Bull System Manager

BSM 1.4

Release Notes

NOVASCALE & ESCALA

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BSM 1.4
Release Notes

Software

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Preface

These Release Notes describe the contents, system requirements, installation instructions, and known issues (with workarounds, where applicable) for **Bull System Manager Version 1.4.x**.

Release Identification

The name of the present release is **Bull System Manager 1.4.x.** This identifier is displayed on the installation CD-ROM home page:
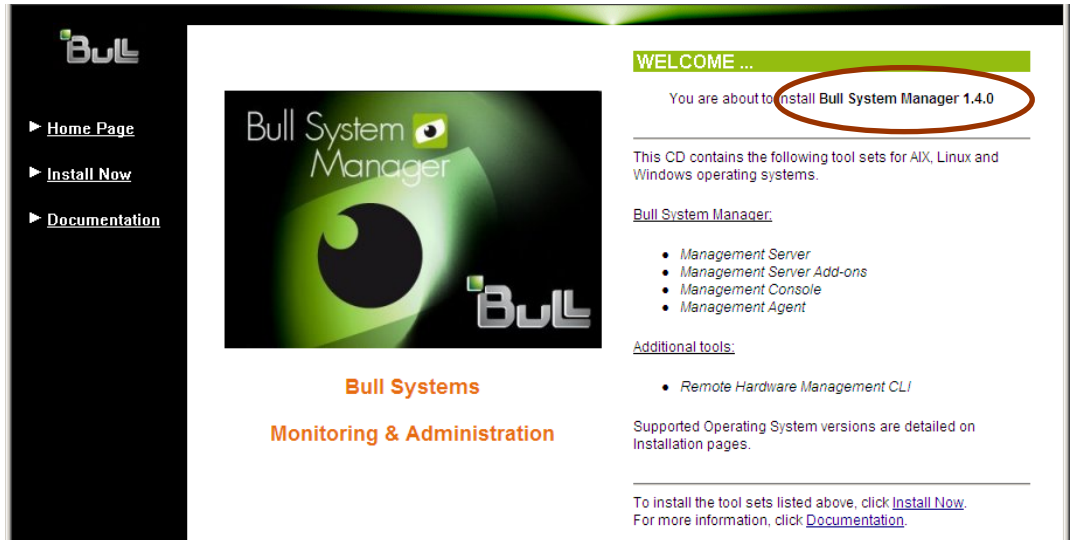
Figure 1-1.   Bull System Manager Installation CD-ROM home page

After installation, this identifier is displayed on the Management Server home page:
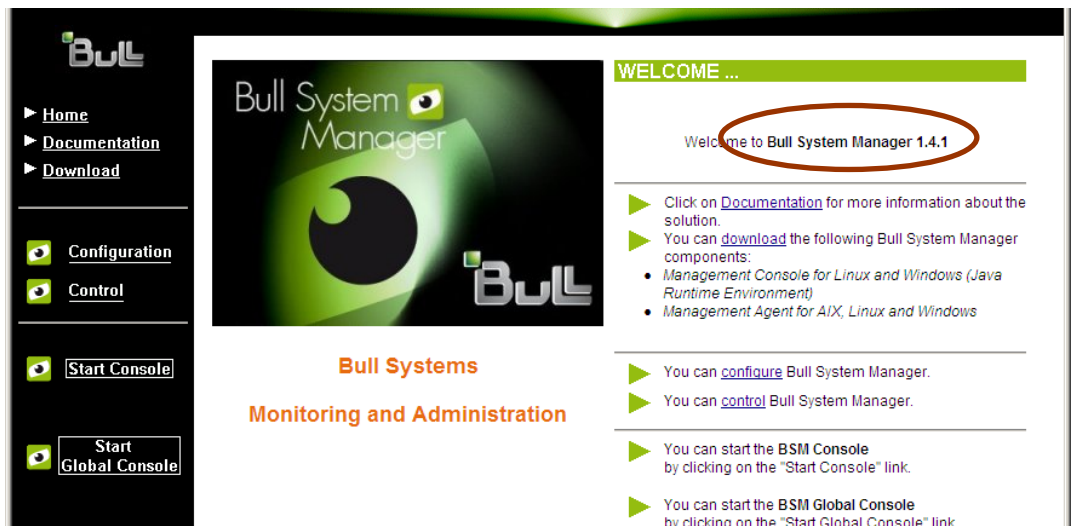
Figure 1-2.   Bull System Manager Server home page

Chapter 1. Contents

1.1   Bull System Manager Components

This release contains the following components:

Management Console for:

- Linux and Windows (32 bits)
- Linux and Windows (64 bits) with functional restrictions (*)
  (*): A console without the Java plugin, therefore without local applications in the toolbar.

Note   AIX web browser and Java plugins have not been fully qualified but should work.

Management Server and Server Add-ons for:
- Linux Redhat AS, ES or WS 5.n (32 bits)
- Ready for Redhat 6
- Linux SuSE ES 10 & 11 (32 bits)
- Linux XBAS (32 bits)
- Windows 2003 (32 bits and 64 bits)
- Windows 2008 (32 bits and 64 bits)

Management Agent for:

- Linux Redhat AS, ES or WS 2.1 (32 bits and 64 bits)
- Linux Redhat AS, ES or WS 3.0 (32 and 64 bits)
- Linux Redhat AS, ES or WS 4.0 (32 bits and 64 bits)
- Linux Redhat AS, ES or WS 5.n (32 bits and 64 bits)
- Ready for Redhat 6
- Linux SuSE ES 8 (32 bits and 64 bits)
- Linux SuSE ES 9 (32 bits and 64 bits)
- Linux SuSE ES 10 & 11 (32 bits and 64 bits)
- Linux Bull AS 3 (64 bits)
- Linux Bull AS 4 (64 bits)
- Linux XBAS (32 bits)
- Windows 2000 (32 bits)
- Windows 2003 (32 bits and 64 bits)
- Windows 2008 (32 bits and 64 bits)
- AIX 5 & 6.1 (Power5 & Power6)
- AIX 7.1 (Power6 & Power 7)

Hardware Management Commands for:
- Linux Redhat AS, ES or WS 4.0 (32 and 64 bits)
- Linux Redhat AS, ES or WS 5.n (32 bits and 64 bits)
- Linux SuSE ES 9 (32 bits and 64 bits)
- Linux SuSE ES 10 (32 bits and 64 bits)
- Linux XBAS (32 bits)
- AIX 5.3 & 6.1 (Power5 & Power6)
- AIX 7.1 (Power6 & Power7)

1.2 Bull System Manager CD-ROM Contents

Bull System Manager CD-ROM **product** sub-directories contain the following components:

1.2.1 Server

Linux: BSMServer-1.4-x.i386.rpm
            BSMWebinstall-1.4-x.rpm

Windows: BSMServer-1.4-x.exe
            BSMWebinstall-1.4-x.exe

1.2.2 Server extensions

This release provides several Bull System Manager Server extensions. All are delivered on the Bull System Manager CD-ROM.

Extension name	Functions
BSM NDOutils	This package brings NDO Nagios framework that enables to store monitoring information in a DataBase (MySQL).
BSM NSCA	This package brings NSCA Nagios service that enables the reception of events via t*a remote command 'send_NSCA" (for asynchrone events or to cascade several Nagios)
BSM PNP4Nagios **WARNING**: PNP4Nagios04 reserved for Redhat 5.n !!!	This package brings RRDTOOLS tools and PNP4Nagios solution enabling to use Performance Data collected via Nagios and showing associated graphs via a PHP Web interface.

1.2.3 mgtpack (Server Add-ons)

This release provides several Bull System Manager Server Add-ons. All are delivered on the Bull System Manager CD-ROM.

System Domain	Server Add-on
Internal Storage	LSI GAMTT Mgt Package
	LSI CIM Mgt Package
	LSI MegaRaid SAS Mgt Package
External Storage	StoreWay FDA Mgt Package (support also OPTIMA)
	EMC CLARiiON Mgt Package
	NetApp Mgt Package
	StoreWay DPA Mgt Package
	Switch Brocade Mgt Package (new)

System Domain	Server Add-on
External Device	Bull Water Cooled Door Mgt Package
	APC PDU Mgt Package
	IBM PDU Mgt Package (New)
Bull Tools Management	Dynamic Domains Mgt Package
Virtualization Management	VMware VSphere Mgt Package (upgraded)
	Escala LPAR Mgt Package

Each Server Add-on is described in the document *BSM 1.2 Server Add-ons Installation and Administration Guide*, 86 A2 59FA.

1.2.4   Agents

AIX: BSMAgent-1.4-x.ppc.rpm

Linux: BSMAgent-1.4-x.i386.rpm
              BSMAgent-1.4-x.ia64.rpm
              BSMAgent-1.4-x.src.rpm
              Webmin-1.510-1.noarch.rpm

Windows: BSMAgent-1.4-x.ia64.exe
              BSMAgent-1.4-x.exe

1.2.5   Hardware Management Commands

Linux: BSMHW-1.4-x.i386.rpm
              BSMHW-1.4-x.ia64.rpm

1.2.6   java

Linux: jre-1_5_0_06-linux-i586.rpm

Windows: jre-1_5_0_06-windows-i586.exe

1.2.7   Tools

Windows: tightvnc-1.2.9-setup.exe

1.3   Bull System Manager Documentation

This release contains the following documentation in **Adobe Portable Document Format** (.PDF):

- Bull System Manager - Release Notes (86 A2 57FA) (this manual)
- Bull System Manager - Installation Guide (86 A2 54FA)
- Bull System Manager - Administrator's Guide (86 A2 56FA)
- Bull System Manager - User's Guide (86 A2 55FA)
- Bull System Manager - Server Add-ons -Installation and Administrator's Guide (86 A2 59FA)
- Remote HW Management CLI Reference Manual (86 A2 58FA)

Note   You can open all these documents (except the *Release Notes*) from the **readme.html** file on the CD-ROM and from the Bull System Manager Server home page.

1.4   New Features

- MRTG is deprecated…But can be used if needed.
- The optional server package "BSM PNP4Nagios" can be installed to use Performance Data collected via Nagios and to show associated graphs via a WEB interface.
- An "IBM PDU" Management Package.
- An unique VMware VSphere Management Package to replace both previous Management packages for VMware (ESX and VCenter).
- Ready for Redhat 6.
- Supports AIX 7.1 targets.

1.5   Improvements

- An Administrator can add his own hardware models, operating systems, and associated monitoring services.
- Topological management trees (to reduce the size of the management tree for a huge number of monitoring services).

1.6   Bug Correction

The following issues have been resolved: N/A.

1.7   Deprecation

The BSM server addons BVS, JOnAS and HyperNOVA are no more supported.

Chapter 2. Installation

The version number (major and minor numbers) of the different installed products (Server, Agents, Management packages) of BSM solution must be identical. Otherwise the supervision will fail. For instance, a BSM server 1.4.x cannot monitor a 1.1.x agent.

2.1 General Requirements

General requirements are set out in:

- **Chapter 2** of the *Installation Guide*, delivered on the Bull System Manager CD-ROM (**doc/pdf/InstallGuide.pdf**)

- **Chapter 2** of the *Server Add-ons Installation and Administrator's Guide*, delivered on the Bull System Manager CD-ROM (**doc/mgtpack/pdf/AddonsGuide.pdf**).

2.2 Specific Requirements

2.2.1 Management Server Add-ons

Install and Operational requirements are described in **Chapter 2** of the *Server Add-ons Installation and Administrator's Guide*, delivered on the Bull System Manager CD-ROM (**doc/mgtpack/pdf/AddonsGuide.pdf**).

2.2.2 Management Server – Linux

Operational requirements are described in **Chapter 4** of the *Installation Guide*, delivered on the Bull System Manager CD-ROM (**doc/pdf/InstallGuide.pdf**).

Perl Modules

The following packages required for sending and receiving SNMP traps are not always present on the Linux distribution CD-ROM. To avoid downloading these packages, they are delivered on the Bull System Manager CD-ROM, in the **misc** directory:

- perl-Config-IniFiles-2.37-8.noarch.rpm
- perl-Net-SNMP-5.0.1-1.1.fc3.rf.noarch.rpm

Install this package with the **–nodeps** option.

Disable SELinux

The **SELinux** must be disabled for Bull System Manager to run correctly.

Edit the **/etc/selinux/config** file, set the **SELINUX** variable to **disabled** and reboot the system.

2.2.3 Hardware Management CLI

The Hardware Management CLI requires a **PAM 7.15.3** release (or higher) to manage NovaScale 5000 & 6000 Series servers.

2.2.4 Bull System Manager and other Cygwin applications Cohabitation

RESTRICTION on Windows Systems

Bull System Manager Server CANNOT be installed on the same Windows server host than another cygwin-based application and reciprocally. This is due to conflicts between **Cygwin** applications on the same host.

Note	It is the case with a previous NovaScale Master application.

2.2.5 Web Browser Options for Controlling Popups

The Bull System Manager application uses the **Pop-up Window** technology. Do NOT deactivate this feature from your Internet Browser otherwise Bull System Manager will not work correctly.

2.2.5.1 Mozilla Firefox

The Mozilla Firefox Browser **Popup blocking** or Mozilla Browser **Privacy & Security** options must be configured to allow Bull System Manager to open popup windows.

Note	Certain WEB applications MAY automatically reconfigure your browser to prevent popup windows from opening.

By default, Mozilla Firefox blocks **ALL** popup windows.

You can allow **ALL** popup windows to open by unchecking the **Block Popup Windows** box in the **Options > Web Features** dialog, as shown below:
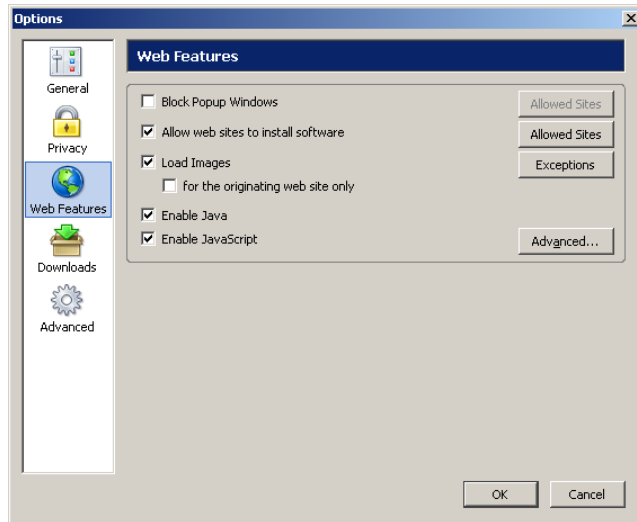
Figure 2-1.   Allowing ALL popup windows

You can allow **certain** popup windows to open by checking the **Block Popup Windows** box in the **Options > Web Features** dialog and listing allowed sites, as shown below:
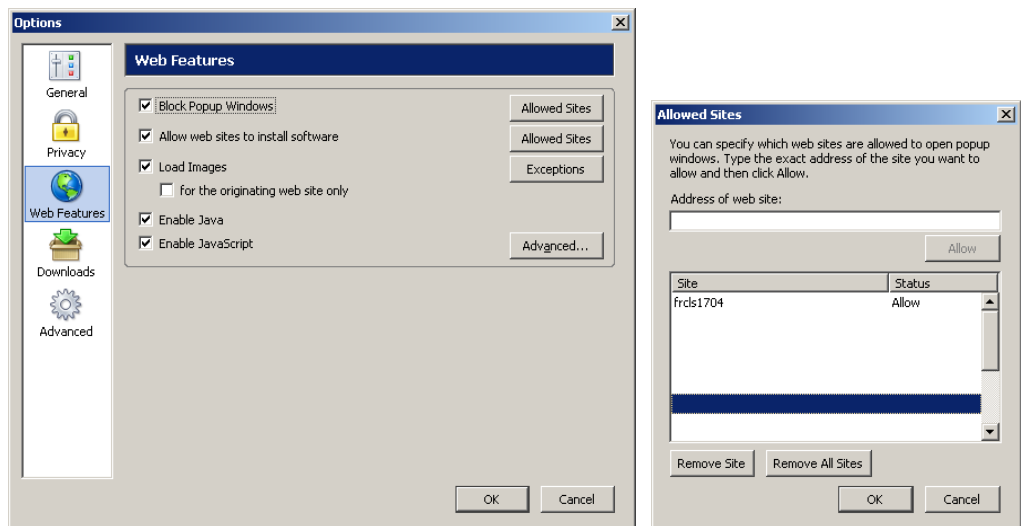
Figure 2-2.   Allowing CERTAIN popup windows

2.2.5.2   Internet Explorer

Some versions of Internet Explorer prevent popup windows from opening (**Security panel > Use Popup Blocker**). This option must be disabled for the Web zone of the Bull System Manager server.

2.3 Installation Notes

Installation and uninstallation procedures are set out in:

- **Chapter 3** of the *Installation Guide*, delivered on the Bull System Manager CD-ROM (**doc/pdf/InstallGuide.pdf**).

- **Chapter 2** of the *Server Add-ons Installation and Administrator's Guide*, delivered on the Bull System Manager CD-ROM (**doc/mgtpack/pdf/AddonsGuide.pdf**).

2.4 Installation logs files

During the installation, logs files are generated in the following directory:

"<BSM Home directory>/engine/tmp/*.log"

Chapter 3. Migration and Re-installation

3.1 Migration from BSM Version 1.3.x

The migration of BSM server part from BSM 1.3-x is managed automatically during the installation .

3.1.1 Distributed BSM servers

⚠ WARNING:
The BSM version MUST be at the same level for each BSM server of a distributed BSM solution. You CAN'T have for instance, a BSM master server 1.4 associated to a BSM slave server 1.3

In the case of a distributed Bull system Manager solution (multiple Bull System Manager Servers using the same database) , when the BSM central server had to be upgraded, process the following steps:

1. At first, you MUST stop all the BSM servers (master and slaves) using their corresponding BSM control GUI for each BSM server. The aim is to stop all NDO database activity during the migration.

Note   You have not to change the distribution BSM configuration during the migration phase.

2. When you are sure that all BSM server Nagios are stopped, upgrade the BSM master server (which centralizes the MySQL database).

3. And finally, upgrade each BSM slave server… and it should work !

3.1.2 BSM servers addons migration

⚠ WARNING:
Verify in the "BSM Installation Guide, 86 A2 54FA" and in the "BSM Server Addons Guide, 86 A2 59FA":

- if a BSM server addon becomes deprecated

- if a BSM server addon needs a specific migration process.

For the release BSM 1.4-n, the deprecated list is :

- "BSM VMware ESX" and "BSM VMware VCenter" that are replaced both by a new one: "BSM VMware VSphere".
- BSM JOnAS (not replaced)
- BSM BVS (not replaced).

3.2 Re-installing the Release without Losing Current Configuration

3.2.1 Windows

If required, you can re-install the same release of Bull System Manager Server or Server Add-ons via the **Setup file** without losing the current configuration.

3.2.2 Linux

If required, you can re-install the same release of Bull System Manager Server or Server Add-ons via the **rpm file** without losing the current configuration.

Execute the following **rpm command** from the directory containing the rpm file:

Server:

```
rpm -Uhv --force BSMServer-1.4.x.<arch>.rpm
```

Add-ons:

```
rpm -Uhv -force BSM<tiercetool>-1.4.x.noarch.rpm
```

3.2.3 Distributed solution

In the case, you have to reinstall a distributed BSM solution (several BSM servers that centralize Nagios data and configuration Data in one MySQL server via the NDO module), you MUST reinstall at first the BSM server which has the central role (which contains the used MySQL server).

⚠ WARNING:
The BSM version MUST be at the same level for each BSM server of a distributed BSM solution. You CANNOT have, for instance, a BSM master server 1.4 associated to a BSM slave server 1.3.

Chapter 4. Problems: Solutions and Workarounds

4.1 Bull System Manager Installation

4.1.1 Cohabitation with NovaScale Master

The server part of BSM CANNOT cohabitate with the NovaScale Master server part.

Whereas, the BSM agent part and the BSM hardware commands CAN cohabitate with the NovaScale Master ones.

The server part of BSM CANNOT use the NovaScale Master agent part.

4.1.2 OCS Inventory NG

RESTRICTION:

On Linux, BSM server embarks OCS inventory in its package and cannot cohabitate with another OCS inventory product. The problem is due to the configuration files loaded by Apache (duplicate perl variables).

4.1.3 Distributed Solution

RESTRICTION:
A BSM server node that is integrated in a distributed BSM solution MUST have the same IP address and OS during its whole life. So, Dual boot, dynamic IP or OS change for this server are not supported. Moreover, the "hostname" command MUST return the right (external) configured IP address and not another one (or localhost either an IP address for a different network)

ISSUE:
When a host is deleted from the BSM Config GUI, the OCS inventory data associated to this host (in fact associated to its network name) are not deleted.

4.1.4   Installation

ISSUE:

An Error message appears when a tab is selected in the Server installation page launched from the CD-ROM.
This exceptional issue is probably due to a Web Browser synchronization error. The corresponding HTML page has not finished building when the dynamic code is called.

Workaround:
Close your Web Browser and restart the installation process.

ISSUE:

Two ambiguous popups, one labeled: "After installation please click Next", another labeled "Do not click before finish install" appear when I insert the CD-ROM.
These popups may be automatically generated by the Windows OS. However, they do not block installation.

Workaround:
Observe popup information. DO NOT close these windows before the end of installation.

ISSUE:

I can't launched script shell (install_server.sh, checkEnv.sh,…) from the mounted BSM CDROM on Linux .
A "permission denied" message appears when I try to launch these scripts. This issue is probably due to a bad automatic mount of the CDROM without execution rights.

Workaround:
Unmount the CDROM media, and mount it manually without forgetting the "-o exec" option in the command line.

ISSUE:

I don't see all managed objects in the BSM Global Console after a reinstallation of the several BSM servers that compose the distributed BSM solution.
This issue is probably due to the fact the BSM server which has the central role (containing the used MySQL database) has not been reinstalled at first. So the data coming from the previous reinstalled secondary BSM server are lost.

Workaround:
You have just to make a "Save&Reload" from the BSM Configuration WEB GUI of each secondary BSM server to populate the centralized BSM database.

ISSUE:

On my Windows Bull System Manager server, the message "Bull System Manager is running, Please stop Bull System Manager Server services and start installation again" is displayed even when Bull System Manager services have been stopped.

This issue is probably due to the presence of cygwin processes and so, the …/engine/bin/cygwin1.dll is locked by the OS.

Workaround:

From the windows Task Manager, end all the processes with following names:

- `bsm_nagios.exe`
- `bash.exe`
- `sh.exe`
- `perl.exe`
- `check_*.exe`
- `dirname.exe`
- `uname.exe`
- `cyg*.exe`

If this is not sufficient, you will have to reboot the Windows OS before trying to migrate Bull System Manager again.

And…If this is not sufficient again, you can remove the "…/engine/bin/cygwin1.dll" file and copy the ../engine/nagios/sbin/cygwin1.dll into ../engine/bin directory and retry the to migrate Bull System.

ISSUE:

On my Windows Bull System Manager server, the message "A locked file …ndo2db.exe was found…" is displayed during NDOutils package upgrade .

This issue is probably due to the presence of ndo2db.exe process which is running.

Workaround:

From BSM control application, launch the stop command. When the BSM processes are stopped, click on Retry to continue the upgrade.

On Windows 2008, the installation fails if the Data Execution Prevention is not set to "Turn on DEP for essential Windows programs and services only".

To access to this information , click on **Control Panel -> System -> Advanced System Settings -> Performance Settings -> Data Execution Prevention** (see figure below).
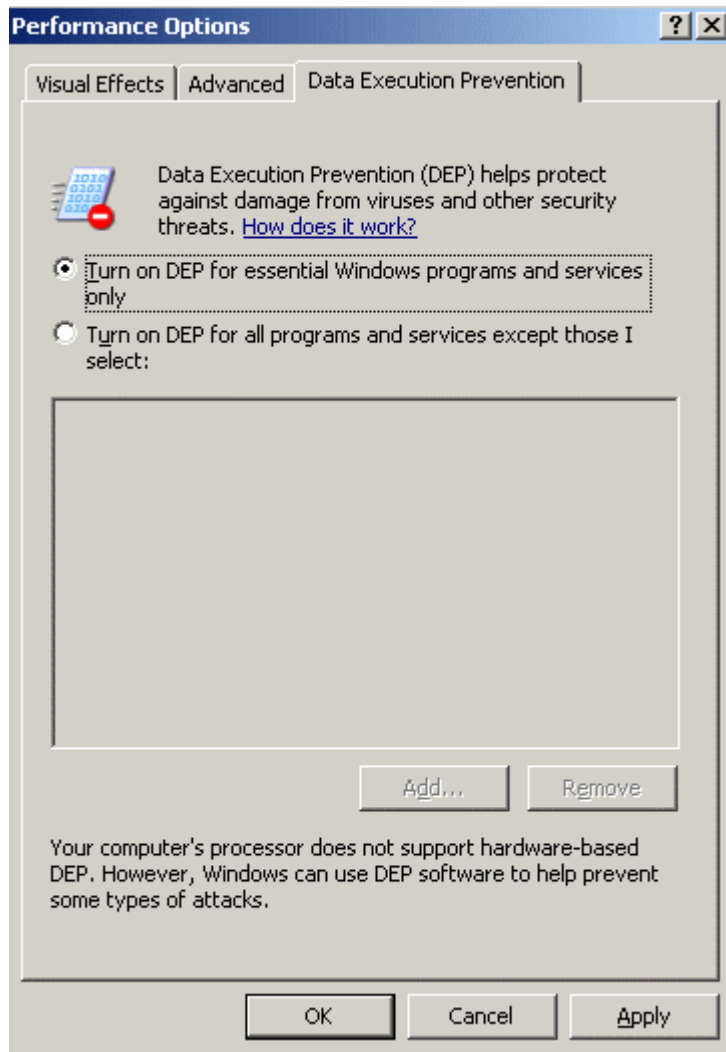
ISSUE:

On Windows, the installation of Bull System Manager server may abort because of insufficient place on the disk. This message may be erroneous. There is enough place but the remaining place is a multiple of 4.

In this case, remove or add files to have a remaining disk place different of a multiple of 4.

4.1.5   Uninstallation

On WINDOWS, the WINPCAP tool is not uninstalled during the Bull System Manager server part uninstall.

ISSUE:
After the server part uninstallation, an "eventlog.dll" may be always present in the directory "<BSM directory>/engine/bin"
This issue is probably due to the presence of a WINDOWS system lock about this DLL.

Workaround:
This directory MAY be deleted after a system reboot.

ISSUE:
During upgrade or uninstallation of Windows Management Agents, a 'Locked File detected' popup may appear with the following message:

```
An option you selected requires that files ….
  A locked file, \Program Files\Bull\Bull System Manager
Agent\bin\bsmmon.exe
    was found …
  …..
 Reboot          Ignore          Retry          Cancel
```

This issue is probably due to the presence of a WMI process (**wmiprvse.exe**) attached to **bsmmon.exe** or **bsmman.exe**.

Workaround:
- Stop the **Windows Management Instrumentation** service using the Service Control Manager. Depending on the products installed on the server, stopping the WMI service may also stop other services.
- Click the **Retry** button of the **Locked Filed Detected** popup.
- Restart the Windows Management Instrumentation service and the other services previously stopped.

If this procedure does not succeed, reboot the server in order to unlock **bsmmon.exe** and **bsmman.exe** files.

ISSUE:
On Windows, a catastrophic failure can happen during BSM server uninstallation.

Workaround:
Retry BSM server uninstallation.

If uninstallation fails again:
- uninstall and re-install another InstallShield package, for instance BSMAgent (to set the InstallShield engine to a coherent state)
- Retry BSM server uninstallation

4.1.6   Server Addons Installation

ISSUE:

On Windows, the setup process of a Server Addons installation still hangs after a long time.
This issue can happen randomly.

Workaround:

When this issue happens, you can terminate the setup process via the "Task Manager" tool. Then relaunch the installation of the Server addons package via the BSM CD-ROM.

ISSUE:

On Linux, the rpm –Uvh… command crashes with he following message: "…not an rpm package (or package manifest): Input/output error ".
This issue may happen because of a wrong default configuration of the mount command.

Workaround:

When this issue happens, you can copy the rpm file from the CD-ROM to the local /tmp file and use again the rpm command in the /tmp directory.
If the problem persists, call your Bull Support contact.

4.2   Third-Party Tools Installation

ISSUE:

During UltraVNC tools installation on Windows, a popup appears with the following message: "Winvnc video hook driver has not passed Windows Logo testing to verify its compatibility with this version of Windows….".

Workaround:

Click the **Continue Anyway** button to continue VNC tool installation.

4.3   BSM HW CLI Installation

ISSUE:

During BSMHW rpm installation, a message appears requiring the rpm "perl-XML-LibXML" package.

Workaround:

Make sure the libxml2 package is installed. If not, install the "perl-XML-LibXML" rpm package and also the following required ones: "perl-XML-SAX" and the "perl-XML-NamespaceSupport". You will find them on your Linux distribution CD.

4.4 Bull System Manager Configuration

The first level tab "Third-Party Application" is useless for a new installation of the release BSM 1.4 but kept for a future use.

4.4.1 Save&Reload failed (BSM Nagios service doesn't start)

ISSUE:
On my Windows Bull System Manager server Nagios service does not restart at the end of a Save&Reload. It has received a SIGTERM signal as shown in the nagios.log file.
This issue is probably due to suspended processes that lock a Nagios log file. And so, BSM Nagios does not succeed using it during starting and decides to stop itself. One identified context is when many Nagios plugins are in timeout.

Workaround:
From the BSM Control WEB GUI, stop the BSM services engines.
From the Windows Services tools GUI, stop the "Bull System Manager Server cygserver" service.
Suspended processes are not visible in the windows Task Manager and must be managed with tool like ProcessExplorer (available on www.sysinternals.com).
Resume all the processes with following names:

- `bsm_nagios.exe`
- `bash.exe`
- `sh.exe`
- `perl.exe`
- `check_*.exe`
- `dirname.exe`
- `uname.exe`
- `cyg*.exe`

NB: If this is not sufficient, you will have to reboot the Windows OS before trying to restart Bull System Manager again.

Clean the "<BSM Home directory>/engine/tmp if required.

Correct the cause of timeout in plugin or increase the service_check_timeout in the "<BSM Home directory>/engine/nagios/etc/nagios.cfg file."

Then restart the BSM Server engines via BSM Control WEB GUI…

and it should work !

4.4.2 Unexpected Logout procedure launching

Starting the Configuration results in the display of Logout page.
This issue is certainly due to the fact that you try to start Configuration from a new Home Page when a GUI Configuration windows has already been launched on the desktop.

Workaround:
- Confirm the Logout procedure.
- Retrieve the first Configuration windows on your desktop. The current page contains probably a message indicating that a session is already launched. **DO NOT START A NEW SESSION,** otherwise malfunction can occure.
- Close this window and start a new Configuration application.

4.4.3 WEB GUI Access on Windows

ISSUE:
I cannot connect to the Configuration Tool Web GUI (neither from the OS menu, nor from the Bull System Manager Home Page).
This issue is certainly due to the fact that the server local hostname is resolved with "127.0.0.1".

Workaround:
Verify the host file and/or the DNS configuration. If required, resolve the hostname with the public external IP address.

4.4.4 WEB GUI Launching Hang (randomly)

ISSUE:
The WEB GUI launching hangs (waiting cursor never stopping) and causes all other BSM pages to not respond to anything.
This issue is due to hang of Apache Server on PHP 5.2 exec call (PHP Bug #44942).

Workaround:
Stop and restart the Apache Server.

4.4.5 cmd.exe Window may appear locally on the Bull System Manager server during the use of the Configuration Tool Web GUI

ISSUE:
cmd.exe window appears when executing some configuration steps.
This behavior is specific to Bull System Manager Configuration application launched locally on the Bull System Manager Server, installed on a Windows OS and running with IIS. This behavior is observed when, in IE configuration, the Security/Custom option is set to "Automatic logon".

Workaround:
In order to prevent this behavior, you MUST set the Security/Custom option to "Prompt for user name and password".

4.4.6 Warning Messages on the Web GUI Home Page

ISSUE:
Warning messages appear when I launch the Web GUI Configuration tool.
These messages generally depend on the Bull System Manager Server PHP version and arise when certain optional files are missing. These messages do not interfere with operation.

4.4.7 Warning Message during Save & Reload Configuration

WARNING:
There is no change in the Bull System Manager console after a successful configuration change via the Bull System Manager Configuration WEB GUI.
Save&Reload may not report a process crash during configuration file generation.

Workaround:
Edit the **<Bull System Manager Directory>/core/share/log/checkConfig.log.txt** file to see if the WRITING process has worked correctly.

⚠️ **WARNING**
If there is a definition error for a host (a bad BSM server network name for instance), the BSM Nagios reload will not be executed because of a Java error. But, instead of this error, the BSM MRTG will be reloaded with probably bad indicators associated with this bad Host.

4.4.8 Warning Message on Focus service

ISSUE:
This warning message appears when I launch Save & Reload Configuration from the Configuration tool:
WARNING: the FOCUS service (CPU) is defined with an INACTIVE host: FRCLS1704

Workaround:
This warning message may appear in two cases:
- You have deactivated the host and the definition of the Focus Area is no longer valid. Reactivate the host or modify the definition of the Focus Area.
- You have disabled the Supervision feature (**ActiveFeatures** menu under the **GlobalSetting** tab), resulting in the deactivation of all hosts. Therefore, all applications requiring the Supervision features as Focus Area are no longer displayed in the Bull System Manager Console. This warning message is of no consequence.

4.4.9   Unsupported Characters

The following characters are not supported in any text field:

- `[]` brackets,
- `=` equal sign,
- `;` semicolon
- " commas (only accepted in the check parameters of a monitoring Service Object)
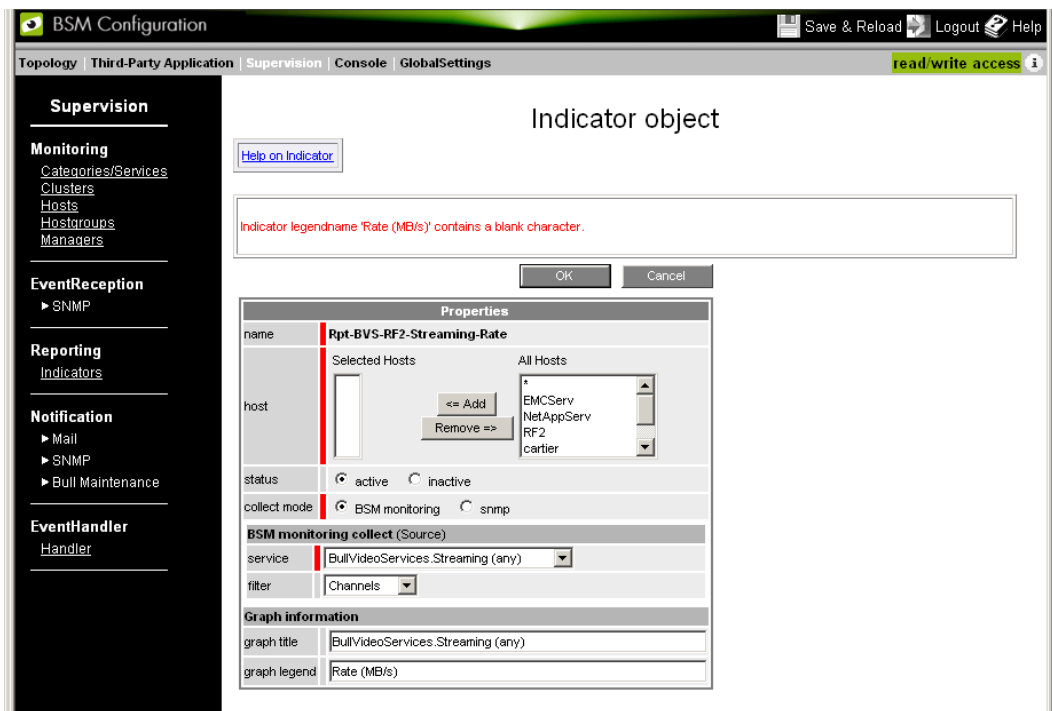
Moreover, The blanks are not supported in the indicator "graph legend" field.

4.4.10   Object Name

The object name doesn't support blank and MUST be different from the following strings which are reserved keys or formats:

- "*<string>",
- "none",
- "!<string>"
- "auto"
- "<string>_CMM"
- "<string>_PAM"
- "<string>_mgr"
- "<string>_IVM"

(where `<string>` may be any string).

When the manager is hosted on a configured host, the host name SHOULD be different from the manager name. If not, the manager name is suffixed by "_mgr" during the "Save & Reload" phase BUT is not shown in the FOCUS area hosts listbox in the Configuration GUI.
Furthermore, all manager names (Hardware & Storage) MUST be different even if they manage the same host.

4.4.11   Notification: Mail Server Configuration

RESTRICTION:
When I use the Configuration Web GUI on a Linux Bull System Manager server, I cannot find a configured Mail server and I cannot find a "New" button to add one.

On a Linux server, the Mail server is supposed to be the local **sendmail**.

4.4.12   Host Definition

INFORMATION:
If you need to introduce your own Hardware models or OSs in the topological configuration, please contact the Bull Support team.

4.4.12.1   NovaScale 9010 series

INFORMATION:
NovaScale 9010 series and NovaScale 9006 series are considered as the same model in this BSM release.

4.4.13   Hostgroup Delete

ISSUE:
The corresponding MAP object is not deleted when a hostgroup is deleted.

Workaround:
Remove the object from the MAP via the BSM Configuration WEB GUI, using the Console/Map menu which launches the Map Editor GUI.

4.4.14   Reporting: mrtg.log at save&reload

ISSUE:

When **mrtg** (the process for reporting) processes an indicator, it tries to read (in core/share/reporting/var) the log associated to the indicator (host+indicName.log). If it does not find it (which is the normal case for a new indicator), it writes a warning in mrtg.log (could not read the primary log file for …). It processes also the backup log of the indicator (host+indicName.old) . As it does not find it (which is the normal case for a new indicator), it writes three warnings in mrtg.log ("the backup log file for … was invalid as well" and "can't remove ….old updating log file" and "can't rename xx.log to xx.old updating log file").
These warnings are just information and the indicator is correctly processed.

In the log, we can find also some messages like "use of unitialized value in concatenation (.) or string at ./mrtg line 1199" and line 1208, which correspond to the writing of html comments in the html file associated to the indicator. These messages are not important. The indicator is correctly processed.

4.4.15   Reporting: Mibs Browsing

ISSUE:

During MIB browsing, the following type of error message may appear:

```
The value of MYLEXRAID-MIB::a7ReadRequests.0.0.1 on BSM-W is:

Host 'BSM-W' cannot be accessed thru snmp protocol, on this oid
(MYLEXRAID-MIB::a7ReadRequests.0.0.1).
Either the snmp service is not started on the 'BSM-W' host, or the
Bull System Manager server is not allowed to access thru snmp the
'BSM-W' host or the oid is not correct
```

The problem is that the snmp agent does not respond with this form of oid "MYLEXRAID-MIB::a7ReadRequests.0.0.1"

Workaround:

To access the MIB, copy the oid (a string with numbers only, e.g. ".1.3.6.1.4.1.1608.1.1.1.7.1.5.0.0.1") and paste it in the "oid" field of the Web Configuration GUI.
Test it with the "Test filter" feature.

ISSUE:

The MIB browsing is very slow and brings a very bad response time.
This is due to a large MIB file provided by the BSM server addon SwitchBrocade.

Workaround:

You have to get the OID string (needed to define the SNMP indicator) by using another MIB browser or text editor.

4.4.16   Reporting

MRTG is considered as deprecated and replaced by PNP4Nagios server extension since version BSM 1.4. But MRTG may be still active after a migration from BSM 1.3 or if the Administrator (or integrator) has enabled the use of MRTG for a new BSM 1.4 installation.

Note   For a new BSM 1.4 server installation, if you want to enable the use of MRTG, please contact Bull Support team.

Reporting indicator legend length is $\leq$ 16 characters.

4.4.17   Logout procedure

ISSUE:
Message "Unable to perform the logout procedure. You must enable the Popup Window in your browser".
The browser does not allow popup windows. See *Web Browser Options for Controlling Popups* on page 6 to configure your browser and the paragraph below to clean your environment.

4.4.18   PHP Session

ISSUE:
I cannot modify my configuration because a session is already open, although no one else is connected.
A previous PHP session has not been destroyed. This problem can occur when:
- The browser does not allow popup windows. See *Web Browser Options for Controlling Popups* on page 6.
- A user has closed the configuration window before the page loaded completely.

Workaround:
If you are sure that no one else is connected, proceed as follows:
Use the **Session Utility** in the Configuration GUI to force the *read/write* access rule.

If the problem is not resolved, proceed as follows:
1. Leave the current Configuration GUI.
2. From the Bull System Manager Server host, remove the session file (sess_bsmconfig*) located in the following path:
   ```
   <Bull System Manager install directory>/core/share/bsmConfig/rw.
   ```
3. From the Bull System Manager Server host, remove all files in the following path:
   ```
   <Bull System Manager install directory>/core/share/bsmConfig/rw.
   ```
4. Re-launch the Configuration GUI.

4.4.19 Connection via Anonymous Proxy and PHP Session Identification

RESTRICTION:
The management of concurrent access is not guaranteed if the Internet connection uses an anonymous proxy (hiding the IP address of the HTTP client).
The Configuration Tool Web GUI uses the IP address of the current client as session identifier. In the case of anonymous proxy, the IP address obtained is not the client's IP address, but the proxy's IP or random address. If two clients use the same anonymous proxy, their session identifiers may be identical, potentially leading to a problem.

4.4.20 Discovery

RESTRICTION:
I cannot use discovery mechanism from the BSM configuration WEB GUI on a Bull System Manager server when the URL is composed with the "localhost" string.
EX: "http://localhost:10080/BSM/".

ISSUE:
I cannot discover, on a Linux Bull System Manager server, a "Windows Server 2003 x64 Edition".

Workaround:
Extract the contents of the **<install_dir> /core/share/bsmConfig/nmap_fingerprint** file and put it at the end of the **nmap-os-fingerprints** file installed on your Linux Bull System Manager.

ISSUE:
When launching a discovery with a "*" subnet definition like 149.187.6.*, the html page does not end and the hourglass continues to run.

Workaround:
Split the discovery into two discoveries: Replace **149.187.6.*** by **149.187.6.0-125** and **149.187.6.126-255**.

ISSUE:
HMC V7 are not discovered. Only hmc version 3.3.7 or 6.1.3 are discovered

Workaround:
Create the host with BSM configuration tool.

4.4.21 Notification by email

ISSUE:
On Windows, e-mail notification does not work if the server mail name is incorrect.
When the server mail name is incorrect, the following error appears in the
<BSM installation directory>/engine/var/log/Bull System Manager nagios.log file:

```
Error sending message, child  exited 1 ()
Signal 11
```

Workaround:
Correct the server mail name in Bull System Manager Configuration.

4.4.22   Configuring old NovaScale R400 Series Hosts

ISSUE:
The "System Management" set up tool (from the Bull EXPRESSBUILDER CD-ROM) does not allow the modification of the default User ID, set to "MWA", used for the connection to the Baseboard Management Controller.

Workaround:
The "User" field in the "Out-of-band attributes" section of a Host, must be set to "MWA" when configuring old NovaScale R400 Series Hosts.

4.4.23   Blank page after clicking the OK button

ISSUE:
After clicking OK button to validate object edition, the next page displayed is blank. Click any menu leads to a page indicating that no object is defined.
This problem is probably due to allocated memory for PHP process exhausted.

Workaround:
Increase the maximum memory allocated to PHP process by changing the **memory limit** directive in the **php.ini** file. Do not forget to restart the http server after changing php.ini.

4.4.24   No-objects found for Service or Host

ISSUE:
The Services or Hosts page indicates that there is "No-object" defined.
This indicates that a severe problem has occurred in BSM Configuration management repository, leading to the lost of mandatory object definition.

Workaround:
- If the problem occurs after an OK action, exit from the BSM Configuration without performing a Save&Reload action.
- If the problem occurs when launching the BSM Configuration GUI, retrieve the last backup of files:
  Replace the files localized under <BSM installation directory>/core/etc/custom by those localized under <BSM installation directory>/core/etc/custom .backup.

If the problem persists, consult your Bull Support.

4.4.25   Message "The website cannot display the page"

See the section *Blank page after clicking the OK button*, on page 25.

4.4.26   BSM Configuration specific behavior from Topology tab to Supervision tab

StoreWay or Device hosts BACKWARD LINK from Supervision to Topology leads to the Topology/"All Defined hosts" pane instead of their own contextual Topology panel.

4.4.27   Add a category from an unused category template

The category Internet is always displayed in the unused category list even it is still used.

4.4.28   Mixed objects type between Categories and Services

NOTE:
A cluster service generated from a topologic cluster definition and marked as a generated service can be integrate in a user created Category which is not marked as a generated category.
This mixing will create no issue in the configuration and is supported by BSM.

4.4.29   Local setting/BSM server netname

NOTE:
During the installation the local server hostname is used to set the configured netname of the BSM server.If this netname is not resolved by the targeted servers, don't forget to change it via the BSM Configuration WEB GUI.

4.4.30   Reporting.perf_indic monitoring service template

ISSUE: This template proposes only to monitor relative values (in %). How can we monitor absolute values?

Workaround:

check_mrtg usage is as follows:_

check_mrtg -F log_file -a <AVG | MAX> -v variable -w warning -c critical [-l label] [-u units] [-e expire_minutes] [-t timeout] [-v]

The first parameter "–a AVG" can be replaced by "–a MAX" and do not forget to replace relative threshold options (–w and –c) by absolute values, along with the label and unit options (-l and -u).

4.5 Bull System Manager Console

4.5.1 Cohabitation with PAM

RESTRICTION:

The PAM Web GUI does not work with the Netscape Browser.
If a NovaScale 5000 & 6000 Series platform is included in the Bull System Manager configuration, please remember that the PAM Web GUI requires an **Internet Explorer 6** or **Mozilla 1.5** browser. The PAM Web GUI does not work with other browsers (e.g. Netscape).

4.5.2 Linux Web Browser

RESTRICTION:

Only the Mozilla 1.4.3 Web browser (or higher) is supported by Bull System Manager on Linux.

RESTRICTION:

Internet Explorer does not support a BSM console with a configuration of a large number of objects in the Management Tree (more than 2000). But Firefox version 3.5 and higher can be used.

4.5.3 Monitoring

ISSUE:

Service Node status is not the same in the management tree and in the application frame.
This may be due to a synchronization delay between the management tree and the status shown in the Console application frame.
Please note that service nodes are not updated when you click a category node in the management tree.

ISSUE:

On Windows, the message "Could not open command file /var/spool/bsm_nagios/nagios.cmd" is displayed when you try to execute a command.

Workaround:
- Stop the CYGWIN IPC daemon service with the Service Control Manager. Stopping this service will automatically stop the Bull System Manager nagios service.
- Restart monitoring:
  Click Start->Programs->Bull System Manager Server->Control->Start Monitoring

RESTRICTION:

The Bull System Manager Internet.HTTP* monitoring services check a specific string occurrence only for the first 10000 characters of the targeted HTML page.

ISSUE:

Avaibility page related to a service displays '(null)' in Information field of the Event Log Service Entries

At first start of the BSM Server (after installation), all the services status are logged as OK, with no information set. The next check of the service will correctly set the status and the associated information.

ISSUE:

Some entries displayed in Event Log Service Entries of the Avaibility page are not displayed in the Alert History page.

For most services, alert notification is sent only when the status has changed, not when the Information field is updated.

ISSUE:

In the context of a Functional Domain filter, some applicative hyperlinks in the applicative frame do not apply this filter in their result page.

For example: the host link in "Service detail" page.

INFORMATION:

The Bull System Manager HDisks.SMARTStatus monitoring service for Linux hosts, lists not only Hardware disks but also REMOVABLE disk devices (which are not listed in the OCS inventory repository). Moreover, the returned list of disk devices may be different according to the Linux distribution.

ISSUE:

Service	Status	Last Check	Duration	Information
Power.Status	WARNING	0d 0h 4m 38s ago	0d 1h 14m 38s	Chassis Power is on Status : Status (0x64) Presence detected Power Supply AC lost Status : Status (0x65) Presence detected Power Supply AC lost Status : Status (0x66) Presence detected Status : Status (0x67) PS Redundancy :

The Power.Status monitoring service for a NovaScale F2 server has empty fields in the Information part (as shown in the above picture).

This is due to a specific internal IPMI structure for the sensors of this kind of server.

Workaround:

A specific "check_power_nsf2_ipmi" nagios plugin is proposed in "….engine/nagios/libexec" directory. So, if needed, you can create and add a new monitoring service in BSM configuration which uses this specific commands instead of the standard one.

4.5.4   Map Environment

ISSUE:

From the Configuration Web GUI, I have configured new maps and removed some other maps (Console/maps), but when the map environment is selected, Bull System Manager Console has not automatically refreshed the "select box" map area.

Workaround:

Exit the Bull System Manager Console and restart it using the "start console" button in the Bull System Manager home page.

4.5.5   Remote Control

ISSUE:

VNC web access does not run from a host Operation menu. A Gateway Timeout error is shown.
This happens when a proxy filters TCP ports access.

Workaround:

You MUST configure the used 5800 TCP port access or unconfigure the proxy in the web browser.

ISSUE:

Unable to launch a manager web GUI from the Bull System Manager console menu Operations/storage with IE.

Workaround:

The name of the manager is used for the title of the web GUI popup. Unfortunately, certain characters are forbidden with IE, such as ' ' (space) or '-' . Ensure that the name of the manager does not contain a forbidden character.

4.5.6   ToolBar

ISSUE:

The configuration tool call does not work. When I click the configuration tool icon, the Web browser appears with an error message.
The Bull System Manager Server hostname (present in the called URL) may not be resolved on the Bull System Manager Console host.

Workaround:

You can add the hostname to the Console host "hosts list configuration" (DNS, hosts file…).

ISSUE:

From the Console Configuration Web GUI, I have specified an application running a Windows local command with a parameter containing a Windows path with "\" characters. The "\" characters disappear when I launch my application from the Console application tool bar) and the command is not executed correctly.

Workaround:

The "\" character has a specific meaning. When you specify the local command in the Configuration Web GUI, you have to protect your "\" characters by duplicating them as "\\".
The command name must be a single command name. It must not contain a Windows or Linux path. The command name must be in the PATH environment variable. Example:

```
notepad.exe C:\\Program Files\\Bull\\ .....
```

ISSUE:

From the Configuration Web GUI, I have configured new applications (Console/Applications), but Bull System Manager Console has not automatically refreshed the "other Tools" area.

or

Even when a correction has been made to Bull System Manager Config, the following error message popup appears: "Local command: xxx Unable to execute: xxx"

Workaround:

Exit from the Bull System Manager Console and close all current browser windows. Then re-launch the Bull System Manager home page and restart the Console using the "start console" button.

4.5.7 Users & Roles

ISSUE:

From the Configuration Web GUI, I have added my "XYZ" user associated with a role, but Bull System Manager Console still reports that I am not registered.

or

From the Configuration Web GUI, I have modified the role of my user, but Bull System Manager Console has not taken it into account.

This is due to Internet temporary file management

Workaround:

Stop and re-launch your Web Browser to load new configuration information.

If the problem persists, it may be due to cache management at WEB proxy level.

4.5.8 MRTG Reporting

ISSUE:

For Bull System Manager server on Windows, the names of hosts and indicators listed by Bull System Manager Console Report are displayed in lowercase in the Bull System Manager console even if they contain uppercase characters in Bull System Manager configuration.

This is due to the MRTG product on Windows, used by Bull System Manager server to generate reports.

ISSUE:

The MRTG process does not run after a Save & Reload and the following error message appears:

```
ERROR: The Bull System Manager MRTG service is not started.
```

This is certainly due to the fact there are two reporting indicators defined with the same name.

Workaround:

In this case, you have to delete or rename one of both from the configuration Web GUI and redo the "Save & Reload".

4.5.9   PNP4Nagios Reporting

ISSUE:

When the data collect process of a monitoring service is stopped during a short time, its corresponding performance indicators graphs in PNP4nagios are not set to zero but to the last collected value.

This is a known issue of the PNP4nagios product.

ISSUE:

I do not see, in PNP4Nagios WEB pages, a new added indicator, which is collected via an already existing Nagios plugin.
This is due to the fact that the RRD file generation associated to the check command is configured with a SINGLE type mode instead of a MULTIPLE type mode.
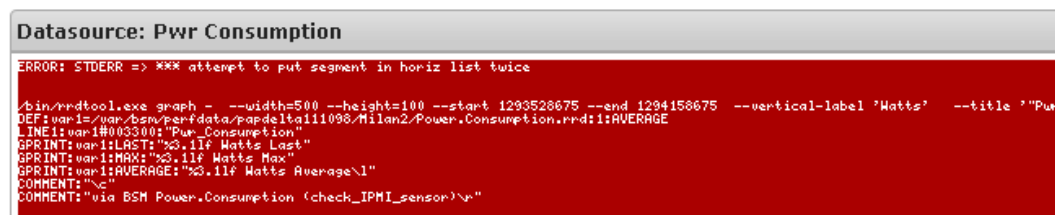
Workaround:

In this case, you have to delete the associated RRD and XML files in the RRD repository. Nagios automatically creates new ones again with the right lists of Datasource…and it should be OK in the PNP4Nagios WEB GUI… (But do not forget that you will lose the history of this indicator).

ISSUE:

With a BSM server, sometimes, I get the following error in a red rectangle:
"…attempt to put segment in horiz list twice…" instead of a performance graph via the PNP4Nagios WEB GUI.

In general, when this red window appears, it means there was a rrdtool graph command error.
Here, this is due to a "libart" library error (known linux rrdtool 1.2.n issue).

Workaround:

On Linux: You can upgrade your rrdtool package to the release 1.3 or higher to resolve this issue. You can download it from the following http server:
http://oss.oetiker.ch/rrdtool/
On Windows: No cygwin rrdtool upgrade 1.3 or higher is available at the moment we write this note.

The package perl-rrdtool is not yet available on RedHat 6.x

Workaround:

After having installed the extension BSMServer-PNP4Nagios, modify the file
/opt/BSMServer/engine/etc/pnp4nagios/process_perfdata.cfg to use the command
rrdtool instead of the perl API RRDs. Set the USE_RRDs flag to 0.

RESTRICTION:

PNP4Nagios does not support host name containing the '#' character.

4.5.10   Print Function

ISSUE:

With IE, the print function proposes three options: "As laid on screen", "Only the selected
frame", and "All frames individually". When "Only the selected frame" is chosen, all
frames are printed, as with the "All frames individually" option.

Workaround:

With IE the best use of the print function is to choose the "As laid on screen" option.

ISSUE:

Unable to print from the Bull System Manager console with Internet Explorer. When I click
the print icon, an error popup appears with the message:

```
"Code : 0   URL : res://C:\WINDOWS\system32\shdoclc.dll/preview.dlg"
```

Workaround:

Disable the third-party browser extensions:
- on Internet Explorer click **Tools -> Internet Options -> Advanced**
- then turn the "third-party browser extensions" option off.

4.5.11   Inventory

ISSUE:

The "Information/syslog" menu does not work for a SuSE target.
This is due to the fact that the syslog package is lacking on this Linux.

Workaround:

Install the syslog rpm that can be found on the OS distribution CD or DVD.

4.5.12   Global Console

INFORMATION:

Even if MRTG is used, on the contrary of the local console, the global console does not provide a generic entry point for MRTG in the BSM toolbar frame. But the contextual call to MRTG graphs from menu is still available in the applicative frame in both consoles.

4.6   Bull System Manager Server

4.6.1   Migration / Uninstall

ISSUE:

I get the following message when I install, update or remove Bull System Manager Server on a Windows platform:

```
Bull System Manager is running.
Stop Bull System Manager services and start the installation/uninstallation again.
```

This message appears when the Bull System Manager monitoring server or a cygwin process is running (or one of its sub-processes).

Workaround:

If the message does not disappear after several attempts, you MUST reboot the server and re-launch the installation procedure.
And…If this is not sufficient, you can remove the "…/engine/bin/cygwin1.dll" file , copy the ../engine/sbin/cygwin1.dll into ../engine/bin directory and retry to migrate Bull System again.

4.6.2   Java Runtime Environment

ISSUE:

After replacing a JRE version with a new version (Sun, BEA, IBM, or other), the Bull System Manager Server takes the change into account if you modify the BSM_JAVA_HOME environment variable with the new JRE installation directory.

Workaround:

On Windows , change the BSM_JAVA_HOME system variable by clicking **Control Panel/System/Advanced/Environment Variables.**
On Linux, change the BSM_JAVA_HOME system variable in the **/etc/bsm.profile** file.

4.6.3   Server Control

ISSUE:
I get the message "Could not open command file" when I perform the "Restart the Monitoring Server" command from the Monitoring/Control panel in the BSM Console.
This behavior is due to the fact that commands in Control panel are effective only if the Monitoring Server is started.

Workaround:
When the Monitoring Server is stopped, the only way to "restart" it is with the Bull System Manager/Control/Start menu, available on the system desktop.

4.6.4   Monitoring

ISSUE:
On Windows, some cygwin processes (dirname.exe, sed.exe, …) become persistent (zombies) and disturb the migration or the reload of BSM Nagios.
This is due to the fact that Nagios manages a service check timeout. When this timeout comes, Nagios kills only its direct concerned process but not all the processes tree.

Workaround:

You can increase the service check timeout **in nagios.cfg** file to avoid this mechanism.

The default value is 60 secondes. You can change the value of the parameter "**service_check_timeout**" to 120. The zombies processes should disappear

ISSUE:
I have an unexpected INDETERMINATE value for the status of a service in a trends or availability report.
When the status of a service has not changed for a very long time, status information can be lost because of the limited number of archives that the server uses to search this value.
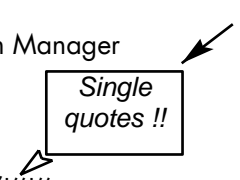
ISSUE:
I have a CRITICAL status for an Internet.HTTP monitoring service of a host on which an HTTP server is normally active.
The HTTP server of this host is probably configured with a non-standard TCP port (not **80**).

Workaround:
Refer to Chapter 5 of the *Administrator's Guide* to see how to:
- Unconfigure the HTTP monitoring service for this host in the Bull System Manager Configuration Web GUI.
- Clone the HTTP_BSM monitoring server by:
  - Naming this service HTTP_<portNumber>
  - Changing the check command parameter list to: <portNumber>!/!''!''   *Single quotes !!*
  - Set the hostlist expression with the host name.

ISSUE:
The Bull System Manager SNMP trap receiving mechanism does not work on a Linux machine.

This problem may be due to the use of an incorrect "perl-Config-IniFiles" package (Release 2.37).

Workaround:
Download the correct PERL package: perl-Config-IniFiles (Release 2.38 or higher) from the download/tools menu on http://support.bull.com/ols/product/platforms/ns/BSM
(Note: Do not forget to use your Bull login) and replace Release 2.37 with a higher Release.

The problem may also arise if the snmptrapd process is not started or started with wrong arguments (not BSM arguments). Use the ps –edf command to check that snmptrapd is running.

Workaround:
If the snmptrapd is not running, check whether there is an error in the file /opt/BSMServer/engine/tmp/snmptrapd.log. If the error is, port 162 is already in use, check whether another application has taken the port or reboot the machine.

If snmptrapd is running, check whether it has been launched as follows:
/usr/sbin/snmptrapd -C -c /opt/BSMServer/engine/etc/snmp/snmptrapd.conf -On -t -Lf /opt/BSMServer/engine/tmp/snmptrapd.log

If it is not the case, kill the running snmptrapd process, launch the BSM configuration tool, modify an object and launch Save and Reload.

ISSUE:
The monitoring service "FileSystems.All" is always UNKNOWN with the information message string "d filehandle LOCK at /opt/BSMAgent/..../check_disks.pl line 71 …"
This problem is probably due to incorrect rights (not rw) for the **/tmp** directory containing the lock file used by the **check_disks.pl** Nagios plugin on the remote targeted Linux server.

Workaround:
Change the rights of this **/temp** directory on the targeted Linux server. Set the "rw" rights for all users.

ISSUE:
Services using the check_IPMI_sensor command may display more or less frequently a status UNKNOWN with Information field: Service Check Timed Out, or ERROR: Activate Session command failed (or Unable to establish LAN session …).
This problem is probably due to network problems that cause timeout on IPMI requests sent over LAN.

Services using the check_IPMI_sensor command may display a status UNKNOWN with Information field: Locating sensor record….

This message occurs when the requested sensor record could not be found in the SDR repository. This may be due to an erroneous sensor name, or to network problems that cause timeout on IPMI requests sent over LAN.

4.6.5   Notifications

ISSUE:

No notification is sent for some services, despite the fact that notifications are enabled for them.

Il the host is down, no notification is sent for hosted services. This may always be the case for a host defined with no valid IP address (often used to represent the hardware part of a machine).

Workaround:

To enable notification for services on a host with no valid IP address, set a valid IP address or disable host checking by editing the supervision feature of the corresponding host (see Chapter 4 of the *Administrator's Guide.)*

4.6.6   Hardware Management GUI

ISSUE:

The FRU description of DIMM devices of Express 5800 servers may be erroneous when servers are powered off.

No Workaround for this BMC issue is currently available.

RESTRICTION:

If the Management Server is an Express 5800 server or a NovaScale 3000, 4000, T800, or R400 series server, Remote Hardware Management commands cannot be used to access this Management Server's Hardware Manager.

Note   This restriction also applies to the Remote Hardware Management Command Line Interface.

4.6.7 Bull System Manager and Hardware Manager Cohabitation on Windows or Linux

RESTRICTION:

Windows:

The reception of SNMP traps fails if ESMPRO manager is installed and started on Bull System Manager Server. To allow the reception of SNMP traps by Bull System Manager, stop the ESMPRO NVBase service.

ISSUE:

Linux:

The reception of SNMP traps may fail, because of a conflict between the following applications:

- Bull System Manager Server:
  The **snmptrapd** service is launched when the SNMP Control/enable is set to 'yes' (action activated by Bull System Manager configuration).
- ISM Alert Viewer

These two applications receive SNMP traps on the same IP standard port: 162. The first application launched is the winner. Other applications cannot use this port.

Workaround:

To allow the reception of SNMP traps by Bull System Manager and by ISM Alert Viewer, you have to:

- Create a new <Directory path>snmptrapd.conf file containing the following command:

```
traphandle default
/opt/BSMServer/engine/bin/trap_dispacher.sh
/usr/local/ism/bin/LanAlertMgr
```

The **trap_dispatcher.sh** command sends the SNMP trap to Bull System Manager and to the specified argument:

```
/usr/local/ism/bin/LanAlertMgr
```

- Launch the command snmptrapd as follow：

```
snmptrapd –c <Directory path>/snmptrapd.conf –On
```

Note   This rule is generic for all tools using the standard SNMP trap port.

4.7   Distributed BSM solution

4.7.1   Installation RESTRICTIONS

It is hardly recommended to build a homogeneous distributed BSM solution: same version and same OS. Indeed, if each BSM server is not installed on the same OS family (Windows or Linux), there will be some functional restrictions.

Moreover for the PNP4Nagios extension:

- You CANNOT share the RRD repository on a Windows BSM server. So you CANNOT centralize the RRD repository for PNP4Nagios extension if one BSM server runs on Windows.

- You CANNOT use the PNP4Nagios call menus of the Global Console if one BSM Server uses the PNP4Nagios package and another one the PNP4NAgios04 package.

4.7.2   Configuration RESTRICTIONS

There is no centralized (or global) BSM configuration tool.

Therefore…

- there are no tools to define a transversal map (a global map containing a set of hosts managed by different BSM server nodes)
- one targeted host can be managed by only one BSM server.
- the authentication configuration for BSM Console (user & role) MUST be uniform on the different BSM server node.

4.7.3   Monitoring

ISSUE :

I have « ??? ago » in the Last Check column of the host/service status display.

Workaround :

This problem occurs when the date/time are not synchronized on all the BSM distributed servers .

ISSUE :

The NDOutils database is not updated because of a failed connection to MySQL server. The error 111 can appear in the system log.

Workaround :

Check the MySQL server properties in BSM configuration tool.

Restart the Nagios service.

ISSUE :

From the BSM global Console, it lacks a part of the contextual menu (Remote Operation,…) for a host, whose model management has been brought via a BSM server Addons...

Workaround :

Verify that this BSM Server addon has been installed on all BSM server nodes (and especially on the BSM server node from where you have launched the BSM global Console, even if the targeted host is managed by another BSM server node).

RESTRICTION :

The Downtime scheduling actions proposed in the applicative frame associated to the "Monitoring/Control" menu do not work in the BSM Global Console (but they work in the BSM Local Console).

ISSUE:

The monitoring service "Hdisks.SMARTstatus" is OK but shows the following details information: " … is not a SMART disk"
It means that the monitored disk is not a SMART one and so it has not associated SMART status. So this monitoring service is useless for this disk.

Workaround:
You can delete this monitoring service for the concerned host in the BSM configuration.

INFORMATION:
An empty monitoring category (without defined monitoring service) appears in the local BSM Console whereas it is hidden in the global BSM console.

ISSUE:
The contextual menu (Operations/Storage) for calling the Web GUI of a StoreWay bay appears in the local BSM console and not in the global one.

4.8 Bull System Manager Server Add-ons

4.8.1 Uninstallation

ISSUE:
After uninstallation of an Add-on, the graphs of indicators are not updated for indicators automatically removed by unistallation process

Workaround:
The graphs must be edited with the BSM Configuration for removing the obsolete indicators.

4.8.2 BSMJOnAS

RESTRICTION:
The monitoring of JOnAS version >= 5 is not supported by BSMJOnAS add-on.

4.8.3 BSMGAMTT

ISSUE:
The third-party product works correctly but Bull System Manager associated monitoring services are still in UNKNOWN status.
The SNMP interface (used by Bull System Manager) does not work for this OS.

Workaround:
There may be an SNMP configuration issue. Check the corresponding system SNMP service properties on Windows, or the **snmpd.conf** file on Linux. Then try to "walk" the GAM SNMP agent with an SNMP manager such as **SNMPUTIL.EXE** command for Windows or **snmpwalk** command for Linux.

4.8.4 BSMDD4A

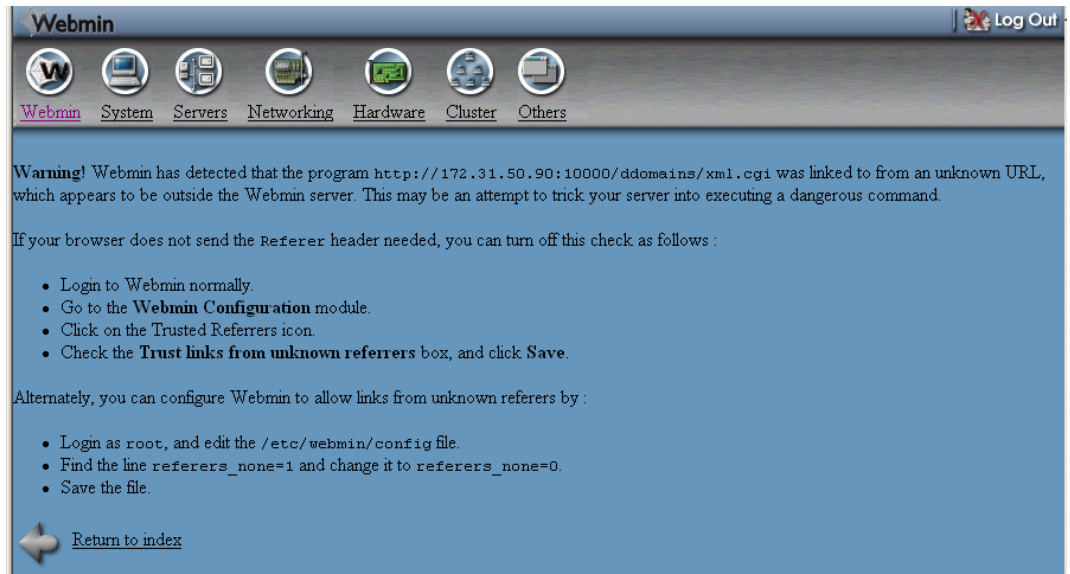### ISSUE:
An error "Unable to get the Dynamics Domains status for host …" occurs, even if the DDFA webmin modules works.
The used CGI in the DDFA webmin module is considered as an external URL by webmin. And its access is blocked by default.
Workaround:
You have to open the restricted access to this URL in webmin "Trusted referrer" configuration module as explained in the following picture:

ISSUE:

My "foo" dynamic domain associated with a "foo" user seems to have CPU activity even if there is no "foo" active process.

Some system daemon processes exist, which can use a CPU even if it is dedicated to "Dynamic Domains" associated with another specific User.

RESTRICTION:

I have two different Bull System Manager servers surveying the DD4A of a same target. One of these servers still has an UNKNOWN status for its DynamicDomains monitoring services.

There is a concurrent access issue in the DD4A webmin module.

4.8.5   LsiCIM

ISSUE:
LsiCIM.RaidStatus returns are in UNKNOWN status with the message "unable to connect to the CIM provider" whereas the LSI CIM Provider has been started.

Workaround:
The Lsi CIM provider has failed (check it by trying a connection with the Lsi CIM Browser).

RESTRICTION:
The Lsi CIM Provider is not currently operational on a Linux IA64 platform.

4.8.6   BVS

ISSUE:
Unable to call the Bull Video Server Web server.

Workaround:
The Bull Video Server Web server must be configured to allow non-secure HTTP access from the BSM server.

RESTRICTION:
BSMBVS supports only BVS version 4.0 and non-secure HTTP access to Bull Video Server Web server.

ISSUE:
No BSMConsole/Operations menu to connect to administration Web pages of BVS.

RESTRICTION:
BSMBVS does not support BSMConsole/Operations menu in this release. This feature may be included in a global solution of accessing BVS Web server for Linux and Windows in a future release, if demanded.

4.8.7   StoreWayFDA&Optima

ISSUE:
BSMConsole/Operations menu to connect to StoreWayFDA&Optima administration Web pages no more operational.

RESTRICTION:
The administration tool for StoreWayFDA&OPTIMA has changed to a client/server application and is no more based on Web pages.

4.8.8   Water Cooled Door

ISSUE:

If Sensors.Voltage service is not operational (BSM console:
Service status="UNKNOWN : 0 - Locating   sensor ..."

Workaround:

Verify on BSM console (Inventory/Platform/Sensors) if sensor 'MAIN Voltage' is always present. If not, delete service Sensorss.Voltage.

ISSUE:

After migration, the service Hardware.PowerStatus is no more displayed for WaterCoolDoor host in the BSM console.

This process is due to a migration process which renames all the Hardware.Power Status in Power.Status but for the WaterCooledDoor model, the Power.Status service is not defined.

Workaround:

To resolve this problem, you must edit each WaterCooledDoor host with the BSM GUI configuration application. That will be re-create the Hardware.PowerStatus services.

ISSUE:

The "Save &Reload" action returns the following warning:
"WARNING: the service Status has a bad model, (devWaterCooledDoor) and is ignored for the category Power with model: mescat, bullion"
This is due to the fact there are several definitions of the "Power" Category, one by model.

Workaround:

This message has no consequences. You just have to ignore it.

4.8.9   VMware vSphere

ISSUE:

The services of the category VMwareESX are always UNKNOWN.
This problem is due to an incomplete configuration of the corresponding host, after a migration process.

Workaround:

To resolve this problem, you must edit each ESX platform and perform a Discover process to initialize internal information.

4.9 Bull System Manager Agent

4.9.1 Linux and AIX Agent

Important

If you detect any problem with the syslog-ng on a Linux target, we advise strongly to install the syslog-ng 3.0.1 rpm packages you can find on the "misc" directory of the BSM CD.

ISSUE:

I cannot unmount my "/mnt/cdrom" after NovaScale Linux Agent installation from the CD-ROM. I get the busy error message.

This problem may be due to the Agent installation launching the **bsm_webmin** service from the rpm package with a path link that locks the mount "/mnt/cdrom".

Workaround:

To resolve this problem, you MUST stop and re-start the bsm_webmin service from the Service Control Panel.
To do this:

- identify the process:
  #ps -ef|grep BSMAgent|grep -v grep
  root 1253630 1 0 10:21:34 - 0:00 /usr/bin/perl
  /opt/BSMAgent/bsm_webmin/miniserv.pl /etc/bsm_webmin/miniserv.conf
- kill the process:
  # kill -9 1253630
- restart the process:
  #/usr/bin/perl /opt/BSMAgent/bsm_webmin/miniserv.pl
  /etc/bsm_webmin/miniserv.conf

And…
You can unmount your CD-ROM drive.

ISSUE:

BSM server cannot connect to the Linux agent, because the firewall is not opened for the agent port number 15666

Workaround:

Launch the following command on the Linux agent machine to open the firewall for the agent port number
#iptables -I RH-Firewall-1-INPUT 10 -p tcp –dport 15666 -j ACCEPT

ISSUE:

BSMConsole/Monitoring/Service Status/LinuxServices.**syslogd**:

Warning - 0 process running with command name syslogd

RESTRICTION:

Check if syslog-ng is installed and running: syslogd and syslog-ng are not compatible.

4.9.2   Windows Agent

ISSUE:

The "EventLog/Application" monitoring service of a Windows host is often in the CRITICAL or WARNING state because of event ID 2003, which appears in the Windows EventLog. The following information is from **support.Microsoft.com** Web site:

It appears in the NT EventLog, the event ID 2003 warning message with the following text:
The configuration information of the performance library
"C:\WINNT\system32\w3ctrs.dll" for the "W3SVC" service does not match the trusted
performance library information stored in the registry. The functions in this library will not
be treated as trusted.
The configuration information of the performance library
"C:\WINNT\system32\infoctrs.dll" for the "InetInfo" service does not match the trusted
performance library information stored in the registry. The functions in this library will not
be treated as trusted.
The configuration information of the performance library
"C:\WINNT\system32\aspperf.dll" for the "ASP" service does not match the trusted
performance library information stored in the registry. The functions in this library will not
be treated as trusted.

Workaround:

To resolve this problem, run the following commands at a command prompt in the %SystemRoot%\System32 folder to unload and reload the IIS performance dynamic-link libraries (DLLs). Warning messages will no longer be logged:

```
unlodctr w3svc
unlodctr msftpsvc
unlodctr asp
unlodctr inetinfo
lodctr w3ctrs.ini
lodctr ftpctrs.ini
lodctr axperf.ini
lodctr infoctrs.ini0
```

Restart your computer for the changes to take effect.

ISSUE:

The "EventLog/Security" monitoring service of the Bull System Manager Server host is often in the CRITICAL or WARNING state because of events ID 680, 538, 540 and/or 576, which appear in the Windows EventLog for a Windows 2003 host.
This is caused by the default audit of the successful user connection via the Web server.

Workaround:

Change the auditing policy for connection events. To define or modify auditing policy settings for an event category on the local Web server, proceed as follows:
1.   Open Administrative Tools.
2.   Click Local Security Policy.
3.   From the Bull System Manager Console tree, click Local Policies → Audit Policy.
4.   In the details pane, double-click the Connection category to change auditing policy settings.
5.   In the Connection Properties page, deselect the Success check box to disable audit on successful attempts.
6.   Click OK.

ISSUE:

Windows category (EventLog, SystemLoad ...) monitoring services are always in an UNKNOWN state.
This may be because the Bull System Manager monitoring agent is not running or is blocked.

Workaround:

To resolve this problem go to the target Windows server and start or restart the "Bull System Manager Monitoring Agent" service.

ISSUE:

Monitoring of Windows services or Inventory of Windows Operating System may return with CONNECTION ERROR – RECEIVE FAILURE : recv – Connection reset by peer ...
This may be because the Bull System Manager monitoring agent or the Bull System Manager Management Agent is blocked.

Workaround:

To resolve this problem go to the target Windows server and stop/start the "Bull System Manager Monitoring Agent" and "Bull System Manager Management Agent" services.

4.9.3 SNMP Trap Receive

ISSUE:
SNMP traps are sent to Bull System Manager but are not seen in the monitoring Console.

Workaround:
Check that the network name configured for the sender (Host, Manager…) is the default network name used by the OS (especially if this host or manager is connected to several networks).

4.10 Remote Hardware Management CLI

4.10.1 Express5800 Series Server

ISSUE:
The "System Management" set up tool (from the Bull EXPRESSBUILDER CD-ROM) does not allow the modification of the default User ID, set to MWA", used for the connection to the Baseboard Management Controller.

Workaround:
In order to remotely access certain NovaScale R400 Series Servers, the "user" argument to be used in the NovaScale Hardware Management commands must be specified with "-u MWA".

4.10.2 NovaScale 3005 Series Server

ISSUE:
The bsmsol.sh command used to establish a Serial-over-Lan session on a NovaScale 3005 series server fails and the following error message appears: "ERROR: Info: cannot activate SOL payload with encryption".
This error message appears when the Baseboard Management Controller firmware supports encryption (authentication, integrity and confidentiality algorithms).

Workaround:
In order to establish a Serial-over-Lan session on a NovaScale 3005 Series server that supports encryption, use the "-C 3" argument (as Cypher Suite ID 3) in the **bsmsol.sh** command. Specific to IA64 or x64 Platforms

4.10.3   Bull System Manager Server

RESTRICTION (Windows 2003 configuration):
No host is discovered when I click the "hosts discovery" button.
This is a Configuration Tools functional restriction on **Windows 2003** IA64 platforms.

ISSUE:
After installation of Bull System Manager Server, the Bull System Manager Server host is configured as an IA32 host by default.

Workaround:
Change the default host type of the server host, via the WEG GUI configuration tool.

4.10.4   Bull System Manager Console

ISSUE:
The Bull System Manager Console has no Local application tools in its Toolbar on a Bull Linux AS platform.
There are blocking issues with Java plug-in 1.4.2 on IA64 or x64 OS environments. Nevertheless, except the local commands buttons in the toolbar, all the other parts of Bull System Manager can be used.

Workaround:
You can use an ia32 WEB browser (IE or Firefox) and an ia32 release of the Java plug-in to benefit from full console functionalities.

4.10.5   Bull System Manager HW CLI

ISSUE:
A BSM command returns an ELF error on a Linux x64:,
This issue is due to the fact that the embedded binary "ipmitool" is an ia32 binary file that needs the x86 linux-ld.so dynamic library.

Workaround:
On a x64 Linux, install the following x86 compat library that can be found on the OS distribution CD:
```
compat-libstdc++-33-3.2.3-xxx(i586)
```

ISSUE:
The BSM command bsmPDUpower may have a long response time when using it with SNMP v3 for an APC PDU target

Workaround:
You can use the SNMP v1 or v2c to avoid this possible long response time.

Appendix A. Installing Management Server without install_server.sh

A.1 Packages

Management Server comprises three packages to be installed in the following order:

1. **Java Runtime Environment**
   required by the Bull System Manager Server infrastructure.
2. **Bull System Manager Server**
   containing the infrastructure and services in charge of collecting and operating management data.
3. **Bull System Manager Webinstall**
   containing the Bull System Manager components downloadable from the Bull System Manager WEB Server.

A.2 Installation Process

If the **install_server.sh** command does not work on your Linux distribution, proceed as follows to install Bull System Manager Server:

1. Login as **root**.

2. Install the **Java Runtime Environment** if required by launching the following commands:

```
cd <CD-ROM mount point>/product/java/linux/
rpm -Uhv jre-1_5_0_06-linux-i586.rpm (for Linux 32bits)
```

Note   Install for instance in the **/usr/local/bull** directory.

Once Java is installed, set the **JAVA_HOME** environment variable to the Java installation directory in the **/root/.bash_profile** file:

```
export JAVA_HOME=/usr/java/jre1.5.0_06 (for Linux 32bits)
```

3. Install Bull System Manager Server by launching the following commands:

```
cd <CD-ROM mount point>/product/server/linux/ker2.6.9+
rpm -Uhv BSMServer-1.4-n.rpm
```

The distribution directory depends on the Linux kernel version. From 2.6.9 to higher Linux kernel versions: `linux/ker2.6.9+`

Note   The Linux kernel is obtained with the **uname -a** command.

---

4. Install Bull System Manager Webinstall by launching the following commands:

```
cd <CD-ROM mount point>/product/server/linux
rpm -Uhv BSMWebinstall-1.4-n.rpm
```

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