

HP Service Manager

For the supported Windows and Unix systems

Software Version: 9.21

Patch 8 Release Notes

Document Release Date: December 2013

Software Release Date: December 2013



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

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This document is an overview of the changes made to HP Service Manager 9.21 for patch 8. It contains important information that is not included in other documentation.

What's New in This Release

This section describes important changes in this release.

Important: Based on customer feedback, the overall quality of Service Manager has been an area of concern over the last number of years. To that end, the Service Manager R&D team has spent a significant amount of effort improving the quality of Service Manager, and recent customer feedback is very positive. Many defects that have been in the product for many years are now fixed in the SM 9.3x. The issues resolved in this build patch cover only the most critical fixes. To gain better performance and user experience, we strongly recommend that you apply the latest binaries from SM 9.3x instead of this build patch.

In most cases SM 9.3x binaries are compatible with SM 7.1x and SM 9.2x applications. Therefore, you are not required to perform a full upgrade to take advantage of the latest Service Manager technology. Specific compatibility details are listed in the SM 9.3x release notes.

Warning when running the server on Solaris 9 with JRE 6

In SM9.21 P7, the server's JRE version was upgraded to JRE7. When Service Manager started, it performed a JRE validation that did not allow a JRE version below JRE7 update15. However, JRE7 is not supported by Solaris 9. Therefore, SM9.21 P7 could not start on Solaris 9-based systems.

As of version 9.21 P8, the Service Manager server is allowed to run with JRE 1.6.0_20 or later on Solaris 9. However, HP recommends that you upgrade to Solaris 10 to take advantage of JRE 7. When you start the SM server on Solaris 9, a warning will display: "Service Manager runs on Solaris 9 with jre6 as Solaris 9 does not support jre7. We recommend you to run on Solaris10 with jre7."

Extra configuration required for Solaris 9

If you still want to run the server on Solaris 9, be aware that an extra configuration is required. Without this configuration, when you start the SM server on Solaris 9, the following error will occur: "fatal: libm.so.2: open failed: No such file or directory." This is because there is no "libm.so.2" on Solaris 9, while the SM server requires this "libm.so.2" to work.

Use the following configuration to avoid this issue:

1. Log on to the Solaris 9 server host as root.
2. Run the following commands to create a link between libm.so.1 and libm.so.2:

```
cd /usr/lib
ln -s libm.so.1 libm.so.2
```

3. Set environment variable: LD_NOVERSION=1 export LD_NOVERSION
4. Start the SM server. The server is started successfully.

Patch/hotfix level included in version information

Previously, the `sm -version` RTE command returned only the version string and build number. After you apply Service Manager 9.21p8, the command also returns the exact patch or hotfix level (for example, P8).

Obsolete threadstacksize parameter removed

The obsolete `threadstacksize` parameter is removed from the "`sm -helpthreading`" command output. In versions of Service Manager earlier than 9.21p8, this parameter is displayed when you run the command. However, the parameter has no effect and is ignored. It will continue to be ignored. See "["QCCR1E88441" on page 11](#)".

New Parameters and RAD Functions

This release has introduced or updated the following parameters.

- "[Parameter: maxpagesize \(new\)](#)" below
- "[Information retrieval \(IR\) expert parameter: ir_sql_limit \(updated\)](#)" on the facing page

Parameter: maxpagesize (new)

Parameter
maxpagesize

Description
This parameter defines the maximum number of records that the Windows client requests from the server when displaying a record list. It helps to avoid high memory consumption by `getList` requests when the "Record list request count" option in the Windows client preferences is set to a large value.

Valid if set from
Server's OS command prompt
Initialization file (`sm.ini`)

Requires restart of the Service Manager server?
No (only requires a re-login)

Default value
8000

Possible values
0: No size limit
8000 to 80,000

Example usage

Command line: `sm -httpPort:13080 -maxpagesize:10000`
Initialization file: `maxpagesize:10000`

Information retrieval (IR) expert parameter: `ir_sql_limit` (updated)

Parameter

`ir_sql_limit`

Description

This parameter determines the maximum number of records to be fetched from the RDBMS in a combined IR and SQL query.

This parameter does not affect pure IR queries (queries that only involve IR indexed fields) or pure SQL queries. It only affects queries that involve some fields that are indexed by IR and some that are not.

Valid if set from

Server's OS command prompt
Initialization file (`sm.ini`)

Requires restart of Service Manager server?

Yes

Default value

32767

Possible values

The maximum number of records to be fetched from the RDBMS for a combined IR and SQL query. A value of 0 (zero) means there is no limit.

Example usage

Command line: `sm -httpPort:13080 -ir_sql_limit:20000`
Initialization file: `ir_sql_limit:20000`

Certifications

This release includes the following support matrix changes.

Added support

- SM server platform: JRE 1.6.0_20 or later (with Solaris 9)

Discontinued support

- Web tier application server: IBM WebSphere Application Server 6.1 (due to its end of life)

See also the compatibility matrix for Service Manager 9.21 on the Software Support Online (SSO) site: http://support.openview.hp.com/sc/support_matrices.jsp

Fixed Defects

This release fixes the following defects.

Server

CR	Problem	Solution
QCCR1E61586	When you set an autoformat condition on a view using the operator "Is Empty", the condition is not considered.	"Null" conditions are now supported for Autoformat views.
QCCR1E88327	RTE Signal 11 occurs when running the "xml.setContent" js function.	Signal 11 does not occur when running the "xml.setContent" js function.
QCCR1E88441	When you run the sm -helpthreading command, the obsolete threadstacksize parameter is still displayed.	This parameter is no longer returned when users run the sm -helpthreading command.
QCCR1E89108	When you execute JavaScripts that call doSOAPRequest() or doHTTPRequest(), a large number of error messages is logged in the sm.log file.	The error messages are no longer generated.
QCCR1E91369	Inboxes cause signal 11 errors, which lead to high memory usage.	Inboxes no longer cause signal 11 errors and hence high memory usage does not occur.

CR	Problem	Solution
QCCR1E91996	The Service Manager documentation describes the default value of the "agstackl" parameter as 400. The correct value is 600.	<p>The default value has been updated to 600 in the "sm - helpstart" command output.</p> <p>Note: The online help has not been updated. See "Documentation Errata" on page 22.</p>
QCCR1E92564	The incident matching feature performs slowly when security folders are enabled.	The incident matching performance is no longer impacted by security folders.
QCCR1E93394	The "autodebughttp" parameter that is referenced in the RTE code is not an 'official' parameter.	The reference to the "autodebughttp" parameter is removed from the code.
QCCR1E94107	A servlet, usually a servlet for Webservice requests, crashes multiple times a day.	The servlet does not crash when a session expires.
QCCR1E94700	Low memory issues occur in the CIT servlet in Service Manager Application.	No memory leak occurs when RCString is read.
QCCR1E95074	When the "Record list request count" option is set to a large value (for example, 1,000,000) in the Windows client preferences, high memory usage occurs.	<p>A new parameter (maxpagesize) is introduced to avoid high memory consumption by one getList request when the "Record list request count" option is set to a large value.</p> <p>For more information, see "Parameter: maxpagesize (new)" on page 9.</p>
QCCR1E95484	When you import unload files, memory leaks occur.	No memory leaks occur when you import unload files.
QCCR1E95796	The search results form of a Query-by-Example (QBE) list is unnecessarily refreshed because the listid is updated incorrectly.	The search results form of a QBE list is refreshed only when necessary.

CR	Problem	Solution
QCCR1E96102	<p>The <code>ir_sql_limit</code> parameter does not take effect for a merged file, causing inconsistent and unexpected IR search results when searching Incidents using a combined IR and SQL query.</p>	<p>Now the <code>ir_sql_limit</code> parameter takes effect for a merged file. Furthermore, now you can configure <code>ir_sql_limit:0</code> to fetch all the rows from the RDBMS for the IR query.</p> <p>For more information, see "Information retrieval (IR) expert parameter: <code>ir_sql_limit</code> (updated)" on page 10.</p>
QCCR1E96157	<p>When the KMUpdate process fails, incremental updates do not continue.</p>	<p>Incremental updates continue if the KMUpdate process fails.</p>
QCCR1E96284	<p>The following message is received:</p> <pre>The record being updated has been modified since read when saving around 10% of operator records.</pre> <p>From the log trace, it looks like the operator capability array is truncated. This only occurs in an environment where the binaries have been upgraded to 9.31.2018. If you restart the same server, using the backed up 9.30.282 binaries, you are able to save the record without the warning message.</p>	<p>This issue was caused by the attempt to remove those capabilities merged from the template record when a templated record became non-templated (see QCCR1E32145). After this fix, the capabilities that came from the template record will remain unchanged.</p>
QCCR1E96925	<p>Service Manager experienced two separate outages in one day, in production, using 9.21 P6 HF3 binaries for the server and web tier. The SM server runs on Solaris 10, and WebSphere runs on RHEL.</p> <p>Each time the outage happened, all users were kicked out of the system, and new logins were not allowed for a period of about 10 minutes. A recycle of SM was not needed, for the system to start accepting new logins again.</p>	<p>Service Manager will not experience outages, and users will not be kicked out because of outages.</p>

CR	Problem	Solution
QCCR1E97003	You cannot run a vvir command on external IR files.	You can successfully run a vvir command, whether the input file is the full path of the IR file or the file name with its path set in the ir_prefix parameter.
QCCR1E97612	You cannot identify the patch or hotfix information from the RTE log or from the sm -version RTE command. The sm -version RTE command displays the version string and build number, but you cannot determine which patches or hotfixes are applied from this information.	When you run the sm -version RTE command, the exact patch level (for example, P2HF2) is displayed.
QCCR1E97699	When number files are used, a memory leak occurs.	No memory leak occurs when number files are used.
QCCR1E98273	Memory corruption occurs when you execute a system_unload command.	The memory corruption does not occur.
QCCR1E98497	When an extremely long query is run, a buffer overrun occurs and the memory next to the buffer is overwritten.	The issue in which memory is overwritten is fixed by adding the necessary checking logic.
QCCR1E99380	The survey integration sends out garbled surveys to French users.	Now the correct charset is added to the Content-Type HTTP header if the charset is not provided, so that the receiver can decode the body with the correct charset.
QCCR1E99520	The user session gets terminated when searching incidents using the Advanced Filter (for example, Title Contains printer).	The user session is no longer terminated.

CR	Problem	Solution
QCCR1E99940	SM7.11 P21, SM9.21 P7, and SM9.31 P2 upgrade the JRE version to JRE7. When Service Manager starts, it performs a JRE validation that does not allow a JRE version below JRE7 update15. However, JRE7 is not supported by Solaris 9. Therefore, Service Manager does not start on Solaris 9-based systems.	Service Manager now can run with JRE 1.6.0_20 or later on Solaris 9-based systems.
QCCR1E100275	Adding the parameter <code>ir_language:french</code> in <code>sm.ini</code> causes shared memory corruption.	Adding the parameter <code>ir_language:french</code> in <code>sm.ini</code> no longer causes shared memory corruption.

Web Client

CR	Problem	Solution
CCR1E61586	When you set an autoformat condition on a view using the operator "Is Empty", the condition is not considered.	Add the support for "Null" condition of Autoformat view.
QCCR1E76272	In a customer's production environment sometimes Tomcat memory suddenly spikes and then exceeds available memory when certain Change records are viewed in Web client. This problem neither occurs with all Change records nor occurs in a test or development environment with the same records.	By the timely releasing of Java heap memory, now the memory usage by the Web tier in an application server will not exceed the limits.
QCCR1E84238	MySM does not work with two-level structure configured on Tomcat context path.	MySM can work with two-level structure configured on Tomcat context path.
QCCR1E87922	Users cannot get the data when opening a new window in the Incident Home Page of MySM.	Users can get the data when opening a new window in the Incident Home Page.

CR	Problem	Solution
QCCR1E90797	The date/time picker for the Start Time or the End Time field is missing when the field has a value.	The date/time picker is now visible when the field has a value.
QCCR1E91012	After a new change task is saved, the date/time picker for the start time and the end time in the work notes group disappears if values are provided for these two fields.	After a new change task is saved, the date/time picker for the start time and end time in the work notes group does not disappear if values are provided for these two fields.
QCCR1E91577	When setting "attributes and values" for "Expected States" of a Configuration Item (CI), if the type of the first field is array-of-datetime, the following array-type fields will also be displayed as array-of-datetime type.	When setting "attributes and values" for "Expected States" of a Configuration Item (CI), all array-typed fields are displayed correctly.
QCCR1E93281	Error "invalid query hash in URL" occurs when clicking OK on the filter of the Incidents Bar Chart component in MySM.	The error no longer occurs when clicking OK on the filter of the Incidents Bar Chart component in MySM.
QCCR1E94087	If you insert extra white spaces between the words of a field caption through Database Dictionary and then try to add this field to an existing Inbox view in the web client, the web page enters an infinite loop of refresh.	Now you can successfully add a field to an existing Inbox view without any problems when the field caption contains extra spaces (for example, two spaces between Downtime and Start in caption "Scheduled Downtime Start").
QCCR1E96246	When you view the User Selections of a catalog item in the Service Manager web client, the input field is too small for you to enter text if a long name is used for the label.	When you view the User Selections of a catalog item in the Service Manager web client, the input field remains the same size if a long name is used for the label.
QCCR1E96430	The Web client freezes when trying to display a page with a ListBuilder widget, if the ListBuider selection contains the character '&'.	The Web client displays a page with a ListBuilder widget even if the ListBuider selection contains the character '&'.

CR	Problem	Solution
QCCR1E96406	The Count button does not work when the Include Value list of a security group contains long double-byte strings.	The Count button works as expected when the Include Value list of a security group contains long double-byte strings.
QCCR1E96752	The container that holds the description of a catalog item does not resize with the object that it contains.	The description field fits the size of the container.
QCCR1E96909	MySM popups are launched with HTTP 404 errors or without images when you configure a two-level structure for the Tomcat context path.	<p>MySM popups are launched with the right records, and you can view the images.</p> <p>Note: After applying this fix, you do not need workaround QCCR1E84238. If you have applied it, you need to remove it. Additionally, you need to clear your browser cache before you log in.</p>
QCCR1E97272	A JS error regarding the "showLastMessage" function displays in the browser console of the new window after you click the "Open a New Window" button on a MySM component.	The JS error no longer occurs in the console after you click the "Open a New Window" button on a MySM component.
QCCR1E97539	<p>If your browser uses JRE, and you upgrade JRE to version 1.7.0_21 or later, the following warning message is prompted when you open a configuration item in SM web client with the browser:</p> <p>"Block potentially unsafe components from being run?"</p>	<p>To resolve this issue, affected applets have been repackaged in the web tier.</p> <p>Note: Even after the applets are repackaged, a security prompt with a blue information will appear. To avoid the security prompt, check the "Do not show this again..." checkbox and then click Run. For detailed information, see: http://support.openview.hp.com/selfsolve/document/KM00660753</p>

Windows Client

CR	Problem	Solution
QCCR1E29823	<p>Assume that the first element in an array field contains a value. When you enter a value in the second element and perform a Fill action, the second element is populated with the value of the first element.</p> <p>However, if you then click to move the cursor out of the second element, the value reverts to the correct value.</p>	<p>Assume that the first element in an array field contains a value. When you enter a value in the second element and perform a Fill action, the second element is populated with the correct value.</p>
QCCR1E58026	<p>When opening a configuration item, by default the focus is set to the Relationship Graph section.</p>	<p>When opening a configuration item, by default the focus is set to the Details section.</p>
QCCR1E94930	<p>When you try to close one of the open windows in the Windows client by using the File > Exit menu, all windows are closed. You can only close a single window by clicking the "close" button on the upper right corner of the window.</p>	<p>When multiple windows are open in the Windows client, the click of the File > Exit menu only closes the current active window.</p>

CR	Problem	Solution
QCCR1E95200	<p>The following message box appears in the Windows client when you switch selection in the Connection Configuration list:</p> <p>The configuration *** has unsaved changes. Do you wish to save them?</p> <p>This issue only occurs when you switch from a Connection Configuration with the "Remember my password" check box checked, even though there are no unsaved changes.</p>	<p>When you switch selection in the Connection Configuration list the "Save Changes" message box will not appear if there are no unsaved changes.</p>
QCCR1E95547	<p>The startup.jar file does not exist in the Client folder after the installation of the Windows client.</p> <p>If you run the Client Configuration Utility and input Directory as "C:\Program Files\HP\Service Manager 9.21\Client", when you click the Next button, the utility reports the following error message:</p> <p>"File does not exist: C:\Program Files\HP\Service Manager 9.21\Client/startup.jar."</p>	<p>The startup.jar file is no longer needed. After removing the startup.jar validation, the Client Configuration Utility runs successfully without any errors.</p>
QCCR1E95895	<p>You cannot open attachments with long names in the Windows client.</p>	<p>You can successfully open attachments with long names in the Windows client.</p>

CR	Problem	Solution
QCCR1E97227	If the operating system (OS) date format is set to Chinese (PRC), the Windows client does not display the Chinese names of the days of the week (such as Monday) completely in the pop-up calendar window for a date/time field. It displays only the first two Chinese characters.	<p>If the OS date format is Chinese, the Windows client now displays only the last Chinese character (one, two, three, and so on) of each day of the week in the pop-up calendar window.</p> <p>Note: The Windows client now displays the navigation menu (System Navigator) based on the OS display language instead of the OS date format. For example, if the display language is English, the menu will display in English even if the date format is Chinese.</p>
QCCR1E97968	Obvious performance drop when viewing CIs in the Windows client.	The performance remains high when viewing CIs in the Windows client.
QCCR1E98185	When modifying the Font Increase property of a Wrap label widget in the Design mode of Forms Designer, if you enter a negative value whose absolute value exceeds the standard font size or if you enter an invalid value (such as letter "a"), the client window gets locked.	In this case, the client window no longer gets locked; instead, an error message displays and the original Font Increase value is kept.
QCCR1E98262	It is no longer possible to move Button widgets in Forms Designer using the keyboard arrow keys.	User can move Button widgets in Forms Designer using the keyboard arrow keys.
QCCR1E98323	The JRE version for the Client Configuration Utility is still JRE1.5.0_11.	The JRE version for the Client Configuration Utility is upgraded from JRE1.5.0_11 to JRE 1.7_45.

Known Problems, Limitations, and Workarounds

The following table lists the known issues discovered in this release.

Global ID	Known Issue	Workaround
QCCR1E89890	Grouped Views are not correctly updated after logging a new incident.	When you log a new incident, to keep consistency with actual incidents, the group number is not updated. You need to click the Refresh button to update grouped Views.
QCCR1E72809	After closing a ticket (such as an Interaction or Incident) and returning to the view, the queue is not synchronized correctly.	As a workaround, click the Refresh button to solve the view display issue.

Documentation Errata

The following documentation item is incorrect.

Location:

Online help: Help topic "Startup parameter: agstackl"

Error: :

The default value of this parameter is 400.

Correction:

The default value of this parameter is 600.

Backout Instructions

If you want to restore your Service Manager system to its original state after installing this patch, follow these guidelines.

Server

To backout your server changes, make a backup before installing the patch and then roll back.

Backup

Before applying the server patch, make a backup of the server installation folder. For example, C:\Program Files\HP\Service Manager 9.21\Server.

Note: If you have a load balanced system, be sure to back up the server installation folder for every server instance respectively.

Backout

To restore your Service Manager server to its original state after installing the patch, do the following:

1. Stop the Service Manager server.
2. Remove the existing server installation folder.
3. Copy the backup folder back.

Note: Make sure that the embedded Tomcat is also replaced with the backup as the version of the embedded Tomcat may have dependency with specific server version.

4. Restart the Service Manager server.

Note: If you have a load balanced system, make sure that every server instance is replaced with its respective backup.

Web Tier

Backup

Before deploying the new web tier, make a backup of the following items:

- web.xml file
- application-context.xml

- splash screen
- style sheets
- any other customizations you made, including your webtier-9.21.war (webtier-ear-9.21.ear) file.

Backout

To roll back to the old web tier:

1. Delete or uninstall the existing web tier.
2. Clear the cache of your web application server (for example, Tomcat).
3. Redeploy the old web tier.
4. Restore your old customizations.

Windows Client

To roll back to your old Windows client, you need to do backup before installing the new Windows client and then reinstall the previous Windows client.

Backup

1. Make a backup of your Windows client home folder, for example, C:\Users\\ServiceManager. Your connections and personalized settings are stored in this folder.
2. Make a backup of your security configuration files if any (**Window > Preferences > HP Service Manager > Security**). For example, your CA certificates file and client keystore file.

Backout

1. Uninstall the new Windows client.
2. Reinstall the previous Windows client.
3. Restore your old Windows connections and configurations.

Applications

Backup

Tip: If your application version is 7.11 ap3, 9.21 ap3, 9.30 ap3, 9.31 or later, you are recommended to use Unload Manager to make a backup of the files to be modified by an unload file, because Unload Manager can create a backup of your old data during the installation of the unload; if your application version is other than any of these, Unload Manager

is not available and you can use Database Manager instead.

To use Unload Manager to make a backup:

1. Go to **System Administration > Ongoing Maintenance > Unload Manager**.
2. Double-click **Apply Unload**. A wizard opens.
3. Select the unload file you want to apply, also specify a backup file, and then click **Next**.

Details of the unload file appear.

4. Double-click a conflicting object in the table to open the merge tool:
 - a. Merge the object, and then select the **Reconciled** check box.
 - b. Click **Save** to go back to the wizard.
5. Click **Next** after all the conflicting objects are reconciled.
6. Click **Yes** on the confirmation window to apply the unload.
7. Click **Finish**.

Now, the unload has been applied and at the same time your old data backed up.

To use Database Manager to make a backup:

1. Go to Database Manager, select **Import/Load** from **More** or the More Actions menu, and browse to the unload file.
2. Click **List Contents** on the menu bar, to view a list of files that have been updated in this unload.

See the following figure for an example.

5. Click **More** (or the More Actions menu) > **Export/Unload** after the file record displays.

Note: If **Export/Unload** is not available, check the **Administration Mode** check box in Database Manager and try again.

6. In the pop-up window, specify your backup upload file path/name, and click **Unload Appl.**

Caution: Make sure that **Append to file** is selected.

7. Repeat steps 3 through 6 to back up the rest of the files you got in step 2.

Backout

Tip: You can use Unload Manager (recommended) or Database Manager (if Unload Manager is not available in your application version) to roll back to your old data, as described in the following.

To roll back to your old data using Unload Manager:

1. Go to **System Administration > Ongoing Maintenance > Unload Manager**.
2. Double-click **Apply Unload**.

A wizard opens.
3. Select the unload file generated in the backup process, specify a backup file, and then click **Next**.

Details of the unload file display.
4. Double-click a conflicting object in the table to open the merge tool:
 - a. Merge the object, and then select the **Reconciled** check box.
 - b. Click **Save** to return to the wizard.
5. Click **Next** after all the conflicting objects are reconciled.
6. Click **Yes** on the confirmation window to apply the backup unload.
7. Click **Finish**.

To roll back to your old data using Database Manager:

1. Go to Database Manager, click **More > Import/Load**.
2. Browse to the backup unload file you created.

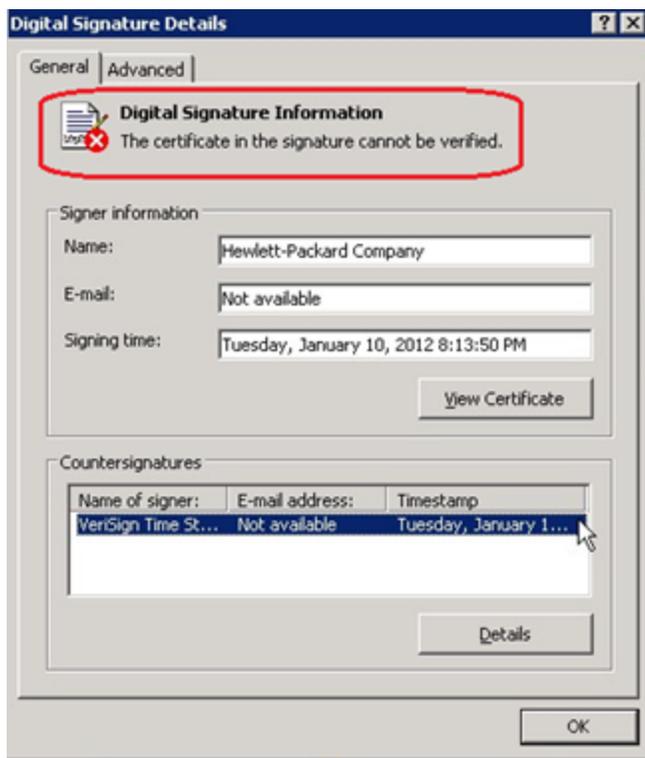
3. Click **Load FG**.

Installation Notes

This section provides instructions on installing each component in this patch release.

Digital Signature Notice

HP signs Windows executable files with a digital signature. Since January 2012, this process has been updated to use a new VeriSign root certificate. On a Windows system that does not have the new VeriSign root or intermediate certificate installed, when the user right-clicks the file and then goes to **Properties > Digital Signatures > Details**, a verification error will display: “The certificate in this signature cannot be verified.”



To resolve this issue, either enable Windows Update or download and install the G5 Root certificate as documented at: <https://knowledge.verisign.com/support/ssl-certificates-support/index?page=content&actp=CROSSLINK&id=SO19140>

Web Tier Installation

The Web Tier update consists of a compressed file, sm9.21.661-P8_Web_Tier.zip. The specific upgrade process depends on your particular Web application server, but follows the same steps as deploying a new installation. For more information, refer to the *Service Manager Interactive Installation Guide*.

The upgrade does not automatically save your Web Tier customizations. To keep your changes, you must save your customized files and replace the new version of these files with your customized version.

Note: The Service Manager introduces important changes to the Web tier Directory structure since SM 9.21 Patch 5 release. For more information on these changes, see the release notes of SM 9.21 Patch 5 and the “Updates to the Service Manager Web Tier Directory Structure” white paper at the HP Software support Web site: www.hp.com/go/hpsupport

To install the new Web Tier:

1. Make necessary backups. For details, see "[Backout Instructions](#)" on page 23.
2. Delete or uninstall the existing `webtier-9.21.war` (or the `webtier.ear-9.21.ear`) file.
3. Clear the cache of your web application server (for example, Tomcat).
4. Deploy the new `webtier-9.21.war` (or the `webtier.ear-9.21.ear`) file following the instructions in the Service Manager Installation Guide.

Note:

- It is recommended to enable HTTPOnly cookies in your web application server to help prevent malicious JavaScript injection. To enable HTTPOnly cookies, see [Enabling HTTPOnly cookies in your Web Application Server](#).
- It is best practice to deploy with a unique context root. For example: `/webtier-9.21.661`

5. Use a diff utility to compare the new Web tier's `web.xml` file against your backed-up version to ensure that any new parameters are properly merged into the files used in your final deployment. Do this for `application-context.xml` as well as any other files you may have customized (such as style sheets and splash screens).
6. Make any new customizations necessary for your deployment.

Note: Be sure to set the `securelogin` and `sslport` parameters.

7. Restart the web application server.

Note: Before accessing the new Web Tier, HP recommends that all users empty their browser cache.

Enabling HTTPOnly cookies in your Web Application Server

It is recommended to enable HTTPOnly cookies in your web application server to help prevent malicious JavaScript injection. Following are some examples for how to enable HTTPOnly cookies in different web application servers:

Web Application Server	How to Enable 'HTTPOnly' Cookies
Tomcat 6.0.20+	Can be enabled for all web applications in conf/context.xml: <pre data-bbox="516 499 1117 527"><Context useHttpOnly="true"> ... </Context></pre>
Oracle WebLogic 9.2 MP4, 10.0 MP2, and 10.3.1	Enabled by default.
Oracle WebLogic 10.3.0	You need to apply a security patch (p8176461_103_Generic), and after that HttpOnly cookies are enabled by default. The security patch can be downloaded using My Oracle Support (MOS).
JBoss 5.1	Enable by setting useHttpOnly=true in the context.xml file, which is located in jboss/server/<myserver>/deploy/jbossweb.sar/. <pre data-bbox="516 898 1203 1045"><Context cookies="true" crossContext="true"> <SessionCookie secure="true" httpOnly="true" /> </Context></pre>

Web Application Server	How to Enable 'HTTPOnly' Cookies
IBM WebSphere 7.0.0.27	<p>Enable through the following properties:</p> <ul style="list-style-type: none">• com.ibm.ws.security.addHttpOnlyAttributeToCookies• com.ibm.ws.webcontainer.httpOnlyCookies <p>Known issue:</p> <p>If Service Manager 9.21 is deployed on WAS 7.0.0.27, and FireFox is used to search "Approved Document" in the Knowledge Management module, you may encounter automatic logout issue.</p> <p>Follow these steps to fix this issue by removing the incorrect URL for the background-image used for the knowledge document:</p> <ol style="list-style-type: none">1. Log on to the Windows client.2. From the Navigation menu, click Knowledge Management > Manage Document Types.3. Select the Reference record.4. Modify the Default View from the Associated Document View view list.5. Remove the incorrect URL in the CSS class <code>.documentTitle</code>. For example, remove the following: <pre>url("44ee44677b0f021810318488:kmrtBackground.gif:kmattachments:2").</pre>6. Save the change.7. Do the same for the other four records to avoid other similar problems.
IBM WebSphere 8.0.0.5	Enabled by default.

Windows Client Installation

The Windows client update consists of a compressed file, sm9.21.661-P8_Windows_Client.zip, which contains the executable installation files.

To install the Windows client update:

1. Stop the Service Manager Windows client.
2. Make necessary backups. For details, see "[Backout Instructions](#)" on page 23.
3. Uninstall the Service Manager Windows client. (Your connection and personalized settings are retained.)
4. Run `setup.exe` and install the client by following the instructions in the Service Manager Installation Guide.
5. Check the version in **Help > About Service Manager Client**.

The client should be Release: **9.21.661**.

Windows Client Configuration Utility Installation

Service Manager 9.21p8 includes an updated version of the Windows Client Configuration Utility (`sm9.21.661-P8_Windows_Client_Configuration.zip`), where the embedded JRE has been upgraded. It is intended only for customers who have upgraded their Windows client to version 9.21p8 (or later).

For detailed installation instructions, see the *Service Manager 9.20 Installation Guide*, which is available from the HP Software Manuals Site:

<http://support.openview.hp.com/selfsolve/document/KM912628>

Server Update Installation

The server update for your operating system (OS) consists of a compressed file, `sm9.21.661-P8_<OS>.zip` (or `.tar`), which contains the Service Manager server files. These files add to or replace the files in the `[SM Server Root] \ ([SM Server Root] /) RUN, irlang, legacyintegration, and platform_unloads` directories.

Note: If you have a load balanced system, you must upgrade all server instances.

Caution: This server update will upgrade the embedded Tomcat to version 6.0.36, and therefore requires additional steps.

Note: The SM9.21p8 server requires JRE 1.7 (except for Solaris 9). For Windows and Linux, the embedded JRE has already upgraded to version 1.7; for other Unix-based platforms, you need to manually perform this JRE upgrade.

The JRE upgrade will cause external web service calls over SSL to fail if the remote endpoint does not support Server Name Indication (SNI), which is by default activated in JRE 1.7. Once Service Manager is upgraded to use JRE 1.7, it starts to use SNI extensions during the SSL

handshake. If the remote endpoint does not support SNI, the web service call will fail with an error message. To solve this issue, do either of the following:

- Activate SNI at the remote end point (recommended)
- If the remote endpoint does not support SNI extensions, and SNI cannot be activated, add the following JVMOption<n> parameter either to the `sm.ini` file, or to the start command of the servlet(s) in the `sm.cfg` file:

```
JVMOption2:-Djsse.enableSNIExtension=false
```

To install the Server update:

1. Stop all Service Manager clients.
2. Stop the Service Manager server.
3. Make a backup of the Server installation directory. See also "[Backout Instructions](#)" on page 23.
4. Delete the `RUN/tomcat` directory. Tomcat in this directory will be upgraded to version 6.0.36 when you extract the server files later.
5. Delete the `RUN/lib` directory.
6. For Windows and Linux platforms, delete the `RUN/jre` directory.

Note: This step is required only when you are upgrading from a server version earlier than 9.21p7. This is to avoid conflicts between the old 1.6-based JRE and new 1.7-based JRE.

7. Extract the compressed files for your operating system into the main Service Manager directory on the server. The default path is: `C:\Program Files\HP\Service Manager 9.21\Server`.
8. For UNIX servers, set the file permissions for all Service Manager files to 755.
9. For UNIX servers other than Solaris 9, manually upgrade to JRE1.7.

Note: Solaris 9 does not support JRE7. You can run the SM server on Solaris 9 with only JRE 1.6.0_20 or later.

- a. Install either JDK1.7 or JRE1.7 for your specific platform.

Solaris 10	JRE1.7 (update 15 or greater)
HP-UX	JRE1.7 (JRE_7.0.04 or greater)
AIX	JRE1.7 (SR4 or greater)

- b. Set your JAVA_HOME environment variable to point to JDK1.7 (if you have JDK1.7 installed) or JRE1.7 (if you have only JRE1.7 installed).
- c. Execute `\RUN\removeLinks.sh` to remove the old symbolic links and then execute `\RUN\setupLinks.sh` to create new symbolic links.
- d. Run the following command to check that the JRE version is 1.7:

```
RUN\jre\bin\java -version
```

10. If you have made any customizations/changes to the original RUN/tomcat folder, restore them in the new RUN/tomcat folder.
11. Make sure the server is stopped, and run the `sm -unlockdatabase` command.

Note: The purpose of this step is to prevent stale license information from being kept in the system. In a scaling implementation, you can run this command from any one of your servers.

Caution: This step is required the first time you upgrade to 9.21p6 or later; it is also required whenever you change the server's IP address after your upgrade to 9.21p6 or later.

12. Restart the Service Manager server.
13. Restart the Service Manager clients.
14. Check the version in **Help > About Service Manager Server**. The server should be Release: 9.21.661.

Application Unload Installation

If a platform fix (in most cases, a server fix) also requires an applications change to resolve the relevant issue, an unload file is provided. Unload files introduced in earlier patches are also included in this cumulative release. If you have not already applied them for a previous patch, you should also apply the unload files that are intended for your applications version. For more details about these applications updates, see the Release Notes for those patches.

This patch release includes the unload files that come with the server update. When you extract sm9.21.661-P8_<OS>.zip (or .tar), it will add the files to the following directory:

[SM Server Root]\platform_unloads ([SM Server Root]/platform_unloads)

Note: Unload files should be installed in their patch order. That is, those introduced in patch 1 should be applied first, then those introduced in patch 2, and so on. However, unload files introduced in the same patch can be installed in a random order, unless otherwise specified.

Unload File Naming Convention

The unload files use the following naming convention: <CR_ID>_SMxxxPxx_SMxxx.unl, where:

- <CR_ID>: The identification number of the applications defect that the unload file fixes. For example, QCCR1E12345. Note that this is always the number of the parent CR of a CR family (if any).
- SMxxxPxx: The minimum Service Manager patch level that requires the unload file. For example, SM921P2, which means the unload file comes with the server updates in Service Manager 9.21 patch 2 and should be used for patch 2 or higher.

Note: Sometimes this portion contains an additional hot fix number, for example, SM711P16HF8. This example means the unload file is intended for Service Manager 7.11 patch 16 Hot Fix 8 or higher.

- SMxxx: The Service Manager applications version that requires the unload file. For example, SM711, which means the unload file is intended only for Service Manager applications version 7.11.

Note: If the applications version suffix is omitted, the unload file is then intended for all applications versions compatible with the server version, unless otherwise specified. For example, for Service Manager server 9.21, the compatible applications versions are 7.11 and 9.20.

New Application Updates Introduced in This Patch

The following table lists the new application updates introduced in this release.

Unload file	Used for applications version (s)	Description
		No unload file is newly introduced in Service Manager 9.21 patch 8.

Application Updates in Previous Patches

The following table lists the unload files introduced in previous patch release.

Unload file	Introduced in 9.21 patch	Used for applications version(s)	Description
QCCR1E29881_SM921P1.unl	P1	7.11 and 9.20	Includes application changes to reduce database I/O on login.
QCCR1E57766_SM921P1.unl	P1	7.11 and 9.20	Includes application changes to reduce jgroups traffic on login.
QCCR1E59753_SM921P2.unl	P2	7.11 and 9.20	Includes application changes to fix the ToDo bar.
QCCR1E31545_SM921P2_SM711.unl	P2	7.11	Prevents backslashes included in a template from being duplicated in the output. Note: This file is not required for Applications 7.00.
QCCR1E31545_SM921P2_SM920.unl	P2	9.20	Prevents backslashes included in a template from being duplicated in the output.
QCCR1E48580_SM921P3_SM711.unl	P3	7.11	Enables translation of Display/Value lists on dynamic forms. This is a required fix for the Export to Excel redesign.
QCCR1E48580_SM921P3_SM920.unl	P3	9.20	Enables translation of Display/Value lists on dynamic forms. This is a required fix for the Export to Excel redesign.
QCCR1E48513_SM921P3_SM711.unl	P3	7.11	Lists the records in the right group order when a record list is refreshed.
QCCR1E58562_SM921P3_SM711.unl	P3	7.11	Includes applications changes for Export to Excel redesign.
QCCR1E58562_SM921P3_SM920.unl	P3	9.20	Includes applications changes for Export to Excel redesign.
QCCR1E67610_SM921P4.unl	P4	7.11 and 9.20	Enables you to block potentially dangerous attachments.

Unload file	Introduced in 9.21 patch	Used for applications version(s)	Description
QCCR1E67072_ SM921P4.unl	P4	7.11 and 9.20	Enables you to improve the Knowledge Management update process (KMUpdate) performance.
QCCR1E67647_ SM921P5.unl	P5	7.11 and 9.20	Updated the scmessage record from "Doc Engine call failed" to include the message number.
QCCR1E70163_ SM921P5_ SM711.unl	P5	7.11	Prevents the KMUpdate process from terminating when the Search Engine server is shut down or an indexing document error occurs.
QCCR1E70163_ SM921P5_ SM920.unl	P5	9.20	Prevents the KMUpdate process from terminating when the Search Engine server is shut down or an indexing document error occurs.
QCCR1E71099_ SM921P6_ SM711.unl	P6	7.11	Enables the Value Lists to be displayed instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.
QCCR1E71099_ SM921P6_ SM920.unl	P6	9.20	Enables the Value Lists to be displayed instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.

Applying Unload Files

Tip: If your application version is 7.11 ap3, 9.21 ap3, 9.30 ap3, 9.31 or later, you are recommended to use Unload Manager to load an unload file, because Unload Manager can help you create a backup of your old data and reconcile conflicts during the installation of the unload; if your application version is other than any of these, Unload Manager is not available and you can use Database Manager instead.

To load an unload file using Unload Manager:

1. Go to **System Administration > Ongoing Maintenance > Unload Manager**.
2. Double-click **Apply Unload**. A wizard opens.
3. Select the unload file you want to apply, also specify a backup file, and then click **Next**. Details of the unload file appear.

4. Double-click a conflicting object in the table to open the merge tool:
 - a. Merge the object, and then select the **Reconciled** check box.
 - b. Click **Save** to go back to the wizard.
5. Click **Next** after all the conflicting objects are reconciled.
6. Click **Yes** on the confirmation window to apply the unload.
7. Click **Finish**.

Now, the unload has been applied and at the same time your old data backed up.

To load an unload file using Database Manager:

1. Make sure the Windows client is configured for server-side load/unload.
 - a. From the Windows client, go to **Window > Preferences > HP Service Manager**.
 - b. Unselect **Client Side Load/Unload** if is flagged.
 - c. Restart the Windows client.
2. Open **Tailoring > Database Manager**.
3. Right-click the form or open the More Actions menu and select **Import/Load**.
4. Browse to the unload file, and view the contents of an unload file before importing it by clicking **List Contents**.
5. Make a backup copy of all files to be modified by this unload. For detailed steps, see ["Backout Instructions" on page 23](#).

6. Fill in the following fields.

Field	Description
File Name	Type the name and path of the file to load.
Import Descriptor	Since unload files do not require an Import Descriptor record, leave this field blank.
File Type	Select the source operating system of the unload file.
Messages Option — All Messages	Select this option to see all messages that Service Manager generates loading the file.
Messages Option — Totals Only	Select this option to see only the total number of files Service Manager loads.
Messages Option — None	Select this option to hide all messages that Service Manager generates when loading the file.

7. Click **Load FG**.

ODBC Driver Update Installation

Note: This release does not contain any ODBC Driver update. The latest ODBC Driver patch has been shipped with the SM9.21p6 release, which you can download from <http://support.openview.hp.com/selfsolve/document/KM00234051>

The ODBC Driver update contains the following updated files:

- Scodbc32.dll
- sci18n.dll
- sccl32.dll

To install the ODBC Driver update:

1. Extract the files to your ODBC Driver installation folder, for example: C:\Program Files\Peregrine Systems\ServiceCenter 6.2\ODBC Driver.
2. When prompted, replace the three old DLL files with the new ones.

Knowledge Management Import Utility Update Installation

Note: This release does not contain any Knowledge Management update. The latest Knowledge Management Import Utility patch has been shipped with the SM9.21p7 release, which you can download from:

<http://support.openview.hp.com/selfsolve/document/KM00438944>

To install the knowledge Management Import Utility Update:

1. Extract `km-import-9.21.zip` in the Knowledge Management package (sm9.21.624-P7_KM.zip) to a local drive.
2. For detailed instructions on the use of the import utility, see the README file packaged in the `km-import-9.21.zip` file.

Service Manager Verified Environments

The Compatibility Matrix lists supported versions of operating systems, browsers, HP Software products, and other compatibility and support information.

Note: Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to [Access levels](#).

To register for an HP Passport ID, go to [HP Passport Registration](#).

To access the Compatibility Matrix:

1. Use a browser to navigate to the Software Support Online (SSO) web page:

http://support.openview.hp.com/sc/support_matrices.jsp

2. Log on with your Customer ID and password or your HP Passport sign-in.
3. Navigate to the applicable information.

Local Language Support

UTF-8 is part of the Unicode standard, which enables you to encode text in practically any script and language. Service Manager 9.21 supports UTF-8 as an encoding method for new or existing data. It can support multiple languages that adhere to the Unicode standard on the same server.

Service Manager 9.21 or later does not provide language packs. A language pack of Service Manager 9.20 is available for each of the following languages: Japanese, French, Italian, German, Spanish, Korean, Russian, Brazilian Portuguese (UI only), Dutch (UI only), Polish (UI only), Czech (UI only), Hungarian (UI only), and Simplified Chinese.

Service Manager 9.21 or later can only work with Service Request Catalog (SRC) 1.20, which is English only.