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** | **usb** | **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, **usb** for a USB flash memory device, **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 USB flash memory device:

bkconsdata -r usb

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 *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.

-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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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**}]
        [**--tso** {**on** | **off**}]
        [**--speed** {**auto** | **10** | **100** | **1000**}]
        [**--duplex** {**auto** | **half** | **full**}]
        [**--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.

--tso   The TCP segmentation offload (TSO) setting for the network interface.

>Valid values are:
>> **on** - enable TSO
>> **off** - disable TSO

--speed The speed setting for the network interface.

>Valid values are:
>> **auto** - automatically detect and set speed
>> **10**   - 10Mbps
>> **100** - 100Mbps
>> **1000** - 1000Mbps
>
>Specify **auto** unless you have a requirement to use a fixed speed setting.

--duplex
>The duplex setting for the network interface.
>
>Valid values are:
>> **auto** - automatically detect and set duplex
>> **half** - half duplex
>> **full** - full duplex
>
>Specify **auto** unless you have a requirement to use a fixed duplex setting.
>
>Valid combinations of **--speed** and **--duplex** are:
>> **--speed auto --duplex auto**
>> **--speed 10   --duplex half**
>> **--speed 10   --duplex full**
>> **--speed 100 --duplex half**
>> **--speed 100 --duplex full**
>> **--speed 1000 --duplex full**

-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

chhmcencr - change HMC encryption support

SYNOPSIS

chhmcencr -c webui -o {**a** | **r**} -e *encryption-list* [**--help**]

DESCRIPTION

chhmcencr changes which encryptions can be used by the Hardware Management Console (HMC) Web user interface. Only encryptions supported by Secure Sockets Layer (SSL) version 3 can be used. The HMC must be rebooted for any changes to take effect.

OPTIONS

-c   The configuration to change. The only valid value is **webui** to change which encryptions can be used by the HMC Web user interface.

-o   The operation to perform. Valid values are **a** to add an encryption to, or **r** to remove an encryption from the encryptions currently supported by the HMC Web user interface.

-e   The encryption to add or remove. Multiple encryptions can be specified and must be comma separated.

For a list of all of the encryptions available for the HMC Web user interface, run the **lshmcencr -c webui -t a** command.

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

EXAMPLES

Remove **SSL_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA** from the encryptions currently supported by the HMC Web user interface:

chhmcencr -c webui -o r -e SSL_DHE_RSA_EXPORT_WITH_DES40_CBC_SHA

Add **SSL_RSA_WITH_RC4_128_SHA** and **SSL_DHE_DSS_WITH_AES_128_CBC_SHA** to the encryptions currently supported by the HMC Web user interface:

chhmcencr -c webui -o a -e
 SSL_RSA_WITH_RC4_128_SHA,SSL_DHE_DSS_WITH_AES_128_CBC_SHA

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lshmcencr

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:

chhmcfs -o f -d 0

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

chhmcfs -o f -h 36 -f /var

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

chhmcfs -o f -s 100 -f /dump

ENVIRONMENT
    None

BUGS
    None

AUTHOR
    IBM Austin

SEE ALSO
    lshmcfs

NAME

chhmcldap - change HMC LDAP configuration

SYNOPSIS

To set HMC LDAP configuration attributes:

chhmcldap -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:

chhmcldap -o r -r {**backup** | **ldap**}

DESCRIPTION

chhmcldap 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:

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

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

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

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

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

Set the login attribute to **notesshortname**:

chhmcldap -o s --loginattribute notesshortname

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

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

Remove the backup LDAP server:

chhmcldap -o r -r backup

Unconfigure LDAP on the HMC:

chhmcldap -o r -r ldap

ENVIRONMENT
None

BUGS
None

AUTHOR
IBM Austin

SEE ALSO
lshmcldap, **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**, **hmcservicerep**, 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**, **lsaccfg**

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*}
 --rsubtype {**iopool** | **taggedio**}
 -a "*attributes*"

To clear a physical I/O slot (POWER6 servers only):

chhwres -r io -m *managed-system* **-o c**
 -l *slot-DRC-index*

To add or remove a virtual I/O adapter:

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

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

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

To set virtual switch attributes (POWER6 servers only):

chhwres -r virtualio -m *managed-system* **-o s**
 --rsubtype 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*] [**--entitled** *quantity*]
 [**-w** *wait-time*] [**-d** *detail-level*] [**--force**]

To set memory attributes for the managed system:

chhwres -r mem -m *managed-system* **-o s**

  -a "*attributes***"**

To set memory attributes for a partition using shared memory (POWER6 servers only):
 chhwres -r mem -m *managed-system* **-o s**
  {**-p** *partition-name* | **--id** *partition-ID*}
  -a "*attributes***"**
  [**-w** *wait-time*] [**-d** *detail-level*] [**--force**]

To switch over a running shared memory partition to its redundant paging Virtual I/O Server (VIOS) partition (POWER6 servers only):
 chhwres -r mem -m *managed-system* **-o so**
  {**-p** *partition-name* | **--id** *partition-ID*}

To reset I/O entitled memory statistics for a partition (POWER6 servers only):
 chhwres -r mem -m *managed-system* **-o rs**
  {**-p** *partition-name* | **--id** *partition-ID*}
  [**-w** *wait-time*] [**-d** *detail-level*]

To add or remove a shared memory pool, or set shared memory pool attributes (POWER6 servers only):
 chhwres -r mempool -m *managed-system* **-o {a | r | s}**
  [**-a "***attributes***"**]

To add or remove a paging space device to or from the shared memory pool (POWER6 servers only):
 chhwres -r mempool -m *managed-system* **-o {a | r}**
  {**-p** *paging-VIOS-partition-name* |
   --id *paging-VIOS-partition-ID*}
  --rsubtype pgdev --device *device-name*

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, **mempool** for shared memory pool, **proc** for processing resources, **procpool** for shared processor pool, and **hea** for Host Ethernet Adapter (HEA) resources.

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

--rsubtype

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, **fc** for virtual fibre channel, **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. The only valid shared memory pool resource subtype is **pgdev** for paging space devices.

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 fibre channel, virtual switch, and paging space device 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 *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. Valid values are **a** to add hardware resources, **r** to remove hardware resources, **m** to move hardware resources from one partition to another, **s** to set hardware resource related attributes, **rs** to reset I/O entitled memory statistics for a partition, **so** to switch over a running shared memory partition to its redundant paging VIOS partition, or **c** to clear a physical I/O slot.

The **c** operation is useful for clearing stale physical I/O slot information after a physical I/O adapter has been concurrently removed but not replaced.

The **rs**, **so**, and **c** operations are only supported on POWER6 servers.

-p   The name of the partition for which to perform the operation. For a move operation, this is the source partition (the partition the resources will be moved from) for the operation.

When adding or removing a paging space device, use this option to specify the name of the paging VIOS partition which has the device. If the device is accessed by more than one VIOS partition, then only one of the VIOS partitions must be specified, and the device name specified with the **--device** option must be the name of the device on that VIOS partition.

You can either use this option to specify the name of the partition for which to perform the operation, 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 perform the operation. For a move operation, this is the source partition (the partition the resources will be moved from) for the operation.

When adding or removing a paging space device, use this option to specify the ID of the paging VIOS partition which has the device. If the device is accessed by more than one VIOS partition, then only one of the VIOS partitions must be specified, and the device name specified with the **--device** option must be the name of the device on that VIOS partition.

You can either use this option to specify the ID of the partition for which to perform the operation, 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.

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.

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 **--poolname** 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, moving, or clearing 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.

For a partition using shared memory, this is the quantity of logical memory to add or remove. Memory move operations are not supported for partitions using shared memory.

--entitled

The quantity of I/O entitled memory to add or remove. The *quantity* specified must be in megabytes and must be greater than 0, or *quantity* can be **auto**. If *quantity* is a number, then automatic I/O entitled memory management will no longer be provided for the partition after the *quantity* of I/O entitled memory is added or removed. If *quantity* is **auto**, then the partition will be set to have automatic I/O entitled memory management, and if necessary, I/O entitled memory will be added or removed at this time so that the partition has the amount of memory required with automatic I/O entitled memory management.

This option is only valid for partitions using shared memory.

--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.

--device

The name of the paging space device to add or remove.

This option is required for all paging space device operations. This option is not valid for any other operation.

-w   The elapsed time, in minutes, after which an 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. In addition, this option is valid for I/O entitled memory statistics reset

operations and memory set operations for AIX and Linux 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 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. In addition, this option is valid for I/O entitled memory statistics reset operations and memory set operations for AIX and Linux 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, move, or memory set 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, the shared memory pool, 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 fibre channel adapter:
    adapter_type
        Valid values are **client** or **server**
        Required
    remote_lpar_id | **remote_lpar_name**
        One of these attributes is required
    remote_slot_num
        Required
    wwpns
        Optional for a **client** adapter, and not valid for
        a **server** adapter. If this attribute is not
        specified, WWPNs will be automatically generated for
        a **client** adapter. It is highly recommended that
        you do not specify WWPNs so that they will be
        automatically generated. If you do specify WWPNs,
        you must specify exactly two, and they must be comma
        separated.

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 for the *managed-system*:
   requested_num_sys_huge_pages

Valid attribute names for setting memory attributes for a partition using shared memory:
   mem_weight

Valid attribute names for creating the shared memory pool or setting shared memory pool attributes:
   pool_mem
      megabytes
   max_pool_mem
      megabytes
   paging_vios_names | **paging_vios_ids**
      specify one or two paging VIOS partitions

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

    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:
> **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_recv_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 --rsubtype iopool -m 9406-520*1234321A -o s
-p p1 -a ""lpar_io_pool_ids+=2,3""

Clear the physical I/O slot with DRC index **21010207** after the physical I/O adapter in that slot was concurrently removed but not replaced:

chhwres -r io -m sys1 -o c -l 21010207

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

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

Add a virtual fibre channel client adapter to the partition **p1**:

**chhwres -r virtualio -m sys1 -o a -p p1 --rsubtype fc
 -a "adapter_type=client,remote_lpar_name=vios,remote_slot_num=16"**

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
 --rsubtype hsl -a "hsl_pool_id=1"**

Add the virtual switch **vs1**:

chhwres -r virtualio --rsubtype 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**

Remove **128** MB of logical memory and **100** MB of I/O entitled memory from the partition **smp1**:

chhwres -r mem -m sys1 -o r -p smp1 -q 128 --entitled 100

Set the partition **smp1** to automatic I/O entitled memory management mode:

chhwres -r mem -m sys1 -o a -p smp1 --entitled auto

Reset I/O entitled memory statistics for partition **smp1**:

chhwres -r mem -m sys1 -o rs -p smp1

Create the shared memory pool with redundant paging VIOS partitions:

**chhwres -r mempool -m sys1 -o a -a "pool_mem=4096,max_pool_mem=
 8192,"paging_vios_names=vios_p1,vios_p2""**

Increase the size of the shared memory pool by **256** MB:

chhwres -r mempool -m sys1 -o s -a "pool_mem+=256"

Add the paging VIOS partition with ID **1** to the shared memory pool:

chhwres -r mempool -m sys1 -o s -a "paging_vios_ids+=1"

Add the paging space device **hdisk1** on VIOS partition **vios_p1** to the shared memory pool:

chhwres -r mempool -m sys1 --rsubtype pgdev -o a -p vios_p1
 --device hdisk1

Switch over the running shared memory partition **smp1** to its redundant paging VIOS partition:

chhwres -r mem -m sys1 -p smp1 -o so

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 capabilty 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 the media device is mounted, then a small amount of data is written to, read from, then deleted from the specified media. Finally, the media device is unmounted. No other diagnostic actions are performed on the media or the media device. The media device cannot already be mounted when this command is run.

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

Dectivate 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

   chlparutil - change utilization data collection settings

SYNOPSIS

   chlparutil -r config [**-m** *managed-system*] **-s** *sample-rate*
   [**--help**]

DESCRIPTION

   chlparutil 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**ssssssss, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm**ssssssss 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:

   chlparutil -r config -s 3600

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

   chlparutil -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**:

   chlparutil -r config -s 0 -m 9406-520*98765432

ENVIRONMENT

   None

BUGS

   None

AUTHOR
> IBM Austin

SEE ALSO
> **lslparutil**, **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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 cus-
                tomer 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
                      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 **lssacfg -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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 *tttt-mmm*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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
    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:

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

mem_mode
> POWER6 servers only
> Valid values are:
> **ded**   - dedicated memory
> **shared** - shared memory

desired_io_entitled_mem
> POWER6 servers only
> Specify the number of megabytes or specify **auto** for
> automatic I/O entitled memory management mode

mem_weight
> POWER6 servers only

primary_paging_vios_name | **primary_paging_vios_id**
> POWER6 servers only

secondary_paging_vios_name | **secondary_paging_vios_id**
> POWER6 servers only
> To set no secondary paging VIOS specify **none** for
> **secondary_paging_vios_id**

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_fc_adapters
POWER6 servers only
Comma separated list of virtual fibre channel adapters, with each adapter having the following format:

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

All 6 '/' characters must be present, but optional values may be omitted. Optional values are *remote-lpar-ID* or *remote-lpar-name* (one of those values is required, but not both).

wwpns is optional for a client adapter, and is not allowed for a server adapter. If *wwpns* is not specified, WWPNs will be automatically generated for a client adapter. It is highly recommended that you do not specify *wwpns* so that WWPNs will be automatically generated, unless you are changing an existing virtual fibre channel adapter and you want to retain its existing WWPNs. If you do specify *wwpns*, you must specify exactly two WWPNs, and they must be comma separated.

Valid values for *client-or-server*:
client
server

Valid values for *is-required*:
0 - no
1 - yes

For example:
4/client//vios_p1/16//1
specifies a virtual fibre channel **client** adapter
with a virtual slot number of **4**, a remote (server)
partition name of **vios_p1**, a remote (server) slot
number of **16**, and it is required. WWPNs will be
automatically generated for this client adapter.

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
   The valid values for the *managed-system* are
   returned by the **lssyscfg -r sys -m** *managed-system*
   -F lpar_proc_compat_modes command.

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 *tttt-mmm*sssssss*, where *tttt* is the
machine type, *mmm* is the model, and *ssssssss* 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.

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 *tttt-mmm*sssssss*, where *tttt* is the
type, *mmm* is the model, and *ssssssss* 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.

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 pass-
word.

--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*] [**--force**]

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 unownediooff**

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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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 **dumprestart**
   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.

dumprestart - 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.

remotedstoff - 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**.

--force   When activating a partition that uses shared memory, use this option to allow the partition to be activated under any of the following conditions:

- the partition is configured to use redundant paging Virtual I/O Server (VIOS) partitions, but only one paging VIOS partition is currently available and that paging VIOS partition has access to an available paging space device in the shared memory pool,

- the partition is configured to use redundant paging VIOS partitions, but there is no available paging space device in the shared memory pool that can be accessed by both paging VIOS partitions. However, there is an available paging space device in the shared memory pool that can be accessed by one of the paging VIOS partitions,

- the partition is configured to use a single paging VIOS partition which is not currently available or does not have access to an available paging space device in the shared memory pool, but there is another paging VIOS partition in the shared memory pool that is available and that has access to an available paging space device in the shared memory pool.

--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 remotedston -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

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

SYNOPSIS

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

DESCRIPTION

      chusrtca 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

      chusrtca -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

      chusrtca -o a -f /tmp/WelcomeFile.txt -c

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

      chusrtca -o r

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

      chusrtca -o rb

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

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

      chusrtca -o ab -b /tmp/BannerFile.txt -c

      Removes banner text file from the HMC:

chusrtca -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 alphanumerics (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 flash memory device (the USB flash memory device 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, lsmedi-adev

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, rmsysplan, rmsysplanres, 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*sssssssss*,
>   where *tttt* is the machine type, *mmm* is the model, and *sssssssss* is the serial number of the managed
>   system. The *tttt-mmm*sssssssss* 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 configura-
>   tion 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_firware** to **max**, **io**,
virtualio, **hps**, or **hcaio** will cause
system dumps to take longer to complete.
Do not set **sys_firware** 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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** | **ldapcacert**} **-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 **ldapcacert** 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 ldapcacert -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 Managment 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**] [**-E** *environment* [**-E ...**]] [**-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**] [**-E** *environment* [**-E ...**]] [**-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**] [**-E** *environment* [**-E ...**]] [**-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**] [**-E** *environment* [**-E ...**]] [**-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.

-E   Set environment variable setting. The **-E LPAR_NETBOOT_DEBUG=1** is the same as **export LPAR_NETBOOT_DEBUG=1**. See **ENVIRONMENT**.

-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 disble 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

INSTALLIOS_DEBUG
> The installios command used this environment variable to print out lpar_netboot debug.

LPAR_NETBOOT_3EXEC
> Executing OF "dev /" and "ls" returns nothing, retry reboot and "ls".

LPAR_NETBOOT_DEBUG
> Setting this variable will enable lpar_netboot debug. Similar to -x flag.

LPAR_NETBOOT_DEBUG_BOOT
> Setting this variable will initate the firmware boot command with -s trap.

LPAR_NETBOOT_ADD_TIMEOUT
> Extend timeout value by 5. Ex. LPAR_NETBOOT_ADD_TIMEOUT=5

LPAR_NETBOOT_SUB_TIMEOUT
> Lower timeout value by 8. Ex. LPAR_NETBOOT_SUB_TIMEOUT=8

LPAR_NETBOOT_SPANNING_TREE
> LPAR_NETBOOT_SPANNING_TREE=on enable spanning tree, LPAR_NETBOOT_SPAN-NING_TREE=off disable spanning tree. Similar to the -T flag.

OPEN_DEV_DEBUG
> Show firmware OPEN_DEV debug by setting value to yes.

FIRMWARE_DUMP
> Show firmware dump for firmware debugging by setting value to yes.

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 *tttt*-*mmm**ssssssss, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt*-*mmm**ssssssss 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 *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.

-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 *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.

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 *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.

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 paramters.

-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 *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.

-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

lshmcencr - list HMC encryptions

SYNOPSIS

lshmcencr -c webui -t {**c** | **a**} [**-F** [*attribute-names*] [**--header**]]
  [**--help**]

DESCRIPTION

lshmcencr lists the encryptions which are available and those which can currently be used by the Hardware Management Console (HMC) Web user interface. The encryption names are defined by Secure Sockets Layer (SSL) version 3.

OPTIONS

-c   The configuration to list. The only valid value is **webui** to list encryptions for the HMC Web user interface.

-t   The type of encryptions to list. Valid values are **c** for currently supported encryptions, or **a** for all available encryptions.

-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 encryptions which can currently be used by the HMC Web user interface:

lshmcencr -c webui -t c

List all available encryptions for the HMC Web user interface:

lshmcencr -c webui -t a

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chhmcencr

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 **chhmcldap** 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
    chhmcldap, **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 *tttt-mmm*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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** | **fc** | **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 I/O entitled memory statistics for a partition (POWER6 servers only):

lshwres -r mem -m *managed-system* **--level lpar**
--filter "*filter-data***" --stat**
[**-F** [*attribute-names*] [**--header**]] [**--help**]

To list shared memory pool resources (POWER6 servers only):

lshwres -r mempool -m *managed-system* [**--rsubtype pgdev**]
[**--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, shared memory pool, processing, shared processor pool, Host Channel adapter (HCA), Host Ethernet adapter (HEA), and Switch Network Interface (SNI) adapter resources.

Shared memory pool and 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, **mempool** for shared memory pool, **proc** for processing, **procpool** for shared processor pool, **hca** for HCA, **hea** for HEA, and **sni** for SNI adapter resources.

            The **mempool**, **procpool**, and **hea** resource types are only supported for POWER6 servers.

--rsubtype
            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, **fc** for virtual fibre channel, **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. The only valid shared memory pool resource subtype is **pgdev** for paging space devices. Valid HEA resource subtypes are **logical** for logical HEA resources, and **phys** for physical HEA resources.

            I/O slot children, virtual fibre channel, virtual switch, shared memory pool, 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 *tttt*-*mmm**ssssssss, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt*-*mmm**ssssssss 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, fibre channel, 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 fibre channel 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 when listing HEA physical port resources, port counter statistics for HEA physical ports are listed.

When this option is specified when listing partition level memory resources, I/O entitled memory statistics are listed.

This option is only valid when listing HEA physical port resources or partition level memory 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.

When listing I/O entitled memory statistics for a partition, this parameter is required, and exactly one partition name or ID must be specified with the **lpar_names** or **lpar_ids** 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 fc --level lpar**:
    lpar_ids | **lpar_names, slots**

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 --rsubtype serial --level lpar**:
    lpar_ids | **lpar_names, slots**

Valid filters with **-r virtualio --rsubtype slot --level lpar**:
    lpar_ids | **lpar_names**

Valid filters with **-r virtualio --rsubtype slot --level slot**:
    lpar_ids | **lpar_names, slots**

Valid filters with **-r virtualio --rsubtype vswitch**:
    vlans, vswitches

Valid filters with **-r mem --level lpar**:
    lpar_ids | **lpar_names**

Valid filters with **-r mempool --rsubtype pgdev**:
    lpar_ids | **lpar_names**
    Specify **none** for **lpar_ids** to list all paging space
    devices that are not assigned to a partition

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 --rsubtype logical --level sys**:
    adapter_ids, **lpar_ids** | **lpar_names**

Valid filters with **-r hea --rsubtype logical --level port**:
    adapter_ids, **lpar_ids** | **lpar_names**,
    port_groups

Valid filters with **-r hea --rsubtype phys --level sys**:
    adapter_ids

Valid filters with **-r hea --rsubtype phys --level port**:
    adapter_ids, **port_groups**

Valid filters with **-r hea --rsubtype 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.

Descriptions of selected command attributes:
    topology
        A comma separated list of the end-to-end device mappings for each virtual device. This is displayed for virtual SCSI and virtual fibre channel adapters in AIX, Linux, and VIOS partitions when specified with the **-F** option.

        For virtual SCSI, each device mapping has the following format:

        virtual-device/state/virtual-SCSI-client-device/
        virtual-SCSI-server-adapter/storage-pool/
        backing-device

        where *virtual-device* is the name of the virtual device on the client operating system (will be an empty string for virtual SCSI server adapters), *state* is the state of the virtual device on the client operating system (will be an empty string for virtual SCSI server adapters), *virtual-SCSI-client-device* is the name of the virtual SCSI client device on the client operating system (will be an empty string for virtual SCSI server adapters), *virtual-SCSI-server-adapter* is the name of the virtual SCSI server adapter on the

Virtual I/O Server (VIOS), *storage-pool* is the name of
the storage pool containing the backing device on the
VIOS (will be an empty string if the backing device is
not in a storage pool), and *backing-device* is the name
of the backing device on the VIOS.

For virtual fibre channel, each device mapping has the
following format:

virtual-device/state/virtual-FC-client-device/
virtual-FC-server-adapter/physical-port

where *virtual-device* is the name of the virtual device
on the client operating system (will be an empty
string for virtual fibre channel server adapters),
state is the state of the virtual device on the client
operating system (will be an empty string for virtual
fibre channel server adapters), *virtual-FC-client-
device* is the name of the virtual fibre channel client
device on the client operating system (will be an
empty string for virtual fibre channel server
adapters), *virtual-FC-server-adapter* is the name of
the virtual fibre channel server adapter on the VIOS,
and *physical-port* is the name of the physical fibre
channel port to which this device is backed.

--header
Display a header record, which is a delimiter separated list of attribute names for the attribute val-
ues 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 --rsubtype 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 I/O entitled memory statistics for partition lpar1:

**lshwres -r mem -m system1 --level lpar --filter "lpar_names=lpar_1"
--stat**

List the shared memory pool:

lshwres -r mempool -m system1

List all of the paging space devices in the shared memory pool:

lshwres -r mempool -m system1 --rsubtype pgdev

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 --rsubtype phys --level sys

List all port groups for all HEAs on the managed system:

lshwres -r hea -m mySys --rsubtype 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 virtuallpar

Display the virtual partition SA LEDs for partitions **lpar1** and **lpar2**:

**lsled -m system1 -r sa -t virtuallpar --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 | **usb**}
[**-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, **mountpoint** for the specified mountpoint, or **usb** for a USB flash memory device.

-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 *tttt-mmm*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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

lslogon - list logon information

SYNOPSIS

lslogon -r {**webui** | **ssh**} {**-t** | **-u**} [**-F** [*attribute-names*] [**--header**]]
[**--help**]

DESCRIPTION

lslogon lists the logged on users or the tasks they are running on the Hardware Management Console (HMC).

OPTIONS

-r   The type of logon information to list. Valid values are **webui** for Web user interface users or tasks, or **ssh** for SSH users or tasks.

-t   Specify this option to list information about the tasks that the users logged onto the HMC are running.

Either this option or the **-u** option is required. The **-t** and **-u** options are mutually exclusive.

-u   Specify this option to list information about the users logged onto the HMC.

Either this option or the **-t** option is required. The **-u** and **-t** options are mutually exclusive.

-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 tasks that users logged onto the HMC Web user interface are running:

lslogon -r webui -t

List all of the users remotely logged onto the HMC via SSH:

lslogon -r ssh -u

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

termtask

NAME

lslparmigr - list partition migration information

SYNOPSIS

lslparmigr -r {**lpar** | **manager** | **mempool** | **msp** | **procpool** | **sys** |
         virtualio}
[**-m** *managed-system*]
[**-t** *target-managed-system* [**--ip** *IP-address* [**-u** *user-ID*]]]
[**--redundantpgvios** {**0** | **1** | **2**}] [**--filter** "*filter-data*"]
[**-F** [*attribute-names*] [**--header**]] [**--help**]

DESCRIPTION

lslparmigr 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 **manager** to list the remote partition mobility capabilities for the Hardware Management Console (HMC).

Specify **mempool** to list shared memory pool information for the destination managed system. Shared memory pool information is only listed if the shared memory pool has enough available memory for the partition specified with the **lpar_names** or **lpar_ids** filter, if it has an available paging space device for the partition, and if it can satisfy the paging VIOS redundancy requirement of the partition. The **redundant** attribute that is listed indicates whether or not the partition would be configured to use redundant paging VIOS partitions on the destination managed system (a value of **0** indicates the partition would be configured to not use redundant paging VIOS partitions, and a value of **1** indicates the partition would be configured to use redundant paging VIOS partitions).

Specify **msp** to list possible source and destination mover service partition (MSP) pairs for active partition migration of the partitions 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 fibre channel adapters and 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* form must be used if there are multiple managed systems with the same user-defined name.

When listing shared memory pool, mover service partition, shared processor pool, or virtual I/O information, specify the source managed system for the partition migration with this option.

This option is not valid when listing the remote partition mobility capabilities for the HMC. This

option is required when listing all other types of partition migration information.

-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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* form must be used if there are multiple managed systems with the same user-defined name.

This option is required when listing shared memory pool, 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.

--ip   If the destination managed system is not managed by the same HMC that is managing the source managed system, then use this option to specify the IP address or host name of the HMC that is managing the destination managed system.

To use this option, SSH must be enabled on both HMCs. Also, you must run the **mkauthkeys** command once to set up SSH key authentication.

-u   If the destination managed system is not managed by the same HMC that is managing the source managed system, then use this option to specify the user ID to use on the HMC that is managing the destination managed system. If you do not specify the user ID, then the user ID of the user that issues this command will be used.

--redundantpgvios
When listing shared memory pool information, use this option to specify the paging VIOS redundancy requirement for the partition on the destination managed system. Valid values are **0** if the partition is not to use redundant paging VIOS partitions, **1** if the partition is required to use redundant paging VIOS partitions, or **2** if the partition is to use redundant paging VIOS partitions if possible.

This option is only valid when listing shared memory pool information. If this option is not specified when listing shared memory pool information, then the partition is required to use the same paging VIOS redundancy configuration on the destination managed system that the partition is currently using on the source managed system.

--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 shared memory pool, mover service partition, shared processor pool, or virtual I/O information. When listing shared memory pool, shared processor pool, or virtual I/O information, 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 HMC or 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**:

lslparmigr -r lpar -m system1

List the shared memory pool information for managed system **system2** for partition **lpar1** if **lpar1** is to use redundant paging VIOS partitions on **system2** if possible:

lslparmigr -r mempool -m system1 -t system2 --filter "lpar_names=lpar1"
 --redundantpgvios 2

List possible source and destination MSP pairs for migrating partition **lpar1** from managed system **system1** to managed system **system2**:

lslparmigr -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**:

lslparmigr -r procpool -m system1 -t system2 --filter
 "lpar_names=lpar1"

List the partition mobility capabilities for managed system **system1**:

lslparmigr -r sys -m system1

List possible and suggested mappings of the virtual fibre channel and virtual SCSI adapters in the partition with ID **1** to virtual I/O servers in managed system **system2**:

lslparmigr -r virtualio -m system1 -t system2 --filter "lpar_ids=1"

List possible and suggested mappings of the virtual fibre channel and virtual SCSI adapters in partition **aix1** to virtual I/O servers in managed system **system2**, when **system2** is managed by the HMC with host name **hmc2**:

  mkauthkeys --ip hmc2 -u hmc2user

  lslparmigr -r virtualio -m system1 -t system2 --ip hmc2 -u hmc2user
  --filter "lpar_names=aix1"

ENVIRONMENT
> None

BUGS
> None

AUTHOR
> IBM Austin

SEE ALSO
> **migrlpar**, **mkauthkeys**

NAME

lslparutil - list utilization data

SYNOPSIS

To list utilization data collected for a managed system:

> **lslparutil -r** {**hmc** | **lpar** | **pool** | **procpool** | **mempool** |
>> **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:

> **lslparutil -r config** [**-m** *managed-system*]
>> [**-F** [*attribute-names*] [**--header**]] [**--help**]

DESCRIPTION

lslparutil 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, and for the physical processor pool, each shared processor pool, and the shared memory 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, for the shared memory 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, a shared processor pool, or the shared memory 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.

Sampling events are also saved in a snapshot file. Sampling events that are collected more frequently than

hourly are only saved in the snapshot file. All state change, configuration change, and Utility CoD processor usage events collected are also saved 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, **mempool** for shared memory pool, **sys** for managed system, **all** for HMC, partitions, physical processor pool, shared processor pools, shared memory pool, 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 then events in the snapshot file 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 mempool**:
    event_types

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_io_entitled_mem
      The amount of I/O entitled memory (in megabytes)
      assigned to the shared memory partition.

curr_max_pool_mem
   The maximum size (in megabytes) of the shared
   memory pool.
curr_mem
   The amount of memory (in megabytes)
   assigned to the partition. For shared memory
   partitions, this is the amount of logical
   memory assigned to the partition.
curr_mem_weight
   The current relative memory priority for
   the shared memory partition. The smaller the
   value, the lower the priority. Possible
   values are 0 - 255.
curr_pool_mem
   The size (in megabytes) of the shared memory
   pool.
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_curr_io_entitled_mem
　The total amount of I/O entitled memory (in
　megabytes) assigned to all of the partitions
　in the shared memory pool.

lpar_id
　The unique integer identifier for the
　partition.

lpar_mapped_io_entitled_mem
　The total amount of I/O entitled memory (in
　megabytes) currently mapped by all of the
　partitions in the shared memory pool.

lpar_name
　The user-defined name of the partition
　at the time the event was collected.

lpar_run_mem
　The total amount of logical memory (in megabytes)
　assigned to all of the partitions in the shared
　memory pool.

mapped_io_entitled_mem
　The amount of I/O entitled memory (in megabytes)
　currently mapped by the shared memory partition.

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.

mem_mode
　The memory mode for the partition.
　Possible values are **ded** or **shared**.

mem_overage_cooperation
　The difference between the shared memory
　partition's assigned memory overcommitment
　and its actual overcommitment. A positive
　value means the partition is using less memory
　than system firmware has requested it to use.

name
　The user-defined name of the managed
　system.

page_faults
　The total number of page faults that have
　occurred since the shared memory pool was
　created.

page_in_delay
　The total page-in delay, in microseconds, spent

phys_run_mem
> waiting for page faults since the shared memory
> pool was created.

phys_run_mem
> The runtime amount of physical memory (in megabytes)
> allocated to the shared memory partition.

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**, **mempool**, or **sys**.

run_mem_weight
> The runtime relative memory priority for
> the shared memory partition. The smaller the
> value, the lower the priority. Possible
> values are 0 - 255.

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_firmware_pool_mem
> Amount of memory, in megabytes, in the shared
> memory pool 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 =
  (utilized_pool_cycles / total_pool_cycles) * 100
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

      lsmemdev - list memory devices

SYNOPSIS

      lsmemdev -r avail -m *managed-system*
      {**-p** *partition-names* | **--id** *partition-IDs*}
      [**--min** *minimum-size*] [**--max** *maximum-size*] [**--filter** "*filter-data*"]
      [**-F** [*attribute-names*] [**--header**]] [**--help**]

DESCRIPTION

      lsmemdev lists block storage devices that can be used as paging space devices for partitions that use shared memory.

      Block storage devices can be listed for any Virtual I/O Server (VIOS) partition in the managed system. However, a device cannot be added to the shared memory pool as a paging space device unless the VIOS partition is assigned to the shared memory pool to provide paging.

      This command is only supported for POWER6 servers.

OPTIONS

      -r   The type of resources to list. The only valid value is **avail** to list the block storage devices that are available to add to the shared memory pool as paging space devices. Any device that is already in the shared memory pool will not be listed.

      -m   The name of the managed system which has the VIOS partition(s) for which to list block storage devices. 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 one or two VIOS partitions for which to list block storage devices. The partition(s) must be in the running state and must have an RMC connection to the Hardware Management Console (HMC).

             If two VIOS partitions are specified, then only those block storage devices that can be accessed by both VIOS partitions are listed. The two partition names must be comma separated.

             You can either use this option to specify the name(s) of the VIOS partition(s), or use the **--id** option to specify the ID(s). The **-p** and the **--id** options are mutually exclusive.

      --id   The ID of one or two VIOS partitions for which to list block storage devices. The partition(s) must be in the running state and must have an RMC connection to the HMC.

             If two VIOS partitions are specified, then only those block storage devices that can be accessed by both VIOS partitions are listed. The two partition IDs must be comma separated.

             You can either use this option to specify the ID(s) of the VIOS partition(s), or use the **-p** option to specify the name(s). The **--id** and the **-p** options are mutually exclusive.

      --min   The minimum size, in megabytes, of the block storage devices to list. If this option is not specified, a default value of 0 is used.

      --max   The maximum size, in megabytes, of the block storage devices to list. If this option is not specified, no maximum size is used.

      --filter   The filter(s) to apply to the block storage devices to be listed. Filters are used to select which devices are to be listed. If no filters are used, then all of the devices will be listed. For example, only physical devices can be listed by using the **types** filter.

             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.

Only one value can be specified for each filter.

Valid filter names for this command:
>   **redundant**
>>   Valid values are:
>>   **0** - devices which could never be accessed by
>>>   another VIOS partition
>>   **1** - devices which possibly could be accessed by
>>>   another VIOS partition
>   **types**
>>   Valid values are:
>>   **logical** - logical devices
>>   **phys**   - physical devices

-F   A delimiter separated list of attribute names for the desired attribute values to be displayed for each device. If no attribute names are specified, then values for all of the attributes for each device 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 available block storage devices that can be accessed by VIOS partition **vios1**:

lsmemdev -r avail -m sys1 -p vios1

List all of the available block storage devices that can be accessed by both VIOS partitions **vios1** and **vios2**:

lsmemdev -r avail -m sys1 -p vios1,vios2

List the names and sizes of all of the available block storage devices that can be accessed by VIOS partition **vios1**:

lsmemdev -r avail -m sys1 -p vios1 -F device_name,size

List the available block storage devices which are between 1 GB and 4 GB in size and that can be accessed by both the VIOS partitions with IDs **1** and **2**:

lsmemdev -r avail -m sys1 --id 1,2 --min 1024 --max 4096

List all of the available physical block storage devices that can be accessed by the VIOS partition with ID **1**:

lsmemdev -r avail -m 9117-MMA*1234567 --id 1 --filter "types=phys"

ENVIRONMENT
   None

BUGS
   None

AUTHOR
   IBM Austin

SEE ALSO
   lshwres

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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*mm**sssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssss* is the serial number of the managed system. The *tttt-mmm*mm**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*mm**sssssss*, where *tttt* is the type, *mmm* is the model, and *sssssss* is the serial number of the managed frame. The *tttt-mmm*mm**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 '\' 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

lsusrtca - Displays welcome text

SYNOPSIS

lsusrtca -t {**w** | **b**} [**-F** [*attribute-names*] [**--header**]] [**--help**]

DESCRIPTION

lsusrtca displays the Web user interface welcome text or the SSH banner text that is shown before users log onto the Hardware Management Console (HMC).

OPTIONS

-t   The type of text to display. Valid values are **w** for the welcome text that is displayed on the Web user interface before users log onto the HMC, and **b** for the SSH banner text that is displayed before users remotely log into the HMC using SSH.

-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 the welcome text that is displayed on the Web user interface before a user logs in:

lsusrtca -t w

Display the SSH banner text that is displayed before a user logs in remotely using SSH:

lsusrtca -t b

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

chusrtca

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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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

migrlpar - perform a partition migration operation

SYNOPSIS

migrlpar -o {m | r | s | v}
 -m *managed-system* [**-t** *target-managed-system*]
 [**--ip** *IP-address* [**-u** *user-ID*]]
 {**-p** *partition-name* | **--id** *partition-ID*} [**-n** *profile-name*]
 [**--redundantpgvios** {**0** | **1** | **2**}]
 [{**-f** *input-data-file* | **-i** "*input-data*"}]
 [**-w** *wait-time*] [**-d** *detail-level*] [**-v**] [**--force**]
 [**--help**]

DESCRIPTION

migrlpar 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.

A recover operation should be issued, if possible, on the Hardware Management Console (HMC) that is managing the source managed system.

A stop operation must be issued on the HMC that is managing the source managed system.

-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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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.

--ip   If the destination managed system is not managed by the same HMC that is managing the source managed system, then use this option to specify the IP address or host name of the HMC that is managing the destination managed system.

To use this option, SSH must be enabled on both HMCs. Also, you must run the **mkauthkeys** command once to set up SSH key authentication.

This option is required when migrating a partition, validating a partition migration, or recovering from a failed partition migration if the destination managed system is not managed by the same HMC that is managing the source managed system. This option is not valid when performing any other operation.

-u   If the destination managed system is not managed by the same HMC that is managing the source managed system, then use this option to specify the user ID to use on the HMC that is managing the destination managed system. If you do not specify the user ID, then the user ID of the user that issues this command will be used.

-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.

--redundantpgvios

When validating or migrating a partition that uses shared memory, use this option to specify whether the partition is to be configured to use redundant paging VIOS partitions on the destination managed system. Valid values are **0** if the partition is to be configured to not use redundant paging VIOS partitions, **1** if the partition is to be configured to use redundant paging VIOS partitions, or **2** if the partition is to be configured to use redundant paging VIOS partitions if possible. If this option is not specified, then the partition will be configured to use the same paging VIOS redundancy configuration on the destination managed system that the partition is currently using on the source managed system.

This option is only valid when validating or migrating a partition that uses shared memory. This option is not valid when performing any other operation.

-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_fc_mappings**
>> Comma separated list of virtual fibre channel adapter 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:

4//1 specifies a mapping of the virtual fibre channel adapter with slot number **4** to the Virtual I/O Server (VIOS) partition with ID **1** on the destination managed system.

virtual_scsi_mappings

Comma separated list of virtual SCSI adapter 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 the virtual SCSI adapter with slot number **12** to the VIOS partition **vios1** on the destination managed system.

source_msp_name
source_msp_id
dest_msp_name
dest_msp_id
shared_proc_pool_name | **shared_proc_pool_id**
primary_paging_vios_name | **primary_paging_vios_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 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**:

migrlpar -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**:

migrlpar -o m -m system1 -t system2 --id 5 -n migprof
-i "virtual_scsi_mappings=12//1,dest_msp_id=1,source_msp_id=3"

Migrate the partition **smp** from managed system **system1** to managed system **system2**, configure the partition to use redundant paging VIOS partitions on **system2**, and use **vios1** as the primary paging VIOS for the partition:

migrlpar -o m -m system1 -t system2 -p smp --redundantpgvios 1
-i "primary_paging_vios_name=vios1"

Stop the partition migration that is just starting for partition **mylpar**:

migrlpar -o s -m system1 -p mylpar

Recover the failed partition migration of partition **mylpar**:

migrlpar -o r -m system1 -p mylpar

Migrate the partition **aix1** from managed system **system1** to managed system **system2**, when **system2** is managed by the HMC with the host name **hmc2**:

mkauthkeys --ip hmc2 -u hmc2user

migrlpar -o m -m system1 -t system2 -p aix1 --ip hmc2 -u hmc2user

ENVIRONMENT

None

BUGS
        None

AUTHOR
        IBM Austin

SEE ALSO
        lslparmigr, **mkauthkeys**

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

mkauthkeys - manage SSH authentication keys

SYNOPSIS

To add an SSH key as an authorized key:

mkauthkeys {**-a** | **--add**} **"***string***"** [**--help**]

To remove an SSH key from the authorized keys:

mkauthkeys {**-r** | **--remove**} {**"***string***"** | **-u** *user-ID*} [**--help**]

To set up SSH key authentication for partition mobility operations between this Hardware Management Console (HMC) and another HMC:

mkauthkeys [**-g**] **--ip** *IP-address* **-u** *user-ID* [**--passwd** *password*]
    [**-t** {**rsa** | **dsa**}] [**--help**]

To test SSH key authentication for partition mobility operations from this Hardware Management Console (HMC) to another HMC:

mkauthkeys **--test** **--ip** *IP-address* [**-u** *user-ID*] [**--help**]

DESCRIPTION

mkauthkeys manages SSH authentication keys.

mkauthkeys can be used to add or remove SSH keys as authorized keys for the user which issues this command.

mkauthkeys can be also be used to set up SSH key authentication for partition mobility operations between this HMC and another HMC.

OPTIONS

-a,--add

Adds the specified SSH key *string* as an authorized key for the user which issues this command.

The *string* is added to the user's **$HOME/.ssh/authorized_keys2** file.

-r,--remove

Removes the specified SSH key *string* from the authorized keys for the user which issues this command, or removes all of the SSH keys generated for the user specified in *string* from the authorized keys for the user which issues this command.

If this option and the **-u** option is specified, then all of the authorized keys for *user-ID* will be removed.

The keys are removed from the user's **$HOME/.ssh/authorized_keys2** file.

string   To add or remove an SSH key as an authorized key for the user which issues this command, specify the SSH key to add or remove with this option.

To remove all of the SSH keys generated for a user from the authorized keys for the user which issues this command, specify the user for which the SSH keys to remove were generated.

--ip   The IP address or host name of the remote HMC with which to set up partition mobility operations.

Public and private SSH keys will be generated for the ccfw user on this HMC. The keys will be stored on this HMC in the **$HOME/.ssh/ccfw** directory for the user which issues this command. Then, if SSH keys have not already been set up on the remote HMC for the remote user, then the saved public key will be sent to the remote HMC and stored in the remote user's **$HOME/.ssh/authorized_keys2** file.

-u   When removing all authorized SSH keys for a user, use this option to specify the user ID.

When setting up SSH key authentication for partition mobility operations between this HMC and another HMC, use this option to specify the user ID to use on the remote HMC.

--passwd
     When setting up SSH key authentication for partition mobility operations between this HMC and another HMC, use this option to specify the password for the user ID to use on the remote HMC. If this option is omitted, you will be prompted to enter the password.

-t   The type of SSH keys to generate when setting up SSH key authentication for partition mobility operations between this HMC and another HMC. Valid values are **rsa** for RSA or **dsa** for DSA. If this option is not specified, then RSA keys will be generated.

-g   Specify this option when setting up SSH key authentication for partition mobility operations between this HMC and another HMC to allow partition mobility operations to be performed from the remote HMC to this HMC. If this option is not specified, then partition mobility operations can only be performed from this HMC to the remote HMC.

When this option is specified, public and private SSH keys will also be generated for the ccfw user on the remote HMC. The keys will be stored on the remote HMC in the remote user's **$HOME/.ssh/ccfw** directory. Then, if SSH keys have not already been set up on this HMC for the user that issues this command, then the saved public key will be sent to this HMC and stored in this user's **$HOME/.ssh/authorized_keys2** file.

--test   Tests SSH key authentication for partition mobility operations from this HMC to the HMC specified with the **--ip** option.

If the return code from this command is 0, then SSH key authentication is working properly.

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

EXAMPLES

To add the SSH key **ssh-rsa AAAB3NzaC1yc2EAAA joe@somehost**, which was generated for the user **joe@somehost**, as an authorized key for your user ID:

mkauthkeys -a "ssh-rsa AAAB3NzaC1yc2EAAA joe@somehost"

To remove the SSH key **ssh-rsa AAAB3NzaC1yc2EAAA joe@somehost**, which was generated for user **joe@somehost**, from the authorized keys for your user ID:

mkauthkeys -r "ssh-rsa AAAB3NzaC1yc2EAAA joe@somehost"

To remove all of the SSH keys generated for the user **joe@somehost** from the authorized keys for your user ID:

mkauthkeys -r joe@somehost

To remove all of the authorized SSH keys for user **hmcUser1**:

mkauthkeys -r -u hmcUser1

To set up partition mobility operations from your user ID on this HMC to the HMC with host name **hmc2** for the user **hmc2user** on HMC **hmc2** (you will be prompted for **hmc2user**'s password):

mkauthkeys --ip hmc2 -u hmc2user

To set up partition mobility operations from your user ID on this HMC to the HMC with host name **hmc2**

for the user **hmc2user** on HMC **hmc2**, and from user **hmc2user** on HMC **hmc2** to this HMC for this user:

mkauthkeys -g --ip hmc2 -u hmc2user --passwd hmc2userpw

Check if partition mobility operations from your user ID on this HMC to the HMC with host name **hmc2** for the user **hmc2user** on HMC **hmc2** have been set up:

mkauthkeys --ip hmc2 -u hmc2user --test

ENVIRONMENT
None

BUGS
None

AUTHOR
IBM Austin

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 *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.

-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
[**mem_mode**]
   POWER6 servers only
   Valid values are:
   ded   - dedicated memory
   shared - shared memory
[**desired_io_entitled_mem**]
   POWER6 servers only
   Specify the number of megabytes or specify **auto** for
   automatic I/O entitled memory management mode
[**mem_weight**]
   POWER6 servers only
[**primary_paging_vios_name** | **primary_paging_vios_id**]
   POWER6 servers only
[**secondary_paging_vios_name** | **secondary_paging_vios_id**]
   POWER6 servers only
   To set no secondary paging VIOS specify **none** for
   secondary_paging_vios_id
[**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_fc_adapters**]
POWER6 servers only
Comma separated list of virtual fibre channel
adapters, with each adapter having the following
format:

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

All 6 '/' characters must be present, but optional
values may be omitted. Optional values are
remote-lpar-ID or *remote-lpar-name* (one of those
values is required, but not both).

wwpns is optional for a client adapter, and is not
allowed for a server adapter. If *wwpns* is not
specified, WWPNs will be automatically generated for a
client adapter. It is highly recommended that you do
not specify *wwpns* so that WWPNs will be automatically
generated.

Valid values for *client-or-server*:
client
server

Valid values for *is-required*:
0 - no
1 - yes

For example:
4/client//vios_p1/16//1
specifies a virtual fibre channel **client** adapter
with a virtual slot number of **4**, a remote (server)
partition name of **vios_p1**, a remote (server) slot
number of **16**, and it is required. WWPNs will be
automatically generated for this client adapter.

[**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
The valid values for the *managed-system* are
returned by the **lssyscfg -r sys -m** *managed-system*
-F lpar_proc_compat_modes command.

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**] [**--novios**] [**--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 *tttt-mmm*sssssssss*, where *tttt* is the machine type, *mmm* is the model, and *sssssssss* is the serial number of the managed system. The *tttt-mmm*sssssssss* 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, without any refresh of inactive partition or unallocated hardware information, and without gathering additional information from Virtual I/O Server (VIOS) partitions.

--novios

This option is used to specify the type of inventory collection that this command will use. Specify **--novios** to perform additional inventory probes for active partitions, perform hardware discovery for inactive partitions or unallocated hardware, but do not gather additional information from VIOS partitions.

The **--noprobe** option overrides this option.

--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, gather additional information from VIOS 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, gather additional information from VIOS partitions, 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 *tttt-mmm**ssssssss, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm**ssssssss 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** | **ldapcacert**} [**--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 **ldapcacert** 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 ldapcacert

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 *tttt-mmm*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 **chlparutil** 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

chlparutil, **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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*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*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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

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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 mul-
　　　　　　tiple 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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 commmand 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** | **diskusb**} [**--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.

If **diskusb** is specified, then in addition to storing the upgrade data on the HMC hard drive, this command will copy the same upgrade data onto a USB flash memory device.

--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):

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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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*ssssssss*, where *tttt* is the type, *mmm* is the model, and *ssssssss* is the serial number of the managed frame. The *tttt-mmm*ssssssss* 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

termtask - terminate a task

SYNOPSIS

termtask -r {**webui** | **ssh**} **-s** *session* **-t** *task* [**--help**]

DESCRIPTION

termtask terminates a user's task that is running on the Hardware Management Console (HMC).

The **lslogon** command can be used to list information about the users logged onto the HMC and the tasks they are running.

OPTIONS

-r The type of task to terminate. Valid values are **webui** for a Web user interface task, or **ssh** for an SSH task.

-s When terminating a Web user interface task, use this option to specify the session ID of the user that is running the task to terminate.

   When terminating an SSH task, use this option to specify the TTY ID of the user that is running the task to terminate.

-t When terminating a Web user interface task, use this option to specify the task ID of the task to terminate.

   When terminating an SSH task, use this option to specify the process ID (PID) of the task to terminate.

   You can specify **all** with this option to terminate all tasks that the user associated with the *session* is running, and then log off the user.

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

EXAMPLES

Terminate all of the HMC Web user interface tasks that the user associated with session **4** is running, and log off the user:

termtask -r webui -s 4 -t all

Terminate the task with process ID **11644** that the user remotely logged into the HMC via the SSH session **pts/5** is running:

termtask -r ssh -s pts/5 -t 11644

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin

SEE ALSO

lslogon

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** | **usb**}
              -l {**latest** | **latestconcurrent** | *sss* | *ccc***,***ppp* |
                *release1_level1***,***release2_level2***,...**}
              [**-h** *host-name*] [**-u** *user-ID*]
              [**--passwd** *password*] [**-d** *directory*]
              [**--allowpoweroff**] [**-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** | **usb**}
              -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**
              [**--allowpoweroff**] [**-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* [**--allowpoweroff**] [**-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 | **usb**}
              [**-h** *host-name*] [**-u** *user-ID*]
              [**--passwd** *password*] [**-d** *directory*]
              [**--allowpoweroff**] [**-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:
    updlic -o a -w
        -r {**ibmretain** | **ibmwebsite** | **ftp** | **dvd** |
          disk | **mountpoint** | **usb**}
        -l {**latest** | **latestconcurrent** | *sss* | *ccc***,***ppp* |
          *release1_level1***,***release2_level2***,...**}
        [**-h** *host-name*] [**-u** *user-ID*]
        [**--passwd** *password*] [**-d** *directory*]
        [**--allowpoweroff**] [**-q**]

To retrieve and install, but not activate LIC updates on all High Performance Switches managed by the HMC:
    updlic -o i -w
        -r {**ibmretain** | **ibmwebsite** | **ftp** | **dvd** |
          disk | **mountpoint** | **usb**}
        -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:
    updlic -o r -w [**--allowpoweroff**] [**-q**]

To disruptively activate LIC updates on all High Performance Switches managed by the HMC:
    updlic -o d -w [**--allowpoweroff**] [**-q**]

To accept currently activated LIC updates on all High Performance Switches managed by the HMC:
    updlic -o c -w

To reject installed LIC updates on all High Performance Switches managed by the HMC:
    updlic -o j -w

To upgrade Licensed Internal Code to a new release on all High Performance Switches managed by the HMC:
    updlic -o u -w
        -r {**ibmretain** | **ibmwebsite** | **ftp** | **dvd** |
          mountpoint | **usb**}
        [**-h** *host-name*] [**-u** *user-ID*]
        [**--passwd** *password*] [**-d** *directory*]
        [**--allowpoweroff**] [**-q**]

To check system readiness on all High Performance Switches managed by the HMC:
    updlic -o k -w

To synchronize LIC on all High Performance Switches managed by the HMC:
    updlic -o s -w

DESCRIPTION

    updlic 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*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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, **mountpoint** for the specified mountpoint, or **usb** for a USB flash memory device.

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.

--allowpoweroff
Use this option to allow the HMC to power off all managed systems in the same managed frame during a disruptive update of the power subsystem, if necessary. **Use this option carefully. It allows the HMC to power off managed systems which were not explicitly targeted by this command.**

-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

viosvrcmd - issue virtual I/O server command

SYNOPSIS

viosvrcmd -m *managed-system*
 {**-p** *partition-name* | **--id** *partition-ID*}
 -c "*command***"** [**--help**]

DESCRIPTION

viosvrcmd 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 *tttt-mmm*ssssssss*, where *tttt* is the machine type, *mmm* is the model, and *ssssssss* is the serial number of the managed system. The *tttt-mmm*ssssssss* 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**:

viosvrcmd -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**:

viosvrcmd -m 9406-570*A0001234 --id 4 -c "lsdev -virtual"

ENVIRONMENT

None

BUGS

None

AUTHOR

IBM Austin