

LIVRE spécialisé Linux sur HP Integrity : LIVRES/PDF_ou_CHM/
Prentice.Hall.Linux.on.HP.Integrity.Servers.A.System.Administr
ators.Guide.Jul.2004.eBook-DDU.chm

IDENTIFICATION DE MES MACHINES :

J'ai recopié plusieurs fois (en rouge) une lettre correspondante à chaque integrity dans l'encadrement de l'ouverture pour les cartes additionnelles à l'arrière des machines.

La machine détaillée ci-dessous est celle notée "A" (SERIAL DEH454730B).

Voir plus bas machine "B" (SERIAL DEH454730A).

Au 24 avril 2010, les 2 machines ci-dessus ont les mêmes versions de BMC/ILO/..., à savoir :

```
EFI Boot Manager ver 1.10 [14.62]
  hp server rx2620
System Firmware: 4.21 [4651]
BMC Version:    4.03
MP Version:     E.03.30
```

IMPORTANT : j'ai découvert tardivement (en regardant les autocollants présents dans le serveur, à proximité des slots mémoire) que l'organisation des mémoires suivait un schéma original.

Pour plus de détail, se reporter dans ce document à la section intitulée "ORGANISATION MÉMOIRE".

AUTRE POINT IMPORTANT : il semble plus que recommandé de refermer (ou tout au moins reposer) le capot de l'ordinateur pour éviter les reboot intempestifs. (Je n'ai pas la certitude que la présence du capot soit un gage de "stabilité" mais pour l'instant, avec le capot reposé, je n'ai plus constaté de reboot indésirable.)

Ce qui est clair, c'est qu'une fois le capot suffisamment bien remis, les ventilateurs baissent sensiblement de régime (avec comme bénéfice un volume sonore moindre).

également "raccordable" (avec les identifiants mentionnés ci-après, Admin/Admin ou Oper/Oper) sur la prise série DB25 en 9600-N-8-1. (Consulter éventuellement "Default Console - hp integrity rx2600 Server - 5971-4238.pdf".)

Réglage d'un Mac pour accès "distant" en réseau :

```
$ sudo -s
# networksetup -listallnetworkservices
  An asterisk (*) denotes that a network service is
disabled.
  Bluetooth DUN
  Ethernet
  FireWire
  AirPort
# networksetup -setmanual integrity 10.21.21.21 255.255.255.0
10.21.21.1
# ifconfig en0          # pour vérification
# ping 10.21.21.1      # pour vérification accès HP rx2620-1
```

```
MBPDiablo2:~ yannick$ nmap -A 10.21.21.1
```

```
Starting Nmap 5.00 ( http://nmap.org ) at 2010-01-16 05:26 CET
Interesting ports on 10.21.21.1:
Not shown: 996 closed ports
PORT      STATE SERVICE      VERSION
22/tcp    open  ssh         HP Integrated Lights Out mpSSH 0.1.0
(protocol 2.0)
23/tcp    open  telnet?
80/tcp    open  http        HP 9000 http service
|_ html-title: Site doesn't have a title (text/html).
443/tcp   open  ssl/https?
|_ html-title: HP iLO Login
```

```
MBPDiablo2:~ yannick$ ssh 10.21.21.1
Received disconnect from 10.21.21.1: 11: SSH Disabled
==> "Feature Not Licensed"
```

PAR CONTRE accessible en HTTP (redirigé automatiquement vers HTTPS)

```
MBPDiablo:~ yannick$ telnet 10.21.21.1      # fonctionne, même
ordinateur éteint pour
Trying 10.21.21.1...                        # peu qu'il
soit raccordé au secteur !
Connected to 10.21.21.1.
Escape character is '^]'.
```

```
*****
*****
```

```
  This is a private system.
  Do not attempt to login unless you are an authorized user.
  Any authorized or unauthorized access or use may be
monitored and can
  result in criminal or civil prosecution under applicable
law.
```

```
*****
*****
```

```
*****
*****
```

```
  Only default users are configured.
  Use one of the following user/password pairs to login:
```

```
  Admin/Admin
  Oper/Oper
```

```
*****
*****
```

```
MP login: Admin
MP password: *****
```

Hewlett-Packard Integrated Lights-Out HP Integrity and
HP 9000

(c) Copyright Hewlett-Packard Company 1999-2006. All
Rights Reserved.

MP Host Name: rx2620-1

Revision E.03.30

MP ACCESS IS NOT SECURE

Default MP users are currently configured and remote access is enabled.

Modify default users passwords or delete default users (see UC command)

OR

Disable all types of remote access (see SA command)

Your Certificate is expired.

Use the S0 command to generate a new certificate.

MP MAIN MENU:

CO: Console
VFP: Virtual Front Panel
CM: Command Menu
CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> ^D

Connection closed by foreign host.

MBPDiablo:~ yannick\$ ssh 10.21.21.1

Received disconnect from 10.21.21.1: 11: SSH Disabled

MBPDiablo:~ yannick\$ telnet 10.21.21.1

Trying 10.21.21.1...

Connected to 10.21.21.1.

Escape character is '^']'.

This is a private system.
Do not attempt to login unless you are an authorized user.
Any authorized or unauthorized access or use may be
monitored and can
result in criminal or civil prosecution under applicable
law.

Only default users are configured.
Use one of the following user/password pairs to login:

Admin/Admin
Oper/Oper

MP login: Admin
MP password: *****

Hewlett-Packard Integrated Lights-Out HP Integrity and
HP 9000

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Rights Reserved.

MP Host Name: rx2620-1

Revision E.03.30

MP ACCESS IS NOT SECURE

Default MP users are currently configured and remote access
is enabled.

Modify default users passwords or delete default users (see
UC command)

OR

Disable all types of remote access (see SA

details.)

*** The system is now preparing to dump physical memory to disk, for use

*** in debugging the crash.

ERROR: No dump space is configured. Physical memory will not be dumped.

ERROR: Configured dump space is insufficient to hold dump metadata.

Physical memory will not be dumped.

* ROM Version : 04.21

* ROM Date : 12/18/2006

* BMC Version : 04.03

0 0 0x0015B2 0x0000000016122410 boot time event

1 0 0x0000A4 0x0000000000000000 start memory configuration

0 0 0x0015B2 0x0000000022355658 boot time event

1 0 0x000014 0x0000000000000000 CPU0 starting cell relocation

1 0 0x000009 0x0000000000000000 CPU0 launch EFI

EFI version 1.10 [14.62]

EFI64 Running on Intel(R) Itanium Processor Family

EFI 1.10 IPF server rx2620 5.48 [Thu Nov 10 15:08:03 2005]

firmware by HP

Copyright (c) 2000-2005 Broadcom Corporation

Broadcom NetXtreme Gigabit Ethernet EFI driver v7.0.10

Loading 'SysROM:Floating-Point Software Assistance Handler'...

-- 'SysROM:Floating-Point Software Assistance Handler'

returned Success

Loading 'SysROM:SCSI Bus Driver'...

-- 'SysROM:SCSI Bus Driver' returned Success

Loading 'SysROM:SCSI Tape Driver'...

-- 'SysROM:SCSI Tape Driver' returned Success

Loading device drivers

EFI Boot Manager ver 1.10 [14.62]

OS might use only the primary console set via boot manager or conconfig command

```
/-----\  
|           System Overview  
| /-----\  
|           Boot Menu           | | hp server rx2620  
| HP-UX Primary Boot: 0/1/1/0.1.0 | | Serial #: DEH454730B  
| HP-UX HA Alternate Boot: 0/1... | |  
| HP-UX Alternate Boot: 0/1/1/... | | System Firmware: 4.21  
| [4651] |  
| EFI Shell [Built-in] | | BMC Version: 4.03  
| Internal Bootable DVD | | MP Version:  
| E.03.30 |  
| Core LAN Gb A | | Installed Memory: 4096  
| MB |  
| Core LAN Gb B | |  
|-----| | CPU Logical  
| Boot Configuration | | Module CPUs Speed  
| Status | |  
| System Configuration | | 0 1 1.3 GHz  
| Active | |  
| Security Configuration | | 1 1 1.3 GHz  
| Active | |  
| | |  
| | |  
| | |  
| | |  
|-----| |  
| | |  
| | |  
| | |  
|-----| |
```

Use <^|v> to scroll <ENTER> to Select <ESC> or <X/x>
for Previous Menu

Scsi(Pun1,Lun0) HP 73.4GST373454LC HPC2 (40 MBytes/sec)
Loading.: HP-UX Primary Boot: 0/1/1/0.1.0
Starting: HP-UX Primary Boot: 0/1/1/0.1.0

(C) Copyright 1999-2006 Hewlett-Packard Development Company,
L.P.
All rights reserved

HP-UX Boot Loader for IPF -- Revision 2.029

Press Any Key to interrupt Autoboot
\EFI\HPUX\AUTO ==> boot vmunix -lq
Seconds left till autoboot - 0
AUTOBOOTING...> System Memory = 4074 MB
loading section 0

.....
(complete)

loading section 1

..... (complete)

loading symbol table

loading System Directory (boot.sys) to MFS

....

loading MFSFILES directory (bootfs) to MFS

.....

Launching /stand/vmunix

SIZE: Text:27749K + Data:6761K + BSS:7891K = Total:42402K

Console is on a Serial Device

Booting kernel...

Memory Class Setup

Class	Physem	Lockmem	Swapmem
System	: 4074 MB	4074 MB	4074 MB
Kernel	: 4074 MB	4074 MB	4074 MB
User	: 3627 MB	3159 MB	3171 MB

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physmem	Lockmem	Swapmem
System :	4074 MB	4074 MB	4074 MB
Kernel :	4074 MB	4074 MB	4074 MB
User :	3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> cm

(Use Ctrl-B to return to MP main menu.)

[rx2620-1] MP:CM>

[rx2620-1] MP:CM> he

HE

==== MP Help: Main Menu

=====

Hardware Revision a5 Firmware Revision E.03.30 Oct 27
2006,13:43:15

Integrated Lights-Out for HP Integrity and HP 9000 -
Management Processor (MP)

MP Help System

Use Ctrl-B to exit MP command interface and return to the
main MP menu.

Enter a command at the help prompt:

Overview : Launch the help overview

List : Show the list of MP Command Menu

commands

<COMMAND> : Enter the command name for help on

individual command

TOPics : Show all MP Help topics and commands

HElp : Display this screen

Q : Quit help

====

MP:HE> li

li

==== MP Help: Command Menu List

=====

BP : Reset BMC Passwords

MS : Modem Status

CA : Configure asynch/serial ports

PC : Remote Power

Control	
DATE: Display Date parameters setup	PG : PaGing
DC : Default Configuration Policy Config.	PR : Power Restore
DF : Display FRU Information module Status	PS : Power management
DI : DIscconnect users	RB : Reset BMC
DNS : Configure DHCP and DNS through RST signal	RS : Reset System
FW : Upgrade MP firmware	SA : Set MP Access
HE : Display Help parameters	SNMP: Configure SNMP
ID : System Information	S0 : Security Options
IT : Modify MP inactivity timeouts processors Status	SS : System
LC : Configure LAN, SSH and Web ports firmware Revs.	SYSREV: Display System
LDAP: Configure Directory parameters INIT	TC : Reset system via
LM : License Management msg. to other users	TE : TELL- send a
LOC : Locator LED display Configuration	UC : User
LS : LAN Status connected MP users	WHO : Display
MR : Modem Reset reset of MP	XD : Diagnostics and

====
(HE for main help, enter command name, or Q to quit)
MP:HE>

==== MP Help: Main Menu
=====

Hardware Revision a5 Firmware Revision E.03.30 Oct 27
2006,13:43:15

Integrated Lights-Out for HP Integrity and HP 9000 -
Management Processor (MP)

MP Help System

Use Ctrl-B to exit MP command interface and return to the
main MP menu.

Enter a command at the help prompt:
OVerview : Launch the help overview
LIst : Show the list of MP Command Menu
commands
individual command <COMMAND> : Enter the command name for help on
TOPics : Show all MP Help topics and commands
HElp : Display this screen
Q : Quit help

====
MP:HE> q
q

[rx2620-1] MP:CM> ldap

LDAP

MP Advanced license is required to use LDAP feature.
Please see Help on "LM" (License Management) for more details.

[rx2620-1] MP:CM> tc

TC

Execution of this command irrecoverably halts all system
processing and
I/O activity and restarts the computer system.

Type Y to confirm your intention to restart the system: (Y/
[N]) n
n

-> SPU hardware has not been reset.

[rx2620-1] MP:CM> he

HE

==== MP Help: Main Menu
=====

Hardware Revision a5 Firmware Revision E.03.30 Oct 27
2006,13:43:15

Integrated Lights-Out for HP Integrity and HP 9000 -
Management Processor (MP)

MP Help System

Use Ctrl-B to exit MP command interface and return to the
main MP menu.

Enter a command at the help prompt:

 OVerview : Launch the help overview
 LIst : Show the list of MP Command Menu
commands
 <COMMAND> : Enter the command name for help on
individual command
 TOPics : Show all MP Help topics and commands
 HElp : Display this screen
 Q : Quit help

====

MP:HE> li

li

==== MP Help: Command Menu List

=====

BP : Reset BMC Passwords	MS : Modem Status
CA : Configure asynch/serial ports Control	PC : Remote Power
DATE: Display Date parameters setup	PG : PaGing
DC : Default Configuration Policy Config.	PR : Power Restore
DF : Display FRU Information module Status	PS : Power management
DI : DIscconnect users	RB : Reset BMC
DNS : Configure DHCP and DNS through RST signal	RS : Reset System
FW : Upgrade MP firmware	SA : Set MP Access
HE : Display Help parameters	SNMP: Configure SNMP
ID : System Information	S0 : Security Options
IT : Modify MP inactivity timeouts processors Status	SS : System
LC : Configure LAN, SSH and Web ports firmware Revs.	SYSREV: Display System
LDAP: Configure Directory parameters	TC : Reset system via

INIT
LM : License Management TE : TELL- send a
msg. to other users
LOC : Locator LED display UC : User
Configuration
LS : LAN Status WHO : Display
connected MP users
MR : Modem Reset XD : Diagnostics and
reset of MP

====

(HE for main help, enter command name, or Q to quit)

MP:HE> q

q

[rx2620-1] MP:CM> pc

PC

Current System Power State: On

Power Control Menu:

 C - Power Cycle
 ON - Power On
 OFF - Power Off
 G - Graceful Shutdown

Enter menu item or [Q] to Quit: off

off

System will be powered off.

You must shut down the OS manually before this command is executed.

Failure to do this can cause problems when the OS is restarted.

Confirm? (Y/[N]): y

y

-> System is being powered off.

[rx2620-1] MP:CM>

[rx2620-1] MP:CM>

[rx2620-1] MP:CM> q

Unrecognized Command : Type HE for help on the available commands

[rx2620-1] MP:CM>

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> daye

*** Invalid Selection ***

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> date

*** Invalid Selection ***

MP MAIN MENU:

- CO: Console

VFP: Virtual Front Panel
CM: Command Menu
CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> cm

(Use Ctrl-B to return to MP main menu.)

[rx2620-1] MP:CM> date

DATE

Current Date and Time: 05/10/2009 10:37:19

[rx2620-1] MP:CM> ls

LS

Current LAN Configuration:

MAC Address	: 0x0015608aaaf8
DHCP Status	: Disabled
IP Address	: 10.21.21.1
MP Host Name	: rx2620-1
Subnet Mask	: 255.255.255.0
Gateway Address	: 10.21.21.1
Link State	: Auto Negotiate
Remote Serial Console Port	: 2023
SSH Access Port	: - (MP Feature Not Licensed)
IPMI / LAN Port	: 623

LAN status: UP and RUNNING

[rx2620-1] MP:CM> df

DF

To dump all available FRU information without any paging, use

the command line interface: DF -ALL -NC

Display FRU Information Menu:

- S - Specific FRU
- A - All available FRUs
- V - Display Mode: Text

Enter menu item or [Q] to Quit: a
a

FRU Entry # 0 :
FRU NAME: CPU 0 PIROM ID:20

PROCESSOR DATA
S-spec/QDF: SL8CY
Sample/Prod: 01

CORE DATA
Arch Revision : 00
Core Family : 1F
Core Model : 02
Core Stepping : 02
Max Core Frequency : 1300 MHZ
Max SysBus Frequency : 200 MHZ
Core Voltage : 1150 mV
Core Voltage Tolerance,High : 17 mV
Core Voltage Tolerance,Low : 17 mV

CACHE DATA
Cache Size : 3072 KB

PACKAGE DATA
Package Revision : INT3
Substrate Revision: 00

PROC PART NUMBER DATA
Part Number : 80543KC
Electronic Signature : 000030D0174B2C0E

THERMAL REF DATA
Upper Temp Ref : 101 C
Calibr Offset : 0 C

FEATURES DATA
IA-32 Proc Core Feature Flags: FFFB8743
IA-64 Proc Core Feature Flags: 1B81806300000000
Package Feature Flags : 0B000000
Devices on TAP Chain : 1

Type <CR> for next entry, or Q to quit:

FRU Entry # 1 :
FRU NAME: CPU 1 PIROM ID:21

PROCESSOR DATA
S-spec/QDF: SL8CY
Sample/Prod: 01

CORE DATA
Arch Revision : 00
Core Family : 1F
Core Model : 02
Core Stepping : 02
Max Core Frequency : 1300 MHZ
Max SysBus Frequency : 200 MHZ
Core Voltage : 1150 mV
Core Voltage Tolerance,High : 17 mV
Core Voltage Tolerance,Low : 17 mV

CACHE DATA
Cache Size : 3072 KB

PACKAGE DATA
Package Revision : INT3
Substrate Revision: 00

PROC PART NUMBER DATA
Part Number : 80543KC
Electronic Signature : 0000AD565F25C90B

THERMAL REF DATA
Upper Temp Ref : 101 C
Calibr Offset : 0 C

FEATURES DATA
IA-32 Proc Core Feature Flags: FFFB8743
IA-64 Proc Core Feature Flags: 1B81806300000000
Package Feature Flags : 0B000000
Devices on TAP Chain : 1

Type <CR> for next entry, or Q to quit:

FRU Entry # 2 :
FRU NAME: Processor 0 RAM ID:24
Invalid FRU Record Version

Type <CR> for next entry, or Q to quit: q

[rx2620-1] MP:CM> ^[[A

Unrecognized Command : Type HE for help on the available commands

[rx2620-1] MP:CM> ls

LS

Current LAN Configuration:

MAC Address	: 0x0015608aaaf8
DHCP Status	: Disabled
IP Address	: 10.21.21.1
MP Host Name	: rx2620-1
Subnet Mask	: 255.255.255.0
Gateway Address	: 10.21.21.1
Link State	: Auto Negotiate
Remote Serial Console Port	: 2023
SSH Access Port	: - (MP Feature Not Licensed)
IPMI / LAN Port	: 623

LAN status: UP and RUNNING

[rx2620-1] MP:CM> df

DF

To dump all available FRU information without any paging, use the command line interface: DF -ALL -NC

Display FRU Information Menu:

- S - Specific FRU
- A - All available FRUs
- V - Display Mode: Text

Enter menu item or [Q] to Quit: q

q

[rx2620-1] MP:CM> df -all -nc

DF -all -nc

FRU Entry # 0 :
FRU NAME: CPU 0 PIROM ID:20

PROCESSOR DATA
S-spec/QDF: SL8CY
Sample/Prod: 01

CORE DATA
Arch Revision : 00
Core Family : 1F
Core Model : 02
Core Stepping : 02
Max Core Frequency : 1300 MHZ
Max SysBus Frequency : 200 MHZ
Core Voltage : 1150 mV
Core Voltage Tolerance,High : 17 mV
Core Voltage Tolerance,Low : 17 mV

CACHE DATA
Cache Size : 3072 KB

PACKAGE DATA
Package Revision : INT3
Substrate Revision: 00

PROC PART NUMBER DATA
Part Number : 80543KC
Electronic Signature : 000030D0174B2C0E

THERMAL REF DATA
Upper Temp Ref : 101 C
Calibr Offset : 0 C

FEATURES DATA
IA-32 Proc Core Feature Flags: FFFB8743
IA-64 Proc Core Feature Flags: 1B81806300000000
Package Feature Flags : 0B000000
Devices on TAP Chain : 1

FRU Entry # 1 :
FRU NAME: CPU 1 PIROM ID:21

PROCESSOR DATA
S-spec/QDF: SL8CY
Sample/Prod: 01

CORE DATA

Arch Revision : 00
Core Family : 1F
Core Model : 02
Core Stepping : 02
Max Core Frequency : 1300 MHZ
Max SysBus Frequency : 200 MHZ
Core Voltage : 1150 mV
Core Voltage Tolerance,High : 17 mV
Core Voltage Tolerance,Low : 17 mV

CACHE DATA

Cache Size : 3072 KB

PACKAGE DATA

Package Revision : INT3
Substrate Revision: 00

PROC PART NUMBER DATA

Part Number : 80543KC
Electronic Signature : 0000AD565F25C90B

THERMAL REF DATA

Upper Temp Ref : 101 C
Calibr Offset : 0 C

FEATURES DATA

IA-32 Proc Core Feature Flags: FFFB8743
IA-64 Proc Core Feature Flags: 1B81806300000000
Package Feature Flags : 0B000000
Devices on TAP Chain : 1

FRU Entry # 2 :

FRU NAME: Processor 0 RAM ID:24

Invalid FRU Record Version

FRU Entry # 3 :

FRU NAME: Processor 1 RAM ID:25

Invalid FRU Record Version

FRU Entry # 4 :

FRU NAME: I/O Backplane ID:05

CHASSIS INFO:

BOARD INFO:

Mfg Date/Time : 0
Manufacturer : hp
Product Name : pci riser card

S/N : 40CTQ9F0EK
Part Number : A7231-66530
Fru File ID : 10
Custom Info : A5
Custom Info : 4224
Custom Info : A5
Custom Info : 0

PRODUCT INFO:

FRU Entry # 5 :
FRU NAME: MP Board ID:06

CHASSIS INFO:

BOARD INFO:

Mfg Date/Time : 0
Manufacturer : hp
Product Name : management processor card
S/N : 52CTQ86062
Part Number : AB587-60002
Fru File ID : 10
Custom Info : A
Custom Info : 4538
Custom Info : C
Custom Info : 0

PRODUCT INFO:

FRU Entry # 6 :
FRU NAME : DIMM0A
FRU ID : 0x80
JEDEC SPD Rev : 0x00
JEDEC Mfg ID : 0x7F94FFFFFFFFFFFF
JEDEC Mfg Location : 0x02
JEDEC Mfg Part # : A6969AX-HYICHT0B
JEDEC Mfg Revision Code : 0x00FF
JEDEC Mfg Year : 0x05
JEDEC Mfg Week : 0x44
JEDEC Mfg Serial # : 0x061D9E18
Mfg Unique Serial # : 0x0194020544061D9E18

FRU Entry # 7 :

FRU NAME : DIMM0B
FRU ID : 0x81
JEDEC SPD Rev : 0x00
JEDEC Mfg ID : 0x7F94FFFFFFFFFFFF
JEDEC Mfg Location : 0x02
JEDEC Mfg Part # : A6969AX-HYICHT0B
JEDEC Mfg Revision Code : 0x00FF

JEDEC Mfg Year : 0x05
JEDEC Mfg Week : 0x44
JEDEC Mfg Serial # : 0x061D9DB1
Mfg Unique Serial # : 0x0194020544061D9DB1

FRU Entry # 8 :
FRU NAME : DIMM1A
FRU ID : 0x88
JEDEC SPD Rev : 0x00
JEDEC Mfg ID : 0x7F94FFFFFFFFFFFF
JEDEC Mfg Location : 0x02
JEDEC Mfg Part # : A6969AX-HYICHT0B
JEDEC Mfg Revision Code : 0x00FF
JEDEC Mfg Year : 0x05
JEDEC Mfg Week : 0x44
JEDEC Mfg Serial # : 0x061D9E96
Mfg Unique Serial # : 0x0194020544061D9E96

FRU Entry # 9 :
FRU NAME : DIMM1B
FRU ID : 0x89
JEDEC SPD Rev : 0x00
JEDEC Mfg ID : 0x7F94FFFFFFFFFFFF
JEDEC Mfg Location : 0x02
JEDEC Mfg Part # : A6969AX-HYICHT0B
JEDEC Mfg Revision Code : 0x00FF
JEDEC Mfg Year : 0x05
JEDEC Mfg Week : 0x44
JEDEC Mfg Serial # : 0x061D9E97
Mfg Unique Serial # : 0x0194020544061D9E97

FRU Entry # 10 :
FRU NAME: Motherboard ID:00

CHASSIS INFO:
Type:Rack Mount Chassis

BOARD INFO:
Mfg Date/Time : 5188618
Manufacturer : CELESTICA
Product Name : motherboard
S/N : 52CTQA007A
Part Number : AB331-60001
Fru File ID : 10
Custom Info : B
Custom Info : 4521
Custom Info : A5
Custom Info : 0

PRODUCT INFO:

Manufacturer : hp
Product Name : server rx2620
Part/Model : AB333A
S/N : DEH454730B
FRU File ID : 11
Custom Info : 10a

-> This is the last entry in the selected list.

-> Command successful.

[rx2620-1] MP:CM> ms

MS

Type <CR> to update modem status, or Q to quit

```
-Modem state- ----- Remote port Modem Signals
-----
109      RI/125      RTS/105      DTR/108      CTS/106      DSR/107      DCD/
Session idle      0           0           0           0           0
0
q
```

[rx2620-1] MP:CM> ms

MS

Type <CR> to update modem status, or Q to quit

```
-Modem state- ----- Remote port Modem Signals
-----
109      RI/125      RTS/105      DTR/108      CTS/106      DSR/107      DCD/
Session idle      0           0           0           0           0
0
```

```
Session idle      0      0      0      0      0
0
Session idle      0      0      0      0      0
0
q
```

[rx2620-1] MP:CM> ps

PS
System Power state: Off
Temperature : Low OverTemp

Power supplies	State
Power Supply 1	Normal
Power Supply 2	Normal

Fans	State
Fan1A (CPU)	Normal
Fan1B (CPU)	Normal
Fan2 (Memory)	Normal
Fan3 (I/O)	Normal
CPU0 Fan	Normal
CPU1 Fan	Normal

[rx2620-1] MP:CM> co

Unrecognized Command : Type HE for help on the available commands

[rx2620-1] MP:CM> q

Unrecognized Command : Type HE for help on the available commands

[rx2620-1] MP:CM>

MP MAIN MENU:

CO: Console
VFP: Virtual Front Panel
CM: Command Menu

CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physem	Lockmem	Swapmem
System	4074 MB	4074 MB	4074 MB
Kernel	4074 MB	4074 MB	4074 MB
User	3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

C0: Console
VFP: Virtual Front Panel
CM: Command Menu
CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> cm

(Use Ctrl-B to return to MP main menu.)

[rx2620-1] MP:CM> sr

SYSREV

Current firmware revisions

MP FW : E.03.30
BMC FW : 04.03
EFI FW : 05.48
System FW : 04.21

[rx2620-1] MP:CM> ss

SS

System Processor Status:

System Power is Off. No processor information is available.

[rx2620-1] MP:CM> who

WHO

User Login Address	LDAP/Local Mode	Rights	Port Name	IP
Admin MA	Local	C, P, M, U	LOCAL	
Admin 10.21.21.216	Local	C, P, M, U	WEB	
Admin 10.21.21.216	Local CM	C, P, M, U	TELNET	

[rx2620-1] MP:CM>

MP MAIN MENU:

C0: Console
VFP: Virtual Front Panel
CM: Command Menu

CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physmem	Lockmem	Swapmem
System	: 4074 MB	4074 MB	4074 MB
Kernel	: 4074 MB	4074 MB	4074 MB
User	: 3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

C0: Console
VFP: Virtual Front Panel
CM: Command Menu
CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

[rx2620-1] MP> se

-> Request cannot be executed when SPU power is down.

*** Unable to start a session ***

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> pc

*** Invalid Selection ***

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> cm

(Use Ctrl-B to return to MP main menu.)

[rx2620-1] MP:CM> pc

PC

Current System Power State: Off

Power Control Menu:

- C - Power Cycle
- ON - Power On
- OFF - Power Off

G - Graceful Shutdown

Enter menu item or [Q] to Quit: on
on

System will be powered on.

Confirm? (Y/[N]): y

y

-> System is being powered on.

[rx2620-1] MP:CM>

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

----- Prior Console Output -----

Memory Class Setup

Class	Physem	Lockmem	Swapmem
System	4074 MB	4074 MB	4074 MB
Kernel	4074 MB	4074 MB	4074 MB
User	3627 MB	3159 MB	3171 MB

----- Live Console -----

* ROM Version : 04.21

```
* ROM Date      : 12/18/2006
* BMC Version   : 04.03
*****
0 0 0x0015B2 0x0000000017284851 boot time event
1 0 0x0000A4 0x0000000000000000 start memory configuration
0 0 0x0015B2 0x0000000023745404 boot time event
1 0 0x000014 0x0000000000000000 CPU0 starting cell relocation
1 0 0x000009 0x0000000000000000 CPU0 launch EFI
```

```
EFI version 1.10 [14.62]
EFI64 Running on Intel(R) Itanium Processor Family
EFI 1.10 IPF server rx2620 5.48 [Thu Nov 10 15:08:03 2005]
firmware by HP
```

```
Copyright (c) 2000-2005 Broadcom Corporation
Broadcom NetXtreme Gigabit Ethernet EFI driver v7.0.10
```

```
Loading 'SysROM:Floating-Point Software Assistance Handler'...
-- 'SysROM:Floating-Point Software Assistance Handler'
returned Success
Loading 'SysROM:SCSI Bus Driver'...
-- 'SysROM:SCSI Bus Driver' returned Success
Loading 'SysROM:SCSI Tape Driver'...
-- 'SysROM:SCSI Tape Driver' returned Success
Loading device drivers
```

```
EFI Boot Manager ver 1.10 [14.62]
OS might use only the primary console set via boot manager or
conconfig command
```

```
/-----
```

```

-----\
/-----\ |           System Overview
|           Boot Menu           | | hp server rx2620
| HP-UX Primary Boot: 0/1/1/0.1.0 | | Serial #: DEH454730B
| HP/-----\ |
| HP| System Configuration | | System Firmware: 4.21
[4651] |
| EF| Advanced System Information | | BMC Version: 4.03
| In| Se/-----\sion:
E.03.30 |
| Co| Se| Advanced System Information |led Memory: 4096
MB |
| Co| Se| Display All Information |
| --| Se| System Information | logical
| Bo| Se| Processor Information | CPUs Speed
Status |
| Sy| Se| Memory Information | 1 1.3 GHz
Active |
| Se| | I/O Information | 1 1.3 GHz
Active |
| \---| Boot Information |
| \---- | Firmware Information |
| | Warning and Stop Boot Information |
| |v |
| \-----/
-----/

```

Use <^|v> to scroll <ENTER> to Select <ESC> or <X/x>
for Previous Menu
System Information

SYSTEM INFORMATION

Date/Time: May 10, 2009 10:49:20 (20:09:05:10:10:49:20)
Manufacturer: hp
Product Name: server rx2620
Product Number: AB333A
Serial Number: DEH454730B
UUID: 44BBC0CC-7C13-11DA-BD88-0FEB480AA43F
System Bus Frequency: 200 MHz
Press any key to continue

EFI Boot Manager ver 1.10 [14.62]

```

                                     /-----\
-----\                               |
/-----\                               |      System Overview
|                                               | |
|           Boot Menu                       | | hp server rx2620
| HP-UX Primary Boot: 0/1/1/0.1.0         | | Serial #: DEH454730B
| HP/-----\                               |
| HP|      System Configuration             | | System Firmware: 4.21
[4651] | |
| EF| Advanced System Information          | | BMC Version: 4.03
| In| Se/-----\sion:
E.03.30 |
| Co| Se|      Advanced System Information |led Memory: 4096
MB      |
| Co| Se| Display All Information          |
| --| Se| System Information              | logical
| Bo| Se| Processor Information           | CPUs   Speed
Status  |
| Sy| Se| Memory Information              | 1     1.3 GHz
Active  |
| Se|  | I/O Information                   | 1     1.3 GHz
Active  |
| \---| Boot Information                   |
|
```

```

\----- | Firmware Information |
|
|       | Warning and Stop Boot Information |
|
|       |v |
|
|       \-----/
-----/

```

Use <^|v> to scroll <ENTER> to Select <ESC> or <X/x>
for Previous Menu
Display All Information

SYSTEM INFORMATION

Date/Time: May 10, 2009 10:49:24 (20:09:05:10:10:49:24)
Manufacturer: hp
Product Name: server rx2620
Product Number: AB333A
Serial Number: DEH454730B
UUID: 44BBC0CC-7C13-11DA-BD88-0FEB480AA43F
System Bus Frequency: 200 MHz

PROCESSOR MODULE INFORMATION

CPU Processor Module State	# of Logical CPUs	Speed	L3 Cache Size	L4 Cache Size	Family/ Model (hex.)	Rev
0	1	1.3 GHz	3 MB	None	1F/02	A2
Active						
1	1	1.3 GHz	3 MB	None	1F/02	A2
Active						

MEMORY INFORMATION

----- DIMM A ----- ----- DIMM B -----
 Press ENTER to continue, 'q' to exit:

	DIMM	Current	DIMM	Current
0	1024MB	Active	1024MB	Active
1	1024MB	Active	1024MB	Active
2	----		----	
3	----		----	
4	----		----	
5	----		----	

Active Memory : 4096 MB
 Installed Memory : 4096 MB

I/O INFORMATION

BOOTABLE DEVICES

Order	Media Type	Path
-------	------------	------

Press ENTER to continue, 'q' to exit:

Seg #	Bus #	Dev #	Fnc #	Vendor ID	Device ID	Slot #	Path
Pci(1 0)	00	01	00	0x1033	0x0035	XX	Acpi(HWP0002,0)/
Pci(1 1)	00	01	01	0x1033	0x0035	XX	Acpi(HWP0002,0)/
Pci(1 2)	00	01	02	0x1033	0x00E0	XX	Acpi(HWP0002,0)/
Pci(2 0)	00	02	00	0x1095	0x0649	XX	Acpi(HWP0002,0)/
Pci(1 0)	00	20	01	0x1000	0x0030	XX	Acpi(HWP0002,100)/
Pci(1 1)	00	20	01	0x1000	0x0030	XX	Acpi(HWP0002,100)/
Pci(2 0)	00	20	02	0x8086	0x1079	XX	Acpi(HWP0002,100)/
Pci(2 1)	00	20	02	0x8086	0x1079	XX	Acpi(HWP0002,100)/
Pci(1 0)	00	40	01	0x8086	0x1079	03	Acpi(HWP0002,200)/
Pci(1 0)	00	40	01	0x8086	0x1079	03	Acpi(HWP0002,200)/

```

Pci(1|1)
  00 60 01 00 0x1014 0x01A7 02 Acpi(HWP0002,300)/
Pci(1|0)
  00 61 04 00 0x1077 0x2312 02 Acpi(HWP0002,300)/
Pci(1|0)/Pci(4|0)
  00 61 04 01 0x1077 0x2312 02 Acpi(HWP0002,300)/
Pci(1|0)/Pci(4|1)
  00 61 06 00 0x14E4 0x1648 02 Acpi(HWP0002,300)/
Pci(1|0)/Pci(6|0)
  00 61 06 01 0x14E4 0x1648 02 Acpi(HWP0002,300)/
Pci(1|0)/Pci(6|1)
  00 80 01 00 0x1014 0x01A7 01 Acpi(HWP0002,400)/
Pci(1|0)
  00 81 04 00 0x1077 0x2312 01 Acpi(HWP0002,400)/
Pci(1|0)/Pci(4|0)
  00 81 04 01 0x1077 0x2312 01 Acpi(HWP0002,400)/
Pci(1|0)/Pci(4|1)
  00 81 06 00 0x14E4 0x1648 01 Acpi(HWP0002,400)/
Pci(1|0)/Pci(6|0)
  00 81 06 01 0x14E4 0x1648 01 Acpi(HWP0002,400)/
Pci(1|0)/Pci(6|1)
  00 E0 01 00 0x103C 0x1290 XX Acpi(HWP0002,700)/
Pci(1|0)
Press ENTER to continue, 'q' to exit:
  00 E0 01 01 0x103C 0x1048 XX Acpi(HWP0002,700)/
Pci(1|1)
  00 E0 02 00 0x1002 0x5159 XX Acpi(HWP0002,700)/
Pci(2|0)

```

Fast initialization: Enabled
System Wake-On-LAN: Enabled

BOOT INFORMATION

Monarch CPU:

Current Monarch CPU Module/ Logical	Preferred Monarch CPU Module/ Logical	Warnings
0/0	0/0	

AutoBoot: ON - Timeout is : 10 sec

Boottest:

Press ENTER to continue, 'q' to exit:
BOOTTEST Settings Default Variable

OS is not speedy boot aware.

Selftest	Setting
early_cpu	Run this test
late_cpu	Run this test
platform	Run this test
chipset	Run this test
io_hw	Run this test
mem_init	Run this test
mem_test	Run this test

LAN Address Information:

LAN Address	Path
-------------	------

FIRMWARE INFORMATION

System Firmware Revision: 4.21 [4651]
Press ENTER to continue, 'q' to exit:

PAL_A: 7.31/1.27
PAL_B: 2.15
EFI Spec: 1.10
EFI Intel Drop: 14.62
EFI Build: 5.48
SAL Spec: 3.01
SAL_A: 2.00
SAL_B: 4.21
POSSE: 0.20
ACPI: 7.00
SMBIOS: 2.3.2a
BMC Revision: 4.03
IPMI: 1.00

Management Processor Revision: E.03.30

Updatable EFI Drivers:

Floating-Point Software Assistance Handler:	00000118
LSI Logic Ultra320 SCSI Driver:	01040200
Broadcom Gigabit Ethernet Driver:	0007000A
SCSI Bus Driver:	00000021
SCSI Tape Driver:	00000020
Intel(R) PRO/1000 Ethernet Driver:	00002160
Usb Ohci Driver:	00000033
USB Bus Driver:	00000014
USB Bot Mass Storage Driver:	00000014


```

| In| Se/-----\sion:
E.03.30 |
| Co| Se| Advanced System Information |led Memory: 4096
MB |
| Co| Se| Display All Information |
| --| Se| System Information | logical
| Bo| Se| Processor Information | CPUs Speed
Status |
| Sy| Se| Memory Information | 1 1.3 GHz
Active |
| Se| | I/O Information | 1 1.3 GHz
Active |
| \---| Boot Information |
|
\----- | Firmware Information |
|
| Warning and Stop Boot Information |
|
|v |
|
| \-----/
-----/

```

Use <^|v> to scroll <ENTER> to Select <ESC> or <X/x>
for Previous Menu
Memory Information

MEMORY INFORMATION

	---- DIMM A ----		---- DIMM B ----	
	DIMM	Current	DIMM	Current
0	1024MB	Active	1024MB	Active
1	1024MB	Active	1024MB	Active
2	----		----	
3	----		----	
4	----		----	
5	----		----	

Active Memory : 4096 MB
Installed Memory : 4096 MB

Press any key to continue

EFI Boot Manager ver 1.10 [14.62]

```

-----\
/-----\ |
|                                     | | System Overview
|           Boot Menu                | | hp server rx2620
| HP-UX Primary Boot: 0/1/1/0.1.0   | | Serial #: DEH454730B
| HP/-----\.. | |
| HP|   Boot Configuration |.. | | System Firmware: 4.21
[4651] | |
| EF| Boot From File      | | | BMC Version: 4.03
| In| Add Boot Entry      | | | MP Version:
E.03.30 | |
| Co| Edit Boot Entry     | | | Installed Memory: 4096
MB | |
| Co| Remove Boot Entry   | | |
| --| Edit OS Boot Order  | - | | CPU Logical
| Bo| AutoBoot Configuration | | | Module CPUs Speed
Status | |
| Sy| BootNext Configuration | | | 0 1 1.3 GHz
Active | |
| Se| ----- | | | 1 1 1.3 GHz
Active | |
| | Driver Configuration | | |
| ---| Console Configuration | ---/ |
| | ----- | | |
| |v | | |
|
```

\-----/
\-----/

Use <^|v> to scroll <ENTER> to Select <ESC> or <X/x>
for Previous Menu
Add Boot Entry

Searching for devices
Scsi(Pun0,Lun0) HP 73.4GST373454LC HPC2 (320 MBytes/sec)
Scsi(Pun1,Lun0) HP 73.4GST373454LC HPC2 (40 MBytes/sec)
HP 2Port 2Gb Fibre Channel Adapter (driver 1.47, firmware
3.03.154)
HP 2Port 2Gb Fibre Channel Adapter (driver 1.47, firmware
3.03.154)
Broadcom NetXtreme Gigabit Ethernet (BCM5704) is detected
(PCI-X)
Broadcom NetXtreme Gigabit Ethernet (BCM5704) is detected
(PCI-X)
HP 2Port 2Gb Fibre Channel Adapter (driver 1.47, firmware
3.03.154)
HP 2Port 2Gb Fibre Channel Adapter (driver 1.47, firmware
3.03.154)
Broadcom NetXtreme Gigabit Ethernet (BCM5704) is detected
(PCI-X)
Broadcom NetXtreme Gigabit Ethernet (BCM5704) is detected
(PCI-X)

EFI Boot Manager ver 1.10 [14.62]

OS might use only the primary console set via boot manager or conconfig command

```

-----\
/-----\
|                                     | |      System Overview
|           Boot Menu                 | |      hp server rx2620
| HP-UX Primary Boot: 0/1/1/0.1.0    | |      Serial #:  DEH454730B
| HP-UX HA Alternate Boot: 0/1...    | |
| HP-UX Alternate Boot: 0/1/1/...    | |      System Firmware:  4.21
[4651] |                               | |      BMC Version:      4.03
| EFI Shell [Built-in]               | |
| Internal Bootable DVD               | |      MP Version:
E.03.30 |                               | |
| Core LAN Gb A                       | |      Installed Memory: 4096
MB |                                     | |
| Core LAN Gb B                       | |
| ----- | |      CPU Logical
| Boot Configuration                  | |      Module CPUs   Speed
Status |                               | |
| System Configuration                | |      0    1    1.3 GHz
Active |                               | |
| Security Configuration              | |      1    1    1.3 GHz
Active |                               | |
|                                     | |
| |                                     | |
\-----/ (|
| |                                     | |
|                                     | |
| |                                     | |
| |                                     | |
| |                                     | |
\-----/ -/

```

Use <^|v> to scroll for Previous Menu <ENTER> to Select <ESC> or <X/x>

Loading.: HP-UX Primary Boot: 0/1/1/0.1.0
Starting: HP-UX Primary Boot: 0/1/1/0.1.0

(C) Copyright 1999-2006 Hewlett-Packard Development Company,
L.P.
All rights reserved

HP-UX Boot Loader for IPF -- Revision 2.029

Press Any Key to interrupt Autoboot

\EFI\HPUX\AUTO ==> boot vmunix -lq

Seconds left till autoboot - 0

AUTOBOOTING...> System Memory = 4074 MB

loading section 0

.....
(complete)

loading section 1

..... (complete)

loading symbol table

loading System Directory (boot.sys) to MFS

....
loading MFSFILES directory (bootfs) to MFS

.....
Launching /stand/vmunix

SIZE: Text:27749K + Data:6761K + BSS:7891K = Total:42402K

Console is on a Serial Device
Booting kernel...

Memory Class Setup

Class	Physem	Lockmem	Swapmem
System	: 4074 MB	4074 MB	4074 MB
Kernel	: 4074 MB	4074 MB	4074 MB
User	: 3627 MB	3159 MB	3171 MB

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physmem	Lockmem	Swapmem
System	4074 MB	4074 MB	4074 MB
Kernel	4074 MB	4074 MB	4074 MB
User	3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> pc

*** Invalid Selection ***

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> cm

(Use Ctrl-B to return to MP main menu.)

[rx2620-1] MP:CM> pc

PC

Current System Power State: On

Power Control Menu:

- C - Power Cycle
- ON - Power On
- OFF - Power Off
- G - Graceful Shutdown

Enter menu item or [Q] to Quit: g

g

System will be gracefully shutdown.

Confirm? (Y/[N]): y

y

-> System has been requested graceful shutdown.

[rx2620-1] MP:CM> co

Unrecognized Command : Type HE for help on the available commands

[rx2620-1] MP:CM>

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physmem	Lockmem	Swapmem
System	4074 MB	4074 MB	4074 MB
Kernel	4074 MB	4074 MB	4074 MB
User	3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP> co

(Use Ctrl-B to return to MP main menu.)

- - - - - Prior Console Output - - - - -

Memory Class Setup

Class	Physem	Lockmem	Swapmem
System :	4074 MB	4074 MB	4074 MB
Kernel :	4074 MB	4074 MB	4074 MB
User :	3627 MB	3159 MB	3171 MB

- - - - - Live Console - - - - -

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

[rx2620-1] MP>

MP MAIN MENU:

- CO: Console
- VFP: Virtual Front Panel
- CM: Command Menu
- CL: Console Log
- SL: Show Event Logs
- HE: Main Help Menu
- X: Exit Connection

```
[rx2620-1] MP> cm
```

(Use Ctrl-B to return to MP main menu.)

```
[rx2620-1] MP:CM> pc -?
```

```
PC -?
```

```
Usage: PC [ -on | -off | -graceful | -cycle ] [ -nc ]  
PC -?
```

-> Command successful.

```
[rx2620-1] MP:CM> pc -off -nc
```

```
PC -of fff -nc
```

** Parse Error: Keyword does not allow a value **

```
Usage: PC [ -on | -off | -graceful | -cycle ] [ -nc ]  
PC -?
```

-> Command failed.

```
[rx2620-1] MP:CM> pc -off -nc
```

```
PC -off -nc
```

System will be powered off.

You must shut down the OS manually before this command is executed.

Failure to do this can cause problems when the OS is restarted.

-> System is being powered off.

-> Command successful.

```
[rx2620-1] MP:CM>
```

MP MAIN MENU:

C0: Console
VFP: Virtual Front Panel
CM: Command Menu
CL: Console Log
SL: Show Event Logs
HE: Main Help Menu
X: Exit Connection

```
[rx2620-1] MP> x  
Connection closed by foreign host.  
MBPDiablo:~ yannick$
```

(acquise chez SQP en mai 2009)

APRÈS AJOUT RAM

je démarre la machine avec
pc -on

Le menu (bleu/blanc) s'affiche et je choisi de démarrer EFI

(REMARQUE : j'avais tenté de démarrer sur "Internal Bootable DVD" mais malgré l'insertion d'un CD memtest86 puis d'un DVD Live de Fedora 10 MAIS rien n'y a fait, aucun n'était jugé "bootable" :

```
    Loading.: Internal Bootable DVD  
    Load of Internal Bootable DVD failed: Not Found  
    Press any key to continue
```

)

```
Shell> fs1:                                     ### IMPORTANT : sur fs2: (et  
non fs1:) sur serveur "A"
```

```
fs1:\> cd EFI\BOOT                             ### REMARQUE : ce "système"  
N'est PAS case-sensitive !
```

```
fs1:\EFI\BOOT> ls  
Directory of: fs1:\EFI\BOOT
```

```
11/29/05 05:39a <DIR>                        4,096 .
```

```

11/29/05 05:39a <DIR>          4,096  ..
11/29/05 05:39a                664,064  BOOTIA64.EFI
11/29/05 05:39a                5,238  IO.INI
11/29/05 05:39a                664,064  LaunchMenu.efi
11/29/05 05:39a                4,643  LaunchMenu.ini
11/29/05 05:39a                4,892  VIEW_DOC.INI
      5 File(s)    1,342,901 bytes
      2 Dir(s)

```

```

fs1:\EFI\BOOT> LaunchMenu.efi
HP Itanium Processor Family Diagnostics and Utilities CD
Version A.01.15

```

This CD provides diagnostic applications and tools to support and maintain HP systems based on the Intel IPF platform. Type the key which corresponds to your selection below:

- a. View CD Overview
- b. Run the Off-line Diagnostic Environment (ODE)
- c. Run CD Installer to install/update CD content to HPSP
- d. View Release Notes and Documentation Menu
- e. View I/O Cards FW Update and Configuration Utilities, MCA, and ICM Menu
- f. View License and Warranty Agreements Notice

- x. exit and reboot
- q. exit menu without reboot

J'OPTE POUR LE CHOIX b

```

*****
*****
*****
*****
*****
*****
*****
*****
*****
*****
(C) Copyright Hewlett-Packard Co 1993-2005

```


ODE> memdiag

Type HELP for command information.

Please wait, detecting if a MP system....

Initializing MP Protocol Interface....

Done

Number of Processors = 2

Total Memory Available For Testing = 8120 MB

Total Chunks 34

SMBIOS Init successful

MEMDIAG> help

MEMDIAG Help

Commands

SECTION -- Displays/Sets current test sections to execute

DIAGINFO -- Displays the test sections covered by memdiag

UP -- Utilize only one processor

MP -- Utilize all processors in a system

MAP -- Displays the memory subsystem

Continue ([y]/n)?

ODE Commands Available from MEMDIAG

Basic Commands

HELP -- Prints detailed information to the screen, when
"help <command>"

or "help <var>" is typed

LS -- List modules available on boot medium

<Module_Name> -- Load and initialize a module by typing
its name

(For more help, type "help module_name")

RUN -- Run a module (after setting desired environment
variables)

Control-Y|Control-C -- Abort an ODE command; pause a
module run

RESUME -- Restart a paused module

DISPLOG -- After running a module, display contents of a
log

EXIT -- Return to next higher level prompt

Environmental Variables

```

-----
SHOWSTATE -- Display the value of the following
environment variables:
    LOOP -- Run a test this many times
    ERRPRINT [ON|OFF] -- Print low-level error messages to
console
                                (primarily for manufacturing use)
    ERRNUM [ON|OFF] -- Print one-line, numbered errors to
the console
    ERRPAUSE [ON|OFF] -- Pause module upon error detection
Continue ([y]/n)?

    ERRONLY [ON|OFF] -- Print ONLY error messages; disable
non-error
                                and isolation message printing
    INFOPRINT [ON|OFF] -- Print informational messages to
the console
    ISOPRINT [ON|OFF] -- Print fault isolation messages to
the console
    ISOPAUSE [ON|OFF] -- Pause module when isolation
message is generated
    LOGSIZE -- Set the size of a message log
    DEFAULT -- Reset environment variables to default state
    SAVE -- Save the content of the error log to a file

```

MEMDIAG> run

STARTING EXECUTION OF MEMDIAG

SECTION 001
Refresh Test Section

Started Date : 05/17/2009 Time : 12:24:39

Sent AP(1) Start Message

.....
Finished Date : 05/17/2009 Time : 12:25:38

SECTION 002
Read Hammer Write Test Section

Started Date : 05/17/2009 Time : 12:25:38

Sent AP(1) Start Message

.....
Finished Date : 05/17/2009 Time : 12:25:51

:

Démarrage "contrôlé" en résumé :

```
telnet 10.21.21.1
```

```
Login:
```

```
Password:
```

```
cm
```

```
pc -on
```

```
^B
```

```
co
```

```
-> attendre apparition menus
```

ET SI C'EST POUR INTERVENIR SUR LE BOOT HP-UX ALORS LAISSER PASSER L'ETAPE DES MENUS POUR ENSUITE ATTENDRE L'APPARITION DU MESSAGE :

Press Any Key to interrupt Autoboot

ET PRESSER DONC UNE TOUCHE POUR OBTENIR LE PROMPT SUIVANT :

Type 'help' for help

```
HPUX> help
```

```
-- HPUX bootloader for IPF Help --
```

```
----- supported commands -----
boot [kernel]      - boots HPUX kernel
help [-d]          - help screen (-d to list debug
commands)
mmap               - show current EFI memory map
ls [-aRdnlogrtucpFLis] [path...]
ll [-aRdnlogrtucpFLis] [path...] (same as ls -aLF)
setauto [-d] [str] - sets AUTO file (-d to delete AUTO
file)
showauto          - shows AUTO file
ver               - prints version numbers
exit              - exits bootloader
```

```
HPUX>
```

Trouvé dans des pages sur Internet (avec la recherche Google "hp-ux +ia64 reset root password") :

<http://forums11.itrc.hp.com/service/forums/questionanswer.do?threadId=186244>

HPUX> **hpux -is**

> System Memory = 8171 MB

loading section 0

.....
(complete)

loading section 1

..... (complete)

loading symbol table

loading System Directory (boot.sys) to MFS

....

loading MFSFILES directory (bootfs) to MFS

.....

Launching /stand/vmunix

SIZE: Text:27749K + Data:6761K + BSS:7891K = Total:42402K

Console is on a Serial Device

Booting kernel...

Memory Class Setup

Class	Physmem	Lockmem	Swapmem
System	: 8171 MB	8171 MB	8171 MB
Kernel	: 8171 MB	8171 MB	8171 MB
User	: 7536 MB	6566 MB	6592 MB

====> À CE STADE, IL FAUT PATIENTER QUELQUES MINUTES
AVANT DE VOIR APPARAÎTRE LA SUITE.

:

insf: Installing special files for ipmi instance 0 address
250/0

INIT: Overriding default level with level 's'

INIT: SINGLE USER MODE

```

INIT: Running /sbin/sh
#

# fsck
# mount -a -F vxfs
# passwd

# cat fstab
# System /etc/fstab file.  Static information about the file
systems
# See fstab(4) and sam(1M) for further details on configuring
devices.
/dev/vg00/lvol3 / vxfs delaylog 0 1
/dev/vg00/lvol1 /stand vxfs tranflush 0 1
/dev/vg00/lvol4 /tmp vxfs delaylog 0 2
/dev/vg00/lvol5 /home vxfs delaylog 0 2
/dev/vg00/lvol6 /opt vxfs delaylog 0 2
/dev/vg00/lvol7 /usr vxfs delaylog 0 2
/dev/vg00/lvol8 /var vxfs delaylog 0 2
/dev/vg00/lv_bmc /bmc vxfs delaylog 0 2
/dev/vg00/lv_oracle /oracle vxfs delaylog 0 2
#Swap pour SAP
/dev/vg00/lv_swap ... swap default 0 0

# NFS
frbpct13s:/HP /HP nfs bg,soft 0
2

```

___ BASCULEMENT ENTRE CONSOLE telnet ET CONSOLE web :

Au message :

[Read only - use Ctrl-Ecf for console write access.]

Procéder ainsi :

To execute the **^Ecf** command complete the following steps:

1. Press the **Ctrl** key and the **e** key simultaneously.
2. Release the **Ctrl** key and the **e** key.
3. Press the **c** key.
4. Press the **f** key.

QUELQUES MANIPULATIONS SUR LE HP-UX DONT J'AI REINITIALISE LE
MOT DE PASSE root :

Préconisations :

stty erase ^?
set -o emacs
TERM=vt100

```
srvu0118:/home/root # netstat -i
Name      Mtu  Network      Address      Ipkts  Ierrs
Opkts    0errs Coll
lan1      1500 10.3.142.0    srvu0118s    57     0
70        0     0
lan0*    1500 10.3.140.0    srvu0118     1449   0
1449     0     0
lo0      4136 loopback     localhost    10102  0
10102    0     0
lan6*    1500 10.3.144.0    srvu0118i    13     0
13       0     0
```

```
srvu0118:/home/root # ifconfig lan1
lan1: flags=1843<UP,BROADCAST,RUNNING,MULTICAST,CK0>
      inet 10.3.142.118 netmask fffffff0 broadcast
10.3.142.255
```

```
srvu0118:/home/root # ifconfig lan0
lan0: flags=842<BROADCAST,RUNNING,MULTICAST>
      inet 10.3.141.118 netmask fffffe00 broadcast
10.3.141.255
```

```
srvu0118:/home/root # ifconfig lan6
lan6: flags=8d2<BROADCAST,POINTOPOINT,RUNNING,NOARP,MULTICAST>
      inet 10.3.144.218 --> 0.0.0.0 netmask fffffff0
broadcast 10.3.144.255
```

```
srvu0118:/etc # sam
```

```
# pour voir et
```

plus tard modifier !

srvu0118:/etc # lanshow

```
-----  
|                               |  
|          lanshow ( Version:   3.2 )          |  
|                               |  
|          This tool is for HP support only          |  
|                               |  
|-----|
```

Note: HP CONFIDENTIAL

libp4 (9.293): Opening /stand/current/vmunix /dev/kmem

Loading symbols from /stand/current/vmunix
Kernel TEXT pages not requested in crashconf
Will use an artificial mapping from a.out TEXT pages
Loading symbols from /stand/current/mod/acdd
Loading symbols from /stand/current/mod/atdd
Loading symbols from /stand/current/mod/pfil
Loading symbols from /stand/current/mod/ipf
Loading symbols from /stand/current/mod/rng
Loading symbols from /stand/current/mod/gvid_info
Loading symbols from /stand/current/mod/tsmoptc
Loading symbols from /stand/current/mod/tsmchgr
Loading symbols from /stand/current/mod/tsmtape

Executing: /usr/contrib/bin/lanshow-a-i

Loading symbols from /usr/contrib/bin/lanshow_dbg/xport_1123.o

INFORMATION : SAFER Enablement Patch, PHKL_32798, is installed.

Some structure definitions like tcp_t are being

imported from the companion binary,
lanshow_dbg/xport_1123.o
to get the structure for PHNE_37395

Loading symbols from /usr/contrib/bin/lanshow_dbg/
msi_debug_1123_ia64.o

Name	PPA	Driver	Interface	Mac	States
IP		Name	Description	Address	Link IP
Address					

```

-----
lan0    0    iether  1000Base-T  Core  0x0016353e0c1c DOWN
DOWN 10.3.141.118
lan1    1    iether  1000Base-T  Core  0x0016353e0c1d UP    UP
10.3.142.118
lan8    8    igelan  1000Base-T          0x0014c254c9f4 DOWN n/
c n/c
lan9    9    igelan  1000Base-T          0x0014c254c9f5 DOWN n/
c n/c
lan10   10   iether  1000Base-T          0x00156004506a DOWN n/
c n/c
lan11   11   iether  1000Base-T          0x00156004506b DOWN n/
c n/c

```

n/c : means "Not Configured", ifconfig has not been done on this interface

```

srvu0118:/etc # sam # pour
modifier !

```

```

## À NOTER QUE lsof est aussi installé (dans /usr/contrib/
bin) !
## top est fournie en "standard" (nécessite TERM=vt100)

```

Possibilité de se connecter en HTTP sur le port 2301 (ou alternativement directement en HTTPS sur le port 2381) pour accéder à une interface d'administration Web de la machine. On peut s'y authentifier en tant que "root".

```

srvu0118:/etc # vi /opt/ssh/etc/sshd_config
# déjà sur "Protocol 2" exclusivement
Port 22001
PermitRootLogin no

```

```

## À titre anecdotique (quand le temps me le permettra),
regarder /opt/ssh/ssh_chroot_setup.sh

```

```

srvu0118:/sbin/rc2.d # who -r
.      run-level 3  Jan 17 05:37    3    0    S

```

```

srvu0118:/sbin/rc2.d # ls -l /sbin/rc2.d/S393secsh
lrwxr-xr-x  1 root    sys          18 Nov 29  2005 /
sbin/rc2.d/S393secsh -> /sbin/init.d/secsh

```

```
srvu0118:/sbin/rc2.d # /sbin/init.d/secsh
usage: /sbin/init.d/secsh {start|stop|start_msg|stop_msg}
```

```
srvu0118:/sbin/rc2.d # /sbin/init.d/secsh stop
HP-UX Secure Shell stopped
```

```
srvu0118:/sbin/rc2.d # /sbin/init.d/secsh start
HP-UX Secure Shell started
```

Concernant la configuration réseau, tout modifié efficacement avec SAM.

À REMARQUER TOUT DE MÊME la nécessité, pour la résolution de noms, de spécifier DNS **AVANT** /etc/hosts !

(le 27 août 2010, je tombe sur le fichier SUPPORTS/AFNIC/guides/dns-intro/ClientConfig-HP-UX.html qui me confirme ce constat :

Configuration d'une machine HP-UX utilisant le service de noms

Ordre utilisé pour la recherche d'une adresse

HP-UX utilise les mécanismes dans l'ordre

suivant:

1. DNS, si configuré (présence d'un fichier /etc/resolv.conf ou de named sur la machine).

2. NIS, si configuré.

3. Fichier /etc/hosts)

ERREUR TOUT DE MÊME (à répétition) sur le changement de la passerelle par défaut :

```
| UNEXPECTED EXIT: process LANG=C LC_ALL=C /usr/sam/lbin/samx
-C -n -p |
| 2790 -s route /usr/sam/lib//route.ui exited with a non-zero
exit |
| status.
```

```
| sh: 2857 Memory fault(coredump)
```

==> Problème apparemment connu : <http://forums13.itrc.hp.com/service/forums/questionanswer.do?admit=109447627+1263746880359+28353475&threadId=1188826>

--> "You need the latest SAM patch. This has nothing to do with networking."

Malgré les informations et consignes mentionnées dans le document ci-dessus, j'ai tout simplement pris l'initiative de changer la valeur de la variable ROUTE_GATEWAY[0] dans le

```
fichier approprié, ce qui donne :  
# grep "^ROUTE_GATEWAY" /etc/rc.config.d/netconf  
ROUTE_GATEWAY[0]=192.168.1.2
```

```
srvu0118:/etc # hpux_config # invoque un  
script qui produit le rapport sauvé dans le  
fichier hpux_config.srvu0118.txt
```

Je viens de réinitialiser le mot de passe root de l'autre machine (simplement "root" pour l'instant).

ORGANISATION MÉMOIRE :

L'installation des barrettes doit suivre un schéma précis (dont le détail est expliqué sur un autocollant fixé au-dessus du logement des cartes d'extension) :

- Contrainte pour un serveur : n'installer les barrettes que par groupe de 4 (pas moins).

- Normalement, le premier groupe devrait occuper les emplacements numérotés 0 et 1.

Le deuxième groupe devrait occuper les emplacements numérotés 2 et 3.

Enfin le troisième groupe devrait occuper les emplacements numérotés 4 et 5.

LOGEMENT POUR CARTES D'EXTENSION

A	---	DIMM 0B	---	---	DIMM 1B	---	A
V	---	DIMM 4B	---	---	DIMM 5B	---	R
A	---	DIMM 2B	---	---	DIMM 3B	---	R
							I

N	----	DIMM 0A	----	----	DIMM 1A	----	E
T	----	DIMM 4A	----	----	DIMM 5A	----	R
	----	DIMM 2A	----	----	DIMM 3A	----	E

PROCESSEURS

À NOTER : on ne constate pas de dysfonctionnement si l'on ne respecte pas scrupuleusement cette organisation. J'ai notamment rempli (par méconnaissance) les slots numérotés 0, 1, 4 et 5 et n'ai pas eu à en souffrir. Je ne peux que SUPPOSER que l'organisation recommandée permet d'optimiser le flux d'air pour le refroidissement des barrettes.

Pour 4 barrettes :

LOGEMENT POUR CARTES D'EXTENSION

	-----	-----	A
A	-----	-----	R
V	-----	-----	R
A			I
N	-----	-----	E
T	-----	-----	R
	-----	-----	E

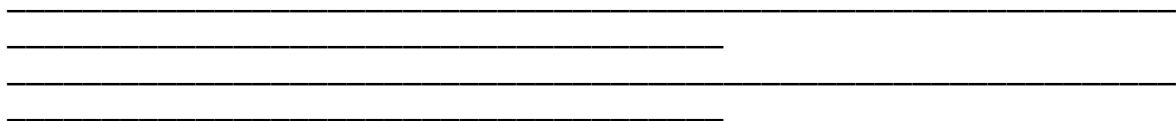
PROCESSEURS

Pour 8 barrettes :

LOGEMENT POUR CARTES D'EXTENSION

	-----	-----	A
A	-----	-----	R
V	-----	-----	R
A			I
N	-----	-----	E
T	-----	-----	R
	-----	-----	E

PROCESSEURS



La machine détaillée ci-dessous est celle notée "B". (Voir plus haut machine "A".)

(Il semble que les ports série DB9 ne puissent pas être utilisés comme port "console".)

également "raccordable" (avec les identifiants mentionnés ci-après, Admin/Admin ou Oper/Oper) sur la prise série DB25 en 9600-N-8-1. (Consulter éventuellement "Default Console - hp integrity rx2600 Server - 5971-4238.pdf".)

Et, de fait, raccordé la première fois sur le port DB25 MAIS avec une originalité, j'ai employé le cordon pieuvre spécifique (DB25 vers 3 DB9, "CONSOLE", "MODEM" et "UPS"). Bien entendu je me suis branché sur la DB9 nommée "CONSOLE".

Globalement les caractéristiques matérielles "fixes" sont les mêmes que pour la machine "A".

Remplacement des 4 Go d'origine (4 x 1 Go) par 4 Go achetés chez SQP (4 x 1 Go). C'est bon !

Autres tests :

8 Go SQP, ça NE marche sur AUCUNE des 2 machines.

4 Go HP + 4 Go SQP, ça semble fonctionner (les 8 Go sont reconnus).

4 Go HP OU 4 Go SQP, on a dit que c'était bon (voir juste un peu plus haut).

=> BEN PAS VRAIMENT ! Quand on lance le test "MEMDIAG" sur un lot de 4 Go de RAM SQP (peut-être y-t-il un mélange de barrette correctes et d'autres défectueuses mais cela m'est difficile à déterminer), je constate des reboots à répétition.

Login Admin, mot de passe Admin.

```
[frbpcs52cons] MP:CM> lc
```

LC

At each prompt you may type DEFAULT to set default configuration or Q to Quit

Current LAN Configuration:

- - MAC Address : 0x0015608abab7

D - DHCP Status : Disabled
I - IP Address : 10.3.142.137
M - MP Host Name : frbpcs52cons
S - Subnet Mask : 255.255.255.0
G - Gateway Address : 10.3.142.254
L - Link State : Auto Negotiate
W - Remote Serial Console Port : 2023
- - SSH Access Port : - (MP Feature Not
Licensed)
- - IPMI / LAN Port : 623

(échangées par SQP en avril 2010)

24 avril 2010 :
CONCLUSION TEST DES RAM

Les 4 x 4 barrettes de 1 Go (de marque hynix - voir photo "RAM hynix - OK.JPG") échangées ont passé avec succès plusieurs tests.
Physiquement elles se différencient (visiblement) principalement par leur épaisseur. En effet, les premières barrettes (incompatibles), étaient très épaisses et semblaient assemblées à partir de composants mémoire empilés l'un sur l'autre et de part à et d'autre du support (comme si au final il y avait 4 épaisseurs de composants). Les mémoires hynix se présentent elles de façon plus "traditionnelles".

18 décembre 2010 :

J'ai changé la politique de renouvellement des mots de passe pour les utilisateurs root et laurent à l'aide du programme SAM. J'en ai désactivé l'expiration !

3 juillet 2011 :

Modification adresses réseau.

dans /etc/rc.config.d/netconf :
modification adresse et "diffusion" de l'interface
locale => 192.168.75.53 et 192.168.75.255
modification adresse passerelle par défaut =>
192.168.75.1

dans /etc/resolv.conf :
suppression d'une directive nameserver
modification adresse de celle restante => 192.168.75.1

dans /opt/ssh/etc/sshd_config :
suppression de la directive "Port 22001"
retrait de la marque de commentaire devant la
directive "Port 22"