

**IBM @server® BladeCenter™**  
**Data collection guide**



## **Acknowledgements**

Thanks to the many who have contributed to the finalization of this document. Without your expertise and critiques, this document wouldn't have come together. Many Thanks!

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## 1.0 Change Notification

Change Revision	Description	Date
1.0	Initial release	01-2005
2.0	Instructions for eGatherer and DSA modified	02-2005
3.0	Instructions added to include LS20 and Infiniband switch and minor changes	05-2005
4.0	Added DSA for Linux and some minor corrections	09-2005

## 2.0 Using this document

This document will demonstrate on how-to collect all necessary data needed for data analysis when dealing with BladeCenter problems. Therefore the user is asked to prepare an inventory list containing all devices used in the BladeCenter. Next he will visit the relevant section to perform the required steps for data collection and data analysis.

- Customer Template (section 3.0)
- Step-by-step instruction on how to perform data collection on BladeCenter by option. (section 4.0)

### 3.0 Customer Template (Information and logs that are needed)

#### Gather the following information;

**NOTE:**

See section 4.1 for instructions on how-to gather this information. All log and configuration files should be zipped into one single zip-file and be available upon request by support personnel.

#### **3.1.0 Define the problem**

Supply a problem description that includes the following information;

- Customer name:  
\_\_\_\_\_
- Onsite Contact name:  
\_\_\_\_\_
- Good callback phone number  
\_\_\_\_\_
- Severity of call:  
\_\_\_\_\_
- Device type, Model and S/N:  
\_\_\_\_\_
- Operating System version and level (SUSE, AIX, RedHat, Windows etc)  
\_\_\_\_\_
- Whether system is new / recent install or problem is new / repeat problem;  
whether system has ever worked  
\_\_\_\_\_
- Recent changes made to the system prior to the problem (hardware or software)  
\_\_\_\_\_
- When problem first occurred  
\_\_\_\_\_

- When problem occurs, i.e. during boot, run time, at power on, at minimum config, with specific application, etc.
- 

- Has the symptom changed from the original problem?
- 

- Full LED sequence, software messages, error log entries, console messages
- 

- Parts replaced prior to this call
- 

- What is the size of the BladeCenter installation?
- 

- How many BladeCenter Chassis does the customer have in total?
- 

- How many of the chassis are affected by the current issue?
- 

- Who designed the overall BladeCenter solution for the customer?
- 

### **3.2.0 Management Module**

Gather the following logs from the Management Module from all of the affected BladeCenter chassis: (instructions on how-to capture these logs are described in section 4.1)

- Management Module Event Log
- HW VPD and Firmware VPD
- Fuel Gauge Settings

### **3.3.0 Blade Servers**

Use this section to capture logs from the blade servers in the chassis. Note that you need to perform this on all affected blade servers. (instructions on how-to capture these logs are described in section 4.2).

- How was the Operating system installed onto the blade server? Example, manually, or assisted via ServerGuide, or automated via RDM or some other method ?
- 
- Please confirm the hardware configuration of the blade server? Detail Processor/Memory/Disk subsystem configuration and any other optional devices.
- 

### **HS20/HS40/LS20 blade servers:**

- For Windows,
  - include the version (e.g. 2000/2003/etc.)
  - service pack applied
  - any additional drivers added.
  - IBM Dynamic Systems Analysis output
- For Linux,
  - include the distribution version and kernel version
  - additional drivers added
  - IBM Dynamic Systems Analysis output for Red Hat Enterprise v3 or SUSE Enterprise v9
  - IBM eGatherer output for other Linux distributions

### **JS20 blade servers:**

**Note:** Linux Service Aids should be downloaded / installed in advance of problem occurrence to minimize time spent in problem resolution. See section 4.0 for more detailed information.

- Output from snap
- Diagnostic utilities (and versions) used (such as AIX diagnostics, stand-alone diagnostics), if any. Also, include results of diagnostic tests.
- Operating System version and level

### **3.4.0 Switch modules**

Use this section to define the networking problem and to capture logs from the ethernet switch modules in the chassis. Note that you need to perform this on all affected blade servers. (instructions on how-to capture these logs are described in section 4.3)

- Please provide the basic IP structure of the Bladecenter. We require the IP address range for the individual Blades and also the IP addresses for the Management Module(s) and the I/O modules
- 

- Please provide a local topology diagram for the Bladecenter and connected devices.
- 

- State if teaming is being used and detail the levels of Broadcom firmware, device driver and BASP.
- 

### **Ethernet Switch Module (ESM/Dlink):**

- Event Log

### **Nortel Switch Module:**

- Output from <maint/tsdmp>

### **Cisco Switch Module:**

- Output from <show tech-support>

### **Qlogic Fibre Switch Module:**

- Output from <show support>

### **Brocade Fibre Switch Module:**

- Output from <supportShow>



## 4.0 Instructions for Data Collection (how-to gather)

### NOTE:

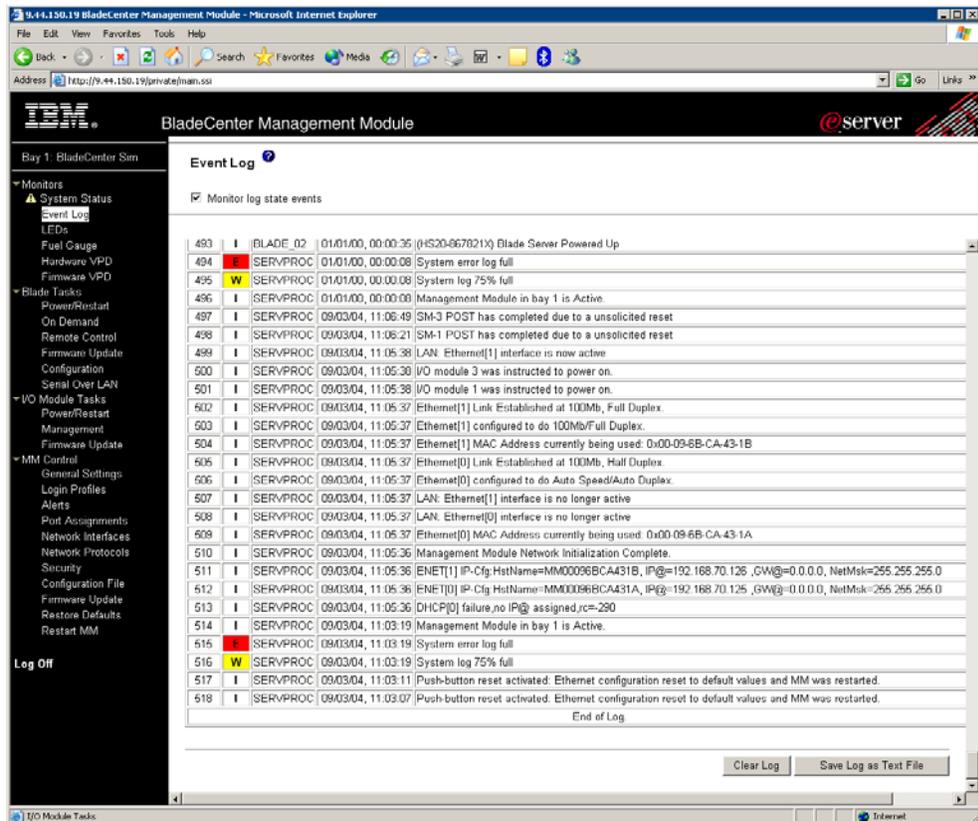
It is recommended that all log and configuration files are saved into the same directory and then zipped into one single zip-file and be available upon request by support personnel. Also, name the logs with a relevant or descriptive name.

### 4.1 Management Modules and Chassis

Note that the Management Module Interface for the Entry / Enterprise and Telco chassis looks the same. Use these instructions for capture the logs and configuration for these type of chassis.

#### Event Log

1. Connect and login to the Management Module using your favourite web browser (default userid and password is: USERID/PASSWORD).
2. Select “Event Log” from the left hand side. Scroll down to the end of the “Event Log” and select <Save Log as Text File>, as shown in the figure below.



## Hardware VPD

1. Right click on “Hardware VPD” and select <Save As>, as shown in the figure below.

The screenshot shows the IBM BladeCenter Management Module web interface. The left sidebar contains a navigation menu with 'Hardware VPD' selected. A context menu is open over 'Hardware VPD', with 'Save Target As...' highlighted. The main content area displays a 'System Status Summary' with a warning icon and the text 'One or more monitored parameters are abnormal.' Below this, there is a section for 'Warnings and System Events' listing 'System log 75% full'. A table below the summary shows the status of blade servers. The table has columns for Bay, Status, Name, Pwr, Owner (KVM, MT), Network (Onboard, Card), WOL, Local Control (Pwr, KVM, MT), and BEM.

Bay	Status	Name	Pwr	Owner**		Network		WOL*	Local Control			BEM*
				KVM	MT*	Onboard	Card		Pwr	KVM	MT*	
1	●	HS20-867821X	Off			Eth	Fib   ...   ...	On	X	X	X	
2	●	HS40-883921X	Off	X		Eth	Fib   ...   ...	On	X	X	X	
3												
4		No blade present										
5		No blade present										
6		No blade present										
7		No blade present										
8		No blade present										
9		No blade present										
10		No blade present										
11		No blade present										
12		No blade present										
13	●	ISDL884D17	Off			Eth	...   ...   ...	On	X	X	X	

2. Type in location and file name, as shown in the figure below.

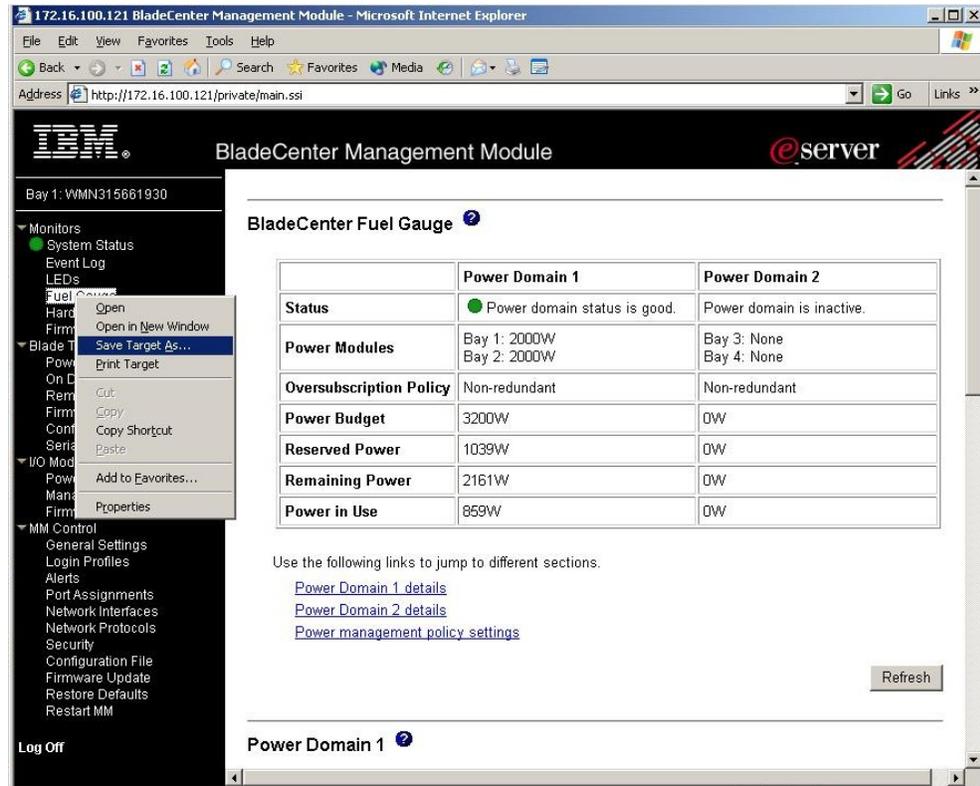
The screenshot shows a Windows 'Save As' dialog box. The 'Save in' field is set to 'Local Disk (C:)'. The file name is 'hwvdp.ssi' and the 'Save as type' is 'HTML Document'. The dialog box displays a list of folders and files in the current directory, including 'Blade Power Program', 'NotesSQL', 'Program Files', 'sdwork', 'swd', 'temp', 'TFTProot', 'tmp', 'tours', 'Utilities', 'WINDOWS', 'WUTemp', and 'wxpdrive'.

## Firmware VPD

1. Save the “Firmware VPD”, using the same procedure as described in the previous step.

## Fuel Gauge

1. Right click on “Fuel Gauge” and select <Save As>, as shown in the figure below.



The screenshot shows the BladeCenter Management Module web interface. The main content area displays the "BladeCenter Fuel Gauge" page, which includes a table with power domain information and a "Refresh" button. A context menu is open over the "Fuel Gauge" link in the left sidebar, with "Save Target As..." selected.

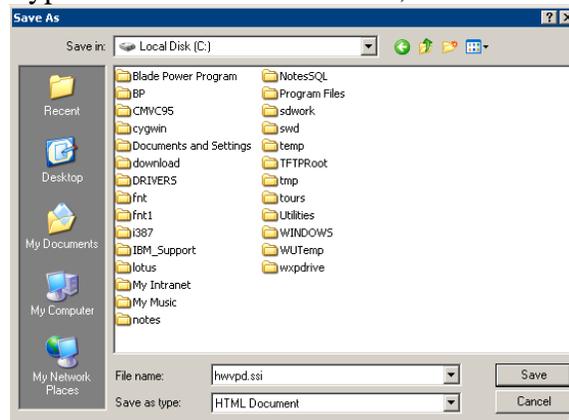
	Power Domain 1	Power Domain 2
Status	● Power domain status is good.	Power domain is inactive.
Power Modules	Bay 1: 2000W Bay 2: 2000W	Bay 3: None Bay 4: None
Oversubscription Policy	Non-redundant	Non-redundant
Power Budget	3200W	0W
Reserved Power	1039W	0W
Remaining Power	2161W	0W
Power in Use	859W	0W

Use the following links to jump to different sections.

- [Power Domain 1 details](#)
- [Power Domain 2 details](#)
- [Power management policy settings](#)

Refresh

2. Type in location and file name, as shown in the figure below.



The screenshot shows a Windows "Save As" dialog box. The "Save in" location is "Local Disk (C:)" and the "File name" is "hwvpd.ssi". The "Save as type" is "HTML Document".

## 4.2 Blade Servers

### 4.2.1 HS20 / HS40 / LS20 blade servers

#### Windows Systems

##### **Collect information using IBM Dynamic Systems Analysis Portable Edition**

Note: The portable version of DSA does not required to be installed.

- \_\_\_ 1. Download the latest DSA utility from the IBM support site  
<http://www-1.ibm.com/support/docview.wss?uid=psg1SERV-DSA>
- \_\_\_ 2. To run DSA and generate output files that can be provided to IBM Support, run this command: `<DSAxxxP.exe >`
- \_\_\_ 3. To run DSA and generate HTML output files that can be viewed locally with a browser, run this command: `<DSAxxxP.exe /a /v>`
- \_\_\_ 4. Each time you run DSA, a directory is created to contain the output files. This directory is created in the IBM\_Support directory of the hard drive from which you ran DSA. The following naming convention is used for these DSA output directories:  
`<machine_type> <serial_no>_<date>_<time>`
- \_\_\_ 5. The .xml.gz output file can be provided to IBM support for analysis.

##### **Installing IBM Dynamic Systems Analysis (DSA) Installable Edition**

- \_\_\_ 1. Download the latest DSA utility from the IBM support site.  
<http://www-1.ibm.com/support/docview.wss?uid=psg1SERV-DSA>
- \_\_\_ 2. Select `<Start>` -> `<Run>`. The "Run" window opens.
- \_\_\_ 3. In the Open field, type the path to the DSA Installable Edition executable file, or click Browse to locate it.  
(Optional) Type `/s` after the executable file name to automatically accept the license terms of DSA.  
(Optional) Type DSA command-line options after the `/s` option or after the executable file name. For more information, see "USING DSA COMMAND-LINE OPTIONS" later in the readme.
- \_\_\_ 4. Select `<OK>`. The InstallShield Wizard starts and displays a window for DSA. This step does not apply when the `/s` option is used when running DSA. Note: When using the `/s` option to run DSA, the InstallShield Wizard screens are not displayed. Therefore, the remaining steps in this procedure do not apply.
- \_\_\_ 5. Select `<Next>`.

- \_\_\_ 6. Review the license agreement.
- \_\_\_ 7. Select <I accept the terms in the license agreement>.
- \_\_\_ 8. Select <Next.>

### ***Collecting information using the IBM DSA Installable Edition***

- \_\_\_ 1. Open a command line.
- \_\_\_ 2. Type <C:\Program Files\IBM\DSA\collectall.exe> to run DSA.

<b>DSA Usage</b>
<pre>/? /h – Display help for DSA command-line options /d – Place DSA output is supplied directory rather than in default location. If not specified with /c, directory must already exist /c – Create directory specified by /d option, if it does not already exist. /i – Use this input file, rather than triggering a data collection on the current system. /x – Do not output the compressed XML output file. /v – Create HTML output files /b – Run in batch mode, skipping any user-interactive prompts /u – Specify location of UpdateXpress CD or CD Image for use in UpdateXpress Firmware Analysis Plug-in /t – Transfer collected data to IBM Service testcase.boulder.ibm.com via anonymous FTP  All options must be separated with one or more spaces.</pre>

- \_\_\_ 3. Each time you run DSA, a directory is created to contain the output files. This directory is created in the IBM\_Support directory of the hard drive from which you ran DSA. The following naming convention is used for these DSA output directories:  
<machine\_type> <serial\_no>\_<date>\_<time>
- \_\_\_ 4. The .xml.gz output file can be provided to IBM support for analysis.

## **Linux Systems**

### ***Collect information using IBM Dynamic Systems Analysis Portable Edition***

Note: The portable version of DSA does not required any installation.

- \_\_\_1. Download the latest DSA utility from the IBM support site . Ensure that you download the file appropriate for your distribution .
- \_\_\_2. To run DSA and generate output files that can be provided to IBM Support, run this command:  
for RHEL3: dsaxxp-rhel.sh  
for SLES9: dsaxxp-sles.sh  
where xxx is the version number of the release.
- \_\_\_3. To run DSA and generate output files that can be viewed locally, run this command:  
for RHEL3: dsaxxp-rhel.sh /a /v  
for SLES9: dsaxxp-sles.sh /a /v  
where xxx is the version number of the release.
- \_\_\_4. Each time you run DSA, a directory is created to contain the output files. This directory is created in the IBM\_Support directory of the hard drive from which you ran DSA. The following naming convention is used for these DSA output directories:  
<machine\_type> <serial\_no>\_<date>\_<time>
- \_\_\_5. The .xml.gz output file can be provided to IBM support for analysis.

For further details on using DSA please refer to the Readme information provided with the utility.

### ***Collect information using IBM eGatherer***

- \_\_\_1. Download the latest eGatherer utility from the IBM support site.  
<http://www-1.ibm.com/support/docview.wss?uid=psg1MIGR-4R5VKC>
- \_\_\_2. Open a terminal window.
- \_\_\_3. Type the path to the eGatherer utility.
- \_\_\_4. Run the eGatherer utility ( i.e ./egather2-2.09.linux )
- \_\_\_5. eGatherer will collect all the logs and configuration files and place it into a \*.eg2 file into the current directory.
- \_\_\_6. The .eg2 file can be provided to IBM Support for analysis.

## 4.2.2 JS20 blade servers

### AIX Systems

1. Telnet and login to the JS20.
2. Remove old snap files using `<snap -r>`, as shown in the figure below.

**JS20 - AIX command line: remove old snap**

```
# snap -r
```

3. Run `<snap -gc>` to start data collection and compress the output, as shown in the figure below. This will generate an output file `Snap.pax.Z` in the default directory: `/tmp/ibmsupt/` (size approx. 7 MB)

**JS20 - AIX command line: run snap**

```
# snap -gc
```

### Linux Systems

After the installation of the Linux operating system, the customer must download and install the Service Aids for Hardware Diagnostics. This service aids toolkit provides the tools required to service JS20 systems running IBM's supported versions of the Linux operating system. In the rare instance when a system error occurs, the toolkit provides first failure data capture, error log analysis, and other necessary information needed for accurate problem determination and correction. Your hardware service provider then uses this information to effectively service your equipment.

#### Service Aids for Linux

1. First you have to download the service aids from following:  
<http://techsupport.services.ibm.com/server/lopdiaqs>. Select your Linux distribution.
2. Download the following packages from this page:
  - [ppc64-utils-x.x-x.ppc64.rpm.gz](#)  
These utilities implement RAS (Reliability, Availability, Scalability) and instrumentation interfaces to the Linux PowerPC64 kernel. They include the `update_flash` command, which allows customers to download and install firmware updates; and the `snap` command, which captures extended error data that aids analysis of intermittent errors. These utilities provide an interface to these functions and data from the kernel. The RAS functions are one of the major market differentiators for the pSeries hardware supported by the Linux PowerPC64 kernel.
  - [lsvpd-x.xx.x-x.ppc.rpm.gz](#)  
The `lsvpd` package contains both the `lsvpd` and `lscfg` commands. These commands, along with a boot-time scanning script called `update-device-tree`, constitute a simple hardware inventory system. The `lsvpd` command provides Vital Product Data (VPD) about hardware components to

higher-level serviceability tools. The `lscfg` command provides a more human-readable format of the VPD, as well as some system-specific information.

- [diagela-x.x.x.x-x.ppc.rpm.gz](#)  
The Error Log Analysis tool provides automatic analysis and notification of errors reported by the platform firmware on IBM eServer pSeries systems. This RPM analyzes errors written to `/var/log/platform`. If a corrective action is required, notification is sent to the Service Focal Point on the Hardware Management Console (HMC), if so equipped, or to users subscribed for notification via the file `/etc/diagela/mail_list`.

- \_\_\_ 3. Copy these three packages onto your JS20 blade.
- \_\_\_ 4. Unzip these three packages with the following command:  
`gunzip -d packagename.rpm.gz`
- \_\_\_ 5. Install these three packages with the following command:  
`rpm -Uvh packagename.rpm`
- \_\_\_ 6. Initialize the `lsvpd` database with the following command:  
`/etc/init.d/lsvpd start`
- \_\_\_ 7. Verify that `lsvpd` is installed correctly by executing, as shown in the figure below.

```
linux:/utils #
linux:/utils # lsvpd
*UC 5.0
*TM IBM,8842P1Z
*SE IBM,0123A0900
*PI IBM,0123A0900
*OS Linux 2.4.21-138-pseries64
*FC ???????
*DS System Firmware
*RM hW040720
*FC ???????
*DS System UPD
*SE 23A0900
*TM 8842P1Z
*MN IBM
*MU 070C7972266F11D88C83E5B4688C4085
*ET 11
*UK R36K
*VL U8842.P1Z.23A0900
*FC ???????
*DS Memory Dimm
*FC ???????
*DS IDE Disk Drive
*AX /dev/hda
*MF Toshiba
*TM TOSHIBA MK4019G0XB
*SM 231D4687I
*RM FB002B
*VL U8842.P1Z.23A0900-P1-D1
*FC ???????
*DS Port 2-IBM 2 PORT 1000 Base-SX PCI-X Adapter <14109c02>
*AX eth1
*MF Broadcom Corporation
*TM NetXtreme BCM5704S Gigabit Ethernet
*CD 1014029c
*VL U8842.P1Z.23A0900-P1-T7
*FC ???????
*DS Port 1-IBM 2 PORT 1000 Base-SX PCI-X Adapter <14109c02>
*AX eth0
*MF Broadcom Corporation
*TM NetXtreme BCM5704S Gigabit Ethernet
*CD 1014029c
*VL U8842.P1Z.23A0900-P1-T6
linux:/utils #
linux:/utils #
```

- \_\_\_ 8. Verify that `lscfg` is installed correctly, as shown in the figure below.

```
linux:/utils #
linux:/utils #
linux:/utils #
linux:/utils # lscfg
INSTALLED RESOURCE LIST

The following resources are installed on the machine.
+/- = Added or deleted from Resource List.
* = Diagnostic support not available.

Model Architecture: chrp
Model Implementation: Multiple Processor, PCI Bus

+ sys0                      System Object
+ sysplanar0                System Planar
+ [NONAME]                   U8842.P1Z.23A0900-P1-C3 Memory Dimm
+ [NONAME]                   U8842.P1Z.23A0900-P1-C4 Memory Dimm
+ ide0                       U8842.P1Z.23A0900-P1 IDE I/O Controller
+ hda                        U8842.P1Z.23A0900-P1-D1 IDE Disk Drive (40000 MB)
+ eth1                       U8842.P1Z.23A0900-P1-T7 Port 2-IBM 2 PORT 1000 Base-SX PCI-X
                          Adapter (14109c02)
+ eth0                       U8842.P1Z.23A0900-P1-T6 Port 1-IBM 2 PORT 1000 Base-SX PCI-X
                          Adapter (14109c02)
+ pci0                       U8842.P1Z.23A0900-P1 PCI Bus
+ pci1                       U8842.P1Z.23A0900-P1 PCI Bus
+ pci2                       U8842.P1Z.23A0900-P1 PCI Bus
+ pci3                       U8842.P1Z.23A0900-P1 PCI Bus
+ proc0                      U8842.P1Z.23A0900-P1 Processor
+ proc1                      U8842.P1Z.23A0900-P1 Processor
linux:/utils #
linux:/utils # _
```

*lscfg*

- \_\_\_ 9. To collect all this information into one file, type `snap -va`.
- \_\_\_ 10. The `snap` utility will create a file called `snap.tar.gz` and place into current directory.

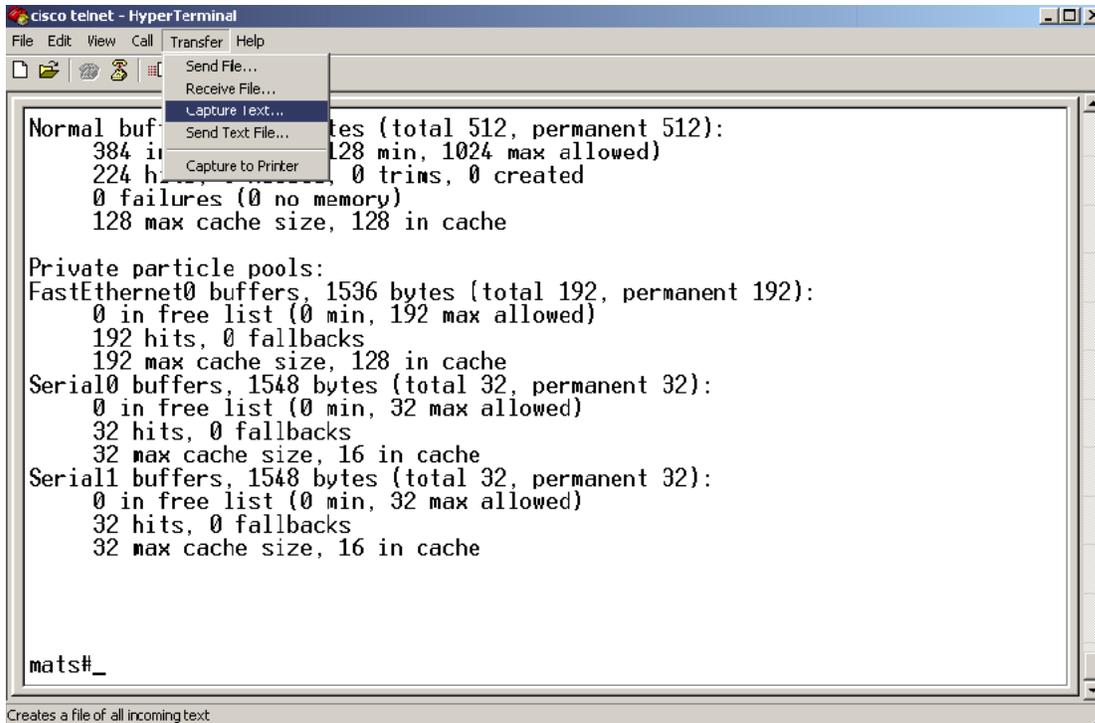
### 4.3 Switch Modules

#### Important Notice for Switch Modules

- *Make sure that the IP addresses of the blade servers are NOT on the same subnet as the MM and I/O modules. This causes blade servers to lose network connectivity.*
- *For Cisco ESM, make sure that ports 15 and 16 (mgt ports) have not been changed to the same Vlan as the Blades. By default, blade server ports are Vlan\_2 and management ports are Vlan\_1.*

When capturing logs and configuration dumps, it is important that you enable capture text within the telnet application. To enable this for Hyperterminal for Windows;

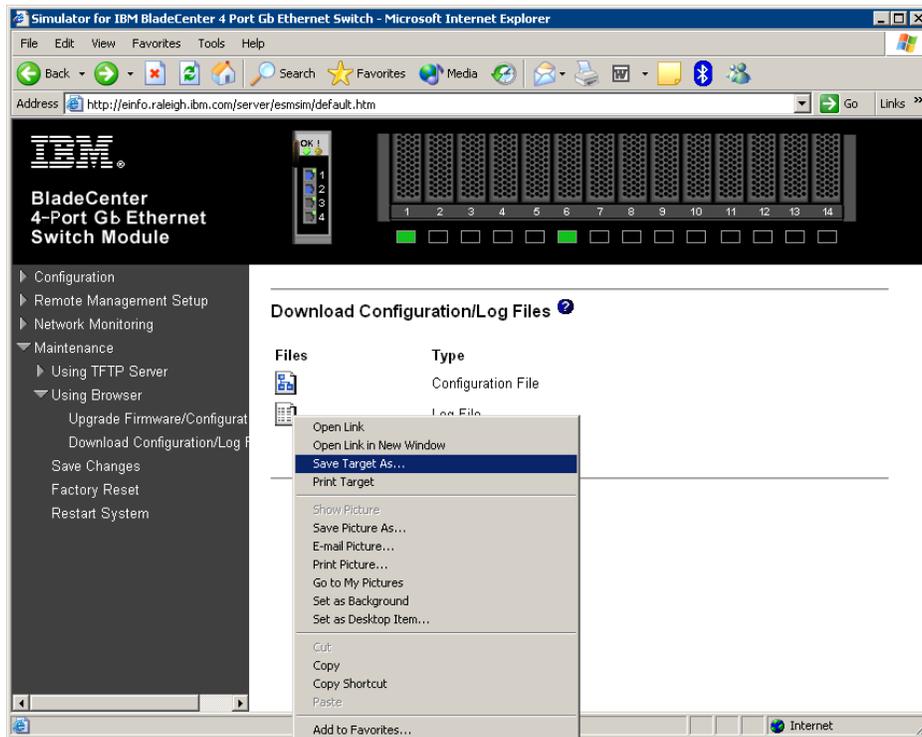
- \_\_\_ 1. Start Hyperterminal and open a telnet session to the switch.
- \_\_\_ 2. Select <Transfer> and then <Capture Text>, as shown in the figure below.



3. Type in the location where you want the text file to be stored on your hard drive and select <Start>.

### 4.3.1 BladeCenter 4-port GB Ethernet Switch Module (ESM/Dlink)

1. Connect and login to the Ethernet Switch Module using your favourite web browser (default userid and password is: USERID/PASSWORD).
2. Select "Maintenance" from the right hand side.
3. Select "Using Browser".
4. Select "Download Configuration/Log File".
5. Right-click on the log file and save it to local disk, as shown in the figure below.



### 4.3.2 Nortel Networks switch module option

1. Telnet and login to the switch, as shown in the figure below.  
**Note:** Ensure that “capture text” is switched on for the telnet application, details discussed in section 4.3.

```

Nortel switch command line
C:\>telnet 192.168.70.228

Nortel Networks Layer2-3 GbE Switch
Module.
Enter password: xxxxxxxx

```

2. Enter the Maintenance menu using the maint command, as shown in the figure below.

```

Nortel switch command line – Main Menu
-----
[Main Menu]
      info      - Information Menu
      stats     - Statistics Menu
      cfg       - Configuration Menu

```

```

oper      - Operations Command Menu
boot      - Boot Options Menu
maint     - Maintenance Menu
diff      - Show pending config changes [global
command]
apply     - Apply pending config changes [global
command]
save      - Save updated config to FLASH [global
command]
revert    - Revert pending or applied changes [global
command]
exit      - Exit [global command, always available]

>> Main# maint

```

- \_\_\_\_\_ **3.** Load the tech support dump using the `tsdmp` command, as shown in the figure below.

```

Nortel switch command line – Maintenance Menu
-----
[Maintenance Menu]
  sys      - System Maintenance Menu
  fdb      - Forwarding Database Manipulation Menu
  debug    - Debugging Menu
  arp      - ARP Cache Manipulation Menu
  route    - IP Route Manipulation Menu
  uudmp    - Uuencode FLASH dump
  ptdmp    - Upload FLASH dump via FTP/TFTP
  cldmp    - Clear FLASH dump
  panic    - Dump state information to FLASH and
reboot
  tsdmp    - Tech support dump
  pttsdmp  - Upload tech support dump via FTP/TFTP

>> Maintenance# tsdmp

```

- \_\_\_\_\_ **4.** Select yes to load the tech support dump.  
**Note:** Ensure that “capture text” is switched on for the telnet application, details discussed in section 4.3.

```

Nortel switch command line - tsdmp
Confirm dumping all information, statistics, and
configuration [y/n]: y
System Information at 11:15:51 Thu Jan  1, 2070
Time zone: No timezone configured

```

```
Nortel Networks Layer2-3 GbE Switch Module
sysName:
sysLocation:

Switch is up 0 days, 11 hours, 15 minutes and 51 seconds.
Last boot: 0:00:44 Thu Jan 1, 2070 (power cycle)

MAC address: 00:11:58:ad:ed:00      IP (If 128) address:
192.168.70.228
Unreleased Software: FW_VERSION: #15 Wed Aug 25 12:45:24
PDT 2004
                                FW_VIEW: rjprokop_rjprokop_ch1
                                FW_CONTEXT: ALT-HW_ZOE-1 / pass2
                                (FLASH imagel), factory default
configuration.

Last 30 syslog message information:
Jan 1 0:00:55 NOTICE system: link up on port INT2
Jan 1 0:00:58 NOTICE mgmt: Management via all ports is
ENABLED thru I2C Control Register
Jan 1 0:00:58 NOTICE system: link up on port MGT1

<... lots of output ...>
```

### 4.3.3 Cisco Gigabit Ethernet Switch module

1. Telnet and login to the switch, as shown in the figure below.  
**Note:** Ensure that “capture text” is switched on for the telnet application, details discussed in section 4.3.

```
Cisco switch command line
User Access Verification

Password: xxxxxxxx
mats>
```

2. Turn on privileged commands using the enable command, as shown in the figure below.

```
Cisco switch command line
mats> enable

Password: xxxxxxxx
mats#
```

- \_\_\_3. Run the show tech-support command, as shown in the figure below.

```
Cisco switch command line
mats# show tech-support

----- show version -----

Cisco Internetwork Operating System
Software
IOS (tm) C1700 Software (C1700-SY56I-
M), Version 12.0(7)T, RELEASE SOFTWARE
(fc2)
Copyright (c) 1986-1999 by cisco
Systems, Inc.
Compiled Mon 06-Dec-99 19:57 by
phanguye
Image text-base: 0x80008088, data-base:
0x8082CE3C

<..... Lots of text .....>
mats#
```

#### 4.3.4 IBM BladeCenter 2-port / 6-port Fibre Channel Switch Module (Qlogic)

- \_\_\_1. Telnet and login to the switch, as shown in the figure below.  
**Note:** Ensure that “capture text” is switched on for the telnet application, details discussed in section 4.4.

```
Qlogic switch command line
# telnet 192.168.70.128
Default userid and password is:
USERID / PASSWORD
```

- \_\_\_2. Run and capture the showsupport command, as shown in the figure below.

```
Qlogic switch command line
# Show Support
```

### 4.3.5 Brocade Entry / Enterprise SAN Switch Module for IBM BladeCenter

- \_\_\_ 1. Telnet and login to the switch, as shown in the figure below.  
**Note:** Ensure that “capture text” is switched on for the telnet application, details discussed in section 4.4.

#### Brocade switch command line

```
# telnet 192.168.70.129
Default userid and password is:
USERID / PASSWORD
```

- \_\_\_ 2. Run and capture the uptime and supportShow command, as shown in the figure below.

#### Brocade switch command line

```
# uptime
# supportShow
```

- \_\_\_ 3. If you have a problem on one or more ports and you can recreate the problem, perform the Additional Action Plan.

#### Brocade Additional Action Plan

- \_\_\_ 1. Type and save the output:  
# portLogClear to reset the port errors
- \_\_\_ 2. Type and save the output:  
# supportShow
- \_\_\_ 3. Recreate the problem.
- \_\_\_ 4. Type and save the output:  
# supportShow

- \_\_\_ 4. If you have a problem with unexpected switch reboots and system crashes, do;

#### Brocade Unexpected Reboots

- \_\_\_ 1. Type and save the output:  
# pdshow  
# save core

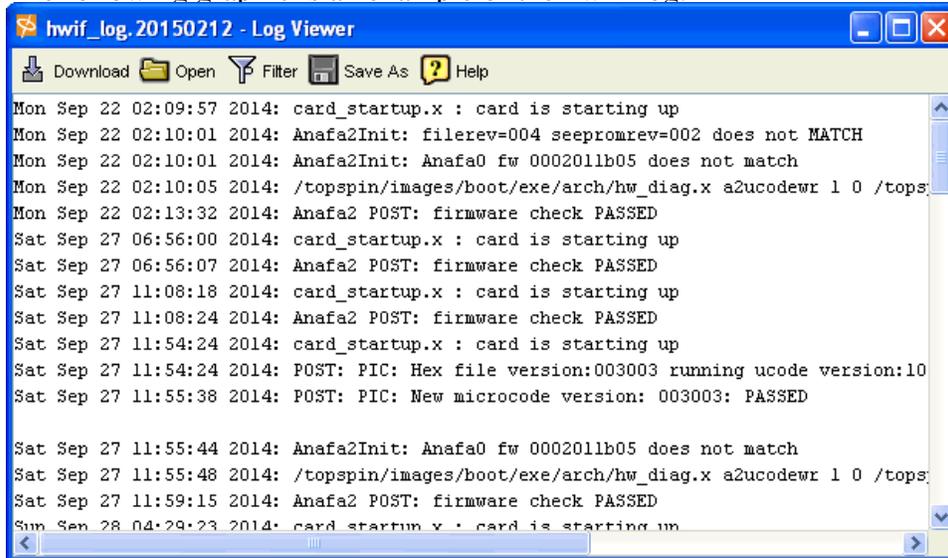
## 4.3.6 Topspin Infiniband Switch Module for IBM eServer BladeCenter

### Extracting the hwif\_log

The hwif\_log can be extracted by using the following command at the CLI:

```
IBM BladeCenter# more syslog:hwif_log
```

The following graphic is an example of the hwif\_log:



```
hwif_log.20150212 - Log Viewer
Download Open Filter Save As Help
Mon Sep 22 02:09:57 2014: card_startup.x : card is starting up
Mon Sep 22 02:10:01 2014: Anafa2Init: filerev=004 seepromrev=002 does not MATCH
Mon Sep 22 02:10:01 2014: Anafa2Init: Anafa0 fw 0002011b05 does not match
Mon Sep 22 02:10:05 2014: /topspin/images/boot/exe/arch/hw_diag.x a2ucodewr 1 0 /tops
Mon Sep 22 02:13:32 2014: Anafa2 POST: firmware check PASSED
Sat Sep 27 06:56:00 2014: card_startup.x : card is starting up
Sat Sep 27 06:56:07 2014: Anafa2 POST: firmware check PASSED
Sat Sep 27 11:08:18 2014: card_startup.x : card is starting up
Sat Sep 27 11:08:24 2014: Anafa2 POST: firmware check PASSED
Sat Sep 27 11:54:24 2014: card_startup.x : card is starting up
Sat Sep 27 11:54:24 2014: POST: PIC: Hex file version:003003 running ucode version:10
Sat Sep 27 11:55:38 2014: POST: PIC: New microcode version: 003003: PASSED
Sat Sep 27 11:55:44 2014: Anafa2Init: Anafa0 fw 0002011b05 does not match
Sat Sep 27 11:55:48 2014: /topspin/images/boot/exe/arch/hw_diag.x a2ucodewr 1 0 /tops
Sat Sep 27 11:59:15 2014: Anafa2 POST: firmware check PASSED
Sun Sep 28 04:29:23 2014: card_startup.x : card is starting up
```

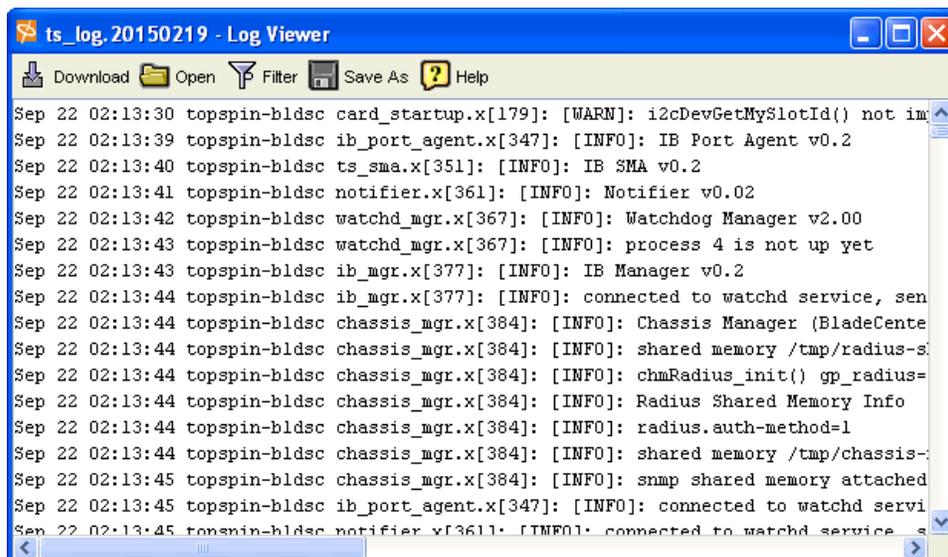
Then save it as a text file or copy and paste the information into a text file.

### Extracting the ts\_log

Another important log is the software log ts\_log and it can be extracted by using the following command at the CLI:

```
IBM BladeCenter# more syslog:ts_log
```

The following graphic is an example of the software log ts\_log:



```
ts_log.20150219 - Log Viewer
Download Open Filter Save As Help
Sep 22 02:13:30 topspin-blidsc card_startup.x[179]: [WARN]: i2cDevGetMySlotId() not im
Sep 22 02:13:39 topspin-blidsc ib_port_agent.x[347]: [INFO]: IB Port Agent v0.2
Sep 22 02:13:40 topspin-blidsc ts_sma.x[351]: [INFO]: IB SMA v0.2
Sep 22 02:13:41 topspin-blidsc notifier.x[361]: [INFO]: Notifier v0.02
Sep 22 02:13:42 topspin-blidsc watchd_mgr.x[367]: [INFO]: Watchdog Manager v2.00
Sep 22 02:13:43 topspin-blidsc watchd_mgr.x[367]: [INFO]: process 4 is not up yet
Sep 22 02:13:43 topspin-blidsc ib_mgr.x[377]: [INFO]: IB Manager v0.2
Sep 22 02:13:44 topspin-blidsc ib_mgr.x[377]: [INFO]: connected to watchd service, sen
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: Chassis Manager (BladeCente
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: shared memory /tmp/radius-s
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: chmRadius_init() gp_radius=
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: Radius Shared Memory Info
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: radius.auth-method=1
Sep 22 02:13:44 topspin-blidsc chassis_mgr.x[384]: [INFO]: shared memory /tmp/chassis-
Sep 22 02:13:45 topspin-blidsc chassis_mgr.x[384]: [INFO]: snmp shared memory attached
Sep 22 02:13:45 topspin-blidsc ib_port_agent.x[347]: [INFO]: connected to watchd servi
Sep 22 02:13:45 topspin-blidsc notifier.x[361]: [INFO]: connected to watchd service_s
```