
HP Service Manager

for supported Windows® and UNIX® operating systems

Release Notes

Software version: 9.21.551 Patch 6 / December 2012

This document provides an overview of the changes made to HP Service Manager for 9.21.551 Patch 6. It contains important information not included in the manuals or in online help.

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Documentation Updates

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.
- Publish date, which changes each time the document is updated.

Important Note: The initial version of this document is included in the patch package that is shipped with the patch release. However, this document may undergo modifications after the patch is released. To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

<http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

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

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

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

Note: To view files in PDF format (*.pdf), Adobe Acrobat Reader must be installed on your system. To download Adobe Acrobat Reader, go to the following web site:

<http://www.adobe.com/>

In This Version

Service Manager Version 9.21, build 551, Patch 6 (SM 9.21p6) includes several major updates as describe in this section. For information about the enhancements, fixes, and known issues included in this release, refer to the corresponding sections in this document.

The following provides a summary of major updates included in this release:

- [Compatibility Matrix Updates](#)
- [New Parameters](#)
- [New JavaScript Methods](#)
- [Upgrade of the Embedded Tomcat in the Server](#)
- [Upgrade to LW-SSO v2.5 \(Server and Web Tier\)](#)
- [DLL Files Updated for the ODBC Driver](#)

Compatibility Matrix Updates

The following lists the compatibility matrix updates for Service Manger 9.21 in this release.

- [IBM WebSphere 8.0 Support](#)
- [JBoss 5.1 Support](#)
- [Tomcat](#)
- [Internet Explorer 9 Support](#)
- [Firefox 10 and 15 Support](#)

Note: 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).

IBM WebSphere 8.0 Support

IBM WebSphere version 8.0 has been certified on the web tier in this release.

For the detailed steps of deploying HP Service Manager Web tier on IBM WebSphere 8.0, see section [Deploy the Service Manager Web Tier on WebSphere 8.0](#).

JBoss 5.1 Support

JBoss Enterprise Application Platform 5.1 has been certified on the Web tier in this release. JBoss Application Server 4.2 is no longer supported since this release.

For the detailed steps of deploying HP Service Manager Web tier on JBoss 5.1, see section [Deploy the Service Manager Web Tier on JBoss 5.1](#).

Tomcat Support

Tomcat 5.5 is no longer supported since 9.21p6 as it has reached its end of life as of September, 2012. Tomcat 6.0 remains certified and supported.

Internet Explorer 9 Support

The Service Manager Web client now supports Internet Explorer 9.

Firefox 10 and 15 Support

The Service Manager Web client now supports Firefox 10 and 15 since this release while Firefox 3.x is no longer supported.

New Parameters

The following list shows the new or updated parameters in this patch release.

Server parameters

- [ldapnosizelimitmsg](#)
- [fetchnotnullsystemp](#)
- [disableWSEss](#)
- [reportLBInterval](#)
- [usedmemcompmode](#)
- [cache_slots \(updated\)](#)
- [maxgroupsperview](#)
- [grouptimeout](#)
- [maxhttpregresponse](#)
- [jsaccessfilereadregex and jsaccessfilewriteregex](#)

Web client parameters

- [acceptBrowserLang](#)
- [maskMessageDelay](#)

ldapnosizelimitmsg

Description

When limiting LDAP query with `ldapmaxrecords:100` (for example), if LDAP query results are bigger than 100 records, users get the following message: `Message from LDAP server: Size limit exceeded`. This informational message may mislead users to think that something is not working correctly.

This parameter, when set to **1**, disables this informational message so that it will not display to and therefore not disturb end users.

Valid if set from:

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

Requires restart of HP Service Manager server?

No

Default value:

0

Possible values:

0 (Enable the informational message)

1 (Disable the informational message)

Example usage:

Command line: sm -httpPort:13080 -ldapsrvr1:ldapparent -ldapnosizelimitmsg:1

Initialization file: ldapnosizelimitmsg:1

See [QCCR1E31999](#).

fetchnotnullsystemp

Description

Records that have a non-NULL systemplate field will merge the template record before they are passed to the query condition filter. In the old versions, these records were passed to the query filter before they merged the template and were thus incorrectly filtered out.

This parameter specifies whether or not to fully enable the template merge functionality. You need to set it to "fetchnotnullsystemp:1" to fully enable the template merge functionality. However, it may cause performance issues if the table has more than 10K records whose systemplate field is not NULL.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

No

Default value:

0

Possible values:

0 (Do not fully enable the template merge functionality)

1 (Fully enable the template merge functionality)

Example usage:

Command line Command line: sm - fetchnotnullsystemp:1

Initialization file: fetchnotnullsystemp:1

See [QCCR1E32145](#).

disableWSEss

Description

This parameter controls whether or not a non-ESS user consumes a floating or named license when logging in to Service Manager through Service Request Catalog:

- By default, a non-ESS user consumes only a self-service (unlimited) license instead of a floating or named license;
- If this parameter is set in sm.ini or the server's OS command prompt (no value needed), a non-ESS user then consumes a floating or named license.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

No

Default value:

(When this parameter is not present) A non-ESS user consumes only a self-service license instead of a floating or named license.

Possible values:

None

Example usage:

Command line Command line: sm -httpPort:13080 -httpsPort:13081 -disableWSEss

Initialization file: disableWSEss

See [QCCR1E71017](#).

reportLBInterval

Description

This parameter defines the interval (in seconds) at which Service Manager automatically runs the load balancer status report, which includes information about available ports and threads in horizontal and vertical scaling servlet implementations. When this parameter (reportLBInterval:n) is specified, Service Manager automatically executes the reportlbstatus command every n seconds to write the load balancer status information to the following log file located in the same directory of the server log (sm.log): lbstatus_<pid>.log, where <pid> is the ID of the load balancer process.

By default, this parameter is disabled; if a value less than 60 is specified for n, it is automatically reset to 60.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Startup file (sm.cfg)

Requires restart of HP Service Manager server?

Yes

Default value:

0 (Disabled)

Possible values:

0 (Disabled by default)

Numbers no less than 60 (If a value less than 60 is specified, it is automatically reset to 60.)

Example usage:

Command line Command line: sm -httpPort:13080 -loadbalancer -reportLBInterval:180

Initialization file (sm.ini): reportLBInterval:180

Startup file (sm.cfg): sm -httpPort:13080 -loadbalancer -reportLBInterval:180

See [QCCR1E71722](#).

usedmemcompmode

Description

This parameter determines the calculation method for how memory usage is calculated.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

Yes

Default value:

0 (The default is 0, which is the normal Service Manager method)

Possible values:

0 (Specifies that used memory will be the sum of committed memory plus the reserved memory)

1 (Specifies that used memory will be equal to the committed memory, but no loge entry)

2 (Specifies that used memory will be equal to the committed memory but with a log entry)

Example usage:

Command line: sm -httpPort:13080 – usedmemcompmode:0

Initialization file: usedmemcompmode:1

(This will sum only the committed memory when computing the used memory, and will not generate a line of calculation log in sm.log.)

See [QCCR1E71853](#).

cache_slots (updated)

The default value of this parameter has been changed from 2003 (which is too low) to 9973 to improve system performance. For more information, see [QCCR1E71918](#).

For detailed information about this parameter, see the Service Manager help.

maxgroupsperview

Description

This parameter defines the maximum number of groups that can be used in a view. When a user selects a view from the View list whose group count exceeds the limit, only the maximum allowed number of groups can be displayed in the view, and the following message displays in the client UI:

"Maximum number of groups (xxxx) exceeded. Please modify the view definition to reduce the number of groups."

Note: This limit would be useful if a user runs a poorly created view that causes the servlets to consume too much CPU and memory and terminate the servlets.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

Yes

Default value:

5000 (groups)

Possible values:

500 or greater (if a value less than 500 is specified, Service Manager will ignore the value and use 500 instead. A warning message will also occur in the sm.log file: "A maxgroupsperview value less than 500 specified and ignored. 500 is used.")

Example usage:

Command line: sm -httpPort:13080 -maxgroupsperview:6000

Initialization file: maxgroupsperview:6000

See [QCCR1E72836](#).

grouptimeout

Description

This parameter allows you to configure the timeout value (in milliseconds) for Jgroups remote procedure calls. You can tune this value to keep the number of available nodes stable.

It is recommended to set this parameter to a minimal value as long as it can keep the number of the available nodes stable. Meanwhile, the network latency between the web server and the HP Service Manager server should be small, otherwise the load balancer may forward a request to a node that is not able to handle the request due to network latency.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

Yes

Default value:

1000 (milliseconds)

Possible values:

Any number of milliseconds from 300 to 10000

Example usage:

Command line: sm -grouptimeout:1500

Initialization file: grouptimeout:1500

See [QCCR1E75022](#).

maxhttpreqresponse

Description

This startup parameter defines the maximum response size (in bytes) for HTTP requests.

Note: A zero value disables the feature, which means there is no size limit.

Valid if set from:

Server's OS command prompt

Initialization file (sm.ini)

Requires restart of HP Service Manager server?

Yes

Default value:

20971520 (20MB)

Possible values:

0: No size limit

Any size limit (in bytes)

jsaccessfilereadregex and jsaccessfilewriteregex

Description

These parameters specify access restrictions from JavaScript code for file access. This is required for security reasons so that the system can prevent users from using to use the available Service Manager JavaScript APIs to directly access the underlying host file system in an unauthorized way. These restrictions are described below:

- System administrator (sysadmin) users are allowed unrestricted access to the file system.
- Non-sysadmin users are allowed unrestricted access as well by default (none of these configuration parameters is present); if any of these parameters is present, access is restricted as follows:
 - jsaccessfilereadregex:<regex>: Files read using the readFile() and uncompressFile() (compressed file only) JavaScript functions must have an absolute path name that matches the regular expression <regex>.
 - jsaccessfilewriteregex:<regex>: Files written using the writeFile(), deleteFile(), makeDir(), uncompressFile() (output dir only), and writeAttachmentToFile() JavaScript functions must have an absolute path name that matches the regular expression <regex>.

Regular expressions must use proper syntax for Java-style regex (similar to Perl-style) (for example, '.' means any character and backslashes need to be doubled). File path names in jsaccessfilereadregex and jsaccessfilewriteregex must be absolute and use proper delimiters ('/' for UNIX, and '\' for Windows). They are case-sensitive for UNIX and case-insensitive for Windows.

File path names used as parameters to JavaScript functions can still be any legal OS-specific file path names. Absolute and relative path names are allowed as well as the usage of '.' and '..'. On Windows, delimiters can be either '/' or '\', while UNIX only allows '/'. However, path names from JavaScript commands are normalized first (relative paths are made absolute, the '.' and '..' are eliminated, and on Windows '/'s are transformed into '\') before they are pattern matched against their corresponding regular expression.

Valid if set from:

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

Requires restart of HP Service Manager server?

Yes

Default value:

None (Unrestricted file access)

Possible values:

Regular expressions

Example usage:

- jsaccessfilereadregex:C:\\Users\\joe\\Documents\\.+|C:\\SM-Install\\server-dist\\RUN\\(\\w)+\\.js
Read access is limited to any files under the C:\\Users\\joe\\Documents directory and only for .js files under the C:\\SM-Install\\server-dist\\RUN directory.
- jsaccessfilewriteregex:^\$
Only matches the empty string. This is used to deny all write access to the file system.

acceptBrowserLang

Description

The acceptBrowserLanguage parameter specifies the preference for the TSO language settings if the "lang" parameter is not set in the URL. By default, the browser language preference has higher priority than the language defined in the operator's profile. If you want the operator's profile language setting to take precedence over the browser language profile when the "lang" parameter is not set in the URL in a TSO environment, set this value to false.

Note: If the "lang" parameter is set in the URL, it will take precedence over the acceptBrowserLang parameter.

Valid if set from:

Web tier configuration file (web.xml)

Requires restart of Web application server?

Yes

Default value:

true

Possible values:

false: Specifies that the operator's profile language setting takes precedence.

true: Specifies that the browsers language setting takes precedence.

Example usage:

```
<init-param>
  <param-name>acceptBrowserLang</param-name>
  <param-value>true</param-value>
</init-param>
```

See [QCCR1E73982](#).

maskMessageDelay

Description

The maskMessageDelay specifies the number of seconds before the mask message is displayed after the mask is shown. The minimum value is 1 second and the maximum is 30 seconds. A default value of 5 seconds will be used if any invalid value specified.

Valid if set from:

Web tier configuration file (web.xml)

Requires restart of Web application server?

Yes

Default value:

5 seconds

Possible values:

Any integer value from 1 second to 30 seconds. Any invalid value will use the default value (5 seconds).

Example usage:

```
<context-param>
  <param-name>maskMessageDelay</param-name>
  <param-value>5</param-value>
</context-param>
```

See [QCCR1E77454](#).

New JavaScript Methods

The following JavaScript methods have been introduced in this release.

- [SCFile.getBinary\(\)](#)
- [SCFile.setBinary\(\)](#)

SCFile.getBinary()

This JavaScript method returns the binary representation of a field in a Service Manager file object.

Syntax

```
SCFile.getBinary (fieldName);
```

Arguments

Argument	Data type	Description
fieldName	String	This argument specifies the name of a field from which you want to extract the binary data.

Return values

The method returns a JS object that contains the binary data of the field.

Example

```
var bb = new SCFile("bbtosysattachments");  
var rc = bb.doSelect("true");  
var attachmentObj= new Attachment();  
attachmentObj.value = bb.getBinary("att_attachment")  
attachmentObj.name = bb.att_filename;  
attachmentObj.type = "excel";
```

See [QCCR1E76875](#).

SCFile.setBinary()

This method saves the binary data to a field in a Service Manager file object.

Syntax

```
SCFile.setBinary (fieldName, binaryObj);
```

Arguments

Argument	Data type	Description
fieldName	String	The name of a field in which you want to save the binary data.
binaryObj	String	The name of a JS object that contains the binary data.

Return values

RC_SUCCESS or one of the other global return code values. The method returns RC_SUCCESS if the method successfully saves binary data to a Service Manager file object or returns one of the error global return code values if the method cannot save binary data to a Service Manager file object.

Example

```
var rc;
var f = new SCFile("contacts");
rc = f.doSelect('contact.name#"AARON"');
var attachmentObj = f.getAttachments();
var b = new SCFile("blob1");
b.name = attachmentObj[0].name;
b.setBinary ("data",attachmentObj[0].value );
rc = b.doSave();
```

See [QCCR1E79400](#).

Upgrade of the Embedded Tomcat in the Server

The Service Manager server now bundles Tomcat 6.0.35 as the embedded server. This upgrade requires additional steps for installing the server update in this release. See [Server Installation](#).

Upgrade to LW-SSO v2.5 (Web Tier)

As of SM 9.21p6, the Service Manager Web tier has been upgraded to LW-SSO version 2.5.

In the Web tier's lwssofmconf.xml file, a new parameter, secureHTTPCookie, has been introduced. The default is "true". This parameter must be set in combination with the secureLogin parameter in the Web tier configuration file (web.xml) so that LW-SSO can work correctly:

- If secureHTTPCookie is set to true, secureLogin must also be set to true;
- If secureHTTPCookie is set to false, secureLogin can be set to true or false as needed (you are recommended to set both to true in a production environment).

DLL Files Updated for the ODBC Driver

Three .dll files (Scodbc32.dll, sci18n.dll and scl32.dll) have been updated to allow 16 joined array tables at most (see [QCCR1E67090](#)). For instructions on installing the updated files, see [ODBC Driver Update Installation](#).

Enhancements

This release includes the following enhancements.

Global ID	Module	Problem	Solution
QCCR1E67279	Web Client	The Service Manager Web Client does not support Internet Explorer 9.	The Web Client now works with Internet Explorer 9.
QCCR1E70664	Web Client	The current compatibility matrix of Service Manager does not include IBM WebSphere Application Server v8.0.	IBM WebSphere Application Server v8.0 is now supported.

Fixes

Service Manager Version 9.21, build 551 patch 6 (SM 9.21p6) includes customer requested software fixes. Refer to the sections below for information about the defects for each release included in this cumulative patch.

Service Manager 9.21 patch 6 updates the following areas:

- [Server](#)
- [Web Tie](#)
- [Windows Client](#)
- [Application](#)
- [Documentation](#)

Server

The following items are fixed in the current software release.

Global ID	Problem	Solution
QCCR1E31999	Users are receiving a confusing error message when LDAP query results exceed the maximum size (100 records, for example). The message should be available only in the log file for debugging purposes, rather than displaying in the Service Manager client window.	Added a new parameter (ldapnosizelimitmsg), which allows system administrators to disable the LDAP size limit message. See ldapnosizelimitmsg .
QCCR1E32145	Search Results are inaccurate against the operator table if an operator's Template (systemplate) field has a value. The operator record will not display in a Search, even though the selection criteria says it should.	Records that have a non-NULL systemplate field now will merge the template record before they are passed to the query condition filter. In the old versions, these records were passed to the query filter before they merged the template and were thus incorrectly filtered out. A new parameter (fetchnotnullsystemp) is introduced in sm.ini. You need to set it to "fetchnotnullsystemp:1" to fully enable the template merge functionality. However, it may cause performance issues if the table has more than 10K records whose systemplate field is not NULL. See fetchnotnullsystemp . Known issue: When clicking on the Fill button, all operator records will be searched out. The issue was fixed by QCCR1E55519 in 9.21.ap1. Apply the 9.21.ap1 patch or contact HP Support to obtain the hotfix to fix this issue.

Global ID	Problem	Solution
QCCR1E54248	When Service Manager processes a web service request and sends a response, the response is not understood by the requesting application. This behavior results in the following error message: "type" attribute in <cmn:messages> tag not matching Common.xsd schema definitions.	A code change was implemented in Common.xsd, so that "StringType" is always used as the base type of "MessageType."
QCCR1E56867	Memory requirement for each thread on the server is high, as the XML response node is being duplicated.	Eliminated the duplicate DOM object requirement.
QCCR1E67090	When running reports that include more than 7 array tables with the 6.2.8 ODBC driver, Crystal Reports crashes.	The ODBC driver now allows 16 joined array tables at most. See also ODBC Driver Update Installation .
QCCR1E67562	Request for a way of turning off the "Triggers have been turned on" and "Triggers have been turned off" messages in the log file.	Now, you can use the rtm parameter to turn the "Triggers have been turned on" and "Triggers have been turned off" messages on or off. To turn messages on, set the value of the rtm parameter equal or greater than 2.
QCCR1E70418	Service Manager servlets report a potential memory leak.	Memory is now released properly when it is finished being used.
QCCR1E70833	A complex query that uses a condition for an array field returns no record data.	The complex query will display results as expected.
QCCR1E71017	When a non-Employee Self-Service (non-ESS) user logs in to Service Request Catalog (SRC), the user consumes a floating or named license, instead of a self-service (unlimited) license. Additionally, one user consumes more than one floating license if the user is logged in to both SRC and Service Manager at the same time.	A new parameter, disableWSEss, has been introduced to solve this problem. See disableWSEss .
QCCR1E71099	Users need to display Value Lists instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.	Value Lists can be displayed instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns. To achieve this, it requires both the current patch release and the corresponding unload file. For the unload file, see New Application Updates in the Current Patch .
QCCR1E71722	The status of the load balancer is not reported periodically.	Introduced a new parameter, reportLBInterval:n, which automatically reports the status of the load balancer every n seconds. See reportLBInterval .

Global ID	Problem	Solution
QCCR1E71853	The "NativeMemory" size never shrinks.	<p>To resolve this issue, the usedmemcompmode parameter has been added. This parameter determines how used memory is calculated according to the following:</p> <p>0:used=committed + reserved; 1:used=committed,no log; 2:used=committed,log.</p> <p>The default is 0, which is the old Service Manager method.</p> <p>See usedmemcompmode.</p>
QCCR1E71830	A potential memory leak may occur when Service Manager finds duplicate keys while performing a database operation.	The memory leak has been resolved.
QCCR1E71934	Licenses are not released when users log out from the system. The value output from the 'reportlic' parameter does not match the number of users on system status screen. As a consequence, the number of license slots run out and Service Manager has to be restarted to clear the issue. Licenses should be released when users log out from the system and 'reportlic' should match the number of users on system status screen.	Now when users execute "sm -reportlic", Service Manager provides a mechanism to purge the zombie license users and release their licenses.
QCCR1E71918	The default value of parameter cache_slots, currently set at 2003 is too low. It should be set to a larger value (approximately 10000).	<p>The default value of cache_slots is now set to 9973.</p> <p>Note: If this parameter is not set or set to be greater than 100,000 or less than 300, the default value (9973) is used; if it is set to a non-prime number, the smaller one of its neighboring prime numbers is used instead.</p> <p>See cache slots.</p>
QCCR1E71999	<p>The Service Manager log contains lock-failure messages:</p> <pre>org.jgroups.blocks.LockNotReleasedException: Lock cannot be unlocked when session terminates.</pre>	When a session ends, no unlock failure is reported.
QCCR1E72171	When the system is forced to shutdown, the USERINFO table cannot be cleared. If you run the sm -reportlic when the system is restarted and before any users log in, it will report the licenses consumed by the previous sessions. This will lead to a bad license accounting and prevent users logging into the system.	<p>The USERINFO table will be cleared as expected.</p> <p>Note: After applying the fix, system administrators need to run the "sm -unlockdatabase" command to clean up the license tables.</p> <p>See also Server installation.</p>

Global ID	Problem	Solution
QCCR1E72566	Service Manager performance on the AIX platform is significantly worse than other platforms when multiple users are executing workflows that make heavy use of Javascript.	Optimized JavaScript execution in SM for AIX so that property names are only retrieved as needed.
QCCR1E72743	The Web client ignores the "Invisible" settings in the fields of the "Data policy" table.	The Web client no longer ignores the "Invisible" settings in the fields of the "Data policy" table.
QCCR1E72836	There is no limit on the number of records an SM Process can try to fetch. A limit would be useful if a user runs a poorly created view that causes servlets to consume too much CPU and memory and terminates the servlets.	Added a parameter maxgroupsperview to limit the number of groups allowed in a view. See maxgroupsperview .
QCCR1E72843	An attempt to add a field to the probsummary table in dbdict fails with a "Signal 11" error.	This issue occurred because of a null pointer that causes the "Signal 11" error. This issue is resolved by verifying that a pointer is not null.
QCCR1E72977	An XML Error is received when a solution field that contains special characters is updated in an SM Incident that was created by OMi.	Service Manager can now send special characters to OMi by using valid encoding.
QCCR1E72908	Shared Memory Initialization of Service Manager process is very slow, potentially taking over 30 seconds.	Optimized the Service Manager process startup procedure to only load the data in SCAccess and SCFolderAccess files on demand.
QCCR1E73151	When a session fails while holding a lock, the sync process should remove the lock. However, if the system is horizontally scaled, the process fails and the lock is not released. This behavior prevents any other session from accessing the locked resource.	All locks for a currently exiting thread are now removed correctly.
QCCR1E73406	A memory leak that is caused by GZIPInputStream makes the system unresponsive.	The resource is now closed properly.
QCCR1E73384	During the normal operation of the HP Operations Orchestration integration with Service Manager, the Service Manager server refuses Web service connections and issues the following warnings: "Server low on memory."	This issue is caused by a memory leak. To solve this issue, a close() method is now called on the Page reference of the Lexer html parser to release the memory.

Global ID	Problem	Solution
QCCR1E73543	Bound variables in Oracle SQL statements cause significant performance issues when combined with Mandanten security restrictions. This issue is compounded by Mandanten because the Mandanten restrictions are duplicated in the SQL statements. This behavior results in additional bound variables.	Now, the Mandanten query restriction is appended only once.
QCCR1E73864	The server process consumes a lot of memory and time when the "Go to last page" button is clicked from the Web client on the list/detail screen of a query with thousands of returned records. This behavior may occur because of a poorly created view. This behavior can cause the servlets to consume too much CPU and memory and eventually terminate the servlets.	The server process now only lasts for a few seconds with less memory consumed when the "Go to last page" button is clicked on the list/detail screen of a query with thousands of returned records. This behavior will no longer terminate the servlets.
QCCR1E73982	When trusted sign-on is enabled, the Web client uses the language specified in the operator record, instead of "lang" parameter passed in by the Ess.do url.	<p>For Web client, in WEB-INF/web.xml, a new servlet parameter, acceptBrowserLang, was added.</p> <p>By default, this value is true. If this value is true, the Web client will take the browser's language setting as the first priority in TSO mode. If the value is set to false, the Web client will use the language setting in the operator's profile.</p> <p>Note: If the "lang" parameter is set in the URL, it will take precedence over the acceptBrowserLang parameter.</p> <p>See acceptBrowserLang.</p>
QCCR1E74051	After applying a custom upgrade, users are experiencing sudden session timeouts in the Web tier and "Signal 11" errors in the Windows client. Investigation indicates that the "Signal 11" error is caused by a call to the RCondition.isCalendarShow function when the Document Engine calls the probsummary master format control.	<p>The "Signal 11" error will not be thrown and will therefore prevent the user session from suddenly terminating.</p> <p>Note: This behavior (the "Signal 11" error NOT being thrown) occurs even if the memory for JavaScript is not sufficient to run the JavaScript program. This fix does not address the lack of memory.</p>
QCCR1E74101	<p>Users cannot log in after starting a servlet, and the following message is logged:</p> <pre>RTE E EVP_PBE_CipherInit() failed in desEncryptPasswordFieldWithMD5AndDes ()</pre>	This issue occurred because of a concurrent call to the OpenSSL crypto library. This has been resolved so that the call will no longer impact the log in to Service Manager.

Global ID	Problem	Solution
QCCR1E74441	The xmlFill.getValue() ScriptLibrary function fails with a "Signal 11" error if it is called with malformed XML or with no XML at all.	The null pointer is now checked before this function is called.
QCCR1E74646	Background event processes consume high memory usage, even though there are no event records to process.	Background event processes can run without consuming excessive memory.
QCCR1E74707	After setting the debugjavascript trace parameter to a value of 2 or 3, a "Signal 11" error is received when attempting to log into the SM server.	When debugjavascript is set to 2, the "Signal 11" error will not occur.
QCCR1E74709	Webservice requests get corrupted when they contain inline attachments whose base64 encoding contains carriage return line feeds.	An RTE change is made to prevent inline attachments containing carriage return line feed characters from being corrupted.
QCCR1E74742	SLA processes are terminating multiple times a day, resulting in core dumps.	The unexpected terminations and core dumps have been eliminated.
QCCR1E75022	There is a dedicated thread in the software loadBalancer that periodically requests the RTE Server to update the nodes information. However, the timeout value for this thread appears to be too small, which prevents the node information from being updated correctly. As a result, the number of available nodes fluctuates wildly.	<p>To resolve this issue, the new "grouptimeout" parameter has been introduced in sm.ini. This parameter allows you to configure the timeout value (in milliseconds) for Jgroups remote procedure calls. You can tune this value to keep the number of available nodes stable. Default is 1000, minimum is 300, and maximum is 10000.</p> <p>It is recommended to set this parameter to a minimal value as long as it can keep the number of the available nodes stable. Meanwhile, the network latency between the web server and the SM server should be small; otherwise the loadblancer may forward a request to a node that is not able to handle the request due to network latency.</p> <p>See grouptimeout.</p>
QCCR1E75564	Use of the rtm:3 parameter will cause a memory leak in the JavaScript engine on the SM server process.	This issue was caused by the _getEndLineNum() function in the evjs.cpp file and resolved by changing the log message to skip logging the line number.
QCCR1E75861	An array of structures nested within an array of structures in a dbdict table does not work in Oracle databases.	An array of structures nested within an array of structures in a dbdict table works as expected in Oracle databases.

Global ID	Problem	Solution
QCCR1E75975	In a vertically scaled system, one of the servlets hangs and a core file is generated on the production server. Every time a user logs in on the servlet, a "Signal 11" error is generated, and most times a core file as well.	The defect that caused the "Signal 11" when connecting to an LDAP Server over SSL has been fixed.
QCCR1E76056	Cannot search Change tickets with a Change ID.	Now, tickets that have a Change ID can be searched as expected.
QCCR1E76399	<p>Partial System Outage occurs when a node in the cluster quit responding to requests. This behavior occurs when the Transparent Application Failover (TAF) feature on Oracle is enabled.</p> <p>When this issue occurs, the following messages are logged repeatedly:</p> <pre> 9568468(36438057) 05/06/2012 13:50:37 RTE E Unable to parse date for column SYSMODTIME 9568468(36438057) 05/06/2012 13:50:37 RTE E Incomplete record, could not process data for table NUMBERM1 in file number identified by key: name="incidents" 9568468(28049409) 05/06/2012 13:50:37 RTE E Error in fetching sequence number for file incidents 9568468(36438057) 05/06/2012 13:50:37 RTE E date format '06-MAY- 12' unrecognized in sqlda </pre>	<p>Service Manager now detects the TAF configuration and prints warning messages to the sm.log at startup.</p> <p>The warning messages are listed below:</p> <pre> 2852(2844) 07/31/2012 13:06:34 RTE !!!!!!!!!!!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! 2852(2844) 07/31/2012 13:06:34 RTE ServiceCenter does not support Oracle TAF. Please remove TAF configuration and restart ServiceCenter to avoid running into outages. 2852(2844) 07/31/2012 13:06:34 RTE !!!!!!!!!!!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! </pre>
QCCR1E76660	Colon appears in the converted date when using the getTime() JavaScript function.	This issue occurred because the current js_1.5rc6a.dll is built with Microsoft Visual Studio 2003 and there is a defect within the function for converting a double to a string. This issue was resolved by rebuilding the DLL with Microsoft Visual Studio 2008.
QCCR1E76875	JavaScript does not properly handle binary data.	<p>Added a new JS method, getBinary, to retrieve the binary representation of a field. Following is an example of using this JS function:</p> <pre> var bb = new SCFile("bbtosysattachments"); var rc = bb.doSelect("true"); var attachmentObj= new Attachment(); attachmentObj.value = bb.getBinary("att_attachment") attachmentObj.name = bb.att_filename; attachmentObj.type = "excel"; </pre> <p>See SCFile.getBinary().</p>

Global ID	Problem	Solution
QCCR1E77101	<p>Investigate if any improvements can be made in the timing of the following messages, to avoid unnecessary actions by the end user:</p> <p>"Server running low on memory, close some application tabs and try again"</p> <p>"Server running low on memory, relogin to the system"</p>	<p>When the low memory condition is detected, SM will call the JVM Garbage Collection to decrease Java memory usage. SM will not send a "low on memory" message unless the server is still low on java memory after garbage collection is called.</p>
QCCR1E77265	<p>The following error is received when invoking the "Define views" button:</p> <p>Invalid syntax for query. Failed parsing (view.define,setup.display.1)</p>	<p>The error is no longer received and the define views window appears as expected.</p>
QCCR1E77310	<p>When you associate an IM to a PM, the following error message is received: "Target file variable two is not a relation (script.execute, save.mods)"</p>	<p>The fix for this behavior introduces the following behaviors:</p> <ul style="list-style-type: none"> • Application start-up parameter variables (i.e., "\$INTO.*") are no longer overwritten by other applications (especially RAD triggers) started by the current application. • You no longer need to define a "\$L.*" local variable to cache start-up parameters for later reuse. Now this will be done automatically. <p>Note: There is no need to recompile any RAD application to apply this fix.</p>
QCCR1E77491	<p>A Signal 11 error is received during the SMOO process.</p>	<p>No Signal 11 error is received during the SMOO process.</p>
QCCR1E78016	<p>Trying to start multiple SM processes with the same httpPort simultaneously results in memory leak.</p>	<p>No memory leak will occur when trying to start multiple SM processes with the same httpPort simultaneously.</p>
QCCR1E78530	<p>Executing a query that does not parse results in a small memory leak.</p>	<p>This issue occurs because when the RAD parser fails to parse a query, the parser will process the query with escape chars, and then try to parse again. However, the first parse of query will not free the allocated String that contains the parsed result, which causes the memory leak to occur.</p> <p>The allocated string is now released, which eliminates the memory leak.</p>
QCCR1E78828	<p>The BSM/SM integration using the CI Alert Retrieval Service fails to parse JSON data.</p>	<p>This issue occurred when the JSON file length exceeded 32KB. The RTE code now works as expected when the JSON file length is larger than 32KB.</p>

Global ID	Problem	Solution
QCCR1E78958	System-generated queries that contains "OR (m1."NUMBER" IS NULL)" or similar a syntax are slow to respond on Oracle 11.	To avoid this issue, system-generated queries will no longer contain "OR (m1."NUMBER" IS NULL)" or similar syntax.
QCCR1E79293	When a session receives a Signal 11 error, the session hangs. Additionally, you cannot terminate the session by using the "kill" command in system status. The session continues to consume CPU.	When a session receives a Signal 11 error, the session will be terminated.
QCCR1E79400	You cannot extract data from SYSATTACHMENTS and manipulate the binary data without corrupting the data.	<p>A new JS method, setBinary, has been introduced to save the binary data to a table.</p> <p>Sample:</p> <pre>var rc; var f = new SCFile("contacts"); rc = f.doSelect('contact.name#"AARON"'); var attachmentObj = f.getAttachments(); var b = new SCFile("blob1"); b.name = attachmentObj[0].name; b.setBinary ("data",attachmentObj[0].value); rc = b.doSave();</pre> <p>See SCFile.setBinary().</p>
QCCR1E79917	Libjs.so relies on the gcc library in the RTE/RUN folder on AIX platform. Therefore, if the user environment does not have gcc installed, Service Manager cannot be started.	Service Manager can be started even if the user does not have gcc installed.
QCCR1E80243	A session terminates with a Signal 11 error, and you cannot to terminate the session by using the "kill" command in system status. Therefore, the session continues to consume CPU.	By avoiding the unnecessary access when the JavaScript Garbage Collector finalizes an iterator, the Signal 11 error no longer occurs.
QCCR1E84079	Errors occur when applying an application patch on a Service Manager production environment.	No error occurs when applying an application patch on a Service Manager production environment.
QCCR1E84106	A Signal 11 error is logged while trapped in an endless recursion in the libsm.so::pasymgetEx() function.	After a user logs out, the RTE code will no longer try to access the global symbol table after it has been freed.
QCCR1E84156	When you open, update, resolve, or close an Incident, warning message appears: Warning, indexing to NULL. The incident takes over 5 minutes to update.	This issue occurs because the old implementation of the "copycurrent" RAD function did not copy a merged file properly. This has been fixed in this solution.

Global ID	Problem	Solution
QCCR1E84496	The system navigator is not displayed after login.	Now, users can log in as expected. The system navigator is displayed correctly.

Web Tier

The following items are fixed in the current software release.

Global ID	Problem	Solution
QCCR1E48776	A list form shows fewer chart options in the web client than in the Windows client.	All column fields in the list are now shown in the "Chart by field count" and "Chart by field value" menus.
QCCR1E60097	When using characters that are treated as illegal (for example, the right-arrow character), the Web client fails with the following error message: "Error: The data %22Test"...is not legal for a JDOM character context: 0x1a is not a legal XML character."	Control characters can be saved on the Windows and Web clients without errors. Note: If a control character is entered in a single-line text field of a record, then when Service Manager loads the record, the control character displays as "&#x...;" where "..." represents a hexadecimal number. For example, the right-arrow character will display as "". However, in a multi-line text field, the control character displays exactly as it was entered when the record is loaded.
QCCR1E64004	Users get a 404 error in the Web client when they try to open or view attachments of multiple records.	Now, users can open and view attachments of multiple records in the Web client.
QCCR1E64183	There is no pop-up window to save the generated file when using Internet Explorer to generate an unload file. Note: This feature works correctly in FireFox.	The issue was resolved by changing the messages used to generate the unload file from <xml> to <div> tags, so that IE can render the messages properly. Known issue in IE7 /IE8: The generated unload file will be blocked by IE with the default settings and the following message will be shown at the top of current page: "To help protect your security, Internet Explorer blocked this site from downloading files to your computer..." To avoid this known issue, perform the following steps to apply specific setting in IE7/IE8: <ol style="list-style-type: none">1 Click Tools > Internet Options.2 Click the Security tab, and then

Global ID	Problem	Solution
		<p>click Custom level.</p> <p>3 Scroll to the Downloads section of the list, and then, under "Automatic prompting for file downloads", click Enable.</p> <p>4 Click OK, click Yes to confirm that you want to make the change, and then click OK again.</p>
QCCR1E64306	The Web client hangs when running in Firefox 3.6. For example, after you choose a problem record from a record list and mark the problem closed, the record details pane is refreshed, but the record list becomes blank. The browser hangs until you terminate the browser session and log in again.	The browser no longer hangs and the record list for a queue is displayed correctly after you update a record.
QCCR1E64758	In Contributing Knowledge, after entering text in the HTML editors on the first and second pages of the notebook, a Validation Error popup may be displayed. If this occurs, the focus is set to the second (the previously focused) page, and the HTML editor on the first page is not displayed.	The fckEditor iframe is now added to its container div correctly. As a result, the HTML editor with the text entered is displayed correctly now.
QCCR1E66592	The web client does not honor the Justification properties defined in Forms Designer.	The web client now honors the Justification properties defined in Forms Designer.
QCCR1E67759	When a Timer widget that exists on a background tab (for example, the Incident queue screen) expires, the active tab (for example, the Incident detail screen) disappears and the timer on the background tab begins to count in the opposite direction. In addition, the background tab becomes unresponsive.	The timer's data change event is now disabled when the tab is not active. Additionally, the timer now immediately submits the data change event if the user returns to this tab and the timer has expired.
QCCR1E67762	In the Web client, HTML tags that are set as field values are compiled and therefore cause the QBE list to be improperly displayed.	HTML formatted text in list columns are now treated as plain text instead of HTML elements.
QCCR1E68676	The "Count Records" feature does not work. If using Internet Explorer, a JavaScript error is displayed in the left bottom corner of the browser.	The "Count Records" feature works as expected and no JavaScript error occurs.
QCCR1E69436	At lower resolutions, an unnecessary horizontal scroll bar appears in certain forms.	<p>This issue occurred because the expected sizes of widgets were too large. Now, control of the horizontal scroll bar is set as follows:</p> <p>Note: It is assumed that the screen resolution is not lower than 1024*768.</p> <ul style="list-style-type: none"> • If the width of a detail form is smaller

Global ID	Problem	Solution
		<p>than 500px, a horizontal scroll bar displays.</p> <ul style="list-style-type: none"> • If the width of a detail form is larger than 500px, image widgets on the form will resize with the browser size. • Re-sizing of animated GIFs in Internet Explorer is not supported. • In some forms (for example, the System Status form “system.status.list.g”), you may find the text on some buttons are truncated if your monitor is set to a lower screen resolution. If so, re-design the form, and reduce the width of the list table on the right side. On the other hand, if the height of the table is too large, you may find that the horizontal scroll bar is missing; in this case you can move the vertical scroll bar to the bottom of the page so that the horizontal scroll bar appears, and you can also reduce the height of the table in Forms Designer.
QCCR1E69798	The List Builder works differently in the Web client than when used in the Windows (desktop) client. Specifically, the Web client cannot correctly save the values of List Builder.	The List Builder now works correctly in both Web client and Windows client.
QCCR1E70032	When trying to perform 'Count' in the web client with recordlist enabled and a special character contained within the first column of the QBE, the count returns “0 to 0 of 0.”	The count returns the correct number when the user clicks the Count button in the Web client.
QCCR1E70206	An error occurs when you perform a "Count Records" operation in a QBE in a Web client that is running on Internet Explorer. This issue occurs if the database is configured with a Cyrillic_General_CI_AS collation and the query contains Russian characters.	The "Count Records" feature now works as expected.
QCCR1E71421	The "Export to Excel/ Export to text" option does not work in the Web client (using Internet Explorer) when there is a marquee. The 'Your file had been exported successfully' message displays, but no file is saved and there is no dialog prompt to save or download file.	When there is a marquee in the form, the "Export to Excel/ Export to text" option now works correctly on both Internet Explorer and Firefox.
QCCR1E71677	As users open more QBE lists in the web client, the size of the "Tablexx" cookie may increase to exceed the limit.	Now, data that was previously stored in the cookie is now saved in session storage.

Global ID	Problem	Solution
QCCR1E72291	Result of the Count Records button is not correct when you click on the next button (>) button. For example, in a table of 468 records, the Count of the records may display "301 to 350 / 1931" instead of "301 to 350 / 468"	The result of the Count Records button is now displayed correctly.
QCCR1E72468	The Dynamic View Dependency for checkbox controls is evaluated incorrectly in the Web client. For example, if you set the "Selected Condition" property to a variable that evaluates to false, the checkbox is unchecked in the Windows client but checked in the Web client.	The Dynamic View Dependency for checkbox controls is evaluated correctly in the Web client.
QCCR1E72743	The Web client ignores the "Invisible" settings in the fields of the "Data policy" table.	The Web client no longer ignores the "Invisible" settings in the fields of the "Data policy" table.
QCCR1E73103	Some users are unexpectedly logged out from the Web client when the number of cookies exceeds the limit specified by Internet Explorer.	The issue is fixed by reducing the number of cookies used by the Web client.
QCCR1E73982	When trusted sign-on is enabled, the Web client uses the language specified in the operator record, instead of "lang" parameter passed in by the Ess.do url.	<p>For Web client, in WEB-INF/web.xml, a new servlet parameter, <code>acceptBrowserLang</code>, was added.</p> <p>By default, this value is true. If this value is true, the Web client will take the browser's language setting as the first priority in TSO mode. If the value is set to false, the Web client will use the language setting in the operator's profile.</p> <p>Note: If the "lang" parameter is set in the URL, it will take precedence over the <code>acceptBrowserLang</code> parameter.</p> <p>See acceptBrowserLang.</p>
QCCR1E74013	By default, the MaxFileSize value of <code>log4j.appender.R</code> is only 100K. This value should be increased.	Now by default, the maximum file size for sm web client log "sm.log" is increased to 5000K and up to 10 rolling files can be kept.
QCCR1E75369	In a low screen resolution (for example, 1024*768), some buttons in the System Status panel overlap the table on the right and appear incomplete.	<p>Buttons in the System Status panel now no longer overlap the table on the right.</p> <p>However, in a low screen resolution, the text on the button may be truncated if it is too long. To avoid this, you can re-design the System Status form and reduce the width of the table so that the text on the button can be displayed completely.</p>

Global ID	Problem	Solution
QCCR1E75391	In a Web tier form, a changed field retains the old value after the form is saved and then re-opened, and then the field is cleared and replaced by a space character.	The changed field no longer reverts to the original value when saved.
QCCR1E76036	You cannot delete data in a ComFill object by using the backspace key when the 'select only' property is enabled.	You can delete data in a ComFill object by using the backspace key when the 'select only' property is enabled.
QCCR1E76361	In Internet Explorer (IE) 7 (or the compatibility view of IE8 and IE9), after users select the "Chart by ..." menu from a QBE list and then close the Chart page to return to the QBE list, the menu shadow does not disappear and the tab page becomes unresponsive.	<p>The "Chart by ..." menu now works fine; after the menu is hidden, the shadow disappears as expected and the tab page is responsive.</p> <p>Limitation: In the QBE list, clicking a cell under the original menu shadow does not select the row; however users can select the row in either of the ways:</p> <ul style="list-style-type: none"> • Select the row by clicking a cell that was not under the menu shadow. • Show the menu again, hide the menu by clicking anywhere else, and then select the row by clicking on any cell in the row.
QCCR1E76542	The JSP compiler in some later Web application servers (e.g. Tomcat 7 as opposed to Tomcat 6), enforces types more strictly when compiling Java code. Therefore, some older JSP code cannot be compiled, and prevents the Service Manager Web tier from displaying the login page.	The SM login page can be correctly displayed after upgrading the Web application server.
QCCR1E76628	When a form is refreshed, the cursor is returned to the first tab regardless of its initial position.	Now, when the user selects a tab on the client side, the notebook state is saved and is then restored when the form is refreshed.
QCCR1E76793	If users are kicked off from the Service Manager (for example, by the inactivity timer), they cannot continue to operate in BSM 9.12.	The LW-SSO token is no longer cleared when users are kicked off from the Service Manager, so users can continue to operate in other applications with LW-SSO enabled.
QCCR1E77415	When a record contains special characters in a multi-line text field, the Web client converts the characters into their HTML code representations in Print Preview. For example, quotation marks are replaced by ", and a greater than sign (>) by >.	Print Preview can display special characters correctly.
QCCR1E77454	By default, the mask is always grey. If the mask were transparent, it would avoid the appearance of poor performance.	The default mask is now transparent. In addition, a new web.xml parameter maskMessageDelay is introduced to specify the number of seconds that should elapse

Global ID	Problem	Solution
		before the loading message on the mask is displayed. Note that if a value greater than 15 is specified for the <code>maskMessageDelay</code> parameter, the loading message displays 15 seconds later anyway if a JavaScript error caused hang issue has been detected. See maskMessageDelay .
QCCR1E78076	Records cannot be displayed by using the Find function on a read-only field in the Web tier. When this issue occurs, the user receives the following message: "No link exists for this field, find function cannot be performed."	The Web tier can find the related information when the field is read-only.
QCCR1E78176	When you set the main menu to SC style after you log in, a JavaScript error is received. Additionally, groups cannot be expanded automatically.	There is no JavaScript error in the main menu page, and the first group is expanded by default.
QCCR1E78433	The magnify function in the Web tier no longer works correctly after applying Service Manager 9.21 patch 5 Web tier.	Content in the magnify dialog can be shown now.
QCCR1E79109	Web client images are not displayed at the correct size when forms are first rendered in the Web client.	Images are rendered at the appropriate size in the Web client.
QCCR1E79840	No results are returned when using MySM with non-English characters defined in a RAD Query.	The correct records are returned.
QCCR1E80228	Users cannot see the graphical relations about CI's in the Service Manager Web client when the web application server's context path is of a multi-level structure, such as <code>/sm/sm921</code> . Instead, the graph is always empty.	Users can now see the graphical relations about CI's in the Service Manager Web client. Known issue: If the web application server's context path is of a multi-level structure, such as <code>/sm/sm921</code> , MySM pages cannot be displayed and an error occurs. To resolve this issue, perform the steps below to update the records in the "uimcompdefinitions" table: <ol style="list-style-type: none"> 1 In Database Manager, type "uimcompdefinitions" in the Table field, and click Search. 2 Click Search to retrieve a list of records in the "uimcompdefinitions" table. 3 For all the records, add the additional context path as a prefix to the "View Url" and "Filter Url" fields. For example, if the custom context path is <code>/sm/sm921</code>

Global ID	Problem	Solution
		<p>and the value of the "View Url" field is something like "/uimComponent.jsp?ctx=chart&...", change the value to "/sm921/uimComponent.jsp?ctx=chart&...".</p> <p>4 Save the records.</p> <p>5 Log off Service Manager and log back in for the changes to take effect.</p>
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.

Windows Client

The following item (identified by reference number) is fixed in the current software release.

Global ID	Problem	Solution
QCCR1E57462	Cannot mass update incidents, as an "Unrecoverable Error refreshing screen" occurred in the Windows client.	Mass Update and Mass Close operations can be executed without triggering the exception now.
QCCR1E73271	The display event (record lock) fires properly on the first update of a record but then fails on subsequent updates to the same displayed record. When the user enters additional updates, a message is received that indicates the record is currently locked by another user and the current changes are lost.	Reset the flag to initial value when user updates the record.
QCCR1E73687	When scrolling through documents in the Knowledge Management Pending Documents Queue, the Pending Documents list freezes after you select documents several times. The selected document does not load, and the Pending Documents list remains frozen indefinitely. The issue occurs when Record List is turned on. Additionally, an error message appears when you click the Next or Previous buttons.	The Pending Documents list no longer freezes after you select documents several times, and the selected document is loaded correctly. When you click the Next or Previous button, no error messages appear.
QCCR1E73743	When a groupby clause is specified, an SM process may attempt to fetch all the records from the database.	<p>When a groupby clause is used, only the last group is retrieved.</p> <p>Note: All rows are fetched only when no groupby clause is specified.</p>
QCCR1E76628	When a form is refreshed, the cursor is returned to the first tab regardless of its	Now, when the user selects a tab on the client side, the notebook state is saved and is then

Global ID	Problem	Solution
	initial position.	restored when the form is refreshed.

Applications

The following items are fixed in the current software release.

Global ID	Problem	Solution
QCCR1E71099	Users need to display Value Lists instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.	Value Lists can be displayed instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns. To achieve this, it requires both the current patch release and the corresponding unload file. For the unload file, see New Application Updates in the Current Patch .

Documentation

The following items are fixed in the current software release.

Global ID	Problem	Solution
QCCR1E76433	Particular error pages are only displayed in the WebSphere log but not in the browser. For example, the "The session is busy, please try again later" message that occurs when the lockWaitTimeOut setting is exceeded. This is caused by a WebSphere problem ("An error code always returns even though there is a matching error exception type defined in web.xml.")	Created knowledge article KM1449176 (http://support.openview.hp.com/selfsolve/document/KM1449176), which provides the steps to add a Web container custom property setting when deploying the Web tier on WebSphere 6 or later.

Global ID	Problem	Solution
QCCR1E78706	<p>After Service Manager (SM) was last recycled (using SM 9.21 patch 5 RTE), sometimes accessing an SM WSDL can cause a signal 11 error. Also, SM is not processing any web services transactions.</p> <p>This is because of an Oracle bug ("Multi-Threaded OCI Client Dumps Core after Reconnecting To Database"), which exists on Oracle 11.1 and above and is triggered when ADR tracing is enabled. Once this bug is triggered, the SM server will crash every time when setting up a connection to the Oracle Server.</p>	<p>Use the following information to supplement the <i>HP Service Manager Installation Guide</i> when setting up connectivity to your Oracle database:</p> <p>For Oracle 11.1 or above only, disable ADR tracing by turning off the <code>diag_adr_enabled</code> parameter in the <code>sqlnet.ora</code> file:</p> <pre>diag_adr_enabled=OFF</pre> <p>(By default, ADR tracing is enabled.)</p> <p>Note: An Oracle bug ("Multi Threaded OCI Client Dumps Core After Reconnecting To Database") is triggered when ADR tracing is enabled. Once this bug is triggered, the Service Manager server will crash every time when setting up a connection to the Oracle server.</p>

Known Problems, Limitations, and Workarounds

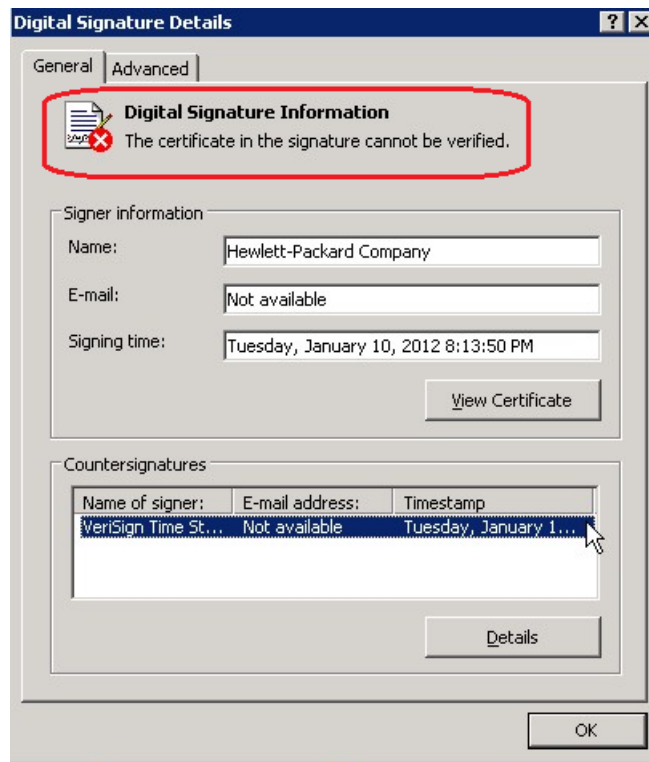
This software release has the following known issues.

Global ID	Known Issue	Workaround
QCCR1E88002	The "serverHost=null&serverPort=null" parameters are included in the Web tier URL when clicking the "Login again" link. Login fails with the error message displayed on the Login page: Service Manager Server is currently not available, please try again later.	Remove "serverHost=null&serverPort=null" in the URL manually so that you can log in successfully.

Installation Notes

Digital Signature Notice

HP signs Windows executable files with a digital signature. 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

Important 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/hpsoftwaresupport

The Web Tier update consists of a compressed file, `sm9.21.551-P6_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 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.

To install the Web Tier update:

- 1 Back up your `web.xml` file, splash screen, style sheets, and any other customizations you made, including your `webtier-9.21.war (.ear)` file.
- 2 Delete or uninstall the existing `webtier-9.21.war (.ear)` file.
- 3 Deploy the new `webtier-9.21.war (.ear)` file by following the instructions in the Service Manager Installation Guide.
- 4 Replace the new versions of any files you customized with your customized versions.
- 5 Make any new customizations necessary for your deployment.
Note: Be sure to set the `securelogin` and `sslport` parameters.
- 6 Restart the Application server.

Windows Client Installation

The Windows client update consists of a compressed file, `sm9.21.551-P6_Windows_Client.zip`, which contains `setup.exe`.

To install the Windows client update:

- 1 Stop the Service Manager Windows client.
- 2 Uninstall the Service Manager Windows client. (Your connection and personalized settings are retained.)
- 3 Run `setup.exe` and install the client by following the instructions in the Service Manager Installation guide and Release Notes for your version.
- 4 Check the version in **Help > About Service Manager Client**.
The client should be Release: 9.21.551.

Server Installation

The server update for your operating system (OS) consists of a compressed file, `sm9.21.551-P6_<OS>.zip` (or `.tar`), which contains the Service Manager server files. These files add to or replace the files in the `[SM Root]\([SM Root]\/) RUN, irlang, legacyintegration, and platform_unloads` directories.

Important: This server update includes an upgrade of the embedded Tomcat to version 6.0.35.

To install the Server update:

- 1 Stop all Service Manager clients.
- 2 Stop the Service Manager server.
- 3 Make a backup of the **RUN** directory.

- 4 Delete the **RUN/tomcat** directory. Tomcat in this directory will be upgraded to version 6.0.35 when you extract the server files later.
- 5 Delete the **RUN/lib** directory.
- 6 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.
- 7 For UNIX servers, set the file permissions for all Service Manager files to 755.
- 8 If you have made any customizations or changes to the original **RUN/tomcat** folder, restore them in the new **RUN/tomcat** folder.
- 9 Make sure the server is stopped, and run the "sm -unlockdatabase" command.

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.

Note: This step is required the first time you upgrade to 9.21P6; it is also required whenever you change the server's IP address after the upgrade.
- 10 Restart the Service Manager server.
- 11 Restart the Service Manager clients.
- 12 Check the version in **Help > About Service Manager Server**.

The server should be Release: 9.21.551.

Application Unload Installation

The application consists of the unload files that come with the server updates. When you extract sm9.21.551-P6_<OS>.zip (or .tar), it will add the new files to your [SM Root]\platform_unloads ([SM Root]/platform_unloads) directory.

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 this suffix is omitted, the unload file is then intended for all applications versions compatible with the server version. For example, for Service Manager server 9.21, the compatible applications versions are 7.11 and 9.20.

New Application Updates in the Current Patch

There are following new application updates are included in this release:

Unload file	Used for applications version(s)	Description
QCCR1E71099_SM921P6_SM711.unl	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	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.

Application Updates in Previous Patches

Important Note: The unload files must be loaded in order of patch. That is, all Patch 1 unload files must be loaded before any Patch 2 unload file is loaded and so on for Patch 3, Patch 4, etc... However, the order in which you load the unload files for Patch 1 does not matter.

Additional application updates have been included with this cumulative release. If you have not already applied them for a previous patch, you should also apply the unload files that are used for your applications version (see the following table). For more details about these applications updates, see the Release Notes for those patches, also included with the release.

Unload file	Introduced in 9.21 patch	Used for applications version(s)	Description
QCCR1E55715_SM921p1.unl	P1	7.11 and 9.20	Includes application changes to reduce database I/O on login.
QCCR1E57767_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.

Unload file	Introduced in 9.21 patch	Used for applications version(s)	Description
QCCR1E49721_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.
QCCR1E56678_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.
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.

To load an unload file:

- 1 Make sure the Windows client is configured for server-side load/unload.
 - a) From the Windows client, go to **Window > Preference > 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 options menu and select **Import/Load**.
- 4 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.

Note: You can view the contents of an unload file before importing it by clicking **List Contents**.

- 5 Click **Load FG**.

ODBC Driver Update Installation

The ODBC Driver update consists of the sm9.21.551-P6_ODBC.zip file, which contains the following updated files:

- Scodbc32.dll
- sci18n.dll
- sctl32.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.

Back-out Instructions

If you want to restore your Service Manager system to its original state after installing Service Manager 9.21, follow these guidelines.

Server

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

To roll back your server to its original state, remove the existing server installation folder and copy the old one back.

Applications

When loading an unload file

Before loading an unload file, perform the following steps to make a backup of the files to be modified by the unload file:

- 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.
- 3 Go to **Tailoring > RAD Editor**, search for the files you got in step 2, and click **More > Export/Unload**.
- 4 In the popup window, specify your backup upload file path/name, and click **Unload Appl**.

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

When applying an application patch

Before applying an application patch, make a backup of your database. To roll back your application changes, restore your database to the backup.

Web Tier

Before deploying the new web tier, back up your `web.xml` file, `application-context.xml`, splash screen, style sheets, and any other customizations you made, including your `webtier-9.21.war` (`webtier-ear-9.21.ear`) file.

To roll back to the old web tier:

- 1 Delete or uninstall the existing web tier.
- 2 Redeploy the old web tier.
- 3 Restore your old customizations.

Windows Client

You can only uninstall the new Windows client, and then reinstall the old one.

Addition to the Documentation

The following information supports updates included in this patch.

- [Deploy the Service Manager Web Tier on WebSphere 8.0](#)
- [Deploy the Service Manager Web Tier on JBoss 5.1](#)
- [JavaScript global method: doHTTPRequest](#)

Deploy the Service Manager Web Tier on WebSphere 8.0

WebSphere 8.0 is supported in this release. To deploy the web tier on WAS 8.0, perform the following steps.

Note: The “x.xx” in the steps represents the Service Manager version, that is, 9.21.

- 1 Copy or save the webtier-x.xx.ear file onto your local system.
- 2 Update the webtier-x.xx.ear file by modifying the web.xml file contained in the webtier-x.xx.war file (which is packaged in the ear file). At a minimum, you need to set four parameters in the web.xml file: serverHost, serverPort, secureLogin, and sslPort.
Note: By default, the HTTPS port used by IBM WebSphere is 9443, which is different from the default sslPort (8443) defined in the web.xml file. Be sure to either change the HTTPS port in IBM WebSphere or modify the sslPort in the web.xml file to make them consistent.
- 3 Re-archive the files in the ear file. Be sure to keep the original filenames and folder structure.
- 4 Log on to the administration console of the WebSphere 8.0 Application Server with system privileges.
- 5 Click **Applications > New Application**, and then select **New Enterprise Application**.
- 6 Select **Local file system** and browse to your updated webtier-x.xx.ear file.
- 7 Click **Next**. The file uploading starts. This may take quite a while.
- 8 Click **Next** on each screen to accept the default settings until you reach the final step, and then click **Finish**. The installation of the web tier ear file begins. Wait until the installation completes.
- 9 Click **Save** to save your configurations.
- 10 Go to **Applications > Application Types > WebSphere enterprise applications > HP Service Manager x.xx Web > Class loading and update detection**, and make the following selections:
 - In the "Class loader order" section, select **Classes loaded with local class loader first (parent last)**.
 - In the "WAR class loader policy" section, select **Single class loader for application**.
- 11 Go to **Applications > Application Types > WebSphere enterprise applications > HP Service Manager x.xx Web > Manage Modules**, and do the following:
 - a Click **HP Service Manager** in the Module column.
 - b In the "Class loader order" section, select **Classes loaded with local class loader first (parent last)**.
- 12 Click **Save** to save your local configuration changes.
- 13 Go to **Applications > Application Types > WebSphere enterprise applications**, and start the “**HP Service Manager x.xx Web**” application.
- 14 When the application is successfully started, you can browse to the web tier login URL to launch the web client: http://<WAS_server_hostname>:<port>/webtier-x.xx/index.do

Deploy the Service Manager Web Tier on JBoss 5.1

The following example describes how to deploy the web tier .war file or .ear file on JBoss 5.1.

To deploy using the web tier .war file:

- 1 Install JDK 1.5x from the Oracle web site.
- 2 Set the JAVA_HOME environment variable to the location of the JDK 1.5x version you installed in step 1.
- 3 Download the JBoss binary version from the JBoss website.
- 4 Extract the JBoss package to a folder.
- 5 Add the JBOSS_HOME environment variable and set it to the location of the path above.
- 6 Before deploying the web tier .war file, extract the war file into a temporary folder.
- 7 Make necessary changes to the web.xml. For example, set the following parameters: secureLogin, sslPort, serverHost, and serverPort.
- 8 Zip the extracted .war file and rename it back to .war file.
- 9 Copy the modified .war file to: %JBOSS_HOME%\server\default\deploy.
- 10 Start JBoss manually if you did not set JBoss as a service from %JBOSS_HOME%\bin (by clicking run.bat).

Note: To stop JBoss manually, navigate to the %JBOSS_HOME%\bin directory and issue the **shutdown -S** command.

- 11 Launch the web client URL to test the connection.

Note: By default, JBoss listens on port 8080. If this port is already in use on your machine, change the HTTP Connector port in the JBoss server.xml file and restart the JBoss application server.

Example: <http://localhost:8080/webtier-9.21/index.do>

To deploy using the web tier .ear file:

- 1 Extract the .ear file to a temporary folder.
- 2 In that folder, modify the web.xml file in the .war file as described above.
- 3 Delete the endorsed directory.
- 4 Zip the extracted .ear file and rename it back to the .ear file.
- 5 Copy the modified .ear file to the following directory: %JBOSS_HOME%\server\default\deploy.
- 6 Start JBoss manually if you did not set JBoss as a service from %JBOSS_HOME%\bin (by clicking run.bat).

Note: To stop JBoss manually, navigate to the %JBOSS_HOME%\bin directory and issue the **shutdown -S** command.

- 7 Launch the web client URL to test the connection.

Note: By default, JBoss listens on port 8080. If this port is already in use on the JBoss application server host machine, change the HTTP Connector port in the JBoss server.xml file and restart the JBoss application server.

Example: <http://localhost:8080/webtier-9.21/index.do>

Note: When deploying Service Manager web tier on JBoss 5.1.x on the AIX platform, if exceptions like “*java.lang.ClassNotFoundException: com.sun.org.apache.xerces.internal.dom.DocumentImpl*” occur, you need to manually copy two jar files (jaxp-api-1.4.3.jar and jaxp-ri-1.4.3.jar) into the %JBOSS_HOME%/lib/endorsed directory. These two jar files can be found under the ./endorsed directory in the web tier .ear file.

JavaScript global method: doHTTPRequest

The following is an additional note for the JavaScript global method doHTTPRequest, which sends an HTTP request to a remote server.

Note: If the charset is not defined in the “Content-Type” header in the parameter “Headers”, the charset for the message body will be UTF-8 by default.

For more information about the doHTTPRequest parameter, see Service Manager help.

Verified Environments

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

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.

Support

You can visit the HP Software support web site at:

www.hp.com/go/hpsupport

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

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

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to the following URL:

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

To register for an HP Passport ID, go to the following URL:

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

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