=auto"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsdump

NAME

getdump - get dump

SYNOPSIS

```
getdump {-m managed-system | -e managed-frame}  
-t {pss | sp | sys} [-s {a | b | p | s}] [--help]
```

DESCRIPTION

getdump offloads a dump from the *managed-system* or the *managed-frame* to the Hardware Management Console (HMC). The dump is written to a file in the **/dump** directory on the HMC.

The **lsdump** command can be used to list the dumps that are available on the *managed-system* or the *managed-frame*.

OPTIONS

-m The name of the managed system from which to offload the dump. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when offloading a service processor dump or a platform dump. This option is not valid otherwise.

-e The name of the managed frame from which to offload the dump. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

This option is required when offloading a power subsystem dump. This option is not valid otherwise.

-t The dump to offload. Valid values are **pss** for the power subsystem dump, **sp** for the service processor dump, or **sys** for the platform dump.

-s When offloading a power subsystem dump, use this option to specify the side of the managed frame's bulk power assembly (BPA) from which to offload the dump. Valid values are **a** for side A and **b** for side B.

When offloading a service processor dump, use this option to specify the service processor from which to offload the dump. Valid values are **p** for the primary service processor and **s** for the secondary service processor. If this option is not specified, the service processor dump will be offloaded from the primary service processor.

--help Display the help text for this command and exit.

EXAMPLES

Offload the platform dump from managed system **sys1**:

```
getdump -m sys1 -t sys
```

Offload the service processor dump from the secondary service processor on managed system **9117-570*12345678**:

```
getdump -m 9117-570*12345678 -t sp -s s
```

Offload the power subsystem dump from side B of the BPA for the managed frame **9119-59*000012C**:

getdump -e 9119-59*000012C -t pss -s b

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lsdump, startdump

NAME

getfile - get file

SYNOPSIS

```
getfile -t {krbkeyfile | ldapcert} -l {l | s} -f file  
[-h host-name -u user-ID [--passwd password]] [--help]
```

DESCRIPTION

getfile obtains and deploys a file of the specified type on the Hardware Management Console (HMC).

OPTIONS

-t The type of file to get and deploy. Valid values are **krbkeyfile** for the Kerberos service key (keytab) file, and **ldapcert** for the LDAP Certificate Authority (CA) certificate file.

The Kerberos service key file is generated on a Key Distribution Center (KDC) server. The service key file contains the host principal that identifies the HMC to the KDC server. When this command is run, the file obtained will become the `/etc/krb5.keytab` file on the HMC. This file will be used to verify the identity of the KDC and the HMC during remote Kerberos authentication of HMC users. Kerberos must be configured on the HMC before this command is run, and the HMC must be rebooted after the successful completion of this command for the change to take effect.

The LDAP CA certificate file contains the certificate for the Certificate Authority the HMC recognizes. This file will be used to provide a secure connection between the HMC and the LDAP server during remote LDAP authentication of HMC users. LDAP must be configured on the HMC before this command is run.

-l The location where the file to get resides.

Specify **l** with this option if the file has already been copied to the HMC or resides on removable media. If the file resides on removable media, the media must be present in the removable media device and the device must be mounted with the **mount** command before this command is issued. The **lsmediadev** command can be used to display all of the removable media devices on the HMC.

Specify **s** with this option if the file resides on a remote site. Secure FTP over SSH will be used to obtain the file from the remote site, therefore the remote site must have SSH installed and running.

-f The fully qualified name of the file on the HMC, removable media, or remote site.

-h The host name or IP address of the secure FTP server from which to get the file.

This option is required when *file* resides on a remote site. Otherwise, this option is not valid.

-u The user ID to use to log in to the remote site.

This option is required when *file* resides on a remote site. Otherwise, this option is not valid.

--passwd

The password to use to log in to the remote site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when *file* resides on a remote site.

--help Display the help text for this command and exit.

EXAMPLES

Get the Kerberos service key file from the remote site **ftpserver** using secure FTP, then deploy the file as `/etc/krb5.keytab` on the HMC:

```
getfile -t krbkeyfile -l s -h ftpserver -u ftpuser  
-f /home/ftpuser/krb5.keytab
```

Get the LDAP CA certificate file locally from the user's home directory, then deploy the file on the HMC:

```
getfile -t ldapcert -l l -f /home/user/certs
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmc, chhmcldap, lsmediadev, rmfile

NAME

getupgfiles - get upgrade files

SYNOPSIS

getupgfiles -h *host-name* **-u** *user-ID* [**--passwd** *password*]
-d *remote-directory* [**-s**] [**--help**]

DESCRIPTION

getupgfiles obtains required files for a Hardware Management Console (HMC) upgrade from a directory on a remote site. Either FTP or secure FTP (SFTP) is used to transfer the files. The files are transferred onto a special partition on the HMC hard drive. After the files have been transferred, the **chhmc** command can be used to allow the HMC to boot from this partition and perform the upgrade.

OPTIONS

-h The host name or IP address of the remote FTP or SFTP server from which to get the upgrade files.

-u The user ID to use to log in to the remote site.

--passwd

The password to use to log in to the remote site. If this option is omitted, you will be prompted to enter the password.

-d The directory on the remote site that contains the upgrade files. If all of the required files are not present in this directory, this command will fail.

-s Use secure FTP to transfer the upgrade files. The remote site must have SSH installed and running.

If this option is omitted, normal FTP will be used to transfer the upgrade files.

--help Display the help text for this command and exit.

EXAMPLES

Get HMC upgrade files from the remote site **ftpserver**. Use normal FTP:

```
getupgfiles -h ftpserver -u ftpuser  
-d /home/ftpuser/images
```

Get HMC upgrade files from the remote site **sftpserver**. Use secure FTP:

```
getupgfiles -h sftpserver -u sftpuser  
-d /home/sftpuser/images -s
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmc

NAME

hmcshutdown - shut down the Hardware Management Console

SYNOPSIS

hmcshutdown -t {**now** | *number-of-minutes*} [**-r**] [**--help**]

DESCRIPTION

hmcshutdown shuts down the Hardware Management Console (HMC). If requested, the HMC will be rebooted after the shutdown completes.

OPTIONS

- t** The number of minutes to wait before starting the shutdown. If **now** is specified, the shutdown will be started immediately.
- r** Reboot the HMC after the shutdown. If this option is omitted, the HMC will be halted after the shutdown.
- help** Display the help text for this command and exit.

EXAMPLES

Reboot the HMC after 3 minutes:

```
hmcshutdown -t 3 -r
```

Halt the HMC immediately:

```
hmcshutdown -t now
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

hmcwin - Provides screen capture on HMC

SYNOPSIS

hmcwin { **-o c | v |r** } **-f file-name** [**--help**]

DESCRIPTION

hmcwin Provide screen capture on HMC.

OPTIONS

- o c captures the screen and save it in file-name. The file will be saved under the user's \$HOME/.screen_capture/ directory. v displays the image stored in file file-name from the user's \$HOME/.screen_capture/ directory. When using the v option, left mouse click on the displayed window or enter ctrl-c to dismiss it. r removes the file file-name under the user's \$HOME/.screen_capture directory.
- f The file name to be used to create or remove the screen captured file under the user's \$HOME/.screen_capture directory.
- help Prints the help message and exits.

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

installios - Network install a Virtual I/O Server Logical Partition

SYNOPSIS

```
installios [-p partition-name -i ipaddr-or-hostname  
-S subnet-mask -g gateway -d path -s system-name  
-m mac-address -r profile [-n] [-P speed] [-D duplex]  
[-l language]] | -u
```

DESCRIPTION

installios installs the Virtual I/O Server. It must be run from the Hardware Management Console (HMC). All of the flags are optional. If no flags are provided, the **installios** wizard will be invoked and the user will be prompted to interactively enter the information contained in the flags.

OPTIONS

- s** Specifies the managed system. The name of the managed system maintained by the HMC. This name must match the name shown on the HMC, not a host name.
- p** Specifies the partition name. The name of the LPAR that will be installed with Virtual I/O Server operating system. This partition must be of type Virtual I/O Server and the name given for it must match the name shown on the HMC, not a host name.
- r** Specifies the *profile* name. The name of the *profile* that contains the hardware resources being installed to.
- d** Specifies the *path* to installation images. Either */dev/cdrom* or the *path* to a system backup of the Virtual I/O Server created by the *backupios* command. The *path* may also specify a remote location mountable by NFS such as *hostname:/path_to_backup*
- i** Specifies the client IP address. The IP address with which the client's network interface will be configured for network installation of the Virtual I/O Server operating system.
- S** Specifies the client subnet mask. The subnet mask with which the client's network interface will be configured for network installation of the Virtual I/O Server operating system.
- g** Specifies the client *gateway*. The default *gateway* that the client will use during network installation of the Virtual I/O Server operating system.
- m** Specifies the client MAC address. The MAC address of the client network interface through which the network installation of the Virtual I/O Server will take place.
- P** Specifies *speed* (optional) The communication *speed* with which to configure the client's network interface. This value can be 10, 100, or 1000, and is 100 by default if this flag is not specified.
- D** Specifies *duplex* (optional). The *duplex* setting with which to configure the client's network interface. This value can be full or half and is set to full by default if this flag is not specified.
- n** Specifies not to configure the client's network interface (optional): If this flag is specified, then the client's network interface will not be configured with the IP settings specified in the flags given to this command after the installation has completed.
- l** Specifies *language* (optional): The *language* in which the license agreement will be displayed before the installation. Upon viewing the license, a prompt will be shown asking if the license is to be accepted. If the prompt is answered with y, then the installation will proceed and the Virtual I/O Server license will be automatically accepted after the installation. If the prompt is answered with n, then the **installios** command will exit and the installation will not proceed. If this flag is not specified, then the installation will proceed, but the Virtual I/O Server will not be usable until the license is manually accepted after the installation.
- u** Unconfigure **installios** (optional). Will manually unconfigure the **installios** installation resources. This flag is only needed if a problem occurs during the installation and **installios** does not automatically unconfigure itself.

NAME

logssh - log ssh command usage

SYNOPSIS

logssh

DESCRIPTION

logssh is a script that can be added to a user's **authorized_keys2** file to restrict a user from being able to open a pseudo-tty using ssh. Furthermore, it will log all commands executed by the user in syslog. This command is not intended to be run interactively.

EXAMPLES

Use the command **mkauthkeys** to update a user's **authorized_keys2** file:

```
mkauthkeys -a -u john 'command="logssh ${SSH_ORIGINAL_
COMMAND}" ssh-rsa AAAAB3NzaC1yc2EAAAABIwAAAIEAzxTNjoX
AvyZBw390oJ27uj90PxZNtUWhYVN1/kaAfilSIr3z5Hhm7BdaaarU
ru94qhiM0xds6cgQpNUQUy6GByoWDrNhdEIdAzXj3uaPscY6wKkNi
a0llTJPUoBDBsadaa4oEc0/4poNG/X3uYrsdnbbMNkt/jmnEilSXI
gOEmWk= john@somehost'
```

The above command updates user **john**'s **authorized_keys2** file on the HMC, so that all commands executed by **john** will be logged in syslog.

```
ssh john@somehmc lshmc -V
```

The above command will result in the following entries being logged in **/var/log/messages**:

```
Nov 28 15:08:14 somehmc hmc_ssh: john login on Tue Nov 28
15:08:14 CST 2006 from 192.168.128.125
Nov 28 15:08:14 somehmc hmc_ssh: john runs lshmc on
Tue Nov 28 15:08:14 CST 2006 from 192.168.128.125
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

`lpar_netboot` - retrieve MAC address and physical location code from network adapters for a partition or instruct a partition to network boot

SYNOPSIS

To retrieve MAC address and physical location code:

```
lpar_netboot -M -n [-v] [-x] [-f] [-i] [-A] -t ent [-T {on|off}]  
    [-D -s speed -d duplex -S server  
    -G gateway -C client] partition-name  
    partition-profile managed-system
```

To perform network boot:

```
lpar_netboot [-v] [-x] [-f] [-i] [-g args]  
    [{-A -D |  
    [-D] -l physical-location-code |  
    [-D] -m MAC-address}]  
    -t ent [-T {on|off}]  
    -s speed -d duplex -S server  
    -G gateway -C client partition-name  
    partition-profile managed-system
```

To retrieve MAC address and physical location code on a system supporting a full system partition:

```
lpar_netboot -M -n [-v] [-x] [-f] [-i] [-A] -t ent [-T {on|off}]  
    [-D -s speed -d duplex -S server  
    -G gateway -C client] managed-system  
    managed-system
```

To perform network boot on a system supporting a full system partition:

```
lpar_netboot [-v] [-x] [-f] [-i] [-g args]  
    [{-A -D |  
    [-D] -l physical-location-code |  
    [-D] -m MAC-address}]  
    -t ent [-T {on|off}]  
    -s speed -d duplex -S server  
    -G gateway -C client managed-system  
    managed-system
```

DESCRIPTION

`lpar_netboot` instructs a logical partition to network boot by having it send out a bootp request to a server specified with the **-S** option. The server can be an AIX NIM server serving SPOT resources or any server serving network boot images. If specified with the **-M** and **-n** options, `lpar_netboot` will return the Media Access Control (MAC) address and the physical location code for a network adapter of the type specified with the **-t** option. When the **-m** option is specified, `lpar_netboot` will boot a partition using the network adapter which has the specified MAC address. When the **-l** option is specified, `lpar_netboot` will boot a partition using the network adapter which has the specified physical location code. The MAC address and physical location code of a network adapter is dependent upon the hardware resource allocation in the partition profile the partition was booted with. The `lpar_netboot` command requires arguments for partition name, partition profile, and the name of the managed system which has the partition.

OPTIONS

- A** Return all adapters of the type specified with the **-t** option.
- C** The IP address of the partition to network boot.
- D** Perform a ping test and use the adapter that successfully pings the server specified with the **-S** option.

- G** The gateway IP address of the partition specified with the **-C** option.
- M** Discover network adapter MAC address and physical location code.
- S** The IP address of the machine from which to retrieve the network boot image during network boot.
- T** Enable or disable firmware spanning tree discovery. Valid values are **on**, **off**.
- d** The duplex setting of the partition specified with the **-C** option. Valid values are **full**, **half**, and **auto**.
- f** Force close the virtual terminal session for the partition.
- g** Specify generic arguments for booting the partition.
- i** Force immediate shutdown of the partition. If this option is not specified, a delayed shutdown will be performed.
- l** The physical location code of the network adapter to use for network boot.
- m** The MAC address of the network adapter to use for network boot.
- n** Instruct the partition to not network boot.
- s** The speed setting of the partition specified with the **-C** option. Valid values are **10**, **100**, **1000**, and **auto**.
- t** The type of adapter for MAC address or physical location code discovery or for network boot. The only valid value is **ent** for ethernet.
- v** Display additional information during command execution.
- x** Display debug output during command execution.

partition-name

The name of the partition.

partition-profile

The name of the partition profile.

managed-system

The name of the managed system which has the partition.

--help Display the help text for this command and exit.

EXAMPLES

To retrieve the MAC address and physical location code for partition **machA** with partition profile **machA_prof** on managed system **test_sys**:

```
lpar_netboot -M -n -t ent "machA" "machA_prof" "test_sys"
```

To network boot the partition **machA** with partition profile **machA_prof** on managed system **test_sys**:

```
lpar_netboot -t ent -s auto -d auto -S 9.3.6.49 -G 9.3.6.1 -C 9.3.6.234 "machA" "machA_prof" "test_sys"
```

To network boot the partition **machA** using the network adapter with a MAC address of 00:09:6b:dd:02:e8 with partition profile **machA_prof** on managed system **test_sys**:

```
lpar_netboot -t ent -m 00096bdd02e8 -s auto -d auto -S 9.3.6.49 -G 9.3.6.1 -C 9.3.6.234 "machA" "machA_prof" "test_sys"
```

To network boot the partition **machA** using the network adapter with a physical location code of **U1234.121.A123456-P1-T6** with partition profile **machA_prof** on managed system **test_sys**:

```
lpar_netboot -t ent -l U1234.121.A123456-P1-T6 -s auto -d auto -S 9.3.6.49 -G 9.3.6.1 -C 9.3.6.234  
"machA" "machA_prof" "test_sys"
```

To perform a ping test along with a network boot of the partition **machA** with partition profile **machA_prof** on managed system **test_sys**:

```
lpar_netboot -t ent -D -s auto -d auto -S 9.3.6.49 -G 9.3.6.1 -C 9.3.6.234 "machA" "machA_prof"  
"test_sys"
```

To perform ping test along with a network boot of the partition **machA** with partition profile **machA_prof** on managed system **test_sys** and disable firmware spanning tree discovery:

```
lpar_netboot -t ent -T off -D -s auto -d auto -S 9.3.6.49 -G 9.3.6.1 -C 9.3.6.234 "machA"  
"machA_prof" "test_sys"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chsysstate, lssyscfg, mkvterm, rmvterm

NAME

lpcfgop - perform a partition configuration image operation

SYNOPSIS

lpcfgop -m *managed-system* **-o** { **clear** | **dump** } [**--help**]

DESCRIPTION

lpcfgop clears or dumps partition configuration data on the *managed-system*.

OPTIONS

- m** The name of the managed system on which to perform the operation. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- o** The operation to perform. Valid values are **clear** or **dump**.

The **clear** operation clears all partition configuration data on the *managed-system* and sets the configuration back to its original state. This operation can only be performed when the *managed-system* is in the Standby state.

The **dump** operation dumps all partition configuration data on the *managed-system* to a file. The file is written to the **/tmp** directory on the Hardware Management Console (HMC).

- help** Display the help text for this command and exit.

EXAMPLES

Clear the partition configuration data (confirmation will be required):

```
lpcfgop -m sys1 -o clear
```

Dump the partition configuration data to a file in **/tmp**:

```
lpcfgop -m 9406-520*100132A -o dump
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lsaccfg - list access control configuration information

SYNOPSIS

```
lsaccfg -t {resource | resourcerole | taskrole}
[--script] [--filter "filter-data"]
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lsaccfg lists managed resource objects, managed resource roles, or task roles.

OPTIONS

-t The type of access control objects to list. Valid values are **resource** for managed resource objects, **resourcerole** for managed resource roles, and **taskrole** for task roles.

--script

List managed resource objects in a format that can be used as input to the **chaccfg**, **chhmcusr**, and **mkaccfg** commands.

This option is only valid when listing managed resource objects.

--filter

The filter to apply to the access control objects to be listed. A filter is used to select which access control objects of the specified type are to be listed. If a filter is not used, then all of the access control objects of the specified type will be listed. For example, specific task roles can be listed by using a filter to specify the names of the task roles to list. Otherwise, if no filter is used, then all of the task roles on this Hardware Management Console (HMC) will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...","..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Multiple values can be specified for each filter.

Valid filter names for managed resource objects:

resource_type

Specify resource type(s):

cec - managed system objects

lpar - partition objects

Valid filter names for managed resource roles:

resourceroles

Specify managed resource role name(s)

Valid filter names for task roles:

taskroles

Specify task role name(s)

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each access control object. If no attribute names are specified, then values for all of the attributes for each access control object will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all managed resource objects on this HMC:

lsaccfg -t resource

List only managed partition objects on this HMC:

lsaccfg -t resource --filter "resource_type=lpar"

List all managed resource roles on this HMC:

lsaccfg -t resourcerole

List the managed resource role lpar_role:

lsaccfg -t resourcerole --filter "resourceroles=lpar_role"

List only the names and parents of the task roles on this HMC, and separate the output values with a colon:

lsaccfg -t taskrole -F name:parent

List the task roles tr1 and tr2:

lsaccfg -t taskrole --filter "'taskroles=tr1,tr2'"

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chaccfg, mkaccfg, rmaccfg, chhmcusr, lshmcusr

NAME

lscod - list Capacity on Demand information

SYNOPSIS

```
lscod -t { bill | cap | code | hist | util }  
-m managed-system  
[-c { cuod | mobile | onoff | reserve | trial | trialexc |  
      trialstd | utility | utilityen }]  
[-r { mem | proc }]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lscod lists Capacity on Demand (CoD) information for the *managed-system*.

Reserve CoD is only supported on POWER5 servers. Utility CoD is only supported on POWER6 servers.

OPTIONS

- t** The type of CoD information to list. Valid values are **bill** for On/Off CoD billing information, **cap** for CoD capacity information, **code** for information used to generate CoD codes, **hist** for the CoD history log, and **util** for shared processor pool utilization information.
- m** The name of the managed system for which CoD information is to be listed. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- c** The CoD type. Valid values are **cuod** for CUoD (permanent), **mobile** for Mobile CoD, **onoff** for On/Off CoD, **reserve** for Reserve CoD, **trial** for Trial CoD, **utility** for Utility CoD or Utility CoD reporting codes, **utilityen** for Utility CoD enablement codes, **trialexc** for Trial CoD exception request codes, and **trialstd** for Trial CoD standard request codes.

This option is required when listing CoD capacity information or CoD code generation information. If this option is not specified when listing shared processor pool utilization information, this option defaults to Reserve CoD. This option is not valid when listing the CoD history log.

To list Trial CoD capacity information, specify **trial** with this option. To list Trial CoD code generation information, specify **trialexc** or **trialstd** with this option.

To list Utility CoD capacity information, specify **utility** with this option. To list Utility CoD code generation information, specify **utility** for Utility CoD reporting codes or **utilityen** for Utility CoD enablement codes.

mobile can only be specified when listing CoD code generation information.

Reserve CoD is only supported on POWER5 servers. Utility CoD is only supported on POWER6 servers.

- r** The CoD resource type. Valid values are **mem** for memory and **proc** for processors.

This option is required when listing On/Off CoD billing information, CoD capacity information, CoD code generation information, or shared processor pool utilization information. This option is not valid when listing the CoD history log.
- F** A delimiter separated list of attribute names representing the desired CoD attribute values to display. If this option is specified without any attribute names, then all of the CoD attributes for the type of CoD listing specified will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be

displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

Display On/Off CoD processor billing information:

lscod -m sys1 -t bill -r proc -c onoff

Display CUoD processor capacity information:

lscod -m 9406-570*98127634 -t cap -r proc -c cuod

Display Trial CoD memory capacity information:

lscod -m 9406-570*98127634 -t cap -r mem -c trial

Display the current number of unreturned On/Off CoD processors:

**lscod -m sys1 -t cap -r proc -c onoff -F
unreturned_onoff_procs**

Display Utility CoD capacity information:

lscod -m sys1 -t cap -r proc -c utility

Display CUoD processor activation code generation information:

lscod -m sys1 -t code -r proc -c cuod

Display Utility CoD reporting code generation information:

lscod -m 9117-MMA*1234321 -t code -r proc -c utility

Display the CoD history log:

lscod -m 9406-570*98127634 -t hist

Display shared processor pool utilization information for Utility CoD:

lscod -m sys1 -t util -r proc -c utility

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chcod, lshwres

NAME

lsdump - list dump information

SYNOPSIS

To list the dumps that are available on a managed system or managed frame:

```
lsdump {-m managed-system | -e managed-frame}  
[-r avail] [-s {a | b | p | s}]  
[-F [attribute-names] [--header]]
```

To list the managed system dumps and managed frame dumps that are available on the HMC:

```
lsdump -h [-r avail] [--filter "filter-data"]  
[-F [attribute-names] [--header]]
```

To list the system dump parameters (POWER6 servers only):

```
lsdump -m managed-system -r parm  
[-F [attribute-names] [--header]]
```

DESCRIPTION

lsdump lists the dumps that are available on the *managed-system* or the *managed-frame*. **lsdump** can also list the managed system dumps and the managed frame dumps that are available on the Hardware Management Console (HMC).

lsdump also lists the system dump parameters for the *managed-system*. This is only supported for POWER6 servers.

The **getdump** command can be used to offload an available dump from the *managed-system* or the *managed-frame* to the HMC.

The **cpdump** command can be used to copy a dump from the HMC to DVD or a remote FTP site.

OPTIONS

-m The name of the managed system for which available dumps or system dump parameters are to be listed. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

Either this option, the **-e** option, or the **-h** option is required. The **-m**, **-e**, and the **-h** options are mutually exclusive.

-e The name of the managed frame for which available dumps are to be listed. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

Either this option, the **-m** option, or the **-h** option is required. The **-e**, **-m**, and the **-h** options are mutually exclusive.

-h List the managed system dumps and managed frame dumps that are available on the HMC.

Either this option, the **-m** option, or the **-e** option is required. The **-h**, **-m**, and the **-e** options are mutually exclusive.

-r The type of dump resources to list. Valid values are **avail** for available dumps, and **parm** for system dump parameters. If this option is not specified, available dumps will be listed.

System dump parameters can only be listed on POWER6 servers.

- s When listing dumps that are available on a managed frame, use this option to specify the side of the managed frame's bulk power assembly (BPA) for which available dumps are to be listed. Valid values are **a** for side A and **b** for side B.

When listing dumps that are available on a managed system, use this option to specify the service processor for which available dumps are to be listed. Valid values are **p** for the primary service processor and **s** for the secondary service processor. If this option is not specified, available dumps on the primary service processor will be listed. System dumps are only available from the primary service processor.

This option is not valid when listing the managed system dumps and managed frame dumps that are available on the HMC.

- filter The filter to apply to the available dumps to be listed. The filter is used to select the type of dump that is to be listed. If no filter is specified, then all of the available dumps will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Valid filter names for this command:

dump_type

Only one value may be specified.

Valid values are:

pss for power subsystem dumps

sp for service processor dumps

sys for system dumps

This option is not valid when listing the dumps that are available on a managed system or managed frame, or when listing the system dump parameters.

- F A delimiter separated list of attribute names representing the desired dump attribute values to display. If this option is specified without any attribute names, then all of the dump attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help Display the help text for this command and exit.

EXAMPLES

List the dumps that are currently available from the primary service processor on the managed system **9406-520*100128A**:

```
lsdump -m 9406-520*100128A
```

List the dumps that are currently available from the secondary service processor on the managed system **sys1**:

lsdump -m sys1 -s s

List the dumps that are currently available on side A of the BPA for the managed frame **frame1**:

lsdump -e frame1 -s a

List the managed system dumps and managed frame dumps that are currently available on the HMC:

lsdump -h

List only the managed system system dumps that are currently available on the HMC:

lsdump -h --filter "dump_type=sys"

List the system dump parameters for the managed system **sys1**:

lsdump -m sys1 -r parm

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

cpdump, dump, getdump, startdump

NAME

lsfru - list FRU information

SYNOPSIS

```
lsfru -t {nsp | sp} -m managed-system  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lsfru lists selected service processor field-replaceable unit (FRU) information for the *managed-system*.

This command is only supported for POWER6 servers.

OPTIONS

- t** The type of FRUs to list. Valid values are **nsp** for node service processors, and **sp** for primary and secondary service processors.
- m** The name of the managed system for which to list FRU information. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each FRU. If no attribute names are specified, then values for all of the attributes for each FRU will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

List the node service processor FRU information for managed system **system1**:

```
lsfru -t nsp -m system1
```

List the primary and secondary service processor FRU information for managed system **9117-MMA*1234321**:

```
lsfru -t sp -m 9117-MMA*1234321
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lshmc - list Hardware Management Console configuration information

SYNOPSIS

```
lshmc {-b | -l | -L | -n | -r | -v | -V}  
[-F [attribute-names]] [--header] [--help]
```

DESCRIPTION

lshmc lists Hardware Management Console (HMC) configuration information. This command can be used to list the BIOS level, current locale, supported locales, network settings, remote access settings, Vital Product Data (VPD) information, and version information for the HMC.

OPTIONS

- b** List the BIOS level of the HMC.
- This option cannot be specified with the -l, -L, -n, -r, -v, or -V options.
- l** List the current locale for the HMC.
- This option cannot be specified with the -b, -L, -n, -r, -v, or -V options.
- L** List all of the locales supported for the HMC.
- This option cannot be specified with the -b, -l, -n, -r, -v, or -V options.
- n** List the network settings for the HMC. Command lshmcldap can be used to display more information about LDAP configuration settings.
- This option cannot be specified with the -b, -l, -L, -r, -v, or -V options.
- r** List the remote access settings for the HMC.
- This option cannot be specified with the -b, -l, -L, -n, -v, or -V options.
- v** List the VPD information for the HMC.
- This option cannot be specified with the -b, -l, -L, -n, -r, or -V options.
- V** List the version information for the HMC.
- This option cannot be specified with the -b, -l, -L, -n, -r, or -v options.
- F** A delimiter separated list of attribute names representing the desired attribute values to display. If this option is specified without any attribute names, then all of the attributes for the type of HMC configuration information specified will be displayed.
- When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.
- This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.
- header** Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.
- help** Display the help text for this command and exit.

EXAMPLES

Display the HMC's BIOS level:

lshmc -b

Display the HMC's current locale:

lshmc -l

Display all locales supported by the HMC:

lshmc -L

Display the HMC's network settings:

lshmc -n

Display the HMC's host name and IP address, and separate the output values with a colon:

lshmc -n -F hostname:ipaddr

Display the HMC's remote access settings:

lshmc -r

Display the HMC's VPD information:

lshmc -v

Display the HMC's version information:

lshmc -V

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmc

NAME

lshmcfs - list HMC file system information

SYNOPSIS

lshmcfs [-o **c** {-d *days* | -h *hours* | -s *size*}]
[-F [*attribute-names*] [--header]] [--help]

DESCRIPTION

lshmcfs lists Hardware Management Console (HMC) file system disk space usage information. Disk space usage information is listed for the HMC file systems that can contain temporary HMC files used for HMC and managed system firmware problem analysis.

This command lists information for the following file systems: **/var**, **/dump**, and **/**. The temporary files in the **/var** file system include HMC trace and log files. The temporary files in the **/dump** file system include managed system dumps and debug data collected using the HMC **pedbg** command. The temporary files in the **/** file system include HMC Java core dump and heap dump files.

All size and free space values displayed by this command are in megabytes.

OPTIONS

-o The operation to perform. The only valid value is **c** to calculate and list the amount of disk space that can be freed in each file system by removing temporary HMC files from the hard disk.

This command will not remove any files. The **chhmcfs** command can be used to remove the files.

If this option is omitted, current disk space usage information is listed.

-d List the amount of space that can be freed if files, which have not been modified during the specified number of *days* prior to now, were removed.

To list the amount of space that can be freed if all temporary HMC files, other than the trace and log files that are in use, were removed, specify **0** with this option.

Specifying **-d 1** is equivalent to specifying **-h 24**.

When **-o c** is specified to calculate and list the amount of disk space that can be freed, this option, the **-h** option, or the **-s** option must be specified to indicate which files should be considered for removal. The **-d**, **-h**, and **-s** options are mutually exclusive.

-h List the amount of space that can be freed if files, which have not been modified during the specified number of *hours* prior to now, were removed.

To list the amount of space that can be freed if all temporary HMC files, other than the trace and log files that are in use, were removed, specify **0** with this option.

When **-o c** is specified to calculate and list the amount of disk space that can be freed, this option, the **-d** option, or the **-s** option must be specified to indicate which files should be considered for removal. The **-d**, **-h**, and **-s** options are mutually exclusive.

-s List the amount of space that can be freed if files, starting with the oldest file, were removed from each file system to free up to *size* megabytes in each file system. The trace and log files that are in use would not be included.

When **-o c** is specified to calculate and list the amount of disk space that can be freed, this option, the **-d** option, or the **-h** option must be specified to indicate which files should be considered for removal. The **-d**, **-h**, and **-s** options are mutually exclusive.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each file system. If no attribute names are specified, then values for all of the file system attributes

will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List current HMC file system disk space usage information:

lshmcfs

List HMC file system disk space usage information if temporary HMC files which have not been modified during the last 2 days (48 hours) were removed:

lshmcfs -o c -d 2

List HMC file system disk space usage information if all temporary HMC files, except the trace and log files that are in use, were removed:

lshmcfs -o c -d 0

List HMC file system disk space usage information if temporary HMC files were removed to free up to 100 MB in each file system:

lshmcfs -o c -s 100

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmcfs

NAME

lshmcldap - list LDAP information

SYNOPSIS

```
lshmcldap -r {config | user} [-v] [--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lshmcldap lists Hardware Management Console (HMC) Lightweight Directory Access Protocol (LDAP) configuration information. **lshmcldap** can also list LDAP user information from the LDAP server.

OPTIONS

- r** The LDAP resources to list. Valid values are **config** to list HMC LDAP configuration information, and **user** to list LDAP user information from the LDAP server.
- v** When this option is specified, command execution details are output to stderr.
- filter** The filter to apply to the LDAP users to be listed. The filter is used to select which LDAP users to list. If no filter is used, then all LDAP users will be listed.

The filter data consists of a filter name/value pair, which is in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
""filter-name=value,value,...","..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a ``` character.

Valid filter names:

names

Specify one or more user names.

LDAP users whose login attribute values match the names specified will be listed. Which login attribute to use can be configured using the **chmcldap** command.

This option is only valid when listing LDAP user information.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

List the HMC LDAP configuration:

lshmcldap -r config

List all LDAP users on the LDAP server:

lshmcldap -r user

List LDAP users **uname1** and **uname2** and output command execution details to stderr:

```
lshmcldap -r user --filter ""names=uname1,uname2"" -v
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmldap, lshmcusr

NAME

lshmcusr - list Hardware Management Console user information

SYNOPSIS

```
lshmcusr [--script] [--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lshmcusr lists Hardware Management Console (HMC) user information.

OPTIONS

--script

List managed resource objects in a format that can be used as input to the **chhmcusr**, **chaccfg**, and **mkaccfg** commands.

--filter The filter to apply to the HMC users to be listed. A filter is used to select which HMC users are to be listed. If a filter is not used, then all HMC users will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...","..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Multiple values can be specified for each filter.

Valid filter names for this command:

names

Specify user name(s)

resources

Specify managed resource object(s)

resourceroles

Specify managed resource role name(s)

taskroles

Specify task role name(s)

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each HMC user. If no attribute names are specified, then values for all of the attributes for each HMC user will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all HMC users:

lshmcusr

List only the user names and managed resource roles for all HMC users, and separate the output values with a colon:

lshmcusr -F name:resourcerole

List the HMC users hscroot and user1:

lshmcusr --filter ""names=hscroot,user1""

List the HMC users with the task role hmcviewer and the managed resource role mr1:

lshmcusr --filter "taskroles=hmcviewer,resourceroles=mr1"**ENVIRONMENT**

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmcusr, mkhmcusr, rmhmcusr, lsaccfg

NAME

lshwinfo - list environmental information

SYNOPSIS

```
lshwinfo -r { frame | sys } -e managed-frame [-s { a | b }]
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lshwinfo lists environmental information, such as input power levels, for the *managed-frame*. The **lshwinfo** command also lists environmental information, such as ambient air temperatures, for systems contained in the *managed-frame*.

OPTIONS

- r** The type of resource for which to list environmental information. Valid values are **frame** for managed frame and **sys** for systems contained in a managed frame.
- e** The name of the managed frame for which to list environmental information. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.
- s** Use this option to specify the side of the managed frame's bulk power assembly (BPA) for which to list environmental information. Valid values are **a** for side A and **b** for side B. If this option is omitted, environmental information for side A will be listed.

This option is only valid when listing environmental information for a managed frame.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

Display environmental information for side A of the BPA for the managed frame **myFrame**:

```
lshwinfo -r frame -e myFrame
```

Display environmental information for side B of the BPA for the managed frame **myFrame**:

```
lshwinfo -r frame -e myFrame -s b
```

Display environmental information for the systems contained in the managed frame **9119-595*020000A**:

```
lshwinfo -r sys -e 9119-595*020000A
```


ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lshwres - list hardware resources

SYNOPSIS

To list physical I/O resources:

```
lshwres -r io --rsubtype {unit | bus | slot |  
iopool | taggedio | slotchildren}  
-m managed-system  
[--level {pool | sys}] [-R]  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list virtual I/O resources:

```
lshwres -r virtualio --rsubtype {eth | hsl |  
virtualopti | scsi | serial | slot | vswitch}  
-m managed-system  
[--level {lpar | slot | sys}]  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list memory resources:

```
lshwres -r mem -m managed-system  
--level {lpar | sys} [-R]  
[--maxmem quantity] [--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list processing resources:

```
lshwres -r proc -m managed-system  
--level {lpar | pool | sys} [-R]  
[--procunits quantity]  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list shared processor pool resources (POWER6 servers only):

```
lshwres -r procpool -m managed-system  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list Host Channel adapter (HCA) resources:

```
lshwres -r hca -m managed-system  
--level {lpar | sys}  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list Host Ethernet adapter (HEA) resources (POWER6 servers only):

```
lshwres -r hea -m managed-system  
--rsubtype {logical | phys}  
--level {port | port_group | sys}  
[-R] [--stat]  
[--filter "filter-data"]  
[-F [attribute-names] [--header] [--help]
```

To list Switch Network Interface (SNI) adapter resources:

```
lshwres -r sni -m managed-system  
[--filter "filter-data"]
```

[-F [attribute-names] [--header]] [--help]

DESCRIPTION

lshwres lists the hardware resources of the *managed-system*, including physical I/O, virtual I/O, memory, processing, shared processor pool, Host Channel adapter (HCA), Host Ethernet adapter (HEA), and Switch Network Interface (SNI) adapter resources.

HEA resources are only supported on POWER6 servers.

OPTIONS

-r The type of hardware resources to list. Valid values are **io** for physical I/O, **virtualio** for virtual I/O, **mem** for memory, **proc** for processing, **procpool** for shared processor pool, **hca** for HCA, **hea** for HEA, and **sni** for SNI adapter resources.

The **procpool** and **hea** resource types are only supported for POWER6 servers.

--subtype

The subtype of hardware resources to list. Valid physical I/O resource subtypes are **unit** for I/O units, **bus** for I/O buses, **slot** for I/O slots, **iopool** for I/O pools, **taggedio** for tagged I/O, and **slotchildren** for I/O slot children resources. Valid virtual I/O resource subtypes are **eth** for virtual ethernet, **hsl** for High Speed Link (HSL) OptiConnect, **virtualopti** for virtual OptiConnect, **scsi** for virtual SCSI, **serial** for virtual serial, **slot** for virtual slot, and **vswitch** for virtual switch resources. Valid HEA resource subtypes are **logical** for logical HEA resources, and **phys** for physical HEA resources.

I/O slot children, virtual switch, and HEA resources are only supported on POWER6 servers.

This option is required when listing physical I/O, virtual I/O, or HEA resources. This option is not valid when listing memory, processing, shared processor pool, HCA, or SNI adapter resources.

-m The name of the managed system which has the hardware resources to list. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

--level The level of information to list. Valid values are **lpar** for partition, **pool** for pool, **port** for port, **port_group** for port group, **slot** for slot, and **sys** for system.

This option is required when listing I/O pool resources, virtual ethernet, serial, or slot resources, or memory, processing, HCA, or HEA resources.

Valid levels for I/O pool resources are **pool** or **sys**. Valid levels for virtual ethernet resources are **lpar** or **sys**. Valid levels for virtual serial resources are **lpar**. Valid levels for virtual slot resources are **lpar** or **slot**. Valid levels for memory resources are **lpar** or **sys**. Valid levels for processing resources are **lpar**, **pool**, or **sys**. Valid levels for HCA resources are **lpar** or **sys**. Valid levels for physical HEA resources are **port**, **port_group**, or **sys**. Valid levels for logical HEA resources are **port** or **sys**.

-R Only list information for partitions with hardware resources that can be restored due to a dynamic logical partitioning (DLPAR) operation failure.

The **rsthwres** command can be used to restore those hardware resources.

This option is only valid for listing physical I/O slots, partition level memory or processing resources, or logical HEA resources.

--maxmem

When this option is specified, the required minimum memory amount needed for partitions to support the maximum memory *quantity* specified is listed. All memory quantities are in megabytes, and are a multiple of the memory region size for the *managed-system*.

This information is useful for specifying memory amounts in partition profiles.

The required minimum memory amount listed is the minimum memory amount required for a partition by the managed system's system firmware. An operating system installed on the partition may require more memory than the amount listed.

This option is only valid when listing system level memory resources.

--procunits

When this option is specified, the range of optimal 5250 CPW percentages for partitions assigned the *quantity* of processing units specified is listed. The *quantity* of processing units specified can have up to 2 decimal places.

This information is useful when specifying the 5250 CPW percentages for partitions or partition profiles.

This option is only valid when listing system level processing resources. Also, this option is only valid when the *managed-system* supports the assignment of 5250 CPW percentages to partitions.

--stat When this option is specified, port counter statistics for HEA physical ports are listed.

This option is only valid when listing HEA physical port resources.

--filter The filter(s) to apply to the hardware resources to be listed. Filters are used to select which hardware resources of the specified type are to be listed. If no filters are used, then all of the hardware resources of the specified type will be listed. For example, all of the physical I/O slots on a specific I/O unit and bus can be listed by using a filter to specify the I/O unit and the bus which has the slots to list. Otherwise, if no filter is used, then all of the physical I/O slots in the managed system will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...",..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Unless otherwise indicated, multiple values can be specified for each filter.

Valid filter names for this command:

adapter_ids

Specify HCA or HEA adapter ID(s)

buses

Specify I/O bus ID(s)
lpar_ids
Specify partition ID(s)
lpar_names
Specify partition user-defined name(s)
pool_names
Specify pool name(s)
pools
Specify pool ID(s)
port_groups
Specify HEA port group(s)
slots
Specify physical I/O slot DRC index(ices)
or virtual I/O slot number(s)
sni_device_ids
Specify SNI adapter device ID(s)
units
Specify I/O unit physical location
code(s)
vlans
Specify virtual LAN ID(s)
vswitches
Specify virtual switch name(s)

Valid filters with **-r io --rsubtype unit**:
units

Valid filters with **-r io --rsubtype bus**:
buses, units

Valid filters with **-r io --rsubtype slot**:
buses, lpar_ids | lpar_names, pools, slots,
units

Valid filters with **-r io --rsubtype iopool --level pool**:
lpar_ids | lpar_names, pools

Valid filters with **-r io --rsubtype taggedio**:
lpar_ids | lpar_names

Valid filters with **-r io --rsubtype slotchildren**:
lpar_ids | lpar_names, slots

Valid filters with **-r virtualio --rsubtype eth --level lpar**:
lpar_ids | lpar_names, slots, vlans, vswitches

Valid filters with **-r virtualio --rsubtype hsl**:
lpar_ids | lpar_names, pools

Valid filters with **-r virtualio --rsubtype virtualopti**:
lpar_ids | lpar_names, pools

Valid filters with **-r virtualio --rsubtype scsi**:
lpar_ids | lpar_names, slots

Valid filters with **-r virtualio --subtype serial --level lpar:**
lpar_ids | lpar_names, slots

Valid filters with **-r virtualio --subtype slot --level lpar:**
lpar_ids | lpar_names

Valid filters with **-r virtualio --subtype slot --level slot:**
lpar_ids | lpar_names, slots

Valid filters with **-r virtualio --subtype vswitch:**
vlangs, vswitches

Valid filters with **-r mem --level lpar:**
lpar_ids | lpar_names

Valid filters with **-r proc --level lpar:**
lpar_ids | lpar_names, pools | pool_names

Valid filters with **-r procpool:**
pools | pool_names

Valid filters with **-r hca --level sys:**
adapter_ids

Valid filters with **-r hca --level lpar:**
adapter_ids, lpar_ids | lpar_names

Valid filters with **-r hea --subtype logical --level sys:**
adapter_ids, lpar_ids | lpar_names

Valid filters with **-r hea --subtype logical --level port:**
adapter_ids, lpar_ids | lpar_names,
port_groups

Valid filters with **-r hea --subtype phys --level sys:**
adapter_ids

Valid filters with **-r hea --subtype phys --level port:**
adapter_ids, port_groups

Valid filters with **-r hea --subtype phys --level port_group:**
adapter_ids, port_groups

Valid filters with **-r sni:**
lpar_ids | lpar_names, sni_device_ids

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each hardware resource. If no attribute names are specified, then values for all of the attributes for each hardware resource will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of

only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all I/O units on the managed system:

```
lshwres -r io --rsubtype unit -m system1
```

List all buses on I/O unit **U787A.001.0395036**:

```
lshwres -r io --rsubtype bus -m 9406-570*12345678  
--filter "units=U787A.001.0395036"
```

List only the DRC index, description, and the owning partition for each physical I/O slot on buses **2** and **3** of I/O unit **U787A.001.0395036**:

```
lshwres -r io --rsubtype slot -m system1 --filter  
"units=U787A.001.0395036,"buses=2,3"" -F drc_index,  
description,lpar_name
```

List all I/O pools and the partitions and slots assigned to each I/O pool:

```
lshwres -r io --rsubtype iopool -m system1 --level pool
```

List the tagged I/O devices for the i5/OS partition that has an ID of 1:

```
lshwres -r io --rsubtype taggedio -m 9406-520*100103A  
--filter "lpar_ids=1"
```

List the I/O slot children for the I/O slot with DRC index **21010207**:

```
lshwres -r io --rsubtype slotchildren -m 9117-MMA *107791F  
--filter "slots=21010207"
```

List all virtual ethernet adapters on the managed system:

```
lshwres -r virtualio --rsubtype eth --level lpar -m  
system1
```

List all virtual SCSI adapters on the managed system, and only display attribute values for each adapter, following a header of attribute names:

```
lshwres -r virtualio --rsubtype scsi -m system1 -F  
--header
```

List all virtual slots for partition **lpar1**:

```
lshwres -r virtualio --rsubtype slot -m system1 --level  
slot --filter "lpar_names=lpar1"
```

List all virtual switches on the managed system:

```
lshwres -r virtualio --subtype vswitch -m system1
```

List system level memory information:

```
lshwres -r mem -m 9406-570*98765432 --level sys
```

List recoverable memory information:

```
lshwres -r mem -m 9406-570*98765432 --level lpar -R
```

List memory information for partitions lpar1 and lpar2:

```
lshwres -r mem -m system1 --level lpar --filter  
""lpar_names=lpar_1,lpar_2""
```

List only the installed and configurable processors on the system, and separate the output values with a colon:

```
lshwres -r proc -m 9406-570*98765432 --level sys -F  
installed_sys_proc_units:configurable_sys_proc_units
```

List processing resources for all partitions:

```
lshwres -r proc -m system1 --level lpar
```

List the physical processor pool:

```
lshwres -r proc -m system1 --level pool
```

List all configured shared processor pools in the managed system:

```
lshwres -r procpool -m system1
```

List all HCAs on the managed system:

```
lshwres -r hca -m 9117-570*12345678 --level sys
```

List all HCAs assigned to partition AIX1:

```
lshwres -r hca -m 9117-570*12345678 --level lpar  
--filter "lpar_names=AIX1"
```

List all physical HEAs on the managed system:

```
lshwres -r hea -m mySys --subtype phys --level sys
```

List all port groups for all HEAs on the managed system:

```
lshwres -r hea -m mySys --subtype phys --level port_group
```

List all physical ports belonging to port group 2 for the HEA with adapter ID **23000010**:


```
lshwres -r hea -m 9117-MMA*1234ABC --rsubtype phys  
--level port --filter "adapter_ids=23000010,  
port_groups=2"
```

List all Logical Host Ethernet adapters (LHEA) on the managed system:

```
lshwres -r hea -m mySys --rsubtype logical --level sys
```

List all HEA logical ports assigned to partition **p1**:

```
lshwres -r hea -m mySys --rsubtype logical --level port  
--filter "lpar_names=p1"
```

List all SNI adapters on the managed system:

```
lshwres -r sni -m system1
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhwres, **rsthwres**, **lssyscfg**

NAME

lsled - list LEDs

SYNOPSIS

```
lsled -r sa -t {phys | virtuallpar | virtualsys}
-m managed-system [--filter "filter-data"]
-F [attribute-names] [--header] [--help]
```

DESCRIPTION

lsled lists LED information for the *managed-system*.

OPTIONS

- r** The type of LED resources to list. The only valid value is **sa** for System Attention (SA) LEDs.
- t** The type of System Attention (SA) LEDs to list. Valid values are **phys** for the physical SA LED for the *managed-system*, **virtuallpar** for virtual partition SA LEDs, or **virtualsys** for the virtual SA LED for the *managed-system*.
- m** The name of the managed system which has the LEDs to list. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- filter** The filter to apply to the virtual partition SA LEDs to be listed. A filter is used to select which virtual partition SA LEDs are to be listed. If no filter is used, then all of the virtual partition SA LEDs for the *managed-system* will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...",..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Valid filter names for this command are **lpar_names** or **lpar_ids**. Only one of these filters may be specified. Multiple partitions can be specified with the filter.

This option is not valid when listing the physical SA LED or the virtual SA LED for the *managed-system*.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each LED. If no attribute names are specified, then values for all of the attributes for each LED will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

Display the physical SA LED for the system:

```
lsled -m 9406-579*100103C -r sa -t phys
```

Display all of the virtual partition SA LEDs:

```
lsled -m system1 -r sa -t virtualpar
```

Display the virtual partition SA LEDs for partitions **lpar1** and **lpar2**:

```
lsled -m system1 -r sa -t virtualpar --filter  
"'lpar_names=lpar1,lpar2'"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chled

NAME

lslic - list Licensed Internal Code levels

SYNOPSIS

```
lslic {-m managed-system | -e managed-frame | -w}
[-t {sys | power | syspower | powerfru}]
[-r {ibmretain | ibmwebsite | ftp | dvd | disk |
mountpoint}]
[-h host-name] [-u user-ID] [--passwd password]
[-d directory]
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lslic lists Licensed Internal Code (LIC) levels installed, activated, and accepted. The LIC levels that are available to be retrieved from a repository can also be listed.

OPTIONS

- m** The name of the managed system for which LIC levels are to be listed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- e** The name of the managed frame for which LIC levels are to be listed. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.
- w** List Licensed Internal Code levels on all High Performance Switches managed by the HMC.
- t** The type of LIC levels to list. Valid values are **sys** for Managed System LIC levels only, **power** for Power LIC levels only, **syspower** for both Managed System and Power LIC levels, or **powerfru** for Power FRU levels.
- r** The repository to query for LIC levels that are available to be retrieved for the *managed-system*. Valid values are **ibmretain** for the IBM support system, **ibmwebsite** for the IBM service Internet site, **ftp** for a remote FTP site, **dvd** for the DVD drive on the Hardware Management Console (HMC), **disk** for the internal hard disk drive on the HMC, or **mountpoint** for the specified mountpoint.
- h** The host name or IP address of the remote FTP server.

This option is required when displaying LIC levels that are available to be retrieved from a remote FTP site. This option is not valid otherwise.
- u** The user ID to use to log in to the remote FTP site.

This option is required when displaying LIC levels that are available to be retrieved from a remote FTP site. This option is not valid otherwise.
- passwd**
The password to use to log in to the remote FTP site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when displaying LIC levels that are available to be retrieved from a remote FTP site.
- d** The mountpoint location or the directory to use on the remote FTP site. If this option is not specified for FTP, then the **/opt/ccfw/data** directory will be used.

This option is only valid when displaying LIC levels that are available to be retrieved from a mountpoint or a remote FTP site.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each LIC level. If no attribute names are specified, then values for all of the attributes for each LIC level will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

Display Managed System LIC levels:

lslic -t sys -m mysystem

Display Power LIC levels:

lslic -t power -m 9406-570*1020304

Display Managed System and Power LIC levels and display levels available on the IBM service Internet site:

lslic -t syspower -m mysystem -r ibmwebsite

Display Managed System LIC levels and display levels available from a remote FTP server:

**lslic -t sys -m mysystem -r ftp -h ftphost.domainname
-u myuser --passwd mypasswd**

Display LIC levels for High Performance Switches:

lslic -w

Display LIC levels for High Performance Switches and display levels available on the IBM service Internet site:

lslic -w -r ibmwebsite

Display Power FRU levels for a managed system:

lslic -m mysystem -t powerfru

Display Power FRU levels for a managed frame:

lslic -e 9458-100*02AB33C -t powerfru

Display Power FRU levels for High Performance Switches:

lslic -w -t powerfru

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

updlic

NAME

lslock - list lock information

SYNOPSIS

lslock -e *managed-frame*
[-F [*attribute-names*] [--header]] [--help]

DESCRIPTION

lslock lists which Hardware Management Console (HMC) owns the lock on the *managed-frame*. If the *managed-frame* is not locked, then "No results were found." will be displayed.

OPTIONS

-e The name of the managed frame for which to list lock information. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

Display which HMC owns the lock on the managed frame **myFrame**:

```
lslock -e myFrame
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

rmlock

NAME

lslpasmigr - list partition migration information

SYNOPSIS

```
lslpasmigr -r {lpar | msp | procpool | sys | virtualio}  
-m managed-system [-t target-managed-system]  
[--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lslpasmigr lists partition migration information.

This command is only supported for POWER6 servers.

OPTIONS

- r** The type of resources for which to list partition migration information.
- Specify **lpar** to list partition migration information for all of the partitions in *managed-system*.
- Specify **m****sp** to list possible source and destination mover service partition (MSP) pairs for an active partition migration of the partition specified with the **lpar_names** or **lpar_ids** filter.
- Specify **procpool** to list possible shared processor pools in the destination managed system that have enough available processing resources for the partition specified with the **lpar_names** or **lpar_ids** filter.
- Specify **sys** to list the partition mobility capabilities for *managed-system*.
- Specify **virtualio** to list possible and suggested mappings of the virtual SCSI adapters in the partition specified with the **lpar_names** or **lpar_ids** filter to virtual I/O servers in the destination managed system.
- m** The name of the managed system for which to list partition migration information. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- When listing mover service partition, shared processor pool, or virtual I/O information, specify the source managed system for the partition migration with this option.
- t** The name of the target, or destination, managed system for the partition migration. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- This option is required when listing mover service partition, shared processor pool, or virtual I/O information. This option is not valid when listing any other type of partition migration information.
- filter** The filter(s) to apply to the resources to be listed. Filters are used to select which resources are to be listed. If no filters are used, then all of the resources will be listed. For example, partition information can be listed by using a filter to specify the names or IDs of the partitions to list. Otherwise, if no filter is used, then information for all of the partitions in the managed system will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV)

format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...",..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `\` character.

Valid filter names:

lpar_names | lpar_ids

Only one of these filters may be specified.

This option is required when listing mover service partition, shared processor pool, or virtual I/O information, and only one AIX or Linux partition can be specified with the filter. This option is optional when listing partition information, and if specified, multiple partitions can be specified. This option is not valid when listing managed system information.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List partition migration information for all partitions in the managed system **system1**:

```
lslpalmigr -r lpar -m system1
```

List possible source and destination MSP pairs for migrating partition **lpar1** from managed system **system1** to managed system **system2**:

```
lslpalmigr -r msp -m system1 -t system2 --filter  
"lpar_names=lpar1"
```

List possible shared processor pools in managed system **system2** that partition **lpar1** can use when it is migrated from managed system **system1** to **system2**:

```
lslpalmigr -r procpool -m system1 -t system2 --filter  
"lpar_names=lpar1"
```

List the partition mobility capabilities for managed system **system1**:

```
lslpalmigr -r sys -m system1
```

List possible and suggested mappings of the virtual SCSI adapters in the partition with ID **1** to virtual I/O servers in managed system **system2**:

```
lslpalmigr -r virtualio -m system1 -t system2 --filter  
"lpar_ids=1"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

migrpar

NAME

lsparutil - list utilization data

SYNOPSIS

To list utilization data collected for a managed system:

```
lsparutil -r {hmc | lpar | pool | procpool |  
          sys | all}  
          -m managed-system  
          [-d number-of-days] [-h number-of-hours]  
          [--minutes number-of-minutes]  
          [--startyear year] [--startmonth month]  
          [--startday day] [--starthour hour]  
          [--startminute minute] [--endyear year]  
          [--endmonth month] [--endday day]  
          [--endhour hour] [--endminute minute]  
          [-n number-of-events] [-s sample-rate]  
          [--filter "filter-data"]  
          [-F [attribute-names] [--header]] [--help]
```

To list HMC settings for utilization data collection:

```
lsparutil -r config [-m managed-system]  
          [-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lsparutil lists utilization data collected for a *managed-system*. This command also lists the Hardware Management Console (HMC) settings for utilization data collection.

The HMC collects the following types of utilization data: sampling events, state change events, configuration change events, and Utility Capacity on Demand (CoD) processor usage events.

Sampling events are collected for the managed system, for each partition in the managed system, for the physical processor pool in the managed system, and for each shared processor pool in the managed system. Sampling events are collected at the configured sample rate. They are also collected hourly, daily at midnight, and monthly at midnight on the first day of each month. Sampling events are also collected immediately following the collection of a Utility CoD processor usage event. Sampling events contain information about memory and processor utilization.

State change events are collected for the managed system, for each partition in the managed system, and for the HMC. State change events are collected when a state change occurs for the managed system, a partition, or when the HMC is started or shut down.

Configuration change events are collected for the managed system, for each partition in the managed system, for each shared processor pool in the managed system, and for the HMC. Configuration change events are collected when a configuration change affecting memory or processor resources occurs for the managed system, a partition, or a shared processor pool. Configuration change events are also collected when the local time is changed on the HMC.

Utility CoD processor usage events are collected for the managed system when a Utility CoD processor minute is used. All Utility CoD processor minutes used during a single minute are grouped into one event.

Hourly sampling events and all state change, configuration change, and Utility CoD processor usage events collected are only saved on the HMC for about 2 months. Daily sampling events are saved for about 2 years, and monthly sampling events are saved for about 10 years.

When the sample rate is set to be more frequent than hourly, the sampling events are saved in a snapshot file (hourly, daily, and monthly sampling events are still collected and saved as described above). All state

change, configuration change, and Utility CoD processor usage events collected are also saved on the HMC in the snapshot file, in addition to being saved with the hourly sampling events. The snapshot file is purged daily at midnight. Events more than 24 hours old are purged. Therefore, the snapshot file will only contain events that were collected during the last 24 to 48 hours.

Utilization data collection for managed systems is not automatically enabled. The **chlparutil** command can be used to enable utilization data collection and configure the sample rate.

OPTIONS

-r The type of system resources for which events are to be listed. Valid values are **hmc** for HMC, **lpar** for partitions, **pool** for physical processor pool, **procpool** for shared processor pools, **sys** for managed system, **all** for HMC, partitions, physical processor pool, shared processor pools, and managed system, and **config** for HMC configuration settings for utilization data collection.

-m The name of the managed system for which the collected utilization data or the HMC configuration settings is to be listed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name, or if the HMC does not currently have a connection to the managed system.

If this option is specified when listing HMC configuration settings, then the HMC configuration settings for the *managed-system* will be listed. Otherwise, the HMC configuration settings for all of the systems currently managed by this HMC, and for all of the systems for which utilization data has been previously collected by this HMC will be listed.

-d The number of days prior to today for which events will be listed. Events that were collected today will be listed, along with events that were collected during the past *number-of-days* days.

This option cannot be specified with the **-h**, **--minutes**, **--startyear**, **--startmonth**, **--startday**, **--starthour**, **--startminute**, **--endyear**, **--endmonth**, **--endday**, **--endhour**, or **--endminute** options.

-h The number of hours prior to the current hour for which events will be listed. Events that were collected during the current hour will be listed, along with events that were collected during the past *number-of-hours* hours.

This option cannot be specified with the **-d**, **--minutes**, **--startyear**, **--startmonth**, **--startday**, **--starthour**, **--startminute**, **--endyear**, **--endmonth**, **--endday**, **--endhour**, or **--endminute** options.

--minutes

The number of minutes prior to the current minute for which events will be listed. Events that were collected during the current minute will be listed, along with events that were collected during the past *number-of-minutes* minutes.

This option cannot be specified with the **-d**, **-h**, **--startyear**, **--startmonth**, **--startday**, **--starthour**, **--startminute**, **--endyear**, **--endmonth**, **--endday**, **--endhour**, or **--endminute** options.

--startyear

The starting year for which events will be listed. The default value for this option is **1970**.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--startmonth

The starting month for which events will be listed. Valid values are **1** for January through **12** for December. The default value for this option is **1** (January).

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--startday

The starting day for which events will be listed. Valid values are **1** through **31**. The default value for this option is **1**.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--starthour

The starting hour for which events will be listed. Valid values are **0** for midnight through **23** for 11:00 pm. The default value for this option is **0** (midnight).

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--startminute

The starting minute for which events will be listed. Valid values are **0** through **59**. The default value for this option is **0**.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--endyear

The ending year for which events will be listed. The default value for this option is now.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--endmonth

The ending month for which events will be listed. Valid values are **1** for January through **12** for December. The default value for this option is now.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--endday

The ending day for which events will be listed. Valid values are **1** through **31**. The default value for this option is now.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--endhour

The ending hour for which events will be listed. Valid values are **0** for midnight through **23** for 11:00 pm. The default value for this option is now.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

--endminute

The ending minute for which events will be listed. Valid values are **0** through **59**. The default value for this option is now.

This option cannot be specified with the **-d**, **-h**, or **--minutes** options.

-n

The maximum number of events to be listed, starting with the most recent event. The number specified must be greater than 0.

If this option is not specified, and neither are any of the **-d**, **-h**, **--minutes**, **--startyear**, **--startmonth**, **--startday**, **--starthour**, **--startminute**, **--endyear**, **--endmonth**, **--endday**, **--endhour**, or **--endminute** options, then only the most recent event will be listed.

-s

Use this option to specify the sample rate for which utilization data is to be listed. Valid values are **h** for hourly sampling events and all state change, configuration change, and Utility CoD processor usage events, **d** for daily sampling events, **m** for monthly sampling events, and **s** for the snapshot file.

If this option is not specified and the current sample rate for the managed system is set to be less than hourly, then events in the snapshot file will be listed. Otherwise, if this option is not specified, then hourly sampling events and all state change, configuration change, and Utility CoD processor usage events will be listed.

--filter The filter(s) to apply to the events to be listed. Filters are used to select which events for the specified resource type are to be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...",..."
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Multiple values can be specified for each filter.

Valid filter names for this command:

- lpar_ids**
Specify partition ID(s)
- lpar_names**
Specify partition user-defined name(s)
- event_types**
Specify one or more of the values
sample, **state_change**, **config_change**,
utility_cod_proc_usage
- pools**
Specify shared processor pool ID(s)
- pool_names**
Specify shared processor pool
user-defined name(s)

Valid filters with **-r hmc**:

event_types

Valid filters with **-r lpar**:

event_types, **lpar_ids** | **lpar_names**,
pools | **pool_names**

Valid filters with **-r pool**:

event_types

Valid filters with **-r procpool**:

event_types, **pools** | **pool_names**

Valid filters with **-r sys**:

event_types

Valid filters with **-r all**:

event_types, lpar_ids | lpar_names,
pools | pool_names

The **lpar_ids** and **lpar_names** filter will only apply to partition events, and the **pools** and **pool_names** filter will only apply to partition events and shared processor pool events

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each event. If no attribute names are specified, then values for all of the attributes for each event will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

Command attributes:

borrowed_pool_proc_units

Processing units that are being borrowed from powered off partitions with dedicated processors.

capped_cycles

The number of capped processing cycles utilized by this partition since the managed system was started.

configurable_pool_proc_units

The number of configurable processing units in the physical processor pool.

configurable_sys_mem

The amount of configurable system memory (in megabytes).

configurable_sys_proc_units

The number of configurable system processing units.

curr_5250_cpw_percent

The 5250 CPW percent assigned to the partition.

curr_avail_5250_cpw_percent

The 5250 CPW percent available to be assigned to partitions.

curr_avail_pool_proc_units

The number of processing units available to be assigned to partitions.

curr_avail_sys_mem

The amount of memory (in megabytes) available to be assigned to partitions.

curr_avail_sys_proc_units

The number of processing units available to be assigned to partitions.

curr_mem

The amount of memory (in megabytes) assigned to the partition.

curr_proc_mode

The processing mode for the partition.

Possible values are **ded** or **shared**.

curr_proc_units

The number of processing units assigned to the partition.

curr_procs

The number of processors or virtual processors assigned to the partition.

curr_reserved_pool_proc_units

The number of processing units that are reserved for temporary use by the uncapped partitions in the shared processor pool.

curr_shared_proc_pool_id

The unique integer identifier for the shared processor pool that the partition is in.

curr_shared_proc_pool_name

The user-defined name of the shared processor pool, at the time the event was collected, that the partition is in.

curr_sharing_mode

The sharing mode of the partition.

Possible values are **keep_idle_procs**,

share_idle_procs,

share_idle_procs_active,

share_idle_procs_always,

cap, or **uncap**.

curr_uncap_weight

The current weighted average of processing priority when in uncapped sharing mode. The smaller the value, the lower the weight. Possible values are 0 - 255.

entitled_cycles

The number of processing cycles to which the partition has been entitled since the managed system was started. This value is based on the number of processing units assigned to the partition, and may be greater than or smaller than the number of cycles actually used.

event_type

The type of event. Possible values are **sample**, **state_change**, **config_change**, or **utility_cod_proc_usage**.

lpar_id

The unique integer identifier for the partition.

lpar_name

The user-defined name of the partition at the time the event was collected.

max_pool_proc_units

This number, minus the reserved processing units in the shared processor pool, is the maximum number of processing units that the partitions in the shared processor pool can use.

name

The user-defined name of the managed system.

prev_time

The time on the HMC when the HMC time was changed.

proc_cycles_per_second

Processing cycles per second on one physical processor. This value is static for a particular managed system.

resource_type

The type of system resource for which the event was collected. Possible values are **hmc**, **lpar**, **pool**, **procpool**, or **sys**.

sample_rate

The rate, in seconds, at which samples are obtained. This rate can be changed with the **chlparutil** command.

shared_cycles_while_active

The number of dedicated processing cycles shared by this partition while it has been active since the managed system was started.

shared_proc_pool_id

The unique integer identifier for the shared processor pool.

shared_proc_pool_name

The user-defined name of the shared processor pool at the time the event was collected.

state

For system events, this is the state of the managed system at the time the event was collected. For partition events, this is the state of the partition at the time the event was collected.

sys_firmware_mem

Amount of memory, in megabytes, on the managed system that is being used by system firmware.

sys_time

The time on the managed system that the sample was taken.

time

The time on the HMC that the event was collected.

time_cycles

The number of time cycles since the managed system was started.

time_shut_down

The time the HMC was shut down or rebooted.

total_pool_cycles

The total number of processing cycles available in the physical processor pool or shared processor pool since the managed system was started.

type_model_serial_num

The machine type, model, and serial number of the managed system.

uncapped_cycles

The number of uncapped processing cycles utilized by this partition since the managed system was started.

unreported_proc_min

The total number of Utility CoD processor minutes that have not been reported.

used_proc_min

The number of Utility CoD processor minutes that were used during the last minute.

utilized_pool_cycles

The number of processing cycles in the physical processor pool or shared processor pool that have been utilized since the managed system was started.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all of the monthly sampling events that were collected for the managed system **sys1** for the entire year 2005:

```
lslparutil -r all -m sys1 --startyear 2005 --endyear 2005 --endmonth 12 --endday 31 --endhour 23 -s m
```

List all of the hourly managed system sampling events that have been collected for the managed system with type, model, and serial number **9406-520*1000101** since midnight today:

```
lslparutil -r sys -m 9406-520*1000101 -d 0 --filter "event_types=sample" -s h
```

List all of the events that have been collected for the managed system **sys1** since January 1, 2006, and list a maximum of 25 events:

```
lslparutil -r all -m sys1 --startyear 2006 -n 25 -s h
```

List the 10 most recent hourly sampling events that were collected for partition **p1**:

```
lslparutil -r lpar -m sys1 -n 10 -s h --filter "event_types=sample,lpar_names=p1"
```

List all of the state change and configuration change events that were collected for the managed system

sys1 for the month of June in 2005:

```
lslparutil -r all -m sys1 --startyear 2005 --startmonth 6 --endyear 2005 --endmonth 6 --endday 30
--endhour 23 -s h --filter ""event_types=state_change,config_change""
```

List all of the Utility CoD processor usage events that were collected for the managed system sys1 for the month of May in 2007:

```
lslparutil -r all -m sys1 --startyear 2007 --startmonth 5 --endyear 2007 --endmonth 5 --endday 31
--endhour 23 -s h --filter "event_types=utility_cod_proc_usage"
```

List all of the HMC events that have been collected for managed system sys1 since February 1, 2006:

```
lslparutil -r hmc -m sys1 --startyear 2006 --startmonth 2 -s h
```

List the configuration settings for utilization data collection on this HMC for all managed systems:

```
lslparutil -r config
```

To calculate the default shared processor pool utilization in percent over a twelve hour time period:

```
lslparutil -m sys1 -r procpool --startyear 2006
--startmonth 2 --startday 23 --starthour 0 --endyear 2006
--endmonth 2 --endday 23 --endhour 12 --filter
"event_types=sample,pool_names=DefaultPool"
-F time,total_pool_cycles,utilized_pool_cycles
```

```
02/23/2006 12:00:01,134967149091025,467439053292
02/23/2006 11:00:02,134963299532241,467428119008
02/23/2006 10:00:01,134959313365305,467419269942
02/23/2006 09:00:01,134954622214624,467403199531
02/23/2006 08:00:02,134942086330068,467368397739
02/23/2006 07:00:01,134929553859752,467333227651
02/23/2006 06:00:01,134917026289150,467295577359
02/23/2006 05:00:02,134904482088726,467258616569
02/23/2006 04:00:01,134891946956456,467223704573
02/23/2006 03:00:01,134879415157938,467188374373
02/23/2006 02:00:01,134866883128692,467152556956
02/23/2006 01:00:02,134854347365860,467116506907
02/23/2006 00:00:03,134841811733640,467081011935
```

Pool utilization =

$$(\text{utilized_pool_cycles} / \text{total_pool_cycles}) * 100$$
$$\text{Pool utilization} = ((467439053292 - 467081011935) /$$
$$(134967149091025 - 134841811733640)) * 100$$

Pool utilization = 0.29%

To calculate the processor utilization in percent for the partition with ID 1 over the last 11 samples:

```
lslparutil -m sys1 -r lpar -F time,lpar_id,
entitled_cycles,capped_cycles,uncapped_cycles
--filter "lpar_ids=1" -n 11
```

```
06/01/2006 18:00:01,1,13487973395246,353524992184,
```

93964052971
06/01/2006 17:00:01,1,13486720703117,353490258336,
93964052971
06/01/2006 16:00:01,1,13485467110700,353456792591,
93964052971
06/01/2006 15:00:01,1,13484213859686,353423048854,
93964052971
06/01/2006 14:00:03,1,13482961098044,353386674795,
93964052971
06/01/2006 13:00:02,1,13481706673802,353350985013,
93964052971
06/01/2006 12:00:02,1,13480453156357,353317211748,
93964052971
06/01/2006 11:00:01,1,13479199972343,353283141535,
93964052971
06/01/2006 10:00:02,1,13477946765207,353248812551,
93964052971
06/01/2006 09:00:01,1,13476693184663,353213970760,
93964052971
06/01/2006 08:00:01,1,13475439617080,353179654833,
93964052971

Processor utilization =
((capped_cycles + uncapped_cycles) /
entitled_cycles) * 100
Processor utilization = (((353524992184 - 353179654833) +
(93964052971 - 93964052971)) /
(13487973395246 - 13475439617080)) * 100
Processor utilization = 2.76%

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chlparutil, rmlparutil

NAME

lsmediadev - list storage media devices

SYNOPSIS

lsmediadev [-F *attribute-names*] [--header] [--help]

DESCRIPTION

lsmediadev lists the storage media devices that are available for use on the Hardware Management Console (HMC).

OPTIONS

-F A delimiter separated list of attribute names for the desired attribute values to be displayed. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all of the storage media devices that are available for use on the HMC:

```
lsmediadev
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lspwrmgmt - list power management settings

SYNOPSIS

lspwrmgmt [-m *managed-system*] -r **sys**
[-F [*attribute-names*] [--header]] [--help]

DESCRIPTION

lspwrmgmt lists the power management settings for the *managed-system*. Power management settings can only be configured for managed systems that are capable of POWER6 Power Management.

OPTIONS

-m The name of the managed system for which to list power management settings. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

If this option is omitted, then power management settings for all of the systems managed by this Hardware Management Console (HMC) will be listed.

-r The type of resources for which to list power management settings. The only valid value is **sys** for managed systems.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each managed system. If no attribute names are specified, then values for all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List the power management settings for managed system **system1**:

```
lspwrmgmt -r sys -m system1
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chpwrmgmt

NAME

lsrefcode - list reference codes

SYNOPSIS

```
lsrefcode -r {sys | lpar} -m managed-system  
[-s {p | s}] [-n number] [--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lsrefcode lists reference codes for the *managed-system* or for partitions in the *managed-system*.

OPTIONS

-r The type of reference codes to list. Valid values are **sys** for managed system reference codes, and **lpar** for partition reference codes.

-m The name of the managed system which has the reference codes to list. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-s When listing managed system reference codes, use this option to specify the service processor for which reference codes are to be listed. Valid values are **p** for the primary service processor and **s** for the secondary service processor. If this option is not specified, reference codes for the primary service processor will be listed.

This option is only valid when listing managed system reference codes.

-n The *number* of reference codes to list, starting with the current reference code, for the *managed-system* or for each partition. Reference codes are listed in order, with the most recent (current) reference code first.

The *number* specified must be greater than 0. If there are fewer reference codes available than *number*, only the available reference codes will be listed.

If this option is omitted, only the current reference code will be listed.

--filter The filter to apply to the partition reference codes to be listed. A filter is used to select the partitions for which reference codes are to be listed. If no filter is specified, then reference codes for all partitions in the *managed-system* will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
filter-name=value,filter-name=value,...<LF>
```

Note that certain filters accept a comma separated list of values, as follows:

```
"filter-name=value,value,...",...<LF>
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `\` character.

Valid filter names for this command are **lpar_names** or **lpar_ids**. Only one of these filters may be specified. Multiple partitions can be specified with the filter.

This option is not valid when listing managed system reference codes.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each reference code. If no attribute names are specified, then values for all of the reference code attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

List the current reference code for the managed system:

```
lsrefcode -r sys -m system1
```

List the last 10 reference codes for the managed system, and only display attribute values for each reference code, following a header of attribute names:

```
lsrefcode -r sys -m 9406-570*1543901A -n 10 -F --header
```

List the last 5 reference codes for the secondary service processor on the managed system:

```
lsrefcode -r sys -m system1 -s s -n 5
```

List the current reference code for each partition in the managed system, and only list the partition name, time stamp, and reference code value for each reference code, and separate the output values with a comma:

```
lsrefcode -r lpar -m system1 -F lpar_name,time_stamp,  
refcode
```

List the last 25 reference codes for partitions **p1** and **p2**:

```
lsrefcode -r lpar -m 9406-520*12345678 -n 25 --filter  
""lpar_names=p1,p2""
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lssacfg - list Service Agent configuration information

SYNOPSIS

```
lssacfg -t { email | ftpfirewall | ftpoffload | snmp |  
          snmptrapnames }  
[-F attribute-names] [--header] [--help]
```

DESCRIPTION

lssacfg lists Service Agent configuration information.

OPTIONS

- t** The type of Service Agent configuration information to list. Valid values are **email** for customer email notification settings, **ftpfirewall** for FTP firewall settings, **ftpoffload** for FTP offload server settings, **snmp** for SNMP trap notification settings, and **snmptrapnames** to list all defined SNMP traps.
- F** A delimiter separated list of attribute names representing the desired attribute values to display. If this option is specified without any attribute names, then all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.
- header** Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.
- help** Display the help text for this command and exit.

EXAMPLES

Display the Service Agent customer email notification settings:

```
lssacfg -t email
```

Display the Service Agent FTP firewall settings used for offloading service information:

```
lssacfg -t ftpfirewall
```

Display the Service Agent FTP server host name and directory used for offloading service information:

```
lssacfg -t ftpoffload -F host,directory
```

Display the Service Agent configuration for emitting SNMP trap notifications:

```
lssacfg -t snmp
```

Display all defined Service Agent SNMP traps:

```
lssacfg -t snmptrapnames
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chsacfg

NAME

lssvcevents - list console or serviceable events

SYNOPSIS

```
lssvcevents -t {console | hardware}  
[-d number-of-days | -i number-of-minutes]  
[-m managed-system]  
[--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lssvcevents lists console events logged by the Hardware Management Console (HMC), or serviceable events.

OPTIONS

-t The type of events to list. Valid values are **console** for console events, or **hardware** for serviceable events.

-d The number of days prior to today for which events will be listed. Events that occurred today will be listed, along with any events that occurred during the past *number-of-days* days.

If this option is omitted when listing console events, console events that occurred within the past 7 days will be listed.

If this option is omitted when listing serviceable events, all serviceable events will be listed.

-i The number of minutes to go back and search for events. This search is based on the time that the event was initially created on the HMC, and is not affected by later updates to the event.

-m The name of the managed system for which serviceable events are to be listed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

If this option is omitted, all serviceable events will be listed.

This option is only valid when listing serviceable events.

--filter The filter to apply to the serviceable events to be listed. A filter is used to select which serviceable events are to be listed. For example, only open serviceable events can be listed by using a filter to specify the status (open) of the serviceable events to list. If a filter is not used, then all serviceable events will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

```
""filter-name=value,value,...""
```

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a ``\`` character.

Multiple values can be specified for each filter.

Valid filter names for serviceable events:

problem_nums

Specify event problem number(s)

status

Specify event status. Valid values are **open** or **closed**.

This option is not valid when listing console events.

- F** A delimiter separated list of attribute names for the desired attribute values to be displayed for each event. If no attribute names are specified, then values for all of the attributes for each event will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

List the serviceable events that occurred today:

```
lssvcevents -t hardware -d 0
```

List the console events that occurred within the past 3 days:

```
lssvcevents -t console -d 3
```

List all of the open serviceable events for the system **system1**:

```
lssvcevents -t hardware -m system1 --filter "status=open"
```

List only the problem numbers and status of all serviceable events for the system that occurred within the last 7 days, and separate the output values with a colon:

```
lssvcevents -t hardware -m 9406-570*101234A -d 7 -F  
problem_num:status
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

lssyscfg - list system resources

SYNOPSIS

```
lssyscfg -r {lpar | prof | sys | sysprof | cage | frame}  
[-m managed-system | -e managed-frame]  
[--filter "filter-data"]  
[-F [attribute-names] [--header]] [--help]
```

DESCRIPTION

lssyscfg lists the attributes of partitions, partition profiles, or system profiles for the *managed-system*. It can also list the attributes of the *managed-system*, and of all of the systems managed by this Hardware Management Console (HMC).

lssyscfg can also list the attributes of cages in the *managed-frame*, the attributes of the *managed-frame*, or the attributes of all of the frames managed by this HMC.

OPTIONS

-r The type of resources to list. Valid values are **lpar** for partitions, **prof** for partition profiles, **sys** for managed systems, **sysprof** for system profiles, **cage** for managed frame cages, and **frame** for managed frames.

-m The name of either the managed system to list, or the managed system which has the system resources to list. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when listing partitions, partition profiles, or system profiles. This option is optional when listing managed systems, and if it is omitted, then all of the systems managed by this HMC will be listed. This option is not valid when listing managed frame cages or managed frames.

-e The name of either the managed frame to list, or the managed frame which contains the cages to list. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

This option is required when listing managed frame cages. This option is optional when listing managed frames, and if it is omitted, then all of the frames managed by this HMC will be listed. This option is not valid when listing partitions, partition profiles, system profiles, or managed systems.

--filter The filter(s) to apply to the resources to be listed. Filters are used to select which resources of the specified resource type are to be listed. If no filters are used, then all of the resources of the specified resource type will be listed. For example, specific partitions can be listed by using a filter to specify the names or IDs of the partitions to list. Otherwise, if no filter is used, then all of the partitions in the managed system will be listed.

The filter data consists of filter name/value pairs, which are in comma separated value (CSV) format. The filter data must be enclosed in double quotes.

The format of the filter data is as follows:

```
"filter-name=value,filter-name=value,..."
```

Note that certain filters accept a comma separated list of values, as follows:

""filter-name=value,value,...",..."

When a list of values is specified, the filter name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a backslash character.

Multiple values can be specified for each filter.

Valid filter names for partitions:

lpar_names | lpar_ids | work_groups

Only one of these three filters may be specified.

Valid filter names for partition profiles:

lpar_names | lpar_ids, profile_names

Valid filter names for system profiles:

profile_names

This option is not valid when listing managed systems, managed frame cages, or managed frames.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each resource. If no attribute names are specified, then values for all of the attributes for the resource will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all systems managed by this HMC:

lssyscfg -r sys

List only the user-defined name, machine type and model, and serial number for all of the systems managed by this HMC, and separate the output values with a colon:

lssyscfg -r sys -F name:type_model:serial_num

List the managed system system1:

lssyscfg -r sys -m system1

List all partitions in the managed system, and only display attribute values for each partition, following a header of attribute names:

lssyscfg -r lpar -m 9406-570*12345678 -F --header

List the partitions lpar1, lpar2, and lpar3:

```
lssyscfg -r lpar -m system1 --filter "'lpar_names=lpar1,
lpar2,lpar3'"
```

List only the names, IDs, and states of partitions lpar1, lpar2, and lpar3, and separate the output values with a comma:

```
lssyscfg -r lpar -m system1 --filter "'lpar_names=lpar1,
lpar2,lpar3'" -F name,lpar_id,state
```

List all partition profiles defined for all partitions in the managed system:

```
lssyscfg -r prof -m 9406-570*12345678
```

List all partition profiles defined for partition lpar2:

```
lssyscfg -r prof -m system1 --filter "lpar_names=lpar2"
```

List the partition profiles prof1 and prof2 defined for the partition that has an ID of 2:

```
lssyscfg -r prof -m system1 --filter "lpar_ids=2,
"profile_names=prof1,prof2'"
```

List all system profiles defined for the managed system:

```
lssyscfg -r sysprof -m 9406-520*100128A
```

List the system profile sysprof1:

```
lssyscfg -r sysprof -m system1 --filter "profile_names=
sysprof1"
```

List all frames managed by this HMC:

```
lssyscfg -r frame
```

List the managed frame myFrame:

```
lssyscfg -r frame -e myFrame
```

List all cages in the managed frame:

```
lssyscfg -r cage -e 9119-59*000012C
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chsyscfg, mksyscfg, rmsyscfg, lshwres

NAME

lssysconn - list system connections

SYNOPSIS

lssysconn -r { **all** | **nondiscover** } [-F *attribute-names*] [--header]
[--help]

DESCRIPTION

lssysconn lists connection information for all of the systems and frames managed by this Hardware Management Console (HMC). Connection information for all systems and frames to which this HMC is connected or attempting to connect is listed.

lssysconn also lists IP addresses that cannot be automatically discovered by this HMC when using DHCP. If this HMC is set up as a DHCP server on a private network, whenever the Remove Connection task or the **rmsysconn** command is run to remove a managed system or a managed frame from the HMC, the HMC places the IP address(es) of that system or frame in a list of removed IP addresses. Any IP address in that list will not be rediscovered when reattached to the HMC. The **lssysconn -r nondiscover** command can be used to display the contents of that list of removed IP addresses.

OPTIONS

-r The type of resources for which to list connection information. Valid values are **all** for all managed systems and managed frames, and **nondiscover** for all IP addresses that cannot be automatically discovered by this HMC when using DHCP.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each resource. If no attribute names are specified, then values for all of the attributes for each resource will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List connection information for all systems and frames managed by this HMC:

```
lssysconn -r all
```

List only the IP address and connection state for all of the systems and frames managed by this HMC, and separate the output values with a colon:

```
lssysconn -r all -F ipaddr:state
```

List all IP addresses that cannot be automatically discovered by this HMC when using DHCP:

```
lssysconn -r nondiscover
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssyscfg, mksysconn, rmsysconn

NAME

lssysplan - list system plans

SYNOPSIS

lssysplan [-F *[attribute-names]*] [--header] [--help]

DESCRIPTION

lssysplan lists the system plan files in the system plan file directory on the Hardware Management Console (HMC).

OPTIONS

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each file. If no attribute names are specified, then values for all of the attributes for each file will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

The possible attributes that can be listed are: **name**, **description**, **source**, **version**, and **date**.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. The header record will be the first record displayed. This option is only valid when used with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all of the system plan files on this HMC:

lssysplan

List the system plan files on this HMC, and only display attribute values for each file, following a header of attribute names:

lssysplan -F --header

List only the names, dates, and descriptions of the system plan files on this HMC:

lssysplan -F name,date,description

List only the names and descriptions of the system plan files on this HMC, following a header of attribute names:

lssysplan -F name,description --header

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

deploysysplan, cpsysplan, mksysplan, rmsysplan, rmsysplanres, defsysplanres, lssysplanres

NAME

lssysplanres - list system plan resources

SYNOPSIS

lssysplanres -r osinstall

[-F *attribute-names*][--header] [--help]

DESCRIPTION

lssysplanres lists the system plan resources that are defined on this Hardware Management Console (HMC). These resources can be used when deploying system plans from this HMC.

OPTIONS

-r The type of system plan resources to list. The only valid value is **osinstall** for operating system installation resources.

-F A delimiter separated list of attribute names for the desired attribute values to be displayed for each system plan resource. If no attribute names are specified, then values for all of the attributes for each system plan resource will be displayed.

When this option is specified, only those specified attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attributes that will be displayed. The header record will be the first record displayed. This option is only valid with the **-F** option.

--help Display the help text for this command and exit.

EXAMPLES

List all of the osinstall type system plan resources defined on this HMC:

lssysplanres -r osinstall

List only the names and descriptions of all of the osinstall type system plan resources defined on this HMC, following a header of attribute names:

lssysplanres -r osinstall -F name,description --header

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

defsysplanres, deploysysplan, lssysplan, rmsysplanres

NAME

lsvet - list Capacity on Demand advanced functions activation information

SYNOPSIS

lsvet -t {code | hist} -m managed-system
[-F *attribute-names*] [--header] [--help]

DESCRIPTION

lsvet lists Capacity on Demand (CoD) advanced functions activation information for the *managed-system*. CoD advanced functions include Advanced POWER Virtualization and Enterprise Enablement.

CoD advanced functions are sometimes referred to as Virtualization Engine systems technologies.

OPTIONS

- t** The type of information to list. Valid values are **code** for information used to generate CoD advanced functions activation codes, and **hist** for the CoD advanced functions activation history log.
- m** The name of the managed system for which information is to be listed. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- F** A delimiter separated list of attribute names representing the desired attribute values to display. If this option is specified without any attribute names, then all of the attributes will be displayed.

When this option is specified, only attribute values will be displayed. No attribute names will be displayed. The attribute values displayed will be separated by the delimiter which was specified with this option.

This option is useful when only attribute values are desired to be displayed, or when the values of only selected attributes are desired to be displayed.

--header

Display a header record, which is a delimiter separated list of attribute names for the attribute values that will be displayed. This header record will be the first record displayed. This option is only valid when used with the **-F** option.

- help** Display the help text for this command and exit.

EXAMPLES

Display activation code generation information:

```
lsvet -m sys1 -t code
```

Display the activation history log:

```
lsvet -m 9117-570*1001213 -t hist
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chvet

NAME

migrcfg - migrate configuration

SYNOPSIS

migrcfg -m *managed-system* **-t 1 -f** *file* [**--help**]

DESCRIPTION

migrcfg migrates partition configuration data to a *managed-system*.

OPTIONS

- m** The name of the managed system to which to migrate the partition configuration data. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- t** The migration data type. The only valid value is **1**.
- f** The name of the file on floppy diskette that contains the partition configuration data to migrate.
- help** Display the help text for this command and exit.

EXAMPLES

migrcfg -m mySystem **-t 1 -f** cfgFile

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssyscfg

NAME

migrpar - perform a partition migration operation

SYNOPSIS

```
migrpar -o {m | r | s | v}
-m managed-system [-t target-managed-system]
{-p partition-name | --id partition-ID} [-n profile-name]
[{-f input-data-file | -i "input-data"}]
[-w wait-time] [-d detail-level] [-v] [--force]
[--help]
```

DESCRIPTION

migrpar performs partition migration operations.

Partition migration operations can only be performed for AIX or Linux partitions on POWER6 servers.

OPTIONS

- o** The operation to perform. Valid values are **m** to validate then migrate a partition if validation succeeds, **r** to recover from a failed partition migration, **s** to stop a partition migration, and **v** to validate a partition migration.
- m** The name of the source managed system for the partition migration operation. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- t** The name of the target, or destination, managed system for the partition migration operation. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when migrating a partition or validating a partition migration. This option is not valid when performing any other operation.
- p** The name of the partition for which the partition migration operation is to be performed.

You must either use this option to specify the name of the partition, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.
- id** The ID of the partition for which the partition migration operation is to be performed.

You must either use this option to specify the ID of the partition, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.
- n** The name of the partition profile to be created for the migrated partition on the destination managed system. If this option is omitted when migrating a partition, then the last activated profile for the partition will be replaced with the current partition configuration on the destination managed system.

This option is only valid when migrating a partition or validating a partition migration.
- f** The name of the file containing the input data for this command. The input data consists of attribute name/value pairs, which are in comma separated value (CSV) format.

The format of the input data is as follows:

```
attribute-name=value,attribute-name=value,...
```

Note that certain attributes accept a comma separated list of values, as follows:

"attribute-name=value,value,...",...

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Valid attribute names for this command:

virtual_scsi_mappings

Comma separated list of virtual SCSI mappings, with each mapping having the following format:

*virtual-slot-number/vios-lpar-name/
vios-lpar-ID*

Both `'/'` characters must be present, but optional values may be omitted. Optional values are *vios-lpar-name* or *vios-lpar-ID*, however one of those two values is required.

For example:

12/vios1/ specifies a mapping of virtual SCSI slot number **12** to the virtual I/O server partition **vios1** on the destination managed system.

source_msp_name

source_msp_id

dest_msp_name

dest_msp_id

shared_proc_pool_id

Input data for this command can be specified with this option or the **-i** option. The **-f** and the **-i** options are mutually exclusive.

Input data can be specified when migrating a partition or validating a partition migration. This option is not valid when performing any other operation.

- i** This option allows you to enter input data on the command line, instead of using a file. Data entered on the command line must follow the same format as data in a file, and must be enclosed in double quotes.

Input data for this command can be specified with this option or the **-f** option. The **-i** and the **-f** options are mutually exclusive.

Input data can be specified when migrating a partition or validating a partition migration. This option is not valid when performing any other operation.

- w** The maximum time, in minutes, to wait for operating system commands issued by the Hardware Management Console (HMC) to the partition to be migrated to complete. If an operating system command does not complete within the time specified, the partition migration operation will be stopped.

wait-time must be a whole number. If *wait-time* is 0, the partition migration operation will not be

timed out.

If this option is not specified, a default value of 3 minutes is used.

This option is valid when migrating a partition or validating a partition migration. This option is not valid when performing any other operation.

- d** The level of detail requested from operating system commands issued by the HMC to all partitions participating in the migration. Valid values are **0** (none) through **5** (highest).

If this option is not specified, a default value of 1 is used.

This option is valid when migrating a partition or validating a partition migration. This option is not valid when performing any other operation.

- force** This option allows you to force a recover operation to proceed when errors are encountered.

This option is only valid when recovering from a failed partition migration.

- v** Specify this option to enable verbose mode for the partition migration operation. When verbose mode is enabled, detail messages and warning messages are displayed for a successful partition migration. Detail messages and warning messages are always displayed for a partition migration that fails, regardless of whether this option is specified.

- help** Display the help text for this command and exit.

EXAMPLES

Validate the operation to migrate partition **mylpar** from managed system **system1** to managed system **system2**:

```
migrpar -o v -m system1 -t system2 -p mylpar
-i ""virtual_scsi_mappings=12/vios1,13/vios2"",
dest_msp_name=vios1,source_msp_name=vios"
```

Migrate the partition with ID **5** from managed system **system1** to managed system **system2**:

```
migrpar -o m -m system1 -t system2 --id 5
-n migprof -i "virtual_scsi_mappings=12//1,
dest_msp_id=1,source_msp_id=3"
```

Stop the partition migration that is just starting for partition **mylpar**:

```
migrpar -o s -m system1 -p mylpar
```

Recover the failed partition migration of partition **mylpar**:

```
migrpar -o r -m system1 -p mylpar
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lslparmigr

NAME

mkaccfg - create access control object

SYNOPSIS

```
mkaccfg -t {resourcerole | taskrole}
{-f configuration-file | -i "configuration-data"}
[--help]
```

DESCRIPTION

mkaccfg creates a new access control role.

OPTIONS

- t** The type of access control role to create. Valid values are **resourcerole** for managed resource role and **taskrole** for task role.
- f** The name of the file containing the configuration data needed to create the access control role. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. These attribute name/value pairs form a configuration record. A line feed marks the end of a configuration record. There can only be one configuration record in the file.

The format of a configuration record is as follows:

```
attribute-name=value,attribute-name=value,...<LF>
```

Note that certain attributes accept a comma separated list of values, as follows:

```
"attribute-name=value,value,...",...<LF>
```

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a `'\'` character.

Attribute names for managed resource roles (all attributes are required):

- name**
name of the managed resource role to create
- resources**
comma separated list of managed resource objects

Attribute names for task roles (all attributes are required):

- name**
name of the task role to create
- resources**
comma separated list of tasks
- parent**
name of the parent task role on which to base this task role. Valid values are **hmcsuperadmin**, **hmcoperator**, **hmcviewer**, **hmcpe**, **hmcservicerep**, or a user-defined task role.

The **-f** and the **-i** options are mutually exclusive.

- i** This option allows you to enter configuration data on the command line, instead of using a file. Data entered on the command line must follow the same format as data in a file, and must be enclosed in double quotes.

The **-i** and the **-f** options are mutually exclusive.

--help Display the help text for this command and exit.

EXAMPLES

Create a managed resource role using the configuration data in the file **/tmp/mr1file**:

```
mkaccfg -t resourcerole -f /tmp/mr1file
```

Create a task role named **tr1**:

```
mkaccfg -t taskrole -i "name=tr1,parent=hmcsuperadmin,  
"resources=cec:ChangeCoD+ListCoDInformation+  
ListCECProperty,lpar:ChangeLPARProperty+ListLPARProperty+  
CreateProfile""
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chaccfg, **lsaccfg**, **rmaccfg**

NAME

mkhmcusr - create a Hardware Management Console user

SYNOPSIS

```
mkhmcusr -u user-name -a task-role [-d description]  
[--passwd password] [-M number-of-days]  
[--auth {local | kerberos | ldap}]  
[--remoteuser remote-user-name] [--help]
```

DESCRIPTION

mkhmcusr creates a Hardware Management Console (HMC) user.

OPTIONS

- u** The user name of the HMC user to create. The user name cannot be longer than 32 characters, and it must begin with a letter.
- a** The access control task role for this user. Valid values are **hmcsuperadmin**, **hmcoperator**, **hmcviewer**, **hmcpe**, **hmcserVICerep**, or a user-defined task role.
- d** The description for this user. *description* can be any string. If this option is not specified, then the description for this user will be set to "HMC User".
- passwd**
The password for this user. If this option is omitted, you will be prompted to enter the password. The password must be at least 7 characters in length.

This option is not valid when creating a remotely authenticated Kerberos or LDAP user.
- M** The number of days until the password for this user expires. If this option is not specified, then this user's password will never expire.

This option is not valid when creating a remotely authenticated Kerberos or LDAP user.
- auth** The authentication type for this user. Valid values are **local** for local authentication, **kerberos** for remote Kerberos authentication, and **ldap** for remote LDAP authentication. If this option is omitted, the authentication type for this user will be set to local authentication.
- remoteuser**
The remote user ID used for remote Kerberos authentication for this user. This is the user's Kerberos principal. The format of a typical Kerberos principal is *primary/instance@REALM*.

This option is required when creating a remotely authenticated Kerberos user. Otherwise, this option is not valid.
- help** Display the help text for this command and exit.

EXAMPLES

Create the user **sysadmin**:

```
mkhmcusr -u sysadmin -a hmcsuperadmin --passwd aielkw3j  
-M 180 -d "System Administrator"
```

Create the user **myhmcuser** (the user's password must be entered when prompted):

```
mkhmcusr -u myhmcuser -a hmcviewer
```

Create a remotely authenticated Kerberos user **krbuser**:

```
mkhmcusr -u krbuser -a hmcoperator --auth kerberos  
--remoteuser krbuser/hmcoperator@EXAMPLE.COM
```

Create a remotely authenticated LDAP user **ldapuser**:

```
mkhmcusr -u ldapuser -a hmcsuperadmin --auth ldap
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmcusr, lshmcusr, rmhmcusr, lsaccfg

NAME

mksyscfg - create system resources

SYNOPSIS

```
mksyscfg -r {lpar | prof | sysprof} -m managed-system  
[{-f configuration-file | -i "configuration-data"}]  
[-o save {-p partition-name | --id partition-ID}  
-n profile-name]  
[--help]
```

DESCRIPTION

mksyscfg creates partitions, partition profiles, or system profiles for the *managed-system*.

mksyscfg can be used to save the current configuration of a partition to a new partition profile.

OPTIONS

-r The type of system resources to create. Valid values are **lpar** for partitions, **prof** for partition profiles, and **sysprof** for system profiles.

When a partition is created, the default profile for the partition is also created.

-m The name of the managed system for which the system resources are to be created. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-f The name of the file containing the configuration data needed to create the system resources. The configuration data consists of attribute name/value pairs, which are in comma separated value (CSV) format. These attribute name/value pairs form a configuration record. A line feed marks the end of a configuration record. The file must contain one configuration record for each resource to be created, and each configuration record must be for the same resource type.

The format of a configuration record is as follows:

```
attribute-name=value,attribute-name=value,...<LF>
```

Note that certain attributes accept a comma separated list of values, as follows:

```
"attribute-name=value,value,...",...<LF>
```

When a list of values is specified, the attribute name/value pair must be enclosed in double quotes. Depending on the shell being used, nested double quote characters may need to be preceded by an escape character, which is usually a ``\`` character.

Attribute names for partitions (see below for attribute names that are common to both partitions and partition profiles):

name

name of the partition to create

[lpar_id]

profile_name

name of the default profile to create

lpar_env

Valid values are **aixlinux**, **os400**, or **vioserver**

[allow_perf_collection]

Valid values are:

0 - do not allow

1 - allow

This attribute replaces the **shared_proc_pool_util_auth** attribute. Setting this attribute also sets the **shared_proc_pool_util_auth** attribute to the same value.

[shared_proc_pool_util_auth]

Valid values are:

0 - do not allow authority

1 - allow authority

This attribute has been deprecated. Use the **allow_perf_collection** attribute instead. Setting this attribute also sets the **allow_perf_collection** attribute to the same value.

[lpar_avail_priority]

POWER6 servers only

Valid values are **0** - **255**.

[msp]

Virtual I/O server only, POWER6 servers only

Valid values are:

0 - the partition is not a mover service partition

1 - the partition is a mover service partition

[time_ref]

POWER6 servers only

Valid values are:

0 - the partition is not a time reference partition

1 - the partition is a time reference partition

Attribute names for partition profiles (see below for attribute names that are common to both partition profiles and partitions):

name

name of the partition profile to create

lpar_name | lpar_id

name or ID of the partition for which to create the profile

Attribute names for both partitions and partition profiles:

[all_resources]

Valid values are:

0 - do not use all the managed system resources

1 - use all the managed system resources (this option is not valid for i5/OS partitions on IBM System p5 or eServer p5 servers)

min_mem

megabytes

desired_mem
 megabytes

max_mem
 megabytes

[min_num_huge_pages]
 AIX and Linux only

[desired_num_huge_pages]
 AIX and Linux only

[max_num_huge_pages]
 AIX and Linux only

[bsr_arrays]
 POWER6 servers only

[proc_mode]
 Valid values are:
ded - dedicated processors
shared - shared processors

[min_procs]

[desired_procs]

[max_procs]

[min_proc_units]

[desired_proc_units]

[max_proc_units]

[min_5250_cpw_percent]
 Only valid for i5/OS partitions in managed systems that support the assignment of 5250 CPW percentages

[desired_5250_cpw_percent]
 Only valid for i5/OS partitions in managed systems that support the assignment of 5250 CPW percentages

[max_5250_cpw_percent]
 Only valid for i5/OS partitions in managed systems that support the assignment of 5250 CPW percentages

[sharing_mode]
 Valid values for partitions using dedicated processors are:
keep_idle_procs - never share processors
share_idle_procs - share processors only when partition is inactive
share_idle_procs_active - share processors only when partition is active (POWER6 servers only)
share_idle_procs_always - always share processors (POWER6 servers only)
 Valid values for partitions using shared processors are:
cap - capped
uncap - uncapped

[uncap_weight]

[shared_proc_pool_name | shared_proc_pool_id]
 POWER6 servers only

[io_slots]

Comma separated list of I/O slots, with each I/O slot having the following format:

slot-DRC-index[slot-IO-pool-ID]/is-required

Both '/' characters must be present, but optional values may be omitted. Optional values are *slot-IO-pool-ID*.

Valid values for *is-required*:

0 - no

1 - yes

For example:

21030002/3/1 specifies an I/O slot with a DRC index of **21030002**, it is assigned to I/O pool **3**, and it is a required slot.

[lpar_io_pool_ids]

comma separated

[load_source_slot]

i5/OS only, required on POWER5 servers
DRC index of I/O slot, or virtual slot
number

[alt_restart_device_slot]

i5/OS only
DRC index of I/O slot, or virtual slot
number

console_slot

i5/OS only
DRC index of I/O slot, DRC index
of HEA logical port (POWER6 servers
only), virtual slot number, or
the value **hmc**

[alt_console_slot]

i5/OS only
DRC index of I/O slot

[op_console_slot]

i5/OS only
DRC index of I/O slot

[auto_start]

Valid values are:

0 - off

1 - on

[boot_mode]

AIX, Linux, and virtual I/O server only

Valid values are:

norm - normal

dd - diagnostic with default boot list

ds - diagnostic with stored boot list

of - Open Firmware OK prompt

sms - System Management Services

[power_ctrl_lpar_ids | power_ctrl_lpar_names]

comma separated

[conn_monitoring]

Valid values are:

0 - off

1 - on

[hsl_pool_id]

i5/OS only

Valid values are:

0 - HSL OptiConnect is disabled

1 - HSL OptiConnect is enabled

[virtual_opti_pool_id]

i5/OS only

Valid values are:

0 - virtual OptiConnect is disabled

1 - virtual OptiConnect is enabled

[max_virtual_slots]

[virtual_eth_adapters]

Comma separated list of virtual ethernet adapters, with each adapter having the following format:

*virtual-slot-number/is-IEEE/port-vlan-ID/
[additional-vlan-IDs]/[trunk-priority]/
is-required[/virtual-switch]*

The first 5 '/' characters must be present. The last '/' character is optional, but it must be present if *virtual-switch* is specified. Optional values may be omitted. Optional values are *additional-vlan-IDs*, *trunk-priority*, and *virtual-switch*.

Valid values for *is-IEEE* and *is-required*:

0 - no

1 - yes

Valid values for *trunk-priority*:

0 - this adapter is not a trunk adapter

1 - 15 - this adapter is a trunk adapter with the specified priority

For example:

13/1/5/"6,7"/2/1

specifies a virtual ethernet adapter with a virtual slot number of **13**, is IEEE 802.1Q compatible, has a port virtual LAN ID of **5**, additional virtual LAN IDs of **6** and **7**, it is a trunk adapter with a trunk priority of 2, and it is required.

[virtual_scsi_adapters]

Comma separated list of virtual SCSI adapters, with each adapter having the following format:

*virtual-slot-number/client-or-server/
[remote-lpar-ID]/[remote-lpar-name]/
[remote-slot-number]/is-required*

All 5 '/' characters must be present, but optional values may be omitted. Optional values for server adapters are *remote-lpar-ID*, *remote-lpar-name*, and *remote-slot-number*. Optional values for client adapters are *remote-lpar-ID* or *remote-lpar-name* (one of those values is required, but not both).

Valid values for *client-or-server*:

client
server

Valid values for *is-required*:

0 - no
1 - yes

For example:

14/client/2//13/0

specifies a virtual SCSI **client** adapter with a virtual slot number of **14**, a remote (server) partition ID of **2**, a remote (server) slot number of **13**, and it is not required.

[**virtual_serial_adapters**]

Comma separated list of virtual serial adapters, with each adapter having the following format:

*virtual-slot-number/client-or-server/
[supports-HMC]/[remote-lpar-ID]/
[remote-lpar-name]/[remote-slot-number]/
is-required*

All 6 '/' characters must be present, but optional values may be omitted. Optional values for server adapters are *supports-HMC*, *remote-lpar-ID*, *remote-lpar-name*, and *remote-slot-number*. Optional values for client adapters are *remote-lpar-ID* or *remote-lpar-name* (one of those values is required, but not both), and the *supports-HMC* value is not allowed.

Valid values for *client-or-server*:

client
server

Valid values for *supports-HMC*:

0 - no

Valid values for *is-required*:

0 - no

1 - yes

For example:

14/server/0///0

specifies a virtual serial **server** adapter with a virtual slot number of **14**, it does not support an HMC connection, any client adapter is allowed to connect to it, and it is not required.

[hca_adapters]

AIX, Linux, and virtual I/O server only
Comma separated list of Host Channel adapters (HCA), with each adapter having the following format:

adapter-ID/GUID/capability

All 3 values must be specified for each adapter.

Valid values for *capability*:

1 - low

2 - medium

3 - high

4 - dedicated

For example:

23000cff/2550000000609/3 specifies an HCA with an adapter ID of **23000cff**, a Globally Unique ID (GUID) of 2:55:00:00:00:06:09, and a capability setting of high.

[lhea_logical_ports]

POWER6 servers only
Comma separated list of Logical Host Ethernet adapter (LHEA) logical ports, with each logical port having the following format:

*adapter-ID/port-group/physical-port-ID/
logical-port-ID[allowed-VLAN-IDs]*

All 4 '/' characters must be present, but optional values may be omitted. Optional values are *allowed-VLAN-IDs*.

For example:

23000000/2/0/1/3 specifies logical port **1** for physical port **0** belonging to port group **2** of the Host Ethernet

adapter (HEA) with an adapter ID of **23000000**. This logical port is only allowed to participate in the VLAN with an ID of **3**.

[lhea_capabilities]

POWER6 servers only
Comma separated list of LHEA capabilities, with each capability having one of the following formats:

adapter-ID/capability

or

adapter-ID/5/ieq/nieq/qp/cq/mr

where *ieq* (interruptible event queues), *nieq* (non-interruptible event queues), *qp* (queue pairs), *cq* (completion queues), and *mr* (memory regions) each specify the resource amount in addition to the base minimum.

Valid values for *capability*:

- 0** - base minimum
- 1** - low
- 2** - medium
- 3** - high
- 4** - dedicated

For example:

23000000/3 sets the LHEA capability for the HEA with an adapter ID of **23000000** to high.

[sni_device_ids]

AIX, Linux, and virtual I/O server only
Comma separated list of Switch Network Interface (SNI) adapter device IDs

[work_group_id]

[redundant_err_path_reporting]

Valid values are:

- 0** - disable
- 1** - enable

[electronic_err_reporting]

i5/OS only, POWER6 servers only

Valid values are:

- 0** - disable
- 1** - enable

[lpar_proc_compat_mode]

POWER6 servers only

Valid values are:

- default** - default architected processor mode
- POWER6_enhanced** - POWER6 enhanced

processor mode

Attribute names for system profiles:

name
name of the system profile to create
lpar_names | lpar_ids
comma separated
profile_names
comma separated

Brackets around an attribute name indicate that the attribute is optional.

The **-f** and the **-i** options are mutually exclusive.

Configuration data is required to be specified with this option or the **-i** option except when **-o save** is specified to save the current configuration of a partition to a new partition profile. This option is not valid when **-o save** is specified.

-i This option allows you to enter configuration data on the command line, instead of using a file. Data entered on the command line must follow the same format as data in a file, and must be enclosed in double quotes.

When this option is used, only a single system resource can be created.

The **-i** and the **-f** options are mutually exclusive.

Configuration data is required to be specified with this option or the **-f** option except when **-o save** is specified to save the current configuration of a partition to a new partition profile. This option is not valid when **-o save** is specified.

-o The operation to perform. The only valid value is **save** to create a new partition profile by saving the current configuration of a partition.

If this option is not specified, then new system resources will be created using the configuration data specified with the **-f** or **-i** option.

-p The name of the partition whose current configuration is to be saved to a new partition profile.

You can either use this option to specify the name of the partition whose current configuration is to be saved, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.

A partition is required to be specified with this option or the **--id** option when **-o save** is specified to save the current configuration of a partition to a new partition profile. This option is not valid otherwise.

--id The ID of the partition whose current configuration is to be saved to a new partition profile.

You can either use this option to specify the ID of the partition whose current configuration is to be saved, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.

A partition is required to be specified with this option or the **-p** option when **-o save** is specified to save the current configuration of a partition to a new partition profile. This option is not valid otherwise.

-n The name of the new partition profile to which to save the partition configuration.

This option is required when **-o save** is specified to save the current configuration of a partition to a new partition profile. This option is not valid otherwise.

--help Display the help text for this command and exit.

EXAMPLES

Create an AIX or Linux partition:

```
mksyscfg -r lpar -m system1 -i "name=aix_lpar2,  
profile_name=prof1,lpar_env=aixlinux,min_mem=256,  
desired_mem=1024,max_mem=1024,proc_mode=ded,  
min_procs=1,desired_procs=1,max_procs=2,  
sharing_mode=share_idle_procs,auto_start=1,  
boot_mode=norm,lpar_io_pool_ids=3,  
"io_slots=21010003/3/1,21030003/0""
```

Create an i5/OS partition profile:

```
mksyscfg -r prof -m 9406-570*34134441 -i "name=prof2,  
lpar_id=3,min_mem=512,desired_mem=512,max_mem=1024,  
proc_mode=shared,min_procs=1,desired_procs=1,max_procs=2,  
min_proc_units=0.1,desired_proc_units=0.5,max_proc_units=1.5,  
sharing_mode=uncap,uncap_weight=128,auto_start=1,  
"lpar_io_pool_ids=1,2",  
"io_slots=2101001B/1/1,2103001B/2/1,2105001B//0",  
load_source_slot=2101001B,console_slot=hmc,  
max_virtual_slots=14,  
"virtual_scsi_adapters=12/client/2//13/1,13/server///1""
```

Create partition profiles using the configuration data in the file **/tmp/profcfg**:

```
mksyscfg -r prof -m system1 -f /tmp/profcfg
```

Create a partition profile by saving the current configuration of a partition:

```
mksyscfg -r prof -m system1 -o save -p p1 -n newProfile
```

Create a system profile:

```
mksyscfg -r sysprof -m system1 -i "name=sysprof1,  
"lpar_names=lpar1,lpar2","profile_names=prof1,prof1""
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chsyscfg, **lssyscfg**, **rmsyscfg**

NAME

mksysconn - create system connection

SYNOPSIS

To establish a connection and add a system or frame to the Hardware Management Console (HMC):

```
mksysconn --ip IP-address [-r {sys | frame}]  
[--passwd password] [--help]
```

To enable all systems and frames to be automatically discovered by the HMC when using DHCP:

```
mksysconn -o auto [--help]
```

DESCRIPTION

mksysconn establishes a connection from the Hardware Management Console (HMC) to a system in the network and adds the system to the systems managed by the HMC. If a connection to the system cannot be established because the network is down, the service processor for the system is down, or too many other HMCs have already established a connection to the system, the system will be added as a managed system which is in the No Connection state.

mksysconn can also establish a connection from the HMC to a frame in the network and add the frame to the frames managed by the HMC. If a connection to the frame cannot be established because the network is down, the bulk power assembly (BPA) for the frame is down, or too many other HMCs have already established a connection to the frame, the frame will be added as a managed frame which is in the No Connection state.

If your HMC is set up as a DHCP server on a private network, **mksysconn -o auto** can enable all systems and frames to be automatically discovered by the HMC in the event that the Remove Connection task or the **rmsysconn** command was previously run to remove a system or frame from the HMC.

If your HMC is set up as a DHCP server on a private network, do not use this command to establish HMC connections to managed systems and frames that are DHCP clients. This command is intended for use on a public network only, where the systems are set to use static IP addresses. Using this command in a DHCP environment establishes a temporary connection that will not continue to work properly over network configuration changes, system power loss, and service repair actions.

OPTIONS

--ip To connect to a system and add the system to the systems managed by the HMC, specify the IP address or host name of the service processor for the system.

To connect to a frame and add the frame to the frames managed by the HMC, specify the IP address or host name of one side of the bulk power assembly (BPA) for the frame. Note that to properly connect to a frame, it is recommended that you run this command twice, once for each side of the BPA, in order to connect to both sides of the BPA for the frame.

-r The type of resource to which to connect and add to the HMC. Valid values are **sys** for system and **frame** for frame. If this option is omitted, then the resource to which to connect and add to the HMC is assumed to be a system.

--passwd

The HMC Access password for the system or the frame to which to connect. If this option is omitted, you will be prompted to enter the password.

-o If your HMC is set up as a DHCP server on a private network, specify **auto** with this option to enable the HMC to automatically discover all systems and frames. You may need to do this if the Remove Connection task or the **rmsysconn** command was previously run to remove a system or frame from the HMC, and you want the HMC to be able to manage a system or frame with the same IP address again. Whenever a managed system or a managed frame is removed from the HMC when using DHCP, the HMC places the IP address(es) of that system or frame in a list of removed IP addresses. Any IP address in that list will not be automatically rediscovered by the

HMC. The **mksysconn -o auto** command removes all IP addresses from that list. To remove a specific IP address from that list, you can run the **rmsysconn -o rediscover** command instead.

auto is the only value that can be specified with this option. When this option is specified, all other options are ignored.

--help Display the help text for this command and exit.

EXAMPLES

Connect to and add the system with the host name **sys1.company.com**:

```
mksysconn --ip sys1.company.com --passwd sys1pw
```

Connect to and add the system with the IP address 9.3.152.145 (the HMC Access password for the system must be entered when prompted):

```
mksysconn --ip 9.3.152.145
```

Connect to and add the frame with the host names **frame1_A.company.com** and **frame1_B.company.com**:

```
mksysconn --ip frame1_A.company.com -r frame --passwd  
frame1pw  
mksysconn --ip frame1_B.company.com -r frame --passwd  
frame1pw
```

To enable all systems and frames to be automatically discovered by the HMC when using DHCP:

```
mksysconn -o auto
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lssysconn, **rmsysconn**, **lssyscfg**

NAME

mksysplan - make system plan file

SYNOPSIS

```
mksysplan -f file-name -m managed-system  
[--check] [-d "description"]  
[--noprobe] [--nohwdisc] [--noinvscout]  
[-v] [--help]
```

DESCRIPTION

mksysplan creates a system plan file that represents the information known about the hardware, partitions, profiles, and partition provisioning information for the *managed-system*.

OPTIONS

-f Specifies the file name that will contain the system plan that this command creates. If the file does not exist, the command will create it in the system plan file directory on the Hardware Management Console (HMC). If the file exists, the command will overwrite the contents of the file unless the **--check** option is specified.

The file name can only consist of the alphanumeric characters (upper and lower case) and a set of special characters (comma, period, hyphen, underscore, and space). The file name cannot begin with a period or hyphen.

The file name must end with the **.sysplan** suffix.

-m Specifies the name of the managed system that the command will use to get the information to create the system plan file.

The name can be either the user-defined name for the managed system, or it can be in the form *ttt-
mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-
mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

--check

Specifies that this command will check the system plan directory to see if the file name specified with the **-f** option already exists. If the file does exist, the command will fail with an error message.

-d Specifies a description that the command will add to the created file.

--noprobe

This option is used to specify the type of inventory collection that this command will use. Specify **--noprobe** to limit the inventory gathering to obtain only the PCI slot devices without any further inventory probes to active partitions, nor any refresh of inactive partition or unallocated hardware information.

--nohwdisc

This option is used to specify the type of inventory collection that this command will use. Specify **--nohwdisc** to perform additional inventory probes for active partitions, but do not perform hardware discovery for inactive partitions or unallocated hardware.

The **--noprobe** option overrides this option.

--noinvscout

This option is used to specify the type of inventory collection that this command will use. Specify **--noinvscout** to perform hardware discovery for inactive partitions or unallocated hardware, but do not perform additional inventory probes for active partitions.

The **--noprobe** option overrides this option.

-v Displays verbose output during command processing, in addition to the default messages.

--help Display the help text for this command and exit.

EXAMPLES

Make a system plan file **sysplan.sysplan** that represents the configuration of the managed system **mySystem**:

```
mksysplan -f sysplan.sysplan -m mySystem
```

Make a system plan file **sysplan.sysplan** that represents the configuration of the managed system **9406-570*3413556**, and only survey PCI devices in slots:

```
mksysplan -f sysplan.sysplan -m 9406-570*3413556 -d "New 570 system plan for 5/11/2007" --noprobe
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

cpsysplan, deploysysplan, lssysplan, rmsysplan

NAME

mkvterm - open a virtual terminal session

SYNOPSIS

mkvterm -m *managed-system*
{ **-p** *partition-name* | **--id** *partition-ID* } [**--help**]

DESCRIPTION

mkvterm opens a virtual terminal session for an AIX, Linux, or virtual I/O server partition.

After establishing a virtual terminal session, the `~.` character sequence can be entered in the terminal window to terminate it, or the **rmvterm** command can be used to force the session to be closed.

A partition can only have one open virtual terminal session at a time.

OPTIONS

-m The name of the managed system which has the partition for which to open the virtual terminal session. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-p The name of the partition for which to open the virtual terminal session.

You must either use this option to specify the name of the partition, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.

--id The ID of the partition for which to open the virtual terminal session.

You must either use this option to specify the ID of the partition, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.

--help Display the help text for this command and exit.

EXAMPLES

Open a virtual terminal session for partition **p1**:

```
mkvterm -m mySystem -p p1
```

Open a virtual terminal session for the partition with an ID of **1**:

```
mkvterm -m 9406-570*12345678 --id 1
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

rmvterm

NAME

monhmc - monitor HMC subsystems and system resources

SYNOPSIS

To monitor Hardware Management Console (HMC) subsystems:

```
monhmc -s { hmcsvr | rmc } [-n <interval>]  
[--help]
```

To monitor HMC system resources:

```
monhmc -r { disk | proc | mem | swap } [-n <interval>]  
[--help]
```

DESCRIPTION

monhmc provides a dynamic real-time view of HMC related subsystems and system resources. The **top**, **watch**, and **df** commands are used to implement this command. Refer to documentation for those commands for additional information.

OPTIONS

-s The HMC subsystem to monitor. Valid values are **hmcsvr** for HMC server processes, and **rmc** for Resource Monitoring and Control (RMC) processes.

Either this option or the **-r** option is required. The **-s** and the **-r** options are mutually exclusive.

-r The HMC system resource to monitor. Valid values are **disk** for filesystem disk space usage, **proc** for processor (CPU) usage, **mem** for memory usage, and **swap** for swap space usage.

Either this option or the **-s** option is required. The **-r** and the **-s** options are mutually exclusive.

-n The interval between updates in seconds. The default value for this option is 4 seconds.

If an interval of 0 is specified, then statistics are displayed only once, and this command exits. If any other interval is specified, or if this option is omitted, then statistics are updated every *interval* seconds, and this command runs until interrupted with Ctrl-c.

--help Display the help text for this command and exit.

EXAMPLES

Monitor HMC processor usage and update the statistics every 10 seconds:

```
monhmc -r proc -n 10
```

Display RMC subsystem statistics once:

```
monhmc -s rmc -n 0
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

pedbg - Product Engineering debug tools

SYNOPSIS

pedbg {**-d** {**on** | **off**} | **-j** {**on** | **off**} | **-l** {**rmc** | **se**} | **-c** | **-s** | **-q** {**n**} | **-r**} [**--help**]

DESCRIPTION

pedbg provides debug tools for Product Engineer/Support Personnel. This command requires PE authority to run, i.e, only hscpe user can access this command.

OPTIONS

- d** Turn on or off various debug tracing. This option will restart subsystems to start/stop internal tracing.
- j** Turn on or off Just in Time compiler. Turn off Just in Time compiler will result in loss of performance.
- l** List internal subsystem information. If rmc is specified, the list of RMC daemons will be displayed, along with its state. If se is specified, the IBM.ServiceEvent resource entries are displayed.
- c** Collect various logs and javacore. This option can copy the data collected onto DVD or leave a zip file in the /dump directory.
- s** Collect various managed system dumps that were sent to the HMC. This option can copy the data collected onto DVD or leave a zip file in the /dump directory.
- q** Collect logs or managed system dumps in quiet mode. Not prompted. Used with either the -c or the -s option.

Options for log collection:

- 1 = network info only
- 2 = network info + base logs
- 3 = network info + base logs + extended logs
- 4 = all logs - network info + base logs + extended logs + archives
- 5 = collect files in /home/hscpe/ibmsupt only
- 9 = run prompt to copy files to media

Options for managed system dumps:

- 1 collect all system dump types
- 2 collect FSPDUMP
- 3 collect SYSDUMP
- 4 collect LOGDUMP
- 5 collect SMADUMP
- 6 collect PWRDUMP
- 8 delete all system dumps
- 9 = run prompt to copy files to media

-r Remove the log files collected that are put in /dump.

--help Display the help text for this command and exit.

EXAMPLES

The following command turns on debug:

```
pedbg -d on
```

The following command disables debug:

```
pedbg -d off
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

pesh - provides PE Shell access

SYNOPSIS

pesh <serial number of machine>

DESCRIPTION

pesh provides full shell access to Product Engineer/Support Personnel. **pesh** takes the serial number of the machine where full shell access is requested, then prompts the user for a 1 day password obtained from the support organization. If the password is valid, the user will be granted full shell access. Only user hscpe can access this command.

EXAMPLES

The following command lists the Hardware Management Console information:

```
lshmc -v
```

```
Vital Product Data Information:
```

```
*FC ????????
```

```
*VC 20.0
```

```
*N2 Sat Apr 24 05:05:10 CDT 2004
```

```
*FC ????????
```

```
*DS Hardware Management Console
```

```
*TM 6792-LPU
```

```
*SE 23FGYWF
```

```
*MN IBM
```

```
*PN IBM
```

```
*SZ 1055961088
```

```
*OS Embedded Operating Systems
```

```
*NA 9.3.197.17
```

```
*FC ????????
```

```
*DS Platform Firmware
```

```
*RM V3R3.0
```

Using the serial number by the SE tag, pass the value to the pesh command:

```
pesh 23FGYWF
```

You will be prompted for a password.

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

rmaccfg - remove access control object

SYNOPSIS

rmaccfg -t { **resource** | **resourcerole** | **taskrole** }
-n *name* [**--help**]

DESCRIPTION

rmaccfg removes an access control role from the Hardware Management Console (HMC), or it removes inactive managed resource objects assigned to an HMC user.

OPTIONS

-t The type of access control objects to remove. Valid values are **resource** for inactive managed resource objects, **resourcerole** for a managed resource role, and **taskrole** for a task role.

-n When removing inactive managed resource objects assigned to an HMC user, use this option to specify the user name of the HMC user from which to remove the inactive objects.

When removing an access control role, use this option to specify the name of the role to remove. Note that the predefined task roles **hmcsuperadmin**, **hmcoperator**, **hmcviewer**, **hmcpe**, and **hmcservicerep** cannot be removed.

If the specified access control role is currently assigned to one or more HMC users, you will be prompted to confirm that you want to remove the role.

--help Display the help text for this command and exit.

EXAMPLES

Remove the managed resource role **lpar_role**:

```
rmaccfg -t resourcerole -n lpar_role
```

Purge all inactive managed resource objects from the user **superuser**:

```
rmaccfg -t resource -n superuser
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chaccfg, **lsaccfg**, **mkaccfg**, **lshmcusr**

NAME

rmfile - remove file

SYNOPSIS

rmfile -t {krbkeyfile | ldapcert} [--help]

DESCRIPTION

rmfile removes a file of the specified type from the Hardware Management Console (HMC).

OPTIONS

-t The type of file to remove. Valid values are **krbkeyfile** for the Kerberos service key (keytab) file (/etc/krb5.keytab), and **ldapcert** for the LDAP Certificate Authority (CA) certificate file.

After the successful completion of this command to remove the Kerberos service key file, the HMC must be rebooted for the change to take effect.

--help Display the help text for this command and exit.

EXAMPLES

Remove the Kerberos service key file from the HMC:

```
rmfile -t krbkeyfile
```

Remove the LDAP CA certificate file from the HMC:

```
rmfile -t ldapcert
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

getfile

NAME

rmhmcusr - remove a Hardware Management Console user

SYNOPSIS

rmhmcusr -u *user-name* [--help]

DESCRIPTION

rmhmcusr removes a Hardware Management Console (HMC) user.

OPTIONS

- u** The user name of the HMC user to remove. The HMC users **root** and **hscroot** cannot be removed.
- help** Display the help text for this command and exit.

EXAMPLES

Remove the user **tester**:

```
rmhmcusr -u tester
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmcusr, **lshmcusr**, **mkhmcusr**

NAME

rmlock - remove lock

SYNOPSIS

rmlock -e *managed-frame* [--help]

DESCRIPTION

rmlock forces a Hardware Management Console (HMC) lock on the *managed-frame* to be released.

OPTIONS

-e The name of the managed frame to unlock. The name may either be the user-defined name for the managed frame, or be in the form *ttt-mmm*sssssss*, where *ttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *ttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

--help Display the help text for this command and exit.

EXAMPLES

Unlock the managed frame **myFrame**:

rmlock -e myFrame

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lslock

NAME

rmlparutil - remove utilization data

SYNOPSIS

rmlparutil -m *managed-system* [--help]

DESCRIPTION

rmlparutil removes the utilization data collected for a managed system from the Hardware Management Console (HMC).

OPTIONS

-m The name of the managed system for which collected utilization data is to be removed. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name, or if the HMC does not currently have a connection to the managed system.

Removing the utilization data for a managed system does not disable the collection of utilization data for that managed system. Use the **chlp** command to disable the collection of utilization data.

--help Display the help text for this command and exit.

EXAMPLES

Remove the utilization data collected for the managed system **mySystem**:

```
rmlparutil -m mySystem
```

Remove the utilization data collected for the managed system with the type, model, and serial number **9406-520*98765432**:

```
rmlparutil -m 9406-520*98765432
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chlp, **lslparutil**

NAME

rmprofdata - remove profile data

SYNOPSIS

rmprofdata -m *managed-system* **-f** *file* [**--help**]

DESCRIPTION

rmprofdata removes a profile data backup file for the *managed-system*.

OPTIONS

-m The name of the managed system for which to remove the profile data backup file. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name, or if the HMC does not currently have a connection to the managed system.

-f The name of the profile data backup file to be removed. If *file* is not fully qualified, *file* will be removed from the `/var/hsc/profiles/serial-number` directory on the HMC (*serial-number* is the serial number of the managed system).

To remove profile data from removable media, the media must be present in the removable media device and the device must be mounted with the **mount** command before this command is issued. The **lsmediadev** command can be used to display all of the removable media devices on the HMC.

--help Display the help text for this command and exit.

EXAMPLES

Remove the profile data backup file called **backup1** (the file will be removed from the `/var/hsc/profiles/3413444` directory on the HMC):

```
rmprofdata -m 9406-570*3413444 -f backup1
```

Remove the profile data backup file called **myFile** on a floppy diskette (a floppy diskette must have already been inserted into the diskette drive):

```
mount /media/floppy
```

```
rmprofdata -m mySystem -f /media/floppy/myFile
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

bkprofdata, **lsmediadev**, **rstprofdata**

NAME

rmsyscfg - remove a system resource

SYNOPSIS

```
rmsyscfg -r {lpar | prof | sysprof} -m managed-system  
[-n resource-name] [-p partition-name]  
[--id partition-ID] [--help]
```

DESCRIPTION

rmsyscfg removes a partition, a partition profile, or a system profile from the *managed-system*.

OPTIONS

-r The type of system resource to remove. Valid values are **lpar** for a partition, **prof** for a partition profile, and **sysprof** for a system profile.

When a partition is removed, all of the partition profiles that are defined for that partition are also removed.

When a partition profile is removed, any system profiles that contain just that one partition profile are also removed.

-m The name of the managed system from which the system resource is to be removed. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-n The name of the system resource to remove.

To remove a partition, you must either use this option to specify the name of the partition to remove, or use the **--id** option to specify the partition's ID. The **-n** and the **--id** options are mutually exclusive when removing a partition.

To remove a partition profile or a system profile, you must use this option to specify the name of the profile to remove.

-p The name of the partition which has the partition profile to remove. This option is only valid when removing a partition profile.

To remove a partition profile, you must either use this option to specify the name of the partition which has the partition profile to remove, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.

--id The partition's ID.

To remove a partition, you must either use this option to specify the ID of the partition to remove, or use the **-n** option to specify the partition's name. The **--id** and the **-n** options are mutually exclusive when removing a partition.

To remove a partition profile, you must either use this option to specify the ID of the partition that has the profile to remove, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive when removing a partition profile.

This option is not valid when removing a system profile.

--help Display the help text for this command and exit.

EXAMPLES

Remove the partition **partition5**:

rmsyscfg -r lpar -m system1 -n partition5

Remove the partition with ID 5:

rmsyscfg -r lpar -m system1 --id 5

Remove the partition profile **prof1** for partition **lpar3**:

rmsyscfg -r prof -m system1 -n prof1 -p lpar3

Remove the system profile **sysprof1**:

rmsyscfg -r sysprof -m 9406-520*34134441 -n sysprof1

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chsyscfg, lssyscfg, mksyscfg

NAME

rmsysconn - remove system connection

SYNOPSIS

```
rmsysconn -o { remove | reset | rediscover }  
  { -m managed-system | -e managed-frame | --ip IP-address }  
  [--help]
```

DESCRIPTION

rmsysconn removes or resets a connection from the Hardware Management Console (HMC) to a managed system or a managed frame.

If your HMC is set up as a DHCP server on a private network, you should not use this command to remove HMC connections to managed systems and managed frames. The remove option of this command is intended for use on a public network only, where the HMC is not set up as a DHCP server. Using the remove option of this command prevents the HMC from managing any system or frame at that IP address, even though that address may still be assigned through DHCP.

If your HMC is set up as a DHCP server on a private network and you do use this command to remove a connection, the HMC places the IP address(es) of the managed system or managed frame being removed, or places the IP address being removed, in a list of removed IP addresses. Any IP address in that list will not be automatically rediscovered by the HMC. If you want to remove an IP address from that list so that the IP address can be automatically discovered and the HMC can manage a system or frame at that IP address in the future, use the rediscover option of this command. If you want to remove all IP addresses from that list, you can use the **mksysconn -o auto** command.

OPTIONS

-o The operation to perform. Valid values are **remove**, **reset**, or **rediscover**.

When **remove** is specified, the HMC disconnects from the specified managed system or the specified managed frame. If all connections to the managed system or managed frame are removed, then the managed system or managed frame is removed from the HMC.

When **reset** is specified, the HMC disconnects from the specified managed system or the specified managed frame then attempts to reconnect. The **reset** operation is useful for retrying to establish a connection to a managed system or a managed frame that is in the "No Connection" state.

When **rediscover** is specified, the specified IP address is removed from the HMC's list of removed IP addresses. This will allow the HMC to automatically reconnect to that IP address when using DHCP.

-m The name of the managed system to remove or to reset the connection to. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

If the managed system has a single service processor, the connection to the service processor is removed or reset. When the connection is removed, the managed system is removed from the HMC.

If the managed system has two service processors, the connections to both service processors for the managed system are removed or reset. When the connections to both service processors for the managed system are removed, the managed system is removed from the HMC. To remove or reset the connection to just one service processor for the managed system, use the **--ip** option.

Either this option, the **--ip** option, or the **-e** option is required for a remove or a reset operation.

This option is not valid for a rediscover operation.

The **-m**, **--ip**, and the **-e** options are mutually exclusive.

- e** The name of the managed frame to remove or to reset the connection to. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-
mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

When this option is used to specify the managed frame to remove or to reset the connection to, the connections to both sides of the bulk power assembly (BPA) for the managed frame are removed or reset. When the connections to both sides of the BPA for the managed frame are removed, the managed frame is removed from the HMC.

To remove or reset the connection to just one side of the BPA for the managed frame, use the **--ip** option.

Either this option, the **--ip** option, or the **-m** option is required for a remove or reset operation. This option is not valid for a rediscover operation.

The **-e**, **--ip**, and the **-m** options are mutually exclusive.

- ip** To remove or reset the connection to a managed system with a single service processor, you can use this option to specify the IP address or host name of the service processor for the managed system to remove or to reset the connection to. Alternatively, you can use the **-m** option to specify the name of the managed system to remove or to reset the connection to.

To remove or reset the connection to just one service processor for a managed system with two service processors, you can use this option to specify the IP address or host name of the service processor to remove or to reset the connection to. To remove or reset the connection to both service processors for a managed system, use the **-m** option. Note that a managed system with two service processors will not be removed from the HMC until the connections to both service processors for the managed system are removed.

To remove or reset the connection to just one side of the BPA for a managed frame, you can use this option to specify the IP address or host name of the BPA side to remove or to reset the connection to. To remove or reset the connection to both sides of the BPA for a managed frame, use the **-e** option. Note that a managed frame will not be removed from the HMC until the connections to both sides of the BPA for the managed frame are removed.

To allow the HMC to automatically rediscover an IP address when using DHCP, use this option to specify the IP address to be automatically rediscovered.

Either this option, the **-m** option, or the **-e** option is required for a remove or reset operation. This option is required for a rediscover operation.

The **--ip**, **-m**, and the **-e** options are mutually exclusive.

- help** Display the help text for this command and exit.

EXAMPLES

Disconnect from the managed system `mySys` and remove it from the HMC:

```
rmsysconn -o remove -m mySys
```

Reset the connection to the managed system service processor with IP address **9.3.152.145**:

```
rmsysconn -o reset --ip 9.3.152.145
```

Disconnect from the managed frame myFrame and remove it from the HMC:

```
rmsysconn -o remove -e myFrame
```

Reset the connection to one side of the BPA (with IP address **9.3.152.29**) for a managed frame:

```
rmsysconn -o reset --ip 9.3.152.29
```

Allow the IP address **10.0.0.127** to be automatically rediscovered when using DHCP:

```
rmsysconn -o rediscover --ip 10.0.0.127
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

mksysconn, lssyscfg, lssysconn

NAME

rmsysplan - remove system plan

SYNOPSIS

rmsysplan -f *file-name* [--help]

DESCRIPTION

rmsysplan removes a system plan file from the system plan file directory on the Hardware Management Console (HMC).

OPTIONS

-f Specifies the name of the file that will be removed. Only files in the system plan file directory on the HMC will be removed.

--help Display the help text for this command and exit.

EXAMPLES

Remove the system plan file **sysplan.sysplan**:

rmsysplan -f sysplan.sysplan

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

deploysysplan, cpsysplan, lssysplan, mksysplan, rmsysplanres, defsysplanres, lssysplanres

NAME

rmsysplanres - remove system plan resource

SYNOPSIS

rmsysplanres -r osinstall -n *resource-name* [--help]

DESCRIPTION

rmsysplanres removes a system plan resource that is defined on this Hardware Management Console (HMC). These resources can be used when deploying system plans from this HMC.

OPTIONS

- r** Specifies the type of system plan resource to remove. The only valid value is **osinstall** for an operating system installation resource.
- n** Specifies the name of the system plan resource to remove.
- help** Display the help text for this command and exit.

EXAMPLES

Remove the osinstall type system plan resource used as the Red Hat install source from this HMC:

```
rmsysplanres -r osinstall -n rhel4
```

Remove the osinstall type system plan resource used as the AIX V5R3 install source from this HMC:

```
rmsysplanres -r osinstall -n aix53
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

defsysplanres, deploysysplan, lssysplan, lssysplanres

NAME

rmvterm - close a virtual terminal session

SYNOPSIS

rmvterm -m *managed-system*
{**-p** *partition-name* | **--id** *partition-ID*} [**--help**]

DESCRIPTION

rmvterm forces the closure of a virtual terminal session for an AIX, Linux, or virtual I/O server partition.

To close the virtual terminal session normally, enter the `~.` character sequence in the terminal window.

OPTIONS

- m** The name of the managed system which has the partition for which to close the virtual terminal session. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- p** The name of the partition for which to close the virtual terminal session.

You must either use this option to specify the name of the partition, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.
- id** The ID of the partition for which to close the virtual terminal session.

You must either use this option to specify the ID of the partition, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.
- help** Display the help text for this command and exit.

EXAMPLES

Close a virtual terminal session for partition **p1**:

```
rmvterm -m mySystem -p p1
```

Close a virtual terminal session for the partition with an ID of **1**:

```
rmvterm -m 9406-570*12345678 --id 1
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

mkvterm

NAME

`rnvi` - HMC restricted-nvi text editor

SYNOPSIS

`rnvi -f file [--help]`

DESCRIPTION

`rnvi` enables users to edit a text file in a restricted mode. The `rnvi` command invokes the `nvi` command in a **chroot** environment. The `rnvi` command must be issued from the user's home directory and only one file may be specified on the command line. The user may edit a file in a subdirectory located in their home directory by specifying the relative path name. When this command is issued for the first time, a temporary directory, called `.rnvi_tmp`, is created in the user's home directory to store the editor's temporary files. Files are not recoverable from a crashed editing session.

Note: when the editor starts, the message "stderr: No such file or directory" may be displayed. This message can be safely ignored.

OPTIONS

-f The name of the text file to edit. The file must be located within the user's home directory.

--help Display the help text for this command and exit.

EXAMPLES

Edit the file named **example.txt** in the user's home directory:

```
rnvi -f example.txt
```

Edit the file named **example.txt** in the subdirectory called **myfiles** in the user's home directory:

```
rnvi -f myfiles/example.txt
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

`nvi`, `mkdir`, `rm`

NAME

`rsthwres` - restore hardware resources

SYNOPSIS

To restore memory or processing resources:

```
rsthwres -r {mem | proc} -m managed-system  
[-p partition-name | --id partition-ID]
```

To restore physical I/O slots:

```
rsthwres -r io -m managed-system  
[-p partition-name | --id partition-ID]  
[-l slot-DRC-index]
```

To restore Host Ethernet Adapter (HEA) resources (POWER6 servers only):

```
rsthwres -r hea -m managed-system  
[-p partition-name | --id partition-ID]  
[-l HEA-adapter-ID]  
[-g port-group --logport logical-port-ID]
```

DESCRIPTION

`rsthwres` restores the hardware resource configuration of partitions in the *managed-system*. This operation may need to be performed after a dynamic logical partitioning (DLPAR) operation fails.

OPTIONS

-r The type of hardware resources to restore. Valid values are **mem** for memory, **proc** for processing resources, **io** for physical I/O slots, and **hea** for Host Ethernet Adapter (HEA) resources.

HEA resources are only supported on POWER6 servers.

-m The name of the managed system which has the partitions for which to restore the hardware resources. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-p The name of the partition for which to restore the hardware resources.

To restore hardware resources for a single partition, you must either use this option to specify the name of the partition, or use the **--id** option to specify the partition's ID. Otherwise, hardware resources for all partitions in the *managed-system* will be restored.

The **-p** and the **--id** options are mutually exclusive.

--id The ID of the partition for which to restore the hardware resources.

To restore hardware resources for a single partition, you must either use this option to specify the ID of the partition, or use the **-p** option to specify the partition's name. Otherwise, hardware resources for all partitions in the *managed-system* will be restored.

The **--id** and the **-p** options are mutually exclusive.

-l When restoring physical I/O slots, specify the DRC index of the physical I/O slot to restore. If this option is omitted and a partition is specified with the **-p** or **--id** option, then all physical I/O slots assigned to the specified partition will be restored. If this option is omitted and a partition is not specified, then all physical I/O slots in the *managed-system* will be restored.

When restoring HEA resources, specify the adapter ID of the HEA to restore. If this option is omitted and a partition is specified with the **-p** or **--id** option, then all HEA resources, including Logical Host Ethernet Adapters and logical ports, assigned to the specified partition will be

restored. If this option is omitted and a partition is not specified, then all HEA resources in the *managed-system* will be restored. This option is required when the **-g** and **--logport** options are specified to restore a specific logical port.

This option is only valid when restoring physical I/O slots or HEA resources.

-g The port group containing the HEA logical port to restore. This option is required when the **--logport** option is specified to restore a specific logical port.

--logport
The ID of the HEA logical port to restore.

--help Display the help text for this command and exit.

EXAMPLES

Restore the physical I/O slots for all partitions:

```
rsthwres -r io -m mySystem
```

Restore the physical I/O slot with DRC index **21010003**:

```
rsthwres -r io -m 9406-570*12345678 -l 21010003
```

Restore memory resources for partition **p1**:

```
rsthwres -r mem -m 9406-570*12345678 -p p1
```

Restore processing resources for the partition with ID **1**:

```
rsthwres -r proc -m mySystem --id 1
```

Restore all HEA resources in the managed system:

```
rsthwres -r hea -m mySystem
```

Restore all HEA resources for partition **p1**:

```
rsthwres -r hea -m mySystem -p p1
```

Restore the logical port with ID **3** in port group **2** of the HEA with an adapter ID of **23000010**:

```
rsthwres -r hea -m 9117-MMA*1112223 --logport 3 -g 2  
-l 23000010
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhwres, **lshwres**

NAME

rstprofdata - restore profile data

SYNOPSIS

rstprofdata -m *managed-system* **-l** *restore-type* [**-f** *file*]
[**--help**]

DESCRIPTION

rstprofdata restores profile data for the *managed-system* from a backup file. **rstprofdata** can also be used to initialize the profile data for the *managed-system*.

The **bkprofdata** command can be used to back up profile data for the *managed-system*.

OPTIONS

- m** The name of the managed system for which to restore or initialize profile data. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- l** The type of restore to perform. Valid values are:
- 1** - full restore from the backup file
 - 2** - merge the current profile data and profile data from the backup file, giving priority to the backup data. If the profile data conflicts, the backup data is restored over the current data.
 - 3** - merge the current profile data and profile data from the backup file, giving priority to the current data. If the profile data conflicts, the backup data is not restored over the current data.
 - 4** - initialize the profile data. All partitions, partition profiles, and system profiles for the managed system will be deleted.
- f** The name of the backup file that contains the profile data to be restored. If *file* is not fully qualified, *file* must exist in the */var/hsc/profiles/serial-number* directory on the HMC (*serial-number* is the serial number of the managed system).

To restore the profile data from removable media, the media must be present in the removable media device and the device must be mounted with the **mount** command before this command is issued. The **lsmediadev** command can be used to display all of the removable media devices on the HMC.

This option is required for all restore types except **4** (initialize).

- help** Display the help text for this command and exit.

EXAMPLES

Do a full restore of the profile data from the file **myFile** on floppy diskette (the floppy diskette must have already been inserted into the diskette drive):

```
mount /media/floppy
```

```
rstprofdata -m mySystem -l 1 -f /media/floppy/myFile
```

Restore the profile data from the file **backup1**, and give priority to the current profile data (the file **backup1** exists in the **/var/hsc/profiles/3413444** directory on the HMC):

```
rstprofdata -m 9406-570*3413444 -l 3 -f backup1
```

Initialize the profile data:

```
rstprofdata -m 9406-570*3413444 -l 4
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

bkprofdata, lsmediadev

NAME

rstupgdata - restore upgrade data

SYNOPSIS

rstupgdata -r dvd [--help]

DESCRIPTION

rstupgdata copies the current partition profile data, Hardware Management Console (HMC) user data, and HMC configuration data previously saved on DVD-RAM into a portion of the HMC hard drive that the HMC upgrade process cannot erase. After this command has been executed, reboot the HMC to automatically recover the data.

The DVD-RAM media must be present in the drive, and mounted with the mount command, before running this command.

NOTE: Time on the HMC will need to be set after the data has been recovered.

OPTIONS

-r If **dvd** is specified, upgrade data will only be read from the DVD-RAM media.

--help Display the help text for this command and exit.

EXAMPLES

Restore upgrade data from DVD-RAM to the HMC hard drive:

```
mount /media/cdrom
```

```
rstupgdata -r dvd
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

saveupgdata - save upgrade data

SYNOPSIS

saveupgdata -r { **disk** | **diskdvd** } [**--help**]

DESCRIPTION

saveupgdata stores the current partition profile data, Hardware Management Console (HMC) user data, and HMC configuration data in a portion of the HMC hard drive that the HMC upgrade process cannot erase. The HMC automatically recovers the data after the upgrade process completes.

This command should be run immediately prior to performing an HMC upgrade. If the HMC is rebooted without performing an upgrade after running this command, this command needs to be run again.

OPTIONS

-r If **disk** is specified, upgrade data will only be saved on the HMC hard drive.

If **diskdvd** is specified, then in addition to storing the upgrade data on the HMC hard drive, this command will copy the same upgrade data onto DVD-RAM media. You must ensure that the media is present in the DVD drive and that the DVD drive is mounted with the **mount** command before issuing this command.

--help Display the help text for this command and exit.

EXAMPLES

Save upgrade data to the HMC hard drive:

```
saveupgdata -r disk
```

Save upgrade data to the HMC hard drive and to DVD-RAM media (the media must be present in the DVD drive):

```
mount /media/cdrom
```

```
saveupgdata -r diskdvd
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

sendfile - transfer a file from the HMC to a remote system

SYNOPSIS

```
sendfile -f file -h host-name -u user-ID  
[--passwd password] -d remote-directory  
[-n remote-file-name] [-s] [-k key-file] [--help]
```

DESCRIPTION

sendfile transfers a file from the Hardware Management Console (HMC) to a remote system using File Transfer Protocol (FTP) or secure FTP (SFTP).

OPTIONS

- f** The name of the file to transfer.
- h** The host name or IP address of the remote system to which to transfer the file.
- u** The user ID to use to log in to the remote system.
- passwd**
The password to use to log in to the remote system. If this option is omitted, you will be prompted to enter the password.
- d** The directory on the remote system to which to transfer the file.
- n** The file name to give the file on the remote system. If this option is omitted, the file is given the same name that it has on the HMC.
- s** Use secure FTP to transfer the file. SSH will be used to transfer the file, therefore the remote system must have SSH installed and running.
- k** The name of the identity key file for public key authentication. This is the key file generated by the **ssh-keygen** command. If the matching public key file resides on the remote system and the passphrase is empty, you will not be required to enter a password with this command.

This option is only valid when using secure FTP to transfer the file.
- help** Display the help text for this command and exit.

EXAMPLES

Transfer a file using normal FTP. The file will be written to **/home/myid/myfile** on the remote system:

```
sendfile -f /home/joe/myfile -h myhost@company.com  
-d /home/myid -u myid
```

Transfer a file using secure FTP. The file will be written to **/tmp/xfile** on the remote system:

```
sendfile -f /home/joe/myfile -h myhost@company.com -d /tmp  
-n xfile -u myid -s
```

Generate a public key on the HMC then copy to the remote system for sendfile to use public key authentication with SFTP:

```
ssh-keygen -t rsa -f mykey
```

```
scp mykey me@myhost:/home/me/.ssh/authorized_keys2
```

```
sendfile -f /home/me/myfile -h myhost@company.com -d /tmp  
-s -k mykey
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

startdump - start dump

SYNOPSIS

```
startdump { -m managed-system | -e managed-frame }  
-t { pss | sp | sys } [-s { a | b | p | s }]  
[-l location-code] [--help]
```

DESCRIPTION

startdump initiates a dump on the *managed-system* or the *managed-frame*.

The **lsdump** command can be used to determine when the dump has completed and is available. The **get-dump** command can then be used to offload the dump from the *managed-system* or the *managed-frame* to the Hardware Management Console (HMC).

OPTIONS

-m The name of the managed system on which to initiate the dump. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when initiating a service processor dump or a platform dump. This option is not valid otherwise.

-e The name of the managed frame on which to initiate the dump. The name may either be the user-defined name for the managed frame, or be in the form *tttt-mmm*sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*sssssss* form must be used if there are multiple managed frames with the same user-defined name.

This option is required when initiating a power subsystem dump. This option is not valid otherwise.

-t The dump to initiate. Valid values are **pss** for a power subsystem dump, **sp** for a service processor dump, or **sys** for a platform dump.

When a service processor dump is started on the primary service processor, all communications between the HMC and the *managed-system* will be halted. When the dump has completed, communications will be resumed.

When a platform dump is started, the *managed-system* will be halted. When the dump has completed, the *managed-system* will be restarted.

-s When initiating a power subsystem dump, use this option to specify the side of the managed frame's bulk power assembly (BPA) on which to initiate the dump. Valid values are **a** for side A and **b** for side B.

When initiating a service processor dump of the primary or secondary service processor, use this option to specify the service processor on which to initiate the dump. Valid values are **p** for the primary service processor and **s** for the secondary service processor. If this option is not specified and the **-l** option is not specified, the service processor dump will be initiated on the primary service processor.

When initiating a service processor dump, this option and the **-l** option are mutually exclusive.

-l When initiating a service processor dump of a node service processor, use this option to specify the location code of the node service processor on which to initiate the dump.

This option is only valid when initiating a service processor dump. This option and the **-s** option

are mutually exclusive.

--help Display the help text for this command and exit.

EXAMPLES

Initiate a platform dump (confirmation will be required) on the managed system **9406-570*12345678**:

```
startdump -m 9406-570*12345678 -t sys
```

Initiate a dump (confirmation will be required) of the primary service processor on the managed system **sys1**:

```
startdump -m sys1 -t sp -s p
```

Initiate a dump of the node service processor with location code **U78A2.001.DQDGARC-P9-C42**:

```
startdump -m sys1 -t sp -l U78A2.001.DQDGARC-P9-C42
```

Initiate a power subsystem dump on side A of the BPA for the managed frame **myFrame**:

```
startdump -e myFrame -t pss -s a
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

getdump, lsdump, lsfru

NAME

updhmc - update code on the Hardware Management Console

SYNOPSIS

```
updhmc -t {m | s | l}  
[-h ftp-server -u user-id [-p password | -i]]  
[-f patch-file] [-r] [-c] [--help]
```

DESCRIPTION

updhmc updates code on the Hardware Management Console (HMC). This command performs the equivalent of the Install Corrective Service task under Licensed Internal Code Maintenance/HMC Code Update on the console.

OPTIONS

- t** The source type to update from. Valid values are:
 - m - media
 - s - server
 - l - local file system. This is only valid when specifying -f and the file is on the local file system.
- h** Host name or IP address of the FTP server where the patch file is located. Only valid when s is specified on the -t flag.
- u** User ID to use on the FTP server.
- p** Password to use on the FTP server. The password will be in clear text. When running the command interactively, use the -i parameter for entering a password without echo.
- i** Prompts for password. Password will be hidden.
- f** File on the FTP server to obtain, or locally.
- r** Reboot HMC after applying the update.
- c** Remove the file from the local file system after the installation.
- help** Display the help text for this command and exit.

EXAMPLES

The following command performs an update using media and reboots afterwards.

```
updhmc -t m -r
```

The following command performs an update using a server and a viewable password.

```
updhmc -t s -h hostname -u user1 -p password  
-f /tmp/Update1.zip
```

The following command performs an update using a server and a password prompt.

```
updhmc -t s -h hostname -u user1 -i  
-f /tmp/Update1.zip
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

NAME

updlic - update Licensed Internal Code (LIC)

SYNOPSIS

To retrieve, install, and activate LIC updates on a managed system:

```
updlic -o a -m managed-system  
-t {sys | power | syspower | io | all}  
-r {ibmretain | ibmwebsite | ftp | dvd |  
disk | mountpoint}  
-l {latest | latestconcurrent | sss | ccc,ppp |  
release1_level1,release2_level2,...}  
[-h host-name] [-u user-ID]  
[--passwd password] [-d directory] [-q]
```

To retrieve and install, but not activate LIC updates on a managed system:

```
updlic -o i -m managed-system  
-t {sys | power | syspower | io | all}  
-r {ibmretain | ibmwebsite | ftp | dvd |  
disk | mountpoint}  
-l {latest | latestconcurrent | sss | ccc,ppp |  
release1_level1,release2_level2,...}  
[-h host-name] [-u user-ID]  
[--passwd password] [-d directory] [-q]
```

To remove the most recently installed LIC updates and activate the previously accepted level on a managed system:

```
updlic -o r -m managed-system -t syspower [-q]
```

To change a managed system's LIC update control to the Hardware Management Console (HMC):

```
updlic -o h -m managed-system
```

To change a managed system's LIC update control to Operating System:

```
updlic -o o -m managed-system
```

To disruptively activate LIC updates on a managed system:

```
updlic -o d -m managed-system [-q]
```

To accept currently activated LIC updates on a managed system:

```
updlic -o c -m managed-system
```

To reject installed LIC updates on a managed system:

```
updlic -o j -m managed-system
```

To upgrade Licensed Internal Code to a new release on a managed system:

```
updlic -o u -m managed-system  
-r {ibmretain | ibmwebsite | ftp | dvd |  
mountpoint}  
[-h host-name] [-u user-ID]  
[--passwd password] [-d directory] [-q]
```

To check system readiness on a managed system:

```
updlic -o k -m managed-system
```

To synchronize LIC on a managed system:

```
updlic -o s -m managed-system
```

To retrieve, install, and activate LIC updates on all High Performance Switches managed by the HMC:

```
updlc -o a -w  
-r { ibmretain | ibmwebsite | ftp | dvd |  
disk | mountpoint }  
-l { latest | latestconcurrent | sss | ccc,ppp |  
release1_level1,release2_level2,... }  
[-h host-name] [-u user-ID]  
 [--passwd password] [-d directory] [-q]
```

To retrieve and install, but not activate LIC updates on all High Performance Switches managed by the HMC:

```
updlc -o i -w  
-r { ibmretain | ibmwebsite | ftp | dvd |  
disk | mountpoint }  
-l { latest | latestconcurrent | sss | ccc,ppp |  
release1_level1,release2_level2,... }  
[-h host-name] [-u user-ID]  
 [--passwd password] [-d directory] [-q]
```

To remove the most recently installed LIC updates and activate the previously accepted level on all High Performance Switches managed by the HMC:

```
updlc -o r -w [-q]
```

To disruptively activate LIC updates on all High Performance Switches managed by the HMC:

```
updlc -o d -w [-q]
```

To accept currently activated LIC updates on all High Performance Switches managed by the HMC:

```
updlc -o c -w
```

To reject installed LIC updates on all High Performance Switches managed by the HMC:

```
updlc -o j -w
```

To upgrade Licensed Internal Code to a new release on all High Performance Switches managed by the HMC:

```
updlc -o u -w  
-r { ibmretain | ibmwebsite | ftp | dvd |  
mountpoint }  
[-h host-name] [-u user-ID]  
 [--passwd password] [-d directory] [-q]
```

To check system readiness on all High Performance Switches managed by the HMC:

```
updlc -o k -w
```

To synchronize LIC on all High Performance Switches managed by the HMC:

```
updlc -o s -w
```

DESCRIPTION

updlc updates Licensed Internal Code (LIC) on the *managed-system* or on all High Performance Switches managed by this Hardware Management Console (HMC).

OPTIONS

-o The operation to perform. Valid values are **a**, **i**, **r**, **h**, **o**, **d**, **c**, **j**, **u**, **k** and **s**.

Use the **a** operation to retrieve, install, and activate LIC updates. Previously activated updates will be automatically accepted.

Use the **i** operation to retrieve and install, but not activate, LIC updates.

Use the **r** operation to remove the most recently installed LIC updates and activate the previously accepted level. This operation is only valid when the LIC type is both Managed System and Power.

Use the **h** operation to change LIC update control to the Hardware Management Console (HMC). This option is only valid for a managed system.

Use the **o** operation to change LIC update control to Operating System. This option is only valid for a managed system.

Use the **d** operation to disruptively activate LIC updates.

Use the **c** operation to accept currently activated LIC updates (copy T to P).

Use the **j** operation to reject installed LIC updates (copy P to T).

Use the **u** operation to upgrade Licensed Internal Code to a new release.

Use the **k** operation to check system readiness for LIC operations.

Use the **s** operation to synchronize LIC on redundant components. LIC will be synchronized from the primary Service Processor to the secondary Service Processor, and from the Side-A Bulk Power Controller to the Side-B Bulk Power Controller.

-m The name of the managed system on which to update LIC. The name may either be the user-defined name for the managed system, or be in the form *tttt-mmm*sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.

-w Update LIC on all High Performance Switches managed by the HMC.

-t The type(s) of LIC updates to install. Valid values are **sys** for Managed System LIC updates only, **power** for Power LIC updates only, **syspower** for both Managed System and Power LIC updates, **io** for I/O LIC updates only, or **all** for Managed System, Power, and I/O LIC updates. This option is only valid for a managed system.

This option is required for **a** and **i** operations, and is optional for the **r** operation. This option is not valid otherwise.

-l The LIC level to retrieve. Valid values are **latest**, **latestconcurrent**, *sss*, *ccc,ppp* or *release1_level1,release2_level2,...*

This option is required for **a** and **i** operations. This option is not valid otherwise.

Specify **latest** to retrieve the latest LIC updates, even if disruptive.

Specify **latestconcurrent** to retrieve the latest concurrent LIC updates.

Specify *sss* to retrieve a specific level of Managed System or Power LIC updates, even if disruptive. *sss* is the three character identifier of the specific level to retrieve. This is only valid when the LIC type is either Managed System only or Power only.

Specify *ccc,ppp* to retrieve a specific level of Managed System and Power LIC updates, even if disruptive. *ccc* is the three character identifier of the specific level of Managed System LIC

updates to retrieve. *ppp* is the three character identifier of the specific level of Power LIC updates to retrieve. This is only valid when the LIC type is both Managed System and Power.

Specify *release1_level1,release2_level2,...* to retrieve specific levels of LIC updates, even if disruptive. The level specified in each entry indicates the desired level for all components which are running the release specified in the entry.

- r** The repository from which to retrieve the LIC updates. Valid values are **ibmretain** for the IBM support system, **ibmwebsite** for the IBM service Internet site, **ftp** for a remote FTP site, **dvd** for the DVD drive on the Hardware Management Console (HMC), **disk** for the internal hard disk drive on the HMC, or **mountpoint** for the specified mountpoint.

This option is required for **a**, **i**, and **u** operations. This option is not valid otherwise.

- h** The host name or IP address of the remote FTP server.

This option is required when retrieving LIC updates from a remote FTP site. This option is not valid otherwise.

- u** The user ID to use to log in to the remote FTP site.

This option is required when retrieving LIC updates from a remote FTP site. This option is not valid otherwise.

--passwd

The password to use to log in to the remote FTP site. If this option is omitted, you will be prompted to enter the password.

This option is only valid when retrieving LIC updates from a remote FTP site.

- d** The mountpoint location or the directory to use on the remote FTP site. If this option is not specified for FTP, then the **/opt/ccfw/data** directory will be used.

This option is only valid when retrieving LIC updates from a mountpoint or a remote FTP site.

- q** Use this option to query the concurrency status of the specified update. The update is not performed when this option is specified.

This option allows you to determine if the specified update is disruptive. If so, you can shut down operating systems or configure I/O devices offline prior to performing the specified update.

When this option is used with **-m**, one of the following return codes will be returned:

- 0** - no updates are available
- 1** - all updates are concurrent
- 2** - Managed System and Power updates are concurrent.
I/O updates are disruptive.
- 3** - Managed System and Power updates are disruptive.
I/O updates are concurrent.
- 4** - all updates are disruptive

Any other return code value indicates that an error occurred.

When this option is used with **-w**, one of the following return codes will be returned:

- 0** - no updates are available
- 1** - all updates are concurrent
- 4** - all updates are disruptive

Any other return code value indicates that an error occurred.

When this option is not used, a return code value of zero indicates success. Any other value indicates that an error occurred.

--help Display the help text for this command and exit.

EXAMPLES

To retrieve, install, and activate the latest available Managed System LIC updates from the IBM support system:

```
updlic -m 9406-570*101234A -o a -t sys -l latest  
-r ibmretain
```

To retrieve and install specific Managed System and Power LIC levels from a remote FTP server:

```
updlic -m mysystem -o i -t syspower -l 22,21 -r ftp  
-h ftphost -u ftpuser --passwd userpw
```

To retrieve, install and activate specific Managed System and Power LIC levels from the IBM service website:

```
updlic -m mysystem -o a -t syspower -l 01EH330_100,02EB330_098,02BP240_219 -r ibmwebsite
```

To remove the most recently installed Managed System and Power LIC levels and activate the previous levels:

```
updlic -m 9406-570*101234A -o r -t syspower
```

To query whether the latest LIC updates from the IBM service web site are concurrent or disruptive:

```
updlic -m 9406-570*101234A -o a -t all -l latest  
-r ibmwebsite -q
```

To change LIC update control to HMC:

```
updlic -m mysystem -o h
```

To change LIC update control to Operating System:

```
updlic -m mysystem -o o
```

To disruptively activate LIC updates:

```
updlic -m mysystem -o d
```

To accept the currently activated LIC updates:

```
updlic -m mysystem -o c
```

To reject installed LIC updates:

```
updlic -m mysystem -o j
```

To check system readiness on a managed system:

```
updlic -m mysystem -o k
```

To retrieve, install, and activate the latest available LIC updates for High Performance Switches from the IBM support system:

```
updlic -w -o a -l latest -r ibmretain
```

To retrieve and install the latest concurrent LIC updates for High Performance Switches from a remote FTP server:

```
updlic -w -o i -l latestconcurrent -r ftp  
-h ftphost -u ftpuser --passwd userpw
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lslic

NAME

viosvr cmd - issue virtual I/O server command

SYNOPSIS

```
viosvr cmd -m managed-system  
{ -p partition-name | --id partition-ID }  
-c "command" [--help]
```

DESCRIPTION

viosvr cmd issues an I/O server command line interface (ioscli) command to a virtual I/O server partition.

The ioscli commands are passed from the Hardware Management Console (HMC) to the virtual I/O server partition over an RMC session. RMC does not allow interactive execution of ioscli commands.

OPTIONS

- m** The name of the managed system which has the virtual I/O server partition to which to issue the command. The name may either be the user-defined name for the managed system, or be in the form *ttt-mmm*sssssss*, where *ttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *ttt-mmm*sssssss* form must be used if there are multiple managed systems with the same user-defined name.
- p** The name of the virtual I/O server partition to which to issue the command.

You must either use this option to specify the name of the partition, or use the **--id** option to specify the partition's ID. The **-p** and the **--id** options are mutually exclusive.
- id** The ID of the virtual I/O server partition to which to issue the command.

You must either use this option to specify the ID of the partition, or use the **-p** option to specify the partition's name. The **--id** and the **-p** options are mutually exclusive.
- c** The I/O server command line interface (ioscli) command to issue to the virtual I/O server partition.

command must be enclosed in double quotes. Also, *command* cannot contain the semicolon (;), greater than (>), or vertical bar (|) characters.
- help** Display the help text for this command and exit.

EXAMPLES

Issue the **ioslevel** command to the virtual I/O server partition **vios_lpar**:

```
viosvr cmd -m mySystem -p vios_lpar -c "ioslevel"
```

Issue the **lsdev -virtual** command to the virtual I/O server partition that has an ID of 4:

```
viosvr cmd -m 9406-570*A0001234 --id 4 -c "lsdev -virtual"
```

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin