

# HP Service Manager

For the supported Windows and Unix systems

Software Version: 9.21

## Patch 7 Release Notes

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Software Release Date: May 2013



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This document is an overview of the changes made to HP Service Manager 9.21 for patch 7. 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.

## Updating the Java Plug-in When Using Firefox 17+

As of this release, the SM9.21 Web client supports Firefox 17+.

However, if your web client has an outdated JRE version installed, Firefox 17+ will block the Java Plugin. As a result, some display problems might occur in the web client (for example, workflow graphics cannot be displayed correctly).

Therefore, if your Java Plugin is blocked by Firefox 17+, you are strongly recommended to update your Java Platform Plugin.

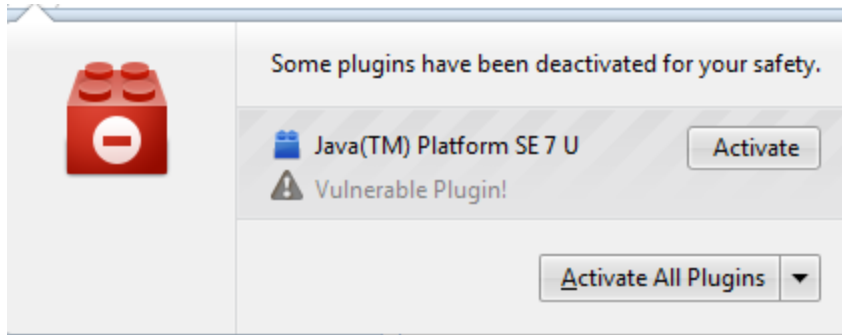
### Activate your JRE7 plugin if blocked by Firefox

Due to a security enhancement in JRE7, Firefox may deactivate your JRE7 plugin for your safety. When this happens, a red plugin icon appears in the address bar, next to your web client URL string. For example, when you open the web client with `?te1ephonyuser=1` appended to its URL, Firefox deactivates the JRE7 plugin; as a result, Service Manager cannot function properly (for example, cannot execute a telephony call). In this case, you need to activate your JRE7 plugin for your Service Manager web site as described here:

1. Click the red plugin icon in the address bar.

A message window opens, as shown below.





2. Click **Activate All Plugins**.
3. Select **Always activate plugins for this site**.

The red plugin icon now disappears from the address bar.

## Embedded JRE Upgraded (Server and Windows Client)

This patch release has upgraded the SM server and Windows client embedded JRE to JRE1.7.

### Server

The server embedded JRE for x86 systems has been upgraded to version 1.7.0\_15.

Since the Service Manager server does not come with an embedded JRE for non-x86 systems (Solaris, HP-UX, and AIX), users using these platforms need to install one of the following JRE1.7 versions and make sure server/RUN/jre is a symbolic link pointing to the JRE1.7.

| Platform | JRE Version                    |
|----------|--------------------------------|
| Solaris  | JRE1.7 (update 15 or greater)  |
| HP-UX    | JRE1.7 (JRE_7.0.04 or greater) |
| AIX      | JRE1.7 (SR4 or greater)        |

**Note:** After applying the server patch, if you need to roll back, be sure to restore your old JRE. See "[Backout Instructions](#)" on page 39.

### Windows Client

The Windows client embedded JRE has been upgraded to version 1.7.0\_17.

## Server Embedded Tomcat Upgraded

In this release, the SM server embedded Tomcat has been upgraded from 6.0.35 to 6.0.36.

This upgrade requires additional steps when installing the server patch. For details, see "[Server Update Installation](#)" on page 49.

**Note:** After applying the server patch, if you need to roll back, be sure to restore your old embedded Tomcat. See "[Backout Instructions](#)" on page 39.

## New Text Strings to Be Localized

This release has introduced a number of new text strings, which customers can easily localize using the native2ascii tool.

## Naming Convention of Localized Files

Localized versions of resource files use the following naming convention: <basename>\_<language\_code>.properties or <basename>\_<language\_code>\_<country\_code>.properties.

**Note:** The file names are case-sensitive.

The following are two examples.

| Example File                | Description   |
|-----------------------------|---|
| cpe_rcp_en.properties       | "cpe_rcp" is the base name, and "en" is the language code.                              |
| cwc_labels_zh_CN.properties | "cwc_labels" is the base name, "zh" is the language code, and "CN" is the country code. |

For a list of language codes (and country codes if any) used in the file names of localized resource files, see the following table.

| Language Code | Country Code | Description       |
|---------------|--------------|-------------------|
|               |              | Default           |
| en            |              | English           |
| ar            |              | Arabic            |
| cs            |              | Czech             |
| de            |              | German (Standard) |
| es            |              | Spanish (Spain)   |

| Language Code | Country Code | Description         |
|---------------|--------------|---------------------|
| fr            |              | French (Standard)   |
| hu            |              | Hungarian           |
| it            |              | Italian (Standard)  |
| ja            |              | Japanese            |
| ko            |              | Korean              |
| zh            | CN           | Chinese (PRC)       |
| nl            |              | Dutch (Standard)    |
| pt            | BR           | Portuguese (Brazil) |
| ru            |              | Russia              |

Service Manger uses UTF-8 as the default encoding when interpreting the resources. It requires all resources files in native UTF-8 encoding be converted to files containing Latin-1 and/or Unicode-encoded characters, using the native2ascii tool.

## New Text Strings to Be Localized

The following table lists the removed or added text strings in the Web tier and Windows client of this release, as well as their corresponding properties files.

| Removed or Added Text Strings   | Description  |
|---|--|
| <b>&lt;Service_Manager_Root/Client/plugins/com.hp.ov.sm.client.eclipse.rcp_9.21.624/rcp.jar&gt;/com/hp/ov/sm/client/eclipse/rcp/cpe_rcp.properties</b>                      |  |
| Added: <ul style="list-style-type: none"> <li>• HelpError=Help Error</li> <li>• HelpDocumentationNotInstalled=Documentation is not installed.</li> </ul>                    | New strings were added for the message window that opens when users click the <b>Help Contents</b> option in the Windows client.<br><br><b>Note:</b> These new strings are required due to the Rich Client Platform (RCP) version upgrade to support JRE1.7. |
| <b>&lt;Service_Manager_Root/Client/plugins/com.hp.ov.sm.client.eclipse.user_9.21.624/user.jar&gt;/com/hp/ov/sm/client/eclipse/user/controller/cpe_controller.properties</b> |  |

| Removed or Added Text Strings  | Description  |
|--|--|
| <p>Removed:</p> <ul style="list-style-type: none"><li>• TopazClient.lostserver_2=The HP Service Manager server could not be accessed. The network connection may be down, or your session may have timed out. Would you like to retry accessing the server? Press Yes to retry or No to disconnect</li></ul> <p>Added:</p> <ul style="list-style-type: none"><li>• TopazClient.lostserver_msg1=The HP Service Manager server could not be accessed. The network connection may be down. Would you like to disconnect with server or retry to access? Press Yes to disconnect or No to retry.</li><li>• TopazClient.lostserver_msg2=Your server session may have been terminated or timed out. Would you like to disconnect with server now? Press Yes to disconnect or No to cancel.</li></ul> | <p>New messages were added to distinguish between session termination and network disconnection.</p> |

## How to Localize New Text Strings

### Step 1. Set up the Java development environment on Windows.

1. Download and install Java Standard Edition 6 or later.
2. Set the JAVA\_HOME variable and add <JAVA\_HOME>/bin to the system path.
3. Open the system command prompt, and run the following command to check if Java has been correctly configured:

```
java -version
```

**Note:** If your Java development environment is ready, this command will print your Java version information.

### Step 2. Convert the text in a specific language to Unicode.

As an example, the following provides the localization steps for Japanese. The steps for other languages are similar.

1. Translate the added resource text to the target languages, and put the translated text in a text file for each language: <basename>\_<language>.txt.
2. Merge your translated resource text for all properties files into one file, so that you can convert all of the text in one go. For instance, for Japanese, put the translated text in sm921p7\_RES\_ ja.txt.

**Note:** Make sure its file encoding is UTF-8 (You can copy an existing file in Service Manger and then edit it).

The following is an example of translated text, which is provided for demonstration purposes only.

```
# From chMBundle.properties
TITLE=タスクプランナー
MANDATORY=必要に応じてマーク\ /読み取り専用の変更のようにプロパティを設定します。
TASK_CONDITION=タスクの状態
END_PHASE_INVALID=エンドフェイズでは、スタートフェーズの後に発生する必要があります
#From cwc_labels.properties
Framework.CollapseNav=崩壊・ナビゲータ
Framework.ExpandNav=ナビゲータを展開
Framework.CommandLineField=コマンドライン
Framework.CommandLineBtn=実行する
cwc.skipLink=スキップしてメインページに進む
```

3. Copy sm921p7\_RES\_ ja.txt to a local folder. For example: C:\sm921p7.
4. Open the system command prompt, and change current directory to the local folder you selected in the previous step (for example:C:\sm921p7).
5. Run the following native2ascii command to convert the text.

```
native2ascii -encoding utf-8 sm921p7_RES_ ja.txt sm921p7_RES_ ja.properties
```

The converted text should look like the following (the following text is provided for demonstration purposes only).

```
#From cwc_labels.properties
Framework.CollapseNav=\u5d29\u58ca\u00b7\u30ca\u30d3\u30b2\u30fc\u30bf
Framework.ExpandNav=\u30ca\u30d3\u30b2\u30fc\u30bf\u3092\u5c55\u958b
Framework.CommandLineField=\u30b3\u30de\u30c9\u30e9\u30a4\u30d3
```

```
Framework.CommandLineBtn=\u5b9f\u884c\u3059\u308b  
cwc.skipLink=\u30b9\u30ad\u30c3\u30d7\u3057\u3066\u30e1\u30a4\u30f3\u30da\  
u30fc\u30b8\u306b\u9032\u3080
```

**Tip:** For more information on the usage of the native2ascii tool, see <http://docs.oracle.com/javase/1.4.2/docs/tooldocs/windows/native2ascii.html>.

### Step 3. Append the localized new strings to the localized version of the resource files.

1. In the sm921p7\_RES\_ja.properties file, copy the lines from cwc\_labels.properties to <webtier-9.21>/WEB-INF/classes/com/hp/ov/cwc/web/cwc\_labels\_ja.properties.
2. In the sm921p7\_RES\_ja.properties file, copy the lines from each of the remaining properties files and append them to the Japanese version of the files.

Now, the localization process for Japanese is complete.

3. Restart your web application server and Windows client.

## New Parameters and RAD Functions

This release introduces the following new parameters and RAD function.

- ["Startup parameter: maxloginspercluster" below](#)
- ["RAD function: datecmp" on the next page](#)

## Startup parameter: maxloginspercluster

Startup parameters change the behavior of the Service Manager server. You can always set a startup parameter from the server's OS command prompt.

### Parameter

maxloginspercluster

### Description

In a horizontal scaling implementation, Max Logins for operators is enforced at the cluster level. This parameter allows administrators to turn off this feature. By default, this parameter is set to 1, which means Max Logins for operators is enforced by counting each operator's logins on all cluster hosts; when this parameter is set to 0, only logins on the local host are counted.

### Valid if set from

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

### Requires restart of Service Manager server?

Yes

### Default value

1

**Possible values**

- 0 ((Disable Max Logins at the cluster level)
- 1 (Enable Max Logins at the cluster level)

**Example usage**

Command line: `sm -httpPort:13080 -maxloginspercluster:0`  
Initialization file: `maxloginspercluster:0`

## RAD function: datecmp

A RAD function that translates date/time fields to the correct SQL statement dialect. You can use this function in expert search of incidents, as well as in JavaScript programming.

See also [QCCR1E52991](#).

**Function**

datecmp

**Format**

datecmp("DateTimeField1","LogicOperator","DateTimeField2","+/-", "TimeInterval")

**Parameters**

This function uses the following arguments.

| Argument        | Description  | Example Value (s)  |
|-----------------|--|--|
| DateTimeField 1 | A date time field in a Service Manager table.  | close.time   |
| LogicOperator   | A logic operator.  | >, >=, =, <=, <  |
| DateTimeField 2 | Another date time field in the same Service Manager table.   | open.time  |
| +/-             | Arithmetic operator: +or -.  | +, -   |
| TimeInterval    | A string that represents the time interval to be added to or subtracted from the second date time field.<br><br>The format of time interval can be: d, d hh:mm:ss, d h:m:s, hh:mm:ss, h:m:s, or hh:m:ss (1 digit mixed with 2 digits). Days can be omitted, or at most 9 digits. Hours, minutes, and seconds can be 1 or 2 digits (from 0 to 99), and hour:minute:second as a whole can be omitted if you enter only days. | 10 02:03:04<br><br>(This string represents 10 days, 2 hours, 3 minutes and 4 seconds.) |

**Notes:**

- All arguments must be enclosed in a pair of double quotes; otherwise the query parsing will fail.
- This function supports "AND"/"OR"/"NOT" to concatenate multiple datecmp() calls in one query.

The following are two examples:

```
datecmp("close.time", "<", "open.time", "+", "1") or datecmp("close.time", ">=",  
"open.time", "+", "5:0:0")
```

```
problem.status="Closed" and (not datecmp("close.time", ">", "open.time", "+", "31  
04:02:30"))
```

- You can combine the result of this function with other query conditions to construct a complete query. For example, you can execute one of the following queries when performing an expert search of incidents:
  - `problem.status="Closed" and datecmp("close.time", "<", "open.time", "+", "04:02:30") and datecmp("close.time", ">=", "open.time", "+", "02:02:30" )`
  - `problem.status="Closed" and datecmp("open.time", ">", "close.time", "-", "04:02:30" ) and datecmp("close.time", ">=", "open.time", "+", "02:02:30" )`
  - `problem.status="Closed" and datecmp("close.time", ">", "open.time", "+", "31 04:02:30")`

**Note:** The first two queries should return the same results, which are incidents whose closed time is between 2 hours and 4 hours from their open time; the third query should return incidents that were closed more than 31 days after their open time.

### Example

An example of a JavaScript program that uses this function is as follows:

```
var f = new SCFile('probsummary', SCFILE_READONLY);  
  
var query = 'problem.status="Closed" and datecmp("close.time", "<", "open.time",  
"+", "04:02:30") and datecmp("close.time", ">=", "open.time", "+", "02:02:30")';  
  
if (RC_SUCCESS == f.doSelect(query))  
{  
do  
{  
print(f);  
}  
while (RC_SUCCESS == f.getNext());  
};
```



## Certifications

This release includes the following support matrix changes.

### **Added Support**

- Tomcat 6.0.36 (web application server)
- Firefox 17 (web client)
- JRE 1.7 (server, web client, and Windows client)
- RHEL 5.7 (Knowledge Management server)

### **Discontinued Support**

- Firefox 10, 15 (web client)

For more information, see the compatibility matrix for Service Manager 9.21 on the Software Support Online (SSO) site ([http://support.openview.hp.com/sc/support\\_matrices.jsp](http://support.openview.hp.com/sc/support_matrices.jsp)).

# Enhancements

This release includes the following enhancements.

| CR          | Module       | Problem   | Solution  |
|-------------|--------------|---|---|
| QCCR1E83966 | Web Tier     | As JRE 6 is approaching its end of life, support for JRE 7 on the web client is required for all supported versions of Service Manager. | JRE 7 on the Web client is now supported for Service Manager 9.21p7 or later. |
| QCCR1E88963 | Web Tier     | Firefox 17 is not supported for the web tier.   | Firefox 17 is now supported for the web tier.                                 |
| QCCR1E47888 | Applications | Knowledge Management Search Engine (Verity K2) needs to be updated to support RHEL 5.7.   | Knowledge Management Search Engine (Verity K2) now supports RHEL 5.7.         |

# Fixed Defects

This release fixes the following defects.

## Server

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E8986  | Using a type of TIMESTAMP in a dbdict SQL mapping on an Oracle database causes soap faults and a signal 11 error when saving data into the column. Service Manager will not automatically choose this data type, but users are able to manually map a database field to a SQL type of TIMESTAMP. | SQL type of TIMESTAMP in dbdict on Oracle no longer causes signal 11 when saving data into the column.  |
| QCCR1E49614 | If you have record list enabled in the client, sorting QBE lists in descending mode becomes very slow as compared to when record list is not enabled.  | Sorting QBE lists in descending mode now becomes faster when record list is enabled in the client.<br><b>Known issues:</b><br><ol style="list-style-type: none"><li>1. If DB and SM are installed in different machines, the sorting speed will be affected by network condition.</li><li>2. The sorting speed will not improve if the customized view contains a field of another table.</li></ol> |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E52991 | <p>In a default Service Manager system that uses an Oracle database, queries that include date and time calculations fail because of SQL syntax errors. This prevents the creation of a view that shows all the interactions that were closed within 24 hours of being opened.</p>   | <p>This issue occurs because the date/time fields arithmetic calculation concerned query results are incorrect in SM. This is true regardless of the database type. This is due to the lack of a generic representation of time interval, and the different ways to calculate it in those DB server types.</p> <p>Added a new RAD function <code>datecmp</code> ("DateTimeField1", "LogicOperator", "DateTimeField2", "+/-", "TimeInterval") that translates date/time fields to the correct SQL statement dialect. The function can be used in expert incidents searching, as well as in JavaScript programming.</p> <p>For more information, see <a href="#">"RAD function: datecmp" on page 15</a>.</p> |
| QCCR1E59909 | <p>You cannot store fields out of sequence in a structured array if the structure-type element is new to the array. This issue occurs because of an incorrect JavaScript implementation that causes the sequence of filling fields into the structured array to fail, if a single field is not first in the structure.</p> | <p>The incorrect code that failed to handle a field name with array path has been fixed.</p>   |
| QCCR1E64366 | <p>If a QBE includes Display List and Value List values that are Global Lists, you cannot use that field as a value to "Chart By" in the Web client.</p>   | <p>The "aggregatable" attribute in the response of "getForm" XML specifies whether a field can be put in "chart by" menu or not. In this case, the RAD variables affected the value of the "aggregatable" attribute even after the attribute was set. This behavior has now been corrected.</p>  |
| QCCR1E72305 | <p>Severe latency issue occurs when displaying the Open New Incident form.</p>   | <p>The severe latency issue has been resolved.</p>   |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E72834 | An administrator cannot terminate a session that is fetching millions of records. This may occur due to a poorly created customer view, which can cause servlets to consume too much CPU and memory, and then terminate servlets.  | Now, administrator can terminate a session that is fetching millions of records.   |
| QCCR1E73782 | <p>A "Signal 11" error is generated when initializing LDAP and the following error message is logged in the SM.log file many times:</p> <p>"A signal 11 was raised in native code. Client terminated. Error: Win32 Exception:0xC0000005 (instruction 0x61DFF440 while reading address 0x00000000)"</p>   | <p>The "Signal 11" error is no longer generated when initializing LDAP. Now the SM application can handle the exception by logging the following information in the sm.log file:</p> <p>The ldapserver isn't set in sldapconfig.</p> |
| QCCR1E74312 | <p>When all floating user license are used, the RTE issues the following conflicting messages:</p> <pre>1720( 7152) 04/05/2012 07:31:32 RTE W Login from user falcon40 at 192.168.1.107 rejected. Floating user count of 10 has been reached  1720( 7152) 04/05/2012 07:31:32 RTE I User falcon40 has logged in and is using a Floating license (10 out of a maximum 10)</pre> | Only license consumption information will be printed when a user logs in successfully.   |
| QCCR1E74418 | An SQL error occurs when you switch from the chart tab to TODO queue tab. This issue occurs when certain fields in the "Chart by" option menu is chosen to generate chart.   | All fields in the "Chart by" option menu can now be used to generate chart without any error message.  |

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E74528 | On ESS, buttons will overlap when display option labels are greater than 10-12 characters.   | Now, ESS truncates long labels to ensure the buttons do not overlap.                          |
| QCCR1E75514 | WCF client cannot add an MTOM/XOP attachment when calling the SM Web service to create an incident.  | WCF client can add MTOM/XOP attachment when calling the SM Web service to create an Incident. |
| QCCR1E76258 | Memory Leak messages are found in the log file after the Service Manager system starts and then shuts down on Unix.  | Fixed the memory leak after the Service Manager system starts and then shuts down on Unix.    |
| QCCR1E77062 | A user cannot log in when the following conditions are true: <ol style="list-style-type: none"> <li>1. The LDAP server is offline.</li> <li>2. Idapauthenticateonly is 0.</li> <li>3. The operator is mapped to ldap.</li> <li>4. ldap is the primary data source</li> <li>5. Idapnostrictlogin is enabled.</li> </ol> | When LDAP server is offline, RTE will disable the LDAP configuration.                         |
| QCCR1E79015 | There are some leaks found in automation BAT test suites.  | Fixed the leaks found in automation BAT test suites.  |
| QCCR1E78996 | The base64Decode JavaScript function does not work as expected.  | The base64Decode JavaScript function now works as expected.                                   |
| QCCR1E79354 | SM does not send the <xop:Include> tag together with MTOM attachments.   | SM sends the <xop:Include> tag together with MTOM attachments as expected.                    |
| QCCR1E79410 | There is a potential leak in dbmandantSubset.  | The potential leak has been fixed.  |

| CR          | Problem   | Solution  |
|-------------|---|---|
| QCCR1E79524 | A potential memory leak may occur when compiling application codes.   | The allocated memory is freed properly.   |
| QCCR1E79614 | Memory leak is found in xsd_request.  | The leak has been fixed.  |
| QCCR1E79701 | Some memory leak is found in JsUnit Test suite defined in dbdictCacheTest.js.   | Fixed the leak found in JsUnit Test suite defined in dbdictCacheTest.js.  |
| QCCR1E80363 | JAVA MAIL frequently freezes, which causes the eventout table to fill with unsent email.  | This issue occurs, because there is no timeout set for the mail sessions, which causes the RTE to wait indefinitely. Now, when a connection issue occurs, a timeout has been added so that mail can be resent when starting the sending process after the connection issue is resolved. |
| QCCR1E84025 | Service Manager crashes when executing Knowledge Management multi-thread concurrency tests.   | The Knowledge Management plug-in can now support multi-thread concurrency operations as expected.   |
| QCCR1E84136 | The Coordinator runs out of memory and cannot respond to new member's join requests. This issue occurs when a custom load balancer failed to join the application cluster, which prevented the JGroups from forming properly and the system was inaccessible to users. Termination and restoration of the load balancer process resolved the issue. | This is a defect in JGroup. A timeout connect method is now used in JGroup API to work around this issue.   |

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E84162 | <p>When running a load test with a Web service implementation, the following message is written to the SM log file many times:</p> <p>"Waiting for current response to be consumed by the producer"</p> <p><b>Note:</b> The sessions that are connected write these messages, while the ones that successfully log out do not.</p> | <p>Now, there is a check to see whether a session already timed out before a message is written.</p>  |
| QCCR1E84322 | <p>When multiple threads access <code>_checkIRQueue()</code> and change the alert chain at the same time, it can lead to bad collection pointers, and potentially an endless loop.</p>   | <p>To prevent this behavior, the search and deletion operation are now locked within the <code>_checkIRQueue()</code> function.</p>           |
| QCCR1E84337 | <p>After upgrading to later releases of the Service Manager application and binary files, the functionality that tracked how many logins since the last reset is removed and this information is no longer traced in the operator record.</p>  | <p>This functionality is now implemented on the RTE side.</p>   |
| QCCR1E84490 | <p>When the RTE detects that the IR file is corrupt, a Signal 11 error is received and the system crashes.</p>   | <p>The RTE will detect when the IR file is corrupt, and will prevent the crash.</p>   |
| QCCR1E87640 | <p>SCAutoListener enters an infinite loop and leads to high CPU utilization. The Service Manager session encounters a signal 6 and produced a core file.</p>   | <p>Added new logic to check whether there is any data read by the listener. If no data is read, quit from reading to avoid infinite loop.</p> |



| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E87784 | <p>When IR detects corruption, Service Manager issues the following, misleading messages:</p> <pre>7532( 7124) 10/25/2012 23:15:22 RTE E Error 0 in call irReadInP4 - The operation completed successfully.</pre> <pre>7532( 7124) 10/25/2012 23:15:22 RTE E irReadInP4: Failure reading 32768 bytes at offset scirexpert:ir.probsummary (52409176), errno=0 (No error)</pre> <p>The error messages state "The operation completed successfully" and "No error" which is not the case. This issue occurs when the IR files are internal (i.e, mapped to the scirexpert table).</p> | <p>Now, clear messages will be provided. If Error = 0, the first message will not be issued:</p> <pre>"RTE E Error 0 in call irReadInP4 - The operation completed successfully"</pre> |

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E88044 | <p>A TeMIP-SM integration fails with "Out-of-Memory" errors or otherwise becomes unstable. This issue occurs because Service Manager processes queries incorrectly and returns all records for the table when the database is frequently inaccessible.</p>           | <p>The "Out-of-memory" error will no longer occur because Service Manager now returns the correct records or error message even if the database is frequently inaccessible.</p> <p>If the object.name is the same as the name in the "extaccess" table, the correct records will be returned. If not, the following xml response will be returned to the client side and the error information will be logged in sm.log:</p> <pre data-bbox="1157 570 1843 1011">&lt;SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"&gt;   &lt;SOAP-ENV:Body&gt;     &lt;CreateIncidentResponse       message="Specified Name Not Found" returnCode="7"       status="FAILURE" xmlns="http://schemas.hp.com/SM/7"/&gt;     &lt;/SOAP-ENV:Body&gt;   &lt;/SOAP-ENV:Envelope&gt;</pre> |
| QCCR1E88048 | <p>A Signal 11 is received when you use a command line that resembles the following to import unload file:</p> <pre data-bbox="569 1162 1050 1255">sm -log:../logs/load.log -triggers:0 file.load ../platform_unloads/QCCR1E67610_ SM711P18.unl NULL NULL unix</pre> | <p>The Signal 11 error is no longer received when you use this command.</p>   |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E88186 | When you add new fields to dbdict, the dbdict.alter.g form (which has the SM alters button) does not appear. Even though all fields are added as expected, those fields are corrupt.   | When the system starts up, it tests whether the current process has the privilege to create tables in the DB server by trying to create a test table. The test result is saved in shared memory and is never tested again. Within the function for this procedure, if the test table already exists, the old code does not attempt to drop the table and then re-create it. Instead, the function directly returns to the caller with the result that no create table privilege is granted. This bug is fixed now. |
| QCCR1E88252 | KMPlugin Signal 11 occurs when multiple users doing full reindex simultaneously.   | No Signal 11 occurs when multiple users doing full reindex simultaneously.   |
| QCCR1E88266 | If Service Manager generates two or more core dumps in one thread, the last core dump will overwrite the previous ones.  | Service Manager now keeps the first two core dumps for one thread.   |
| QCCR1E88335 | An attempt to add an attachment with a file name that ends with a dot, or an attempt to update an object that already has an attachment with a file name ending with a dot results in termination of the session with error "_SCStringValue() pos > length". | This issue occurs because a "." at the end of a file is considered as the delimiter for the extension. Now, the sequence for the delimiter is "." + any character.   |
| QCCR1E88468 | After a patch upgrade, a Signal 11 error occurs and the servlets eventually hang.  | Now, the signal 11 error disappears and the servlet does not hang.   |
| QCCR1E88643 | After you log in to Ess.do home page, you cannot switch to "View Closed Requests" after you click "View Open Requests."  | This issue occurs because the RTE copies the start-up parameter's values to the global symbol table, so that the previous RAD's start-up parameters overwrite the start-up values of the current RAD. This issue has been fixed.   |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E89093 | <p>When attempting to log in, users receive the following error and then the servlet eventually hangs:</p> <p>"Authentication failed. Contact your system administrator for assistance. SOAP Fault occurred: A signal 11 was raised in native code. Client terminated. Stack trace dumped to sm.log"</p> <p>This behavior occurs when the user tries to connect to the LDAP server by using SSL.</p> | <p>Now, SM uses a thread-safe version of the Openldap library to prevent the Signal 11 error.</p> <div data-bbox="1161 380 1845 524" style="background-color: #f0f0f0; padding: 5px;"> <p><b>Note:</b> On all UNIX and LINUX platforms, after applying this patch and before starting SM, users need to run the "setupLinks.sh" script in the server's RUN directory.</p> </div> |
| QCCR1E89219 | <p>Users cannot log in to SRC on their first or second attempts, despite entering the correct login credentials. The 3rd login attempt is successful.</p>  | <p>Logging in to SRC is now successful after the 1st attempt.</p>  |
| QCCR1E89248 | <p>When you audit records, a unique constraint error occurs and the records are not added in Oracle.</p>   | <p>The primary key is generated in any case.</p>   |
| QCCR1E89395 | <p>SRC server fails to start up due to the conflict between ESS and SRC startup.</p>   | <p>SRC server can start up now.</p>  |
| QCCR1E89779 | <p>The RAD function (get.module.license) leaks JVM memory when you use the function in a horizontally scaled environment.</p>  | <p>The JVM memory leak issue has been resolved.</p>  |
| QCCR1E91734 | <p>In the server log (sm.log), "Unsupported Java version" is misspelled as "Unsupported Java verion".</p>  | <p>The misspelling has been corrected.</p>   |

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E92344 | <p>There are some confusing error messages about KM plug-in printed in SM log like the following:</p> <pre>java.lang.NoSuchMethodError: stopKMJSListener</pre> | <p>The obsolete code that prints confusing message in sm log file is removed.</p>                   |
| QCCR1E94945 | <p>SCAutoListener servlet is not responding in 5 minutes after startup.</p>  | <p>The hang issue does not happen anymore as it was solved by adjusting the communication code.</p> |

## Application

| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E64357 | <p>Details of audit records for a configuration item (CI) do not display properly. Specifically, the following problems occur:</p> <ul style="list-style-type: none"> <li>• The audit history in the device.audit.vj subform is not shown correctly.</li> <li>• Fields such as operator or the child field of an array structure like old.scalar are treated in the same way as columns of a table in the form.</li> <li>• An audit record may have only one operator, but may have several old.scalar values. However, the form would show only the first old.scalar with incorrect value. Or, even the first old.scalar value is not shown.</li> </ul> | <p>This subform can be revised to show only ordinary fields of an audit record and can have a link to jump to a detail form to show an array structure of that audit record. If users do need the audit history to show data in array structure in old.scalar, try to implement it by tailoring. To do this, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Modify the input of the columns of the device.audit.vj subform to set the input value to a variable instead of field names. For example, substitute \$L.old.scalar for column old.scalar.</li> <li>2. Prepare the variables in a JavaScript by executing a DB query and then call this JS in the display screen or format control. The variables can be shown in the subform.</li> </ol> <div data-bbox="1144 979 1774 1360" style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p><b>Note:</b> Although the above-described workaround is available, be aware that Service Manager already supports such a use case. When creating a Subform control, you need to fill in the Input field, where you can specify the sm database field or variable to associate with this control; however, if the database field is a complex type, for example, Array type or Structure type, you must fill in the Input field using this format: ArrayName,FieldName. In this example, it is recorded.changes,old.scalar.</p> </div> |

## Web Client

| CR          | Problem   | Solution   |
|-------------|---|--|
| QCCR1E53844 | Existing Web client message trays are not cleared when there are no new messages received.  | Each tab displays only the latest new message that is generated by operations triggered in current tab or new notification messages from server. Additionally, messages that are already displayed in one message tray of a tab will not be displayed in other tabs.   |
| QCCR1E57306 | Focus is lost on the record list when the viewrecordlist parameter in the web.xml file is set to false.   | The focus is not lost when the user returns to the list from the detail page, regardless of whether the viewrecordlist parameter is true or false. This change is applied to the list view only. In the group view, all groups are collapsed by default. After the user cancels back, the focus is no longer set to any specific record. |
| QCCR1E58337 | Two timer widgets cannot be displayed on the same format at the same time in the Service Manager web client.  | Multiple timer widgets can be displayed correctly on the same format in the web client.  |
| QCCR1E65826 | In Service Manager 9.2, on-screen messages do not always display. However, you can view the messages that are not displayed by clicking the Messages and Alerts icon.           | On-screen messages will be always displayed.   |
| QCCR1E65925 | A "Permission denied" Javascript error occurs when trying to broadcast a message from the Web client.   | Code change has been made to prevent the "Permission Denied" issue.  |
| QCCR1E68768 | Some of our users report that the 'navigator' pane is empty on the left side of their screen. The application shows the area where the navigator pane must be, but it is empty. | The browser side timeout was increased to wait for the server response, and an unnecessary, costly request was removed. This should enable the navigator pane to display properly.   |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E68874 | <p>The Employee Self Service (ESS) client has overlapping buttons with the French language applied.</p> <p><b>Note:</b> This can be seen when viewing closed requests on ESS.</p>  | <p>Now the button does not overlap with each other in the ESS mode.</p> <p><b>Limitation:</b></p> <p>Under the following cases, the label on the button may be truncated:</p> <ul style="list-style-type: none"> <li>• The label on the button is too long.</li> <li>• The user uses a low screen resolution, for example, 1024*768.</li> <li>• The browser width is resized too small.</li> </ul> |
| QCCR1E70795 | <p>When views in the Web tier are refreshed multiple times, the columns of any views that are grouped shrink.</p>  | <p>The columns of any views that are grouped no longer shrink.</p>   |
| QCCR1E73067 | <p>Internet Explorer has a known issue that certain DOM operations cause a security warning if a Web page is hosted on a secure Web site. For more details, see:<br/><a href="http://support.microsoft.com/kb/925014">http://support.microsoft.com/kb/925014</a></p> <p>In Service Manager, the toolbar has such use case.</p> | <p>This issue was resolved by removing the background style of the toolbar buttons before the buttons are destroyed. This prevents the security warning from appearing when the toolbar buttons are refreshed.</p>   |
| QCCR1E74418 | <p>An SQL error occurs when you switch from the chart tab to TODO queue tab. This issue occurs when certain fields in the "Chart by" option menu is chosen to generate chart.</p>  | <p>All fields in the "Chart by" option menu can now be used to generate chart without any error message.</p>   |



| CR          | Problem  | Solution  |
|-------------|--|---|
| QCCR1E79114 | A data changed event fires too late when the focus leaves a radio button in the Web client running in Internet Explorer.   | The data changed event fires properly when the focus leaves a radio button in the Web client running in Internet Explorer.            |
| QCCR1E79534 | The calendar widget icon is not rendered in an array table from the CM.change.login form.  | The calendar widget icon is now rendered correctly in an array table.   |
| QCCR1E80153 | After logging in through the Web tier under SSL and then changing the interactions in <b>Service Desk &gt; Interaction Queue</b> several times, the following Internet Explorer security message appears:<br><br>"This page contains both secure and nonsecure items". | The warning message now no longer appears.  |
| QCCR1E84640 | Session is logged out when clicking on a record within a record list in list only mode.  | The record is displayed as expected when clicking on a record within a record list in list only mode.                                 |
| QCCR1E88002 | The serverHost and serverPort parameters are displayed "null" in the Web tier URL when you click the "Login again" link in WebLogic:<br><br>"serverHost=null&serverPort=null"  | Cookie value is not added if the value is null, hence the "Login again" link does not append these parameters.                        |
| QCCR1E88272 | The &quot HTML character representation is incorrectly converted to a quote (") character in a multi-line text field.  | The &quot HTML character representation is no longer incorrectly converted to a quote (") character in a multi-line text field.       |
| QCCR1E88461 | In the ESS client, a 404 error occurs when the user attempts to open an attachment.  | In the ESS client, now you can open an attachment successfully without any errors.  |
| QCCR1E89253 | A needless confirmation dialog appears when you click the <b>Cancel</b> button from the <b>View</b> tab without any modifications.   | The confirmation dialog no longer appears when you click the <b>Cancel</b> button from the <b>View</b> tab without any modifications. |

| CR          | Problem   | Solution  |
|-------------|---|---|
| QCCR1E89659 | The URL generated from the makeSCWebURL () function does not work after you upgrade to SM9.21 P6.   | The URL generated from the makeSCWebURL() function now works as expected.   |
| QCCR1E89928 | If you try to directly open a record in Web client through a query URL and enter an incorrect password on your first attempt to log in, the reference to the particular record in the URL will be changed and you can no longer open the record directly. | Now you can directly open a record in Web client through a query URL even if after a failed login.  |
| QCCR1E89976 | In Web client, when you type a valid entry into a Combo Box or a Comfill with "value List" specified and "Combo Button Visible" set to true, the typed input gets mixed with the auto-matched entry.  | Now in Web client, when you type a valid entry into a Combo Box or a Comfill with "value List" specified and "Combo Button Visible" set to true, the typed input is successfully auto-completed and will not get mixed with the auto-matched entry. |
| QCCR1E91669 | An apostrophe is displayed as "&#39" instead of ' in the title field in the Web client.   | An apostrophe now displays correctly as ' in the Web client.  |
| QCCR1E91946 | An interaction contains the "&" character in a field. After you update and save the interaction via the Web client, another "&" is appended unexpectedly.   | An interaction contains the "&" character in a field. After you update and save the interaction via the Web client, the current value is kept in the field without an appended "&".   |

## Windows Client

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E52075 | <p>In the Service Manager Windows client, a user cannot scroll in a read-only multi-line text box window by using the mouse wheel. The slider to the right of the window must be used instead.</p> <p><b>Note:</b> Mouse wheel scrolling works, if the field is read-write.</p>  | <p>In Windows client, focus can be set on a read-only multi-line text widget and the scroll bar responds when using the mouse wheel.</p> |
| QCCR1E53130 | <p>After you change the font size or select the <b>Restore Defaults</b> from <b>Window &gt; Preferences &gt; Appearance</b> on the Windows client, the format no longer fits on the screen. This results in objects falling off the edge of the form and the vertical and horizontal scroll bars are not created. This behavior prevents users from navigating the form.</p> | <p>Now the scroll bars are shown as expected when a larger font is used.</p>   |

| CR          | Problem  | Solution   |
|-------------|--|--|
| QCCR1E54677 | <p>If a Fill button is clicked after you add an attachment to an Incident record, the following error occurs when you click on the attachment:</p> <p>"Could not open attachment."</p> <p>If the Fill function is not performed, then the attachment opens without any errors.</p> <p><b>Note:</b> The error occurs before the record has saved, between the time at which the attachment is added and the Fill action is performed.</p> | <p>Now, you can open an attachment in an un-saved record even after executing Fill action.</p> |

| CR          | Problem   | Solution   |
|-------------|---|--|
| QCCR1E71043 | <p>When a client session to Service Manager is terminated (for example, after a timeout or by a server termination), the user is prompted whether they need to retry or disconnect. However, the client does not connect even if the user clicks <b>Yes</b> to reconnect.</p> | <p>When a client session to Service Manager is terminated (for example, after a timeout or by a server termination), the user is prompted whether to disconnect or cancel with the following message:</p> <p>"Your server session may have been terminated or timed out. Would you like to disconnect from the server now? Press Yes to disconnect or No to cancel."</p> <div data-bbox="1142 602 1776 745" style="background-color: #f0f0f0; padding: 5px;"> <p><b>Note:</b> When the user clicks <b>No</b>, the current tabs will remain open, allowing the user to do things like copying information from the open records.</p> </div> <p>When the network connection is down, the user is prompted whether to disconnect or retry with the following message:</p> <p>"The HP Service Manager server could not be accessed. The network connection may be down. Would you like to disconnect or retry accessing the server? Press Yes to disconnect or No to retry."</p> |
| QCCR1E79222 | <p>When a session is terminated, the user receives a "Session no longer valid" message on every open tab. This is annoying when multiple tabs are open.</p>   | <p>When a session is terminated, the user receives only one "Session no longer valid" message.</p>   |
| QCCR1E83940 | <p>In Windows client, when you double-click a record in the record list to display its detail information, additional actions may occur on the detail format.</p>   | <p>Now, when you double-click a record in the record list to display its detail information in Windows client, no additional actions will occur on the detail format.</p>  |

# 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.<br><br>You need to click the <b>Refresh</b> 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 <b>Refresh</b> button to solve the view display issue.  |

# 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.

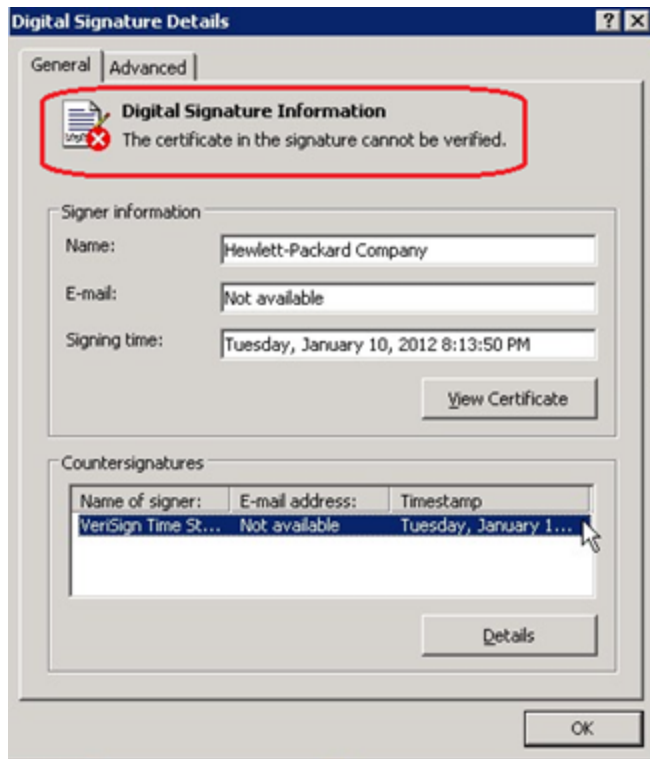
3. Click **Load FG**.

# 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&act=CROSSLINK&id=SO19140>

## Web Tier Installation

The Web Tier update consists of a compressed file, sm9.21.624-P7\_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/hpssoftwaresupport](http://www.hp.com/go/hpssoftwaresupport)

To install the new Web Tier:

1. Make necessary backups. For details, see "[Backout Instructions](#)" on page 39.
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-9.21.624

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:

| <b>Web Application Server</b>                 | <b>How to Enable 'HTTPOnly' Cookies</b>  |
|---|--|
| Tomcat 6.0.20+                                | <p>Can be enabled for all web applications in conf/context.xml:</p> <pre data-bbox="516 422 1117 453">&lt;Context useHttpOnly="true"&gt; ... &lt;/Context&gt;</pre>  |
| Oracle WebLogic 9.2 MP4, 10.0 MP2, and 10.3.1 | Enabled by default.  |
| Oracle WebLogic 10.3.0                        | <p>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).</p>  |
| JBoss 5.1                                     | <p>Enable by setting useHttpOnly=true in the context.xml file, which is located in jboss/server/&lt;myserver&gt;/deploy/jbossweb.sar/.</p> <pre data-bbox="516 821 1203 961">&lt;Context cookies="true" crossContext="true"&gt;   &lt;SessionCookie secure="true" httpOnly="true" /&gt; &lt;/Context&gt;</pre> |

| <b>Web Application Server</b>       | <b>How to Enable 'HTTPOnly' Cookies</b>  |
|-------------------------------------|--|
| IBM WebSphere 6.1.0.45 and 7.0.0.27 | <p>Enable through the following properties:</p> <ul style="list-style-type: none"><li>• com.ibm.ws.security.addHttpOnlyAttributeToCookies</li><li>• com.ibm.ws.webcontainer.httpOnlyCookies</li></ul> <p><b>Known issue:</b></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"><li>1. Log on to the Windows client.</li><li>2. From the Navigation menu, click <b>Knowledge Management &gt; Manage Document Types</b>.</li><li>3. Select the <b>Reference</b> record.</li><li>4. Modify the <b>Default View</b> from the <b>Associated Document View</b> view list.</li><li>5. Remove the incorrect URL in the CSS class .documentTitle. For example, remove the following:<br/><br/><code>url("44ee44677b0f021810318488:kmrtBackground.gif:kmattachments:2").</code></li><li>6. Save the change.</li><li>7. Do the same for the other four records to avoid other similar problems.</li></ol> |
| IBM WebSphere 8.0.0.5               | Enabled by default.  |

## Windows Client Installation

The Windows client update consists of a compressed file, sm9.21.624-P7\_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 39](#).
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: **9.21.624**.

## Server Update Installation

The server update for your operating system (OS) consists of a compressed file, `sm9.21.624-P7_<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:** Starting with SM9.21p7, the SM server requires JRE 1.7. 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 39.
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, manually upgrade to JRE1.7.
  - a. Install either JDK1.7 or JRE1.7 for your specific platform.

|         |                                |
|---------|--------------------------------|
| Solaris | 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: 9.21.624.

## 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 sm9.21.624-P7\_<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 7. |

## 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.                |

| Unload file                           | Introduced in 9.21 patch | Used for applications version(s) | Description   |
|---------------------------------------|--------------------------|----------------------------------|---|
| QCCR1E31545_<br>SM921P2_<br>SM711.unl | P2                       | 7.11                             | Prevents backslashes included in a template from being duplicated in the output.<br><br><b>Note:</b> This file is not required for Applications 7.00. |
| QCCR1E31545_<br>SM921P2_<br>SM920.unl | P2                       | 9.20                             | Prevents backslashes included in a template from being duplicated in the output.  |
| QCCR1E48580_<br>SM921P3_<br>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_<br>SM921P3_<br>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_<br>SM921P3_<br>SM711.unl | P3                       | 7.11                             | Lists the records in the right group order when a record list is refreshed.   |
| QCCR1E58562_<br>SM921P3_<br>SM711.unl | P3                       | 7.11                             | Includes applications changes for Export to Excel redesign.   |
| QCCR1E58562_<br>SM921P3_<br>SM920.unl | P3                       | 9.20                             | Includes applications changes for Export to Excel redesign.   |
| QCCR1E67610_<br>SM921P4.unl           | P4                       | 7.11 and 9.20                    | Enables you to block potentially dangerous attachments.   |
| QCCR1E67072_<br>SM921P4.unl           | P4                       | 7.11 and 9.20                    | Enables you to improve the Knowledge Management update process (KMUpdate) performance.  |
| QCCR1E67647_<br>SM921P5.unl           | P5                       | 7.11 and 9.20                    | Updated the scmessage record from "Doc Engine call failed" to include the message number.   |
| QCCR1E70163_<br>SM921P5_<br>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.                       |

| Unload file                     | Introduced in 9.21 patch | Used for applications version(s) | Description   |
|---------------------------------|--------------------------|----------------------------------|---|
| 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 39](#).
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 the ODBC .zip file that has been shipped with the SM9.21p6 release.

You can download the zip file 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

The Knowledge Management Import Utility was updated for QCCR1E71341 and QCCR1E59746 in Service Manager 9.21 Patch 5. However, certain files were missing in the Service Manager 9.21 Patch 5 release build. Now, the updated Knowledge Management Import Utility (km-import-9.21.zip) is wrapped in sm9.21.624-P7\_KM.zip together with this patch release.

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](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.