HP Business Service Management

For the Windows and Linux Operating Systems

Software Version: 9.23

BSM Patch Installation Guide

Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: **http://h20230.www2.hp.com/selfsolve/manuals**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: **http://h20229.www2.hp.com/passport-registration.html**

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at: **http://www.hp.com/go/hpsoftwaresupport**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services

- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

http://h20229.www2.hp.com/passport-registration.html

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is **http://h20230.www2.hp.com/sc/solutions/index.jsp**

Installing the Latest BSM 9.2x Patch

BSM releases different types of patches such as minor-minor releases (for example 9.22) and build patches, sometimes referred to as IPs (for example 9.22.071).

This procedure describes the standard workflow of how to install the latest BSM patch on top of a running BSM environment and it involves some downtime. If this is problematic, and you have a high availability environment, you can minimize the downtime when installing a patch by using the alternative procedure: "Installing a Patch with Low Downtime" on page 8.

> **Note:** The <BSM root>\conf\jdbc.drivers.properties file is overwritten by the 9.23 installation. Customers running BSM on Oracle RAC should either:
>
> - Backup the original file prior to installation and restore it after the installation
>
> - Restore it from the standard backup folder <BSM root>\installation\HPBsm923\backup\conf

1. **Prerequisites**

   - It is recommended that you back up all BSM databases and files you made custom changes to.

   - Make sure that BSM has been fully stopped on all machines and that there are no open connections (for example, from Windows Explorer) from any machines to the BSM root directory or any of its subdirectories.

   - Remove the <HP BSM root directory>\opr\tmp directory on all BSM machines.

2. **Download and install the latest minor-minor version from the SSO site**

   If you already have the latest 9.2x minor-minor version, skip this step.

   a. Go to the SSO site:

      http://support.openview.hp.com/selfsolve/patches

   b. Select **Application Performance Management (BAC)** and search for the applicable patch.

   c. Save the package locally and launch the relevant setup file to install the patch.

   d. Run the installation files on all BSM servers (Gateway and Data Processing).

3. **Download and install the latest build patch (if available)**

   Perform step 2 (a-d) above for the latest build patch.

4. **Download and install the SLM persistency patch for BSM 9.23 patch from the SSO site**

   Perform step 2 (a-b) above for the **SLM persistency patch for BSM 9.23**.

5. **Log out and in**

   If you are installing BSM in a Linux environment, and you selected a non-root user in the post-installation wizard, log out and log in using the non-root user you selected.

6. **Re-apply manual changes**

   If you have made changes in the HP BSM root directory to files that are updated during patch installation, for example, while performing hardening procedures on your system, you must reapply those changes after patch installation on all relevant BSM machines. For more information, see the BSM Hardening Guide.

7. **Enable BSM**

   Enable BSM on all servers.

8. **Repeat Hardening Procedures (optional)**

   If your original environment was secured with SSL you need to repeat the following hardening procedures:

   a. If you had previously made changes to **<HP BSM root directory>\EJBContainer\server\mercury\deploy\jboss-web.deployer\server.xml** while performing hardening procedures on your system, repeat the "Securing JBOSS" procedure in the Hardening Guide after the patch installation on all relevant BSM machines.

   b. If you had previously configured SSL on an IIS 7.x web server used by BSM, you need to verify HTTPS port binding in IIS is set to the correct port (443).

   c. If you had previously configured SSL on the Apache web server used by BSM, you may need to reapply the changes to httpd.conf and httpd-ssl.conf files as follows:

      ○ In **<HP BSM root directory>\WebServer\conf\httpd.conf**, uncomment the following two lines:

        LoadModule ssl_module modules/mod_ssl.so

        Include conf/extra/httpd-ssl.conf

      ○ In **<HP BSM root directory>\WebServer\conf\extra\httpd-ssl.conf**, specify paths to **SSLCertificateFile** and **SSLCertificateKeyFile**

      ○ Restart the HP BSM Apache web service

9. **Clean up files**

Delete the files contained in the following directory:

**<HP BSM_root_directory>\EJBContainer\server
\mercury\work\jboss.web\localhost\topaz\org\apache\jsp\tag\web\flex**

10. **Upgrade SHA metadata**

If you had previously installed SHA on a working version of BSM 9.20, perform this procedure:

a. If you backed up your SHA analytics metadata (in case you made manual changes), merge any manual changes onto the new files.

   i. Open any files that had manual changes in the backed up directory:

   <SHA analytics server installation directory>/conf/analytics/metadata/default

   ii. Merge them using a text editor onto the same files in the following directory:

   <BSM DPS installation directory>/conf/analytics/metadata/default

b. Log onto the JMX console on the DPS using the following address:

**http://<BSM_DPS_
FQDN>:29924/mbean?objectname=Topaz%3Aservice%3DAnalyticsMetadata**

c. In **java.lang.string.reloadmetadata**, under **Value**, click **True**, and then click Inv**o**ke.

d. Restart the analytics loader

You can do this by restaring the analytics_loader on all BSM Gateway servers (avoiding system downtime), or restart all BSM Gateway servers.

11. **Deploy the Updated Packages**

If you had deployed any of the following packages, you must redeploy them. They have been updated in BSM 9.23.

<BSM_HOME>/odb/conf/factory_packages/BACKPIsAdapter.zip

<BSM_HOME>/odb/conf/factory_packages/BSMConnector.zip

<BSM_HOME>/odb/conf/factory_packages/BSMDowntime.zip

<BSM_HOME>/odb/conf/factory_packages/BSMDowntimeAdapter.zip

<BSM_HOME>/odb/conf/factory_packages/EUM.zip

<BSM_HOME>/odb/conf/factory_packages/sitescope.zip

To deploy a package:

a. In BSM, go to **RTSM Administration > Administration > Package Manager**.

b. Select the **Deploy packages to server (from local disk)** button .

c. Select the **Add** button, and navigate to the package (see the paths above)

d. Select **Deploy**.

Installing a Patch with Low Downtime

The typical patch installation procedure involves a minor amount of downtime. If this is problematic, and you have a high availability environment, you can minimize the downtime by when installing a patch by using this procedure.

1. Disable one set of BSM servers (for now they will be referred to as the first set of servers). A set of servers can be one BSM Gateway and one BSM Data Processing server or one one-machine server (Gateway and DPS in one machine).

2. Install the patch on the first set of servers. For details, see"Installing the Latest BSM 9.2x Patch" on page 4.

3. Disable all other BSM servers.

4. Enable the first set of servers.

5. Install the patch on the other BSM servers.

6. Enable the other BSM servers.

7. Continue with the post-installation steps in the standard procedure starting with "Log out and in" on page 5.

Uninstalling a Patch (Rolling Back)

This procedure explains how to uninstall a patch. For example, this means rolling back from BSM 9.23 to BSM 9.20. Follow the appropriate instructions depending on your operating system.

To roll back a BSM patch to a previously installed version - Windows:

1. If you have smart card authentication enabled, it must be disabled before you begin uninstalling a patch. For details, see the Smart Card Authentication Configuration Guide, which can be found on the Planning and Deployment Documentation page (Help > Planning and Deployment) or the SSO manuals site (http://support.openview.hp.com/selfsolve/manuals).

2. Stop the HP BSM service on all servers and confirm that they are stopped.

3. Stop the web server process on all servers (IIS Admin Service for IIS; Apache service for Apache).

4. Select the service pack to remove from **Control Panel > Programs and Features > View Installed Updates**.

5. When the uninstall process is complete, restart the machine if requested.

6. The following step is not relevant if you are running BSM 9.22.111 (i.e. IP2) or higher.

   Remove all subdirectories under the directory **<HP BSM root directory>\EJBContainer\server\mercury\work** on all Gateway servers.

7. Delete the temporary internet files on each browser that accesses BSM.

8. Restart the web server process on all Gateway servers.

9. Reload the required TQL

   As part of the uninstallation, a required TQL was removed and must be redeployed. If this is not done, the BSM_DT service will not start. To redeploy the TQL:

   a. Make sure BSM is started and the odb service has a status of **STARTED**.

   b. Open the following JMX console:

      <DPS Machine FQDN>:21212/jmx-console/HtmlAdaptor

   c. In the JMX console, select **UCMDB:service=Packaging Services**.

   d. In the method **deployPackages**, enter the following parameters:

      customerId = 1 (unless it is a "SAAS" enviroment),

      packagesNames = BSMDowntime"

  e. Select **invoke**

  f. Verify that the **BSM_DT** service has started.

10. If you are rolling back to BSM 9.20 you need to install hotfix **QCCR1A152986** available from HP support. The hotfix must be installed on all BSM Gateway and Data Processing Servers. This is not required if you are rolling back to BSM 9.21 or 9.22.

11. Make sure to uninstall or rollback any updated data collectors as well.

To roll back a BSM service pack to a previously installed version - Linux:

1. If you are running BSM 9.23 or higher using a non-root linux user, and you are rolling back to BSM 9.22 or lower, you must change the linux user to root before rolling back. This is because the use of non-root users was not supported before BSM 9.23.

2. Stop BSM as follows:

 /opt/HP/BSM/scripts/run_hpbsm stop

3. Run the uninstall script as follows:

 /opt/HP/BSM/installation/<Patch_Name>/bin/uninstall.sh

 Where <Patch_Name> is your HP BSM version. For example HPBsm922.

 To run this script in silent mode, use the command **/opt/HP/BSM/installation/<Patch_ Name>/bin/uninstall.sh -i silent**

4. The following step is not relevant if you are running BSM 9.22.111 (i.e. IP2) or higher.

 Remove all subdirectories under the directory **<HP BSM root directory>/EJBContainer/server/mercury/work** for all Gateway servers.

5. If you installed BSM 09.23 on top of BSM version 09.21 or 09.20 and are rolling back to one of those versions, you must completely uninstall Monitoring Automation or User Engagement (if they were installed) after rolling back BSM. For details, see the Monitoring Automation Installation Guide.

6. top of BSM 09.22, this is optional.

7. Delete the temporary internet files on each browser that accesses BSM.

8. Restart the web server process on all Gateway servers as follows:

 /opt/HP/BSM/WebServer/bin/apache2restart.sh

We appreciate your feedback!

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on BSM Patch Installation Guide (Business Service Management 9.23)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to Sw-doc@hp.com.