

# HP Service Manager

For the the supported Windows and Unix systems

Software Version: 9.32

## Release Notes

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## Introduction to Service Manager 9.32

Service Manager (SM) 9.32 has been designed to improve overall product quality, as well as add significant new internal functionality and end-user facing features.

Starting with end-user features, in this release both the Service Request Catalog and Mobility have been extended to allow you to better customize the user experience to match your business processes. In addition, end users will appreciate the numerous usability enhancements in the web client and find that navigating the documentation has been vastly improved as well.

As an administrator you can now interact with Service Manger through a RESTful API, which makes integrating with Service Manager easier than ever before. Additionally, you can improve Service Manager reliability by replacing the SM Software Load Balancer with an F5 Hardware Load Balancer. There is also a new tool called HP Service Manager Doctor (“SM Doctor”) built-in to Service Manager to aid in troubleshooting product issues. Further, Service Manager now supports Common Access Card Sign-On, FIPS compliance, and use of the IPv6 protocol for network communication. Finally, a new Survey Integration tool allows you to reach out to your users and customers like never before.

To get a better idea of these features, we invite you to watch the [Service Manager 9.32 New Features Overview](#) video on the HP Live Network.

And last but not least, SM 9.32 continues the trend over the last 18 months of improving product quality. The majority of the backlog of customer-reported important defects have now been fixed. We still need to make continuous effort in improving quality, however, based on the customer feedback we have received, our focus going forward is on adding new functionality. New functionality does not only happen in the minor-minor patch releases. Additional Service Manager content is released on the HP Live Network. Be sure to watch for new optional features!

As always, we encourage you to actively participate in making Service Manager better. Please follow us on Twitter at [@HPITSM](#), or on [our blog](#).

Sincerely,

The SM Product Delivery Team



# What's New in This Release

This section describes important changes in this release. The following table lists the new features in this release and the required versions of components (prerequisites) for using them.

Feature	Prerequisites
<a href="#">Mobility Client</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications, or SM9.30/9.31 applications + unload files</li></ul>
<a href="#">Service Request Catalog</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li></ul>
<a href="#">RESTful API Framework</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li></ul>
<a href="#">Support of F5 Hardware Load Balancers</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 Windows/web client</li></ul>
<a href="#">Cross-Table Join Query Improvements</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.30, 9.31 or 9.32 applications</li><li>• SM9.32 Windows/web clients</li></ul>
<a href="#">Support of Primary Keys and Not Null Constraints</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 Windows/web client</li></ul>
<a href="#">IPv4/IPv6 Dual Network Support</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 clients (Windows, web, Mobility, and SRC)</li></ul>
<a href="#">Common Access Card (CAC) Sign-On</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 web client</li></ul>

Feature	Prerequisites
<a href="#">FIPS 140-2 Compliance</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 clients (Windows, web, Mobility, and SRC)</li></ul>
<a href="#">HTML Email Solution</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 Windows/web client</li></ul>
<a href="#">Survey Integration Solution</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 Windows/web client</li></ul>
<a href="#">Service Manager Doctor (SM Doctor)</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li></ul>
<a href="#">Enhanced Inactivity Timer Mechanism</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 web client</li></ul>
<a href="#">Updated Web Tier Directory Structure</a>	<ul style="list-style-type: none"><li>• SM9.32 web client</li></ul>
<a href="#">Usability Improvements</a>	<ul style="list-style-type: none"><li>• SM9.32 server</li><li>• SM9.32 applications</li><li>• SM9.32 Windows/web client</li></ul>

## Mobility Client

The Service Manager 9.32 Mobility client (also referred to as the "Mobile Applications client" in the Service Manager documentation) offers the following features:

- **Broad Smartphone Support**

The Mobility client adds support for iOS, Android, and BlackBerry mobile operating systems, with a modern flat-style UI.

- **Additional Language Support**

Unlike previous versions, the SM9.32 Mobility client supports all languages that the Service Manager (SM) server supports, except for two right-to-left display languages, Arabic and Hebrew. The Mobility client directly retrieves the list of login languages from the SM server, without the need to configure supported languages. See "[Local Language Support](#)" on page 227.

- **Increased Load Capacity**

The maximum allowed number of concurrent users has been increased significantly. The Mobility client now supports up to 1000 concurrent users.

- **Support of More Approval Types**

The SM9.32 Mobility client supports approvals of the Service Desk and Change Management modules:

- A Service Desk Agent can approve or deny an interaction request submitted from Service Desk.
- A Service Request Catalog Approver can approve or deny an interaction request submitted from Service Catalog.
- A Change Approver can approve, deny or retract a Change request.

- **Robust Tailoring Capability**

Tailoring is not possible in the SM9.30 or SM9.31 Mobility client. The SM9.32 Mobility client provides the following tailoring options:

- Add, rearrange, or remove fields on an out-of-the-box (OOB) Mobile Applications form
- Add existing or custom Service Manager views to the Mobility client user interface (UI)
- Create Mobile Applications forms for added views
- Customize action bar options in the Mobility client UI
- Configure a prefix for a record type that is used for quick search

In addition, the Mobile Applications now supports 15 form controls.

- **Quick Search**

The SM9.32 Mobility client adds a quick search functionality. Users now can immediately locate a record by entering its record ID (including the ID prefix) in a search box.

- **Support of SSL, TSO, and LW-SSO**

- Support SSL (Secure Sockets Layer) to protect communications between Mobile Applications and the Service Manager server.
- Support Trusted Sign-On (TSO) and Lightweight Single Sign-On (LW-SSO):
  - By enabling LWSSO, SM is able to authenticate a user with credentials retrieved from another LW-SSO-enabled product without the need to enter a username and password manually.
  - By enabling TSO, similar to LW-SSO, users can access the Mobility client with valid credentials directly. For example, users can log in to an enterprise portal first, and the portal will pass the authentication information to SM for TSO.

- **IPv6 Support and Federal Information Processing Standards (FIPS) Compliance**

The Mobility client now offers IPv6 support and is FIPS 140-2 compliant.

For details, see the *Service Manager 9.32 Mobile Applications User Guide*.

## Service Request Catalog (SRC)

SRC 9.32 provides the following new features.

- **Rebranding**

SRC is now re-branded to match the version of Service Manager with which SRC is released. The previous release of SRC was numbered version 1.40, and was released together with Service Manager 9.31. This release is now numbered the same as the Service Manager version with which it is released, 9.32.

- **Recurring Costs**

Recurring Costs are now clearly identified in the costs area when you select an item. The cost area displays the base cost and then lists any recurring costs for each time period (for example, +10 USD/month). In addition, recurring costs for an item can now be highlighted by a price tag icon in the Pending Approvals window of your Request Inbox. Whether this icon appears is configurable by the system administrator.

- **Dynamic user options**

Administrators can now configure items in the Service Catalog in Service Manager to present options and fields dynamically to users. This feature can be used to gather additional information from end users that is specific to their request and can also reduce the size of the Service Catalog by allowing items to be configured dynamically (therefore, administrators do not need to specify multiple variants of the same item). As such, end users may see additional fields or options appear as they make their requests.

- **User Interface Customization**

In this version, Service Request Catalog extends its customizability features by allowing administrators to tailor virtually every label in Service Request Catalog. In addition, administrators can customize the default SRC checkout panels. Together, these additions provide an almost limitless combinations for administrators to design the SRC UI.

- **Additional Language Support**

This version of Service Request Catalog adds Hebrew to the list of translated languages in which SRC is deployed. In addition, Right-to-Left support was fixed so that Right-to-Left languages like Hebrew and Arabic behave as expected. Also, because of the extended customizability of the user interface, it is now possible for an organization to completely translate all strings in the SRC UI, which effectively enables an organization to self-translate SRC to whatever languages they wish.

- **Enhanced Look-up Fields**

In this release of Service Request Catalog, when you make a request and select a value from a look-up field, you can select the data from a multi-column list (a QBE list in Service Manager) that displays all information for that record. In earlier versions of Service Request Catalog, not all of this data was presented. For example, a look-up for a contact name would show only the first and last names that matched your search. However, this was problematic in large organizations, where two individuals could share the same name, or the organizations business practice required you to identify the user by a unique identifier, such as employee ID. Now, you can see all information in a table, displaying the users first and last name, their department and employee ID, or whatever else the administrator has configured for that record. Note that, after you select a record, all record information is included in the request, even though only part of it may be shown in the SRC UI.

- **Upgrade Tool**

This release of Service Request Catalog introduces a new upgrade tool. The Upgrade Tool allows you to automatically migrate your customizations from your deployed SRC 1.4 .war to SRC 9.32.

- **Support for IPv6, Common Access Cards (CAC), and Federal Information Processing Standards (FIPS)**

Together with Service Manager 9.32, Service Request Catalog offers support for IPv6, Common Access Cards (CAC), and Federal Information Processing Standards (FIPS). For more information on these features, see the Service Manager documentation in addition to the Service Request Catalog documentation.

For more information, see the following documents:

- *Service Request Catalog 9.32 Interactive Installation Guide*
- *Service Request Catalog 9.32 Customization Guide*

## RESTful API Framework

Service Manager 9.32 now supports a RESTful API framework, which supports lightweight queries and operations on Service Manager data through a single Uniform Resource Identifier (URI). The RESTful API framework is easier to use than the Service Manager traditional SOAP API.

The following query functions are provided in this RESTful API framework:

- Basic queries for elements/collections
- Service Manager native query language
- Sort and pagination in queries
- Three query views: Summary, Condense, and Expand

By using the RESTful API Framework, you can also create an application that can perform actions, including intrinsic operations such as CRUD (Create, Read, Update and Delete) and extrinsic operations such as SM specific actions (such as Close, and Resolve), on Service Manager objects.

**Note:** The existing SOAP-based web services available in previous version are still available in Service Manager 9.32.

For more information, see the *Service Manager 9.32 Web Services Guide*.

## Support of F5 Hardware Load Balancers

Service Manager 9.32 provides the ability to replace the Service Manager software load balancer with an F5 hardware load balancer (F5 LB).

**Note:** In this section, a web server refers to Apache or IIS, a web application server refers to Tomcat, WebSphere, JBoss, or WebLogic, and an SM application server refers to a server hosting the SM RTE, which is comprised primarily of SM servlets.

### Newly Supported Scenario

The following item describes this newly supported scenario:

- Web server (s) + Web application servers <-> F5 LB <-> SM application servers

**Note:** Support for this scenario is limited to devices from F5.

### Previously Supported Scenarios

Prior to the 9.32 release, there were a number of supported scenarios where hardware load balancers (HWLB), such as F5, could be used with Service Manager:

- Browsers <-> F5 LB <-> Web server(s) + Web application servers
- Browsers <-> F5 LB <-> Web application servers (not recommended if requires TSO/SSO)
- Web Services clients <-> F5 LB <-> SM application servers

**Note:** These three scenarios are still supported with the 9.32 release and are unchanged.

**Note:** For instructions on configuring hardware load balancing between browsers and web servers/web application servers, see the specific hardware load balancer documentation and web server/web application server documentation.

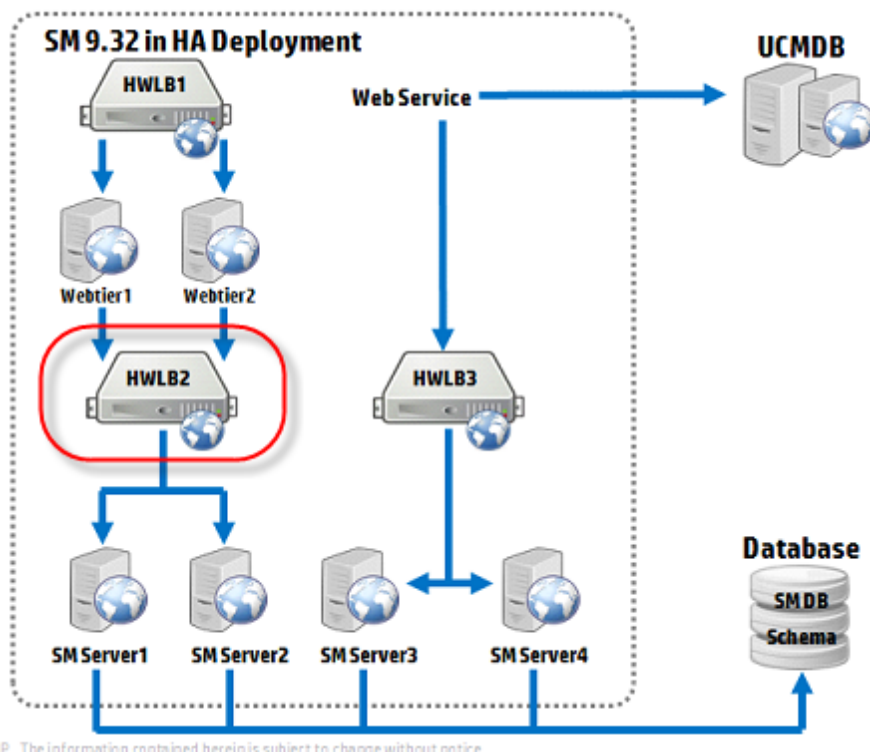
### Best Practice

HP has observed that customers may choose to omit the web server component in their implementations. Because this is a viable configuration and the exact reasons for choosing such a configuration vary, HP recommends customers adhere to the best practice of implementing the SM Web Tier in a standard web server + Web application server configuration. That is, use a combination of products such as Apache HTTP Server + Apache Tomcat to host the SM Web Tier.

This is particularly important when there is a requirement to implement SSO/TSO functionality in your environment.

### Sample Architecture Diagram

The following architecture diagram depicts an environment in which an F5 load balancer is implemented in all supported load balancing scenarios. Note that this diagram does not show hardware load balancing between browsers and web servers, and the part highlighted in red indicates the newly supported scenario.



For more information, see the topics in the following section in the online help:

- *System Administration > Configuring installation and setup options > Server implementation options > Hardware load balancers*

## Server Refactoring

Service Manager 9.32 has the following refactoring of the Service Manager server to achieve better performance and optimized functionality.

## Cross-Table Join Query Improvements

The performance when running a join across database tables has been vastly improved as compared to previous releases of Service Manager prior to version 9.32. Previously, a query



running across two tables was performed in memory by Service Manager. For data sets that contain millions of record, this process could be extremely time consuming. Now, the RDBMS handles the initial join operation and returns a subset of results to Service Manager.

### **Benefits**

The new mechanism has the following benefits:

- **Improved Performance**

Customers may have several million tickets and in addition high volumes of master data, for example, contacts (>350,000), departments (>50,000), locations (>10,000), and subscriptions (>500,000). Usually inboxes should display data from several tables, where the inbox query runs against several queries. Being able to do cross-table queries in SM makes the tool unrecognizably faster because so many things require one iteration, and it allows a much more normalized database design.

- **Reduced Maintenance Effort**

The cross-table queries are required to avoid duplication of data within Service Manager. Having this functionality now makes duplication of data unnecessary; this in the end reduces the maintenance effort, because data modifications (for example, in master data) are easier to perform.

- **Simplification**

Running a direct SQL cross-table query provides a simple way of returning a list of ticket numbers that meet complex cross-table where clauses. It can also help to exactly align (remove doubt) for certain SQL queries across systems (SM, reporting, sql connections and extracts directly from the database) for a single version of the truth.

For more information, see the topics in the following section in the online help:

- *System Administration > Database Administration > Data persistence > Database performance tuning > Cross-table join query improvements*

### **Limitations**

Due to the fact that the RDBMS now performs this work, a number of limitations have been imposed. For more information, see the following topic in the online help:

- *Limitations on cross-table join queries*

## **Support of Primary Keys and Not Null Constraints**

Prior to version 9.32, Service Manager did not support primary keys or Not Null constraints in the

tables contained within the RDBMS. While the Service Manager logical representations did include support for unique keys with an Not Null constraint, this support was managed entirely within Service Manager and not in the RDBMS. Because of this lack of functionality, SQL queries generated by Service Manager added an `Is Null` condition in the WHERE clause. This mechanism resulted in poor performance when considering the speed advantages of leveraging the inherent integrity of the database.

As of version 9.32, Service Manager supports primary keys and "Not Null" constraints on the unique keys.

### Primary Key Mode

By default, primary key mode is disabled. To use primary keys, you must enable primary key mode in all SM server nodes. This can be done by configuring the parameter `primary_key_mode:1` in the `sm.ini` file.

**Caution:** For upgrades from Service Manager 7.11, 9.30, or 9.31, make sure the primary key mode is disabled before upgrading from the Service Manager 7.11, 9.30, or 9.31 applications; for new installations of Service Manager, make sure that primary key mode is disabled before loading the out-of-the-box application data.

**Caution:** If you plan to apply Process Designer Content Pack 9.30.2 or 9.30.3 on top of the SM9.32 applications, make sure primary key mode is disabled before applying the content pack; otherwise the content pack installation will fail.

HP does not recommend enabling primary key mode unless you have already Process Designer Change Management and Help Desk implemented.

You can also see if primary key mode is enabled in Service Manager by running the following script in Script Library:

```
var retValue;  
retValue = system.functions.sysinfo_get ("PKMode" );  
print ( "Current value of PKMode is " + retValue );
```

This will return one of the following messages:

- "Current value of PKMode is true", which indicates primary key mode is enabled.
- "Current value of PKMode is false", which indicates primary key mode is disabled.

For more information, see the following topic in the online help:

- *Parameter: primary\_key\_mode*

### Unique Key Conversion and Modification

The `sm -system_addconstraint` server command adds a Not Null constraint to the first unique key or converts the first unique key to a primary key for the specified database tables, depending on usage.

**Caution:** An attempt to revert from a primary key to a unique key may cause unpredictable results.

**Caution:** HP does not recommend running the command without any tables specified; otherwise the system will try to add primary keys or "Not Null" constraints to all tables. Instead, you should run the command on demand. For example, for the out-of-the-box system, HP recommends that you run the following command to improve system performance:

```
sm -system_
addconstraint:probsummary,incidents,srelation,cm3r,cm3t,schedule,device,ope
rator,contacts,cirelationship:0
```

For more information, see the following topics in the online help:

- *Parameter: system\_addconstraint*
- *Modify keys: Convert the first unique key to primary key*
- *Modify keys: Add "Not Null" constraints to the first unique key in a table*

### Limitations and Considerations

When using this feature, be aware of a number of limitations and considerations. For more information, see the following topic in the online help:

- *Working with primary keys*

## IPv4/IPv6 Dual Network Support

As of version 9.32, Service Manager supports IPv4/IPv6 as a dual stack network. This addresses the needs of being able to run Service Manager infrastructure in an organization where both IPv4 and IPv6 are enabled in parallel.

Most Service Manager components support IPv6 from Service Manager 9.32, except for the following legacy features which still support only IPv4:

- HP Service Manager Open Database Connectivity (ODBC) Driver
- HP ServiceCenter Automate (SCAuto) Software Development Kit (SDK)

**Note:** In a dual stack network, the required IPv4 configuration is the same as before.

For more information about supported IPv6 address formats and required IPv6 configuration for the Service Manager server, clients (Windows, web, SRC, and Mobility), integrations (KM search engine, LDAP, and SMTP), see the topics in the following section in the online help:

- *System Administration > Configuring installation and setup options > IPv6 overview*

## Common Access Card (CAC) Sign-On

As of version 9.32, the Service Manager web client supports Common Access Card (CAC) sign-on. CAC sign-on enables users to log in to the web client directly with a smart card that stores a valid user certificate. Users only need to enter a card PIN, instead of a user name and password.

During CAC sign-on, Service Manager web tier gets access to the user authentication public certificate and its counterpart private key through the underlying client crypto architecture. In other words, Service Manager does not directly communicate with the card reader. Technically, Service Manager supports any smart cards that store an X.509 user authentication certificate and are designed to work with smart card middleware (such as ActivClient) that is installed on the user's computer.

**Note:**

- Once enabled, CAC sign-on is enforced for all web client users. Standard login using a username and password is no longer possible.
- The Windows client does not support CAC sign-on. It supports the same sign-on modes as in previous versions.
- Once CAC sign-on is enabled on the SM server, two-way SSL must be configured between the SM server and all clients (Windows, web, Mobility, SRC, and web service integrations), and between the web server or web application server and user's browser.

For more information, see the following help topics:

- *Common Access Card (CAC) sign-on*

- *Requirements for CAC sign-on*
- *Example: enabling CAC sign-on*

## FIPS 140-2 Compliance

As of version 9.32, Service Manager is FIPS 140-2 (level 1) compliant. FIPS (Federal Information Processing Standards) are a set of standards that describe document processing, encryption algorithms and other information technology standards. The FIPS 140-2 standard, “Security Requirements for Cryptographic Modules,” specifies the security requirements for cryptographic modules utilized within a security system that protects sensitive or valuable data.

### About FIPS Mode

Service Manager can run in either of these modes: FIPS mode (FIPS 140-2 compliant mode), and standard mode (non-FIPS mode). The FIPS compliance is achieved through the use of FIPS 140-2 validated cryptographic modules (the OpenSSL FIPS Object Module in the server, and the RSA BSAFE Crypto-J module in the Windows and web clients).

**Note:** By default, Service Manager runs in non-FIPS mode, and uses the same data encryption algorithm (64-bit DES) as in previous versions.

- FIPS mode requires the database to upgrade to the 256-bit AES data encryption algorithm. You need to run the `sm -upgradeencralg` command to do so. This upgrade is irreversible and therefore you need to back up your database before the upgrade.
- In a horizontal scaling environment, all server nodes must run in the same mode (either FIPS mode or non-FIPS mode).
- Once you have enabled FIPS mode in the server (by specifying `fipsmode:1` in `sm.ini`), you must configure all clients (Windows, web, Mobility and SRC) to run in FIPS mode, otherwise they cannot connect to the server.
- The Lightweight Single Sign-On (LW-SSO) framework is not FIPS compliant; however, LW-SSO still works well when Service Manager has FIPS mode enabled.

### Warning on AES Algorithm Upgrade

Enabling FIPS mode requires the 256-bit AES encryption algorithm. This means a greater field length is required to save the encrypted data. This algorithm change will affect all encrypted fields including your custom ones. To ensure a smooth upgrade to the AES algorithm, before the AES

upgrade, you must double-check the lengths of all encrypted fields and ensure the lengths are enough to save AES-256 encrypted data.

Use the following formula to determine a safe length for an AES encrypted field (in bytes):

$$\text{Safe\_Length} = 32 + 2 * \text{source\_string\_length}$$

Where: `source_string_length` is the length of the source string (for example, if you enter an 8-character password, the source string length is 8 bytes). The safe length is no less than the actual length of the encrypted field, which is several times the length of 32 bytes.

For example, if you have an encrypted field with a source string of 10 bytes, then the safe length for the AES-256 encryption will be  $32 + 2 * 10 = 52$  bytes. You can add a buffer length based on your business needs, and then increase the field length properly.

### Sample Script to Scan Your Encrypted Fields

You can find a sample script to get all encrypted fields in your system in this HP knowledge base article:

<http://h20230.www2.hp.com/selfsolve/document/KM00490597>

For information on how to enable FIPS mode in Service Manager, SRC, and the Mobility client, see the following documents:

- *Service Manager 9.32 help:*
  - *FIPS mode*
  
  - *Configure FIPS mode in Service Manager*
  
- *Service Request Catalog 9.32 Customization Guide*
  
- *Service Request Catalog 9.32 Interactive Installation Guide*
  
- *Service Manager 9.32 Mobile Applications User Guide*

## HTML Email Solution

The HTML Email solution, which was previously released as a stand-alone content pack on HP Live Network, has been merged into Service Manager 9.32. You can now directly configure and set up the solution from **Tailoring > Notifications**.

This solution is intended for system administrators who manage Service Manager notifications or email setup, and for engineers who send HTML emails to notify users. The solution provides an out-of-box set of email notification definitions and HTML templates that supports most common notification scenarios in three Service Manager applications: Service Desk, Change Management, and Incident Management.

You can use these notification definitions and HTML templates as a basis for customizing your notifications. You can also create your own notifications and templates for other Service Manager applications.

For details, see the topics in the following section in the online help

- *System Administration > Status and Notifications > HTML Email.*

## Survey Integration Solution

The Survey Integration solution, which was previously released as a stand-alone content pack on HP Live Network, has been merged into Service Manager 9.32. You can now directly configure and set up the solution from **Tailoring > Integration Manager**.

The Survey Integration enables you to integrate your Service Manager installation with third-party survey solutions. The integration provides you with two integration methods: an API-based connector that uploads data directly to the survey solution (enabling you to manage the survey directly through Service Manager) and a URL-based connector that sends survey request emails containing a survey-specific URL to intended survey-takers.

For more information, see the following section in the online help:

- *System Administration > Integrations > Survey Integration*

## Service Manager Doctor (SM Doctor)

As of version 9.32, the Service Manager server provides an embedded troubleshooting tool, SM Doctor. You can find a folder named `smdoctor` directly under the server installation directory. This folder contains all files required for running this tool.

SM Doctor enables support engineers to collect configuration and diagnosis data from Service Manager. This tool eliminates the need of excessive exchanges of emails between support engineers and customers before engineers can have all needed information to analyze a reported incident.

This tool collects these types of information:

- SM server configurations and reports
- Operating system configurations
- Database configurations on the database server
- SM server logs

- List of files in the <SM server>/RUN, <SM server>/RUN/lib/endorsed, and <SM server>/RUN/lib folders.
- Additional configurable data collected by third-party tools, such as `supportTool.sh` and `generateSchema.sql`.

For more information, see the topics in the following section in the online help:

- *Guides and reference > Troubleshooting > HP Service Manager Doctor.*

## Enhanced Inactivity Timer Mechanism

Service Manager 9.32 has enhanced the inactivity timer mechanism so that administrators can set up an inactivity timer for a specific operator; this enhancement also improves performance by eliminating the use of the `inactive.startup` background process.

**Note:** Before you can use the enhanced mechanism, be sure to restart the inactivity timer as described in the "Inactivity timer" help topic.

### Backward Compatibility

This release is also compatible with the old mechanism. If you use an applications version earlier than 9.32, Service Manager will use the old mechanism, even if you have upgraded to the SM 9.32 server and web client.

### Operator Level Settings

Administrators can now configure the inactivity timer settings for a specific operator, by specifying the **Warning Time** and **Allowed Inactive Time** fields on the Security tab of the operator record. Operator level settings take precedence over system level settings specified in the Start Inactivity Timer form.

### Obsolescence of the `inactive.startup` Process

This enhancement eliminates the need to use the `inactive.startup` background process. HP recommends that you delete this process to save your system resources.

### Usability Improvements

This enhancement also includes usability improvements described in the following table.



Improvement	Previous Behavior
Adding validation against the <code>idletime</code> and <code>warntime</code> fields on the inactivity timer setting form	In previous versions, this validation is not available.
Renaming the <b>Reset Inact</b> button to <b>Save</b> , which is now always displayed in the form	In previous versions, the <b>Reset Inact</b> button displays only when the inactivity timer is running.
Keeping the user staying with the inactivity timer settings page after the user clicks <b>Start</b> or <b>Save</b>	In previous versions, the page is closed immediately after the user clicks either button.

For more information, see the following topic in the online help:

- *Inactivity timer*

## Updated Web Tier Directory Structure

In Service Manager 9.32, the directory structure of the Web tier has been modified such that the SM build number is included in the URL. These changes were implemented because occasionally, upon web tier upgrade, resources cached in the user's browser would be incompatible with those in the new web client. When such incompatibility exists, asking all end users to clear their browser cache is not practical. With this revised implementation, users will no longer need to clear their browser cache.

**Note:** MySM does not use the new versioning URL syntax. If any changes are made to MySM via a future patch or hotfix, MySM users need to clear their cache when the web tier is upgraded with that fix. For SM 9.32, there is no change to MySM when compared to 9.30 or 9.31 or any of the associated patches.

Additionally, the default cache time (maximum age value in the `application-context.xml` file) is changed from 8 hours (28800 seconds) to 6 months (15552000 seconds) to better utilize browser cache.

For more information, see whitepaper *Updates to the Service Manager Web Tier Directory Structure* shipped with the 9.32 release.

## Usability Improvements

Service Manager 9.32 includes the following usability improvements. Most of the features are only available in the web client.

### Single-Click on Navigator (Web Client Only)

You can now single-click nodes in the System Navigator, instead of double-clicking. The feature behaves in the following manner:


1. If you single-click or double-click on the folder, the entries below the clicked node expand or collapse.

**Note:** This is the same behavior that occurs when you click the arrow.


2. If you single- or double-click on an individual menu item, or a node that represents a view, the detail is displayed on the right panel.

**Note:** There is no change in behavior under "Manage Favorites".

### Hover Window Indicator (Web Client Only)

When viewing the details of a record, a gray info icon () has been added to the Comfill component to indicate the field can display additional information in a hover window.



### Close Button on Inactive Tabs (Web Client Only)

A Close button () now displays on both active and inactive tabs. You can directly close an inactive tab by clicking the Close button if the Close operation does not return a confirmation message. If the Close operation returns a confirmation message, the tab becomes active.

**Note:** The Close button never displays on the first tab.

### Quick Ticket Search Using the Search Line (Web Client Only)

A Quick Ticket Search feature has been added to the toolbar section of the Service Manager graphic user interface. When enabled, this feature works as follows:

- For users who have access to the Service Manager command line, a new icon (displayed as either  or ) is displayed, which toggles between standard command line behavior and the

new Quick Ticket Search feature.

- For users who have no command line access, a search line box is available.

This feature enables users to enter a record ID in the search line field, which opens the record directly when executed.

By default, this feature is disabled. To enable it, you, as a system administrator, must select the **Enable Universal Search** option in the System Information Record.

**Notes:**

- This feature is available only in the standard index.do web client.
- Out of the box, the search line only supports searches by record ID (with ID prefix) for the following record types : *SD* (interactions), *C* (change), *IM* (incidents), and *CI* (configuration items). You can enable more record types for quick search. To configure a record type for quick search, you, as an administrator should add the record type and prefix in global list: 'UniSearch Types' and start lister process in System Status; if no prefix matches the input query string, SM will search for the configuration item (in the device table) with that ID number.
- To enable a record type for quick search, the profile for the record type should have a field with type of "tableaccess" and the view access must be set to true; if no view access is defined, records of this type will not be available for quick search.
- This feature requires both your Applications and web client to upgrade to version 9.32; if you only upgrade the web client, the command line behavior will remain the same as before.

For details, see the following topics in the online help:

- *Activate the command/search line toggle button*
- *Search for a record using the Search line*
- *Adding prefix for a record type*

**Quick Jump in Record Detail Forms (Web Client Only)**

End users can now use a drop-down list, next to the **More** button, to quickly jump to the desired section of a record's detail format. This feature allows quick access to important sections of the record, which prevents tedious mouse scrolling.

The drop-down list includes the names of all visible groups designed within the Group and Notebook controls if the following control properties are set:

- Group control: "Collapse enabled" and "Floating group enabled" are set as "true".
- Notebook control: "Group rendering enabled" is set as "true"; or in Process Designer, "Preferred notebook style" is set as "Groups".

Users can use the ALT+J keyboard shortcut to move the focus to the drop-down list, and to expand or collapse the drop-down list.

### **List State Persistence (Web Client Only)**

The list-detail page of a record can now retain the expand-collapse state of the List Pane in each tab within the user's current session. When the list is collapsed it allows a larger portion of the record's detail to be displayed, which prevents tedious and unnecessary mouse scrolling.

You can enable or disable this behavior by configuring the `enableListFrameStateRetain` parameter in the `web.xml` file.

**Note:** In the list detail page, you can now use the Alt+U keyboard shortcut to expand or collapse the List Pane. The key combination is configurable.

### **Merge Conflicted Updates (Window and Web Clients)**

When there are concurrent updates from a user and background processes, the user can now merge the conflicted updates and save the merged result of a record without the need to abandon the current updates.

- If different fields in the record are updated simultaneously, the system merges the updated fields automatically when the user tries to save the updates.
- If the same fields in the record are updated concurrently, the user is able to manually merge the conflicted updates when trying to save the updates.

Administrators can now disable the superfluous pop-up window for reloading the latest record when users starts to edit a record. An option **Disable the Pop-up Window to Reload Records** is available in the System Information Record. It is unchecked by default.

The Merge Conflicted Updates feature is out of the box for HP Service Manager 9.32 default user operations. However, to apply this feature to a record with customized operations, you need to first tailor your customized operations.

For more information, see the following topics in the online help:

- *Editing records*
- *Enable the Merge Conflicted Updates function for customized user operations*

### **New Keyboard Shortcuts (Web Client Only)**

This release of the web client supports the following new keyboard shortcuts:

- CTRL+ALT+T: Closes the current active tab.
- CTRL+ALT+H: Moves the focus to the header of the current active tab.

Only the header of an active tab can be focused. When the focus is on the header of an active tab, you can use Left/Right Arrows to switch to other tabs.

### **Sending Notifications to Specified Operators (Web Client Only)**

You can now tailor Service Manager to notify specified operators by a pop-up notification in the Web client. For example, you can send notifications to specified operators when an Incident ticket is created or updated.

**Note:** In the Windows client, the notification does not pop up, but appears in the message log; in addition, the notification will not be sent to offline operators.

For more information about the tailoring process, see the following topic in the online help:

- *Example: Notifying specified operators upon an incident update*

## **New JavaScript Methods/Functions, RAD Functions, and System Parameters**

Service Manager 9.32 includes the following new or updated items. Unless otherwise noted, they have been added or updated in Service Manager 9.32.

For details, see the *Service Manager 9.32 Programming Guide* or the **System Configuration Parameters** section in the online help.

## JavaScript Method

JavaScript method	Description
SCFile.setBinary()	This method saves binary data to a field in a Service Manager file object.  <b>Note:</b> Introduced since SM9.31 patch 1.

## JavaScript Function

The following JavaScript function was introduced in this release.

JavaScript function	Description
skipApproval	A JavaScript function that allows you to prevent an item's approval status from being reset to "pending."
removeTemplate restoreTemplate	A JavaScript function that removes / restores the relationship between operator records and their associated template.  <b>Note:</b> These functions are not documented in the Programming Guide. See <a href="#">"New JS Functions to Remove or Restore Templates for Operator Records"</a> below instead.

### New JS Functions to Remove or Restore Templates for Operator Records

If an operator record uses a template, some fields of the operator record do not store the values in the operator record itself. Instead, these values are stored in the template operator record. When a query is made to an operator record using such fields, Service Manager needs to query all the records and merge the data in the server. The performance associated with this operation can be slow. For more information about this issue, refer to defect QCCR1E91526.

To avoid this performance issue, this release introduces two new JS functions. These functions can check for the existence of these types of operator records, and then populate the relevant values from the template operator into the related operator records, or vice versa.

These two new JS functions are added to the out-of-the-box JavaScript library in package `BaseUtilities`:

- `lib.TemplateUtil.removeTemplate ()`

This JS function removes the relationship between records and their associated template.

- `lib.TemplateUtil.restoreTemplate ()`

This JS function restores the relationship that has been removed by the `lib.TemplateUtil.removeTemplate ()` function.

To support these new JS functions, two new underlying rtecall functions `templateremove` and `templaterestore` are also added.

**Caution:** The rtecall functions `templateremove` and `templaterestore` can remove or restore templates for any tables in Service Manager. Be cautious when changing your data by using these two rtecall functions in your tailoring.

To remove or restore templates for records by using the new JS functions, follow these steps:

1. Add a new field ("systemplatebak") for the file that associates with the performance issue:
  - a. Log on to the Service Manager Windows client as a system administrator.
  - b. Click **Tailoring > Database Dictionary**, enter the name of the file that you want to modify, such as "operator", and then click **Search**.
  - c. Click "descriptor", and then click **New Field/Key**.
  - d. In the popup window, enter the name as "systemplatebak", select the type as character, and then the click **Add**.

The new field is added and the popup window closes.

- e. Double-click the newly added "systemplatebak" field, and then set the following fields in the popup window.

**SQL Name:** SYSTEMPLATEBAK

**SQL Type:** VARCHAR(60)

**SQL Table:** m1

- f. Click **OK**. The dialog window closes.





RAD function	Description
sysinfo.get ("PKMode")	A RAD function that returns the primary key mode for the system.
updatestatus	A RAD function that returns the result of the last update operation on a Service Manager file.

## System Parameters

The following table lists, in alphabetical order, parameters that have been added or updated in the SM9.32 release.

Parameter	State	Description
agstackl	Updated	<p>This parameter defines the length of the stack the HP Service Manager server allocates to run RAD applications.</p> <p><b>Note:</b> The default has been changed from 400 to 600.</p>
CAClogin	New	<p>Enabling this parameter causes the Web client to present a Common Access Card (CAC) certificate as authentication information and use SSL connections to the Web tier.</p> <p>Default: false (Disable)</p>
cacsignon	New	<p>This parameter defines whether trusted clients can log on to the Service Manager server with a Common Access Card (CAC), without entering log-on information. When this parameter is enabled, Service Manager allows trusted clients to bypass the Service Manager log-on screen and directly log in with a valid certificate stored in a CAC.</p> <p>Default: 0 (Disable)</p>

Parameter	State	Description
changeencrkey	New	<p>This parameter defines the encryption key for encrypting fields in the database. The value of this parameter must be either 8 characters (64 bits) long in non-FIPS mode or 32 characters (256 bits) long in FIPS mode, and consist of alphanumeric characters.</p> <p><b>Note:</b> The parameter has been updated to support encryption keys that are either 8 (default) and 32 characters long.</p>
debugrest	New	<p>This parameter enables the HP Service Manager server to write detailed log trace for RESTful web services diagnostics.</p> <p>Default: 0 (Disable)</p>
dao_sessiontimeout	New	<p>This parameter specifies the seconds the Service Manager server to wait before terminating RESTful threads. Unless the client sends subsequent requests within the timeout, the Service Manager server will recycle the session for re-use and re-allocate it on demand.</p> <p>Default: 0 (Disable)</p>
dao_threadsperprocess	Updated	<p>This parameter specifies the maximum number of threads allowed to run concurrently in the process for a RESTful Web Service application.</p> <p><b>Note:</b> The default has been changed from 5 to 10.</p>
disableloginautocomplete	Updated	<p>This parameter allows administrators to enable password auto-complete for the SM web client login page.</p> <p><b>Note:</b> The default has been changed from <code>false</code> to <code>true</code>.</p>

Parameter	State	Description
disableJumpAddress	New	This parameter controls if the Quick Jump component displays in a record detail form (for example, the Change Detail form). The Quick Jump component enables you to navigate to a group section quickly.  Default: false (Enable the Quick Jump component)
enableExitConfirmMessage	New	If this parameter is enabled (set to "true"), when the user clicks the Close ("x") button of the SM web client page or manually refreshes the entire web client page, a confirmation message displays that indicates the user might have unsaved data and asks the user to confirm whether to stay on the current page or leave the page.  Default: false (Disable)
encryptionkey	Updated	This parameter defines the encryption key for encrypting fields in the database. The value of this parameter must be either 8 characters (64 bits) long in non-FIPS mode or 32 characters (256 bits) long in FIPS mode, and consist of alphanumeric characters.  <b>Note:</b> The parameter has been updated to support encryption keys that are either 8 (default) and 32 characters long.
enableListFrameStateRetain	New	This parameter enables the list detail page to retain the expand-collapse state of the List Pane when the list detail page refreshes. If you set this parameter to false, the List Pane is always in expanded state once the list detail page refreshes.  Default: false (Disable)
external_lb	New	Must be set to "1" in the <code>sm.ini</code> file when the Service Manager server uses an external hardware load balancer (default:0).  Default: 0 (Disable)

Parameter	State	Description
externalLB	New	<p>Must be set to "1" in the web tier's <code>web.xml</code> file when the Service Manager server uses an external hardware load balancer (default: false)</p> <p>Default: 0 (Disable)</p>
fipsmode	New	<p>This parameter determines if the Service Manager server runs in FIPS 140-2 compliant mode ("FIPS mode").</p> <p>Default: 0 (Disable)</p>
ir_sql_limit	Updated	<p>This parameter determines the maximum number of records to be fetched from the RDBMS in a combined IR and SQL query.</p> <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p><b>Note:</b> In this release, support of value "0" has been added: <code>ir_sql_limit:0</code> means there is no limit.</p> </div>
JCEProviderClassName	New	<p>This parameter specifies the class name of a FIPS-certified third-party Java Cryptography Extension (JCE) provider (for example, RSA BSAFE) that you plug in when configuring FIPS mode in the web client.</p> <p>Default: None</p>
JCEProviderName	New	<p>This parameter specifies the name of a FIPS-certified third-party Java Cryptography Extension (JCE) provider (for example, RSA BSAFE) that you plug in when configuring FIPS mode in the web client.</p> <p>Default: None</p>
primary_key_mode	New	<p>This parameter specifies whether Service Manager is in primary key mode or not.</p> <p>Default: 0 (Disable)</p>

Parameter	State	Description
showNavIcon	New	<p>If this parameter is set to true, each System Navigator menu item will display an icon that indicates the type of menu item. If the parameter is set to false or not present, the navigator menu items do not display icons.</p> <p>Default: false</p>
system_addconstraint	New	<p>This parameter can only be used from an OS command line. It adds a Not Null constraint to the first unique key or converts the unique key to a primary key for the specified database tables, depending on usage.</p> <p>Default: 0 (By default, this parameter adds only a "Not Null" constraint on the first unique key on all files in the system.)</p>
tracememerror	New	<p>This parameter specifies whether to print memory trace information in the sm.log file and generate core dump when the memory is handled incorrectly.</p> <p>Default: 0 (Disable)</p>
upgradeencralg	New	<p>This parameter upgrades the database encryption algorithm from DES to AES by updating all encrypted fields with a new 256-bit key.</p> <p>Default: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</p>
usedmemcompmode	New	<p>This parameter determines the method for calculating memory usage.</p> <p>Default: 0 (Specifies that used memory will be the sum of committed memory plus the reserved memory)</p>

The following table lists, in alphabetical order, parameters that have been added or updated in SM9.31 patch releases.

Parameter	Description
acceptsharedcert	<p><b>Note:</b> Introduced since SM9.31 patch 2.</p> <p>This parameter defines how the HP Service Manager server handles signed SSL certificates from incoming client requests in a Trusted Sign-On configuration.</p> <p>When the parameter is enabled (acceptsharedcert:1), the Service Manager server allows Trusted Sign-On connections using a so-called "shared certificate."</p> <p>Default: 0 (Disable)</p>
emailout	<p><b>Note:</b> Updated since SM9.31 patch 2.</p> <p>Prior to SM9.32p2, there are N+1 "EMAILOUT" threads in System Status and the logged-in users are counted as N+1; as of SM9.32p2, there is only one "EMAILOUT" thread and the logged-in users are counted as 1.</p> <p>Default: None</p>
KMSearchEngineTimeout	<p><b>Note:</b> Introduced since SM9.31 patch 2.</p> <p>This parameter defines a timeout value in seconds for all Knowledge Management search server hosts (including indexing hosts, search hosts, and load balancer hosts).</p> <p>This parameter is used to prevent overloaded KM search servers from causing Service Manager to hang.</p> <p>Default: 20 (seconds)</p>

Parameter	Description
maxloginspercluster	<p><b>Note:</b> Introduced since SM9.31 patch 2.</p> <p>In a horizontal scaling implementation, Max Logins for operators is enforced at the cluster level. This parameter allows administrators to turn off this feature.</p> <p>Default: 1 (Enable)</p>
onewayssl4ws	<p><b>Note:</b> Introduced since SM9.31 patch 2.</p> <p>This parameter provides the option to use one-way/anonymous SSL for web services clients in a Trusted Sign-On (TSO) or Common Access Card (CAC) configuration. When enabled, this parameter allows web services clients to access SM SOAP interfaces without a certificate.</p> <p>Default: 0 (Disable)</p>

## Deprecations

### Deprecations in This Release

As of this release, the following items are deprecated:

Item Name	Type	Notes
unmaskDeferMillis	Web parameter (in the web.xml file)	In previous releases, this parameter defers the unmasking of a browser window after an unmask request is issued. It relates to how much time the client browser needs to finish rendering after a page is loaded.
inactive.startup	Background process (in System Status)	In previous releases, you need to start this process to run the Inactivity Timer . As of this release, the Inactivity Timer no longer needs it.

## Future Deprecations

Item Name	Notes
ServiceCenter classic style starting page	In a Service Manager 9.3x Windows/web client, the default starting page is a To Do Queue for the user logged in, which is different from that in ServiceCenter 6.2. The new starting page is more intuitive, clean and simplified and thus has gained much better user experience. HP recommends that all customers leverage the new modern UI design, and stop using the ServiceCenter classic style starting page. The ServiceCenter classic style starting page will be deprecated in the future.

## Certifications

This release includes the following new certifications:

### Service Manager Server

- F5 hardware load balancers
- DB2 10.1 (for non-HP-UX platforms)
- Windows Server 2012
- Microsoft Hyper-V 2012

### Windows Client

- Windows 8

### Web Client

- Internet Explorer 10

### Mobility Client

- Tomcat 7.0 (7.0.32 or greater)
- iOS 6.x



- Android 4.x
- BlackBerry 10.0, 7.0, 6.x

## Service Request Catalog

- Internet Explorer 10
- Firefox 17 or greater (Extended Support Releases)

## Knowledge Management Search Engine

- Windows Server 2012

## Documentation Enhancements

The Service Manager 9.32 online help and manuals (in PDF format) are available from the HP Software Manuals Site at:

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

The Service Manager online help has been extensively redesigned, to make it easier for end users to find tasks that are relevant to their roles in Service Manager. This has been done in accordance with the *Service Manager Processes and Best Practice Guide*, which describes how Service Manager aligns to ITIL processes. Enhancements include:

- Pages for the primary user roles, inclusive of links to their various ITIL tasks. For example, a Problem Manager can find all the ITIL-related tasks that are applicable to his role under the *Problem Management > Problem Management user roles > Problem Manager* page.
- Graphs have been added to the ITIL tasks to show how the ITIL defined-processes are supposed to work, and show users how their particular tasks fit in.
- Administrative tasks for individual ITIL modules and processes have been separated. Module administrators who want to find out how to modify the background processes or configure a module in general can look here.

### Additional Changes

- The Service Manager landing page was re-designed to make it cleaner and easier to navigate. Mini-landing pages were also created throughout the Help Center.

- A new “Navigate the Documentation” page was created, which details, in one location, every supplemental PDF manual.
- A new section for system administrators was created, and all system level-specific information, such as Application Setup and Database Administration, was placed under this section.
- A new “Guides and reference” section was created to house the troubleshooting sections and parameter information and guides. In addition, the following guides were converted from PDF-only versions, and placed in this section. The content of these guides is indexed and searchable from the Service Manager online help.
  - *Tailoring Best Practices Guide*
  - *Programming Guide*
  - *Document Engine Guide*
  - *Web Services Guide* (includes the documentation for the new REST API)
  - *Wizards Guide*

### **New Feature Videos**

Finally, a number of New Features videos were created to better illustrate the improvements in Service Manager 9.32. We have created videos to highlight the following features:

- What's New Overview
- Survey Integration
- Process Designer Help Desk (Content Pack)
- Web Client Usability Enhancements (Parts I and II)
- Mobility
- Cross-Table Query
- SRC 9.32
- RESTful API

You can find these videos under the Service Manager section on the HP Live Network as well as on YouTube:

<https://hpln.hp.com/>

## Open Source and Third-Party Redistributables Package

In this release, the web tier package and each of the server packages contain a compressed file, sm9.32.0016\_Redistributables.zip. This zip file contains all open-source and third-party source code used in this release, as well as their associated license agreement files.

**Note:** The content of this .zip file is an updated version of that in the Redistributables folder on the Service Manager 9.30 installation media.

For a complete list of open source and third-party acknowledgments, see the *Service Manager 9.32 Open Source and Third-Party Software License Agreements* manual (in PDF format), which is available from the HP Software Manuals Site:

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

# Enhancements

This release includes the following enhancement type fixes.

## Applications

CR	Problem	Solution
QCCR1E21846	Enhance Virtual Join to take advantage of the sort.fields array in the link file. This would allow for Virtual Join record lists to be returned in the specified order.	<ul style="list-style-type: none"><li>• Now the default sort field and sort order can be defined in the link file for subviews.</li><li>• The default sort field and sort order are always defined in the first line if there are multiple links defined for a field.</li></ul> <p><b>Note:</b> To take advantage of this fix, you need to upgrade both the server and applications to this release level.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E32251	There is no mechanism to track failed authentications caused by invalid login names (not just invalid passwords). The login process currently updates an operator record when there is a failed authentication attempt (a valid username with an invalid password). However, nothing is recorded when a login attempt fails due to an invalid username.	The information is now written into the syslog file if there is a failed authentication attempt with either an invalid login name or an invalid password.

CR	Problem	Solution
QCCR1E55614	<p>Templates do not provide the option to populate structured arrays. Fields that were mapped to a BLOB-type field (the structured array type in ServiceCenter) in Oracle in ServiceCenter 6.2 were available in the data policy record in ServiceCenter 6.2. However, those same fields that are mapped as BLOBs (the structured array in Service Manager 7.x) do not appear in the data policy record in Service Manager 7.11.</p>	<p>Now, users can plan an array of structure field using the Set Expected State feature in the Change Management Module. The "Set the expected state of a configuration item" feature has been enhanced as follows:</p> <ul style="list-style-type: none"> <li>• <b>Added support for array of structure fields planning</b> <ul style="list-style-type: none"> <li>■ When picking an attribute from the value list, the datatype is evaluated so that the appropriate control can be displayed.</li> <li>■ Structure member fields are now displayed in attribute drop-down list. Because they are not in datadict, the field name from dbdict is used and structure members are treated like array fields, reflecting the way the dataModEvent table stores it.</li> <li>■ The <b>Append to current value</b> checkbox has been added to support complex data types. You can choose whether to append or overwrite with the new values.</li> <li>■ While planning new values, you can have a preview of the current field values for all</li> </ul> </li> </ul>

CR	Problem	Solution
		<p>affected CIs.</p> <ul style="list-style-type: none"><li>■ The <b>Set to Null</b> checkbox has been added so that you can set field back to null. This checkbox is only available for fields that are not defined as mandatory on datadict and not for dbdict's unique or "no null" keys.</li><li>● <b>Fixed some other minor functionality issues to provide better user experience</b><ul style="list-style-type: none"><li>■ The Set Expected State wizard can be started only if at least one Affected CI has been specified.</li><li>■ The out-of-box "edit mode" (to load already planned changes into the wizard) is now working.</li></ul></li></ul> <p>For details, see the following help topics:</p> <ul style="list-style-type: none"><li>● <i>Set the expected state of a configuration item</i></li><li>● <i>Example: How to plan an array of structure field</i></li></ul>

CR	Problem	Solution
QCCR1E55885	<p>Enhancement Request to have the Service Manager application provide the ability to change DBDICT unique keys to primary keys in the RDBMS, if required.</p>	<p>Primary keys and "Not Null" constraints on unique keys are now supported.</p> <p>For more information, see <a href="#">"Support of Primary Keys and Not Null Constraints" on page 17.</a></p>
QCCR1E60939	<p>Building global lists may cause poor performance in the following situations:</p> <ul style="list-style-type: none"> <li>• User login</li> <li>• Creating the inbox (on the scm.advanced screen)</li> <li>• The lister process rebuilding global lists</li> </ul>	<p>The build.list application was improved so that it retrieves only specific columns rather than all columns. In addition, the global list for the inbox, which caused additional processing, was removed.</p>
QCCR1E75417	<p>HP Service Manager users are timed out after a specified period of inactivity. This is problematic when users need to search a long time for information related to the work they are doing in SM. There should be a mechanism that allows individual users to have an inactivity timer specified in their operator record.</p>	<p>Administrators now can set an inactivity timer for a specific operator (operator record &gt; <b>Security</b> tab &gt; <b>Inactive Timer Settings (minutes)</b>).</p> <p><b>Note:</b> This feature requires you to upgrade your SM server, applications, and clients to this release level.</p> <p>See also <a href="#">"Enhanced Inactivity Timer Mechanism" on page 24.</a></p>



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E89360	<p>The following procedure is recommended to install PD CP2 correctly:</p> <ol style="list-style-type: none"><li data-bbox="674 402 890 428">1. Install PD CP2</li><li data-bbox="674 477 1020 503">2. Apply SM9.31 applications</li><li data-bbox="674 552 1163 699">3. Load QCCR1E78589_SM931_PD2.unl However, this procedure causes the objects in the unload file to overwrite any tailored versions of those objects.</li></ol>	<p>Applying SM9.32 after PD CP4 will solve the conflicts automatically without the need to load the merge unload file manually.</p>
QCCR1E89901	<p>An easy and configurable method is needed to access records in the Web client.</p>	<p>The Quick Ticket Search feature has been implemented to allow users quickly open a record from a search line box.</p> <p>See also <a href="#">"Quick Ticket Search Using the Search Line (Web Client Only)"</a> on page 26.</p>

CR	Problem	Solution
QCCR1E90039	<p>It takes three different WSDL calls to create each ticket for an integration, which causes significant performance issues when the volume of tickets is large (for example, batch jobs could dump thousands of tickets per minute).</p>	<p>A new API (CreateSRCInteractionViaOneStepRequest) in ServiceCatalogAPI enables you to open a service request in one single call. It accomplishes the same work of the following three API calls used by Service Request Catalog:</p> <ul style="list-style-type: none"> <li>• CreateCart</li> <li>• AddItemToCartViaOrder</li> <li>• CreateSRCInteraction</li> </ul> <p>This new API creates a cart, add one or more items to the cart, submits the cart, and then creates the corresponding interaction in Service Manager. Its usage is not limited to Service Request Catalog.</p> <ul style="list-style-type: none"> <li>• Service Name: ServiceCatalogAPI</li> <li>• Name: svcCatAddSubmitItem</li> <li>• Object Name: SRCInteractionViaOneStep</li> <li>• Allowed actions: CreateRequest</li> <li>• Action Names: Create</li> </ul>

CR	Problem	Solution
		<ul style="list-style-type: none"> <li>• Action Type: Application Pass Through</li> <li>• Custom action to perform: Service Catalog - Dispatcher</li> </ul> <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• This API adds a new table: svcCatAddSubmitItem.</li> <li>• New ScAPI_svcCatRequestOneStep ScriptLibrary function was added to implement the basic logic.</li> </ul> </div>
QCCR1E90300	<p>When you try to save (to release lock) a record that has been already modified by another thread (for example, by a background process), the data that you entered is lost when the "Record has been modified since read" message appears.</p>	<p>When you try to save a record that has been already modified by another thread, the data that you entered is not lost.</p>

## Server

CR	Problem	Solution
QCCR1E21846	Enhance Virtual Join to take advantage of the sort.fields array in the link file. This would allow for Virtual Join record lists to be returned in the specified order.	<ul style="list-style-type: none"> <li>• Now the default sort field and sort order can be defined in the link file for subviews.</li> <li>• The default sort field and sort order are always defined in the first line if there are multiple links defined for a field.</li> </ul> <p><b>Note:</b> To take advantage of this fix, you need to upgrade both the server and applications to this release level.</p>
QCCR1E55885	Enhancement Request to have the Service Manager application provide the ability to change DBDICT unique keys to primary keys in the RDBMS, if required.	<p>Primary keys and "Not Null" constraints on unique keys are now supported.</p> <p>For more information, see <a href="#">"Support of Primary Keys and Not Null Constraints"</a> on page 17.</p>
QCCR1E62952	Support of hardware load balancers (F5) is required to replace sm -loadbalancer.	<p>Service Manager now provides full support for F5 hardware load balancers.</p> <p>For more information, see <a href="#">"Support of F5 Hardware Load Balancers"</a> on page 15.</p>

CR	Problem	Solution
QCCR1E75417	Service Manager user sessions are timed out after a specified period of inactivity. This is problematic when users need to search a long time for information related to the work they are doing in SM. There should be a mechanism that allows individual users to have an inactivity timer specified in their operator record.	See applications fix <a href="#">"QCCR1E75417" on page 48</a> .
QCCR1E77118	JGroups processes get shunned.	JGroups has been upgraded to version 3.2, which is the latest stable version.
QCCR1E77350	Service Manager user sessions are timed out after a specified period of inactivity. This is problematic when users need to search a long time for information related to the work they are doing in SM. There should be dialog box that warns users when their session will expire.	When the user session is about to time out, SM will play a sound and display a warning message box to prompt the user to extend the session.
QCCR1E80116	There is no mention of DB2 10.x in the Service Manager Support Matrix.	DB2 10.1 is certified on SM 9.32 (for non-HP-UX platforms).
QCCR1E84596	Service Manager 9.3x should be supported on Windows Server 2012.	Windows Server 2012 is supported for SM 9.32 or later.

CR	Problem	Solution
QCCR1E88815	Need a new RTE function that returns the query parameters of a record list.	<p>A new RAD function <code>filequeryex(file)</code> has been introduced. This function returns the query parameters of a file variable.</p> <p>For details, see the <i>Service Manager 9.32 Programming Guide</i>.</p>
QCCR1E89688	There should be a pop-up message that is displayed to all members of an assignment group when a new Incident is created or updated. However, there is no mechanism to do this.	<p>You can now tailor Service Manager to notify specific operators by a pop-up window in the Web tier when an incident is created or updated.</p> <p>For more information, see "<a href="#">Sending Notifications to Specified Operators (Web Client Only)</a>" on page 29.</p>
QCCR1E91115	The <code>sm -reportlbstatus</code> command does not work for an HWLB (hardware load balancer ) configuration. Therefore, a replacement or equivalent of <code>-reportlbstatus</code> is required for HWLB configurations.	Now the <code>sm -reportlbstatus</code> command works fine no matter whether an HWLB configuration is used or not.
QCCR1E91736	A RTE function is needed to retrieve the result of the last update operation on a file.	<p>RAD function <code>updatestatus()</code> has been introduced to achieve this.</p> <p>For details, see the <i>Service Manager 9.32 Programming Guide</i>.</p>

CR	Problem	Solution
QCCR1E93257	SM server log output does not include session counts. It is hard to determine the current number of active session in the process.	The log information about threads initialization and termination has been improved to include session counts, so that support personnel can gain as much information as possible from the log.
QCCR1E95215	Currently there is no RAD function available to determine if a RAD expression is valid or not, so the RAD team uses "parse.evaluate" to do it. The problem is that parse.evaluate will send error messages to the client when the expression is invalid.	RAD function <code>isExpressionValid</code> has been introduced to address this issue.  For details, see the <i>Service Manager 9.32 Programming Guide</i> .

## Web Client

CR	Problem	Solution
QCCR1E75417	Service Manager user sessions are timed out after a specified period of inactivity. This is problematic when users need to search a long time for information related to the work they are doing in SM. There should be a mechanism that allows individual users to have an inactivity timer specified in their operator record.	See applications fix <a href="#">"QCCR1E75417" on page 48</a> .

CR	Problem	Solution
QCCR1E77350	Service Manager user sessions are timed out after a specified period of inactivity. This is problematic when users need to search a long time for information related to the work they are doing in SM. There should be dialog box that warns users when their session will expire.	See server fix <a href="#">"QCCR1E77350" on page 53.</a>
QCCR1E89217	In the Web client, sometimes there is a scroll bar displayed for the hover-over form for a field depending on the content. However, there is no scroll bar displayed for a hover-over form in the Windows client.	In the Web client, there is no longer a scroll bar displayed for the hover-over form for a field.
QCCR1E89553	Service Manager 9.3x does not support Internet Explorer 10.	Service Manager supports Internet Explorer 10 as of version 9.32.
QCCR1E89688	There should be a pop-up message that is displayed to all members of an assignment group when a new Incident is created or updated. However, there is no mechanism to do this.	See server fix <a href="#">"QCCR1E89688" on page 54.</a>



CR	Problem	Solution
QCCR1E91013	<p>In the SM 9.x web tier, the images for all items and modules are the same and this is a regression from the previous SM 7.x version. An enhancement is needed to use different icons to visually distinguish between different items.</p>	<p>A new parameter, <code>showNavIcon</code>, has been introduced in the web tier configuration file (<code>web.xml</code>):</p> <pre data-bbox="1234 440 1791 602">&lt;context-param&gt;   &lt;param-name&gt;showNavIcon&lt;/param-name&gt;   &lt;param-value&gt;&gt;false&lt;/param-value&gt; &lt;/context-param&gt;</pre> <p>If it is set to true, each System Navigator menu item will display an icon; if it is set to false or not present, the navigator menu items do not display icons. By default, it is set to false.</p>
QCCR1E91583	<p>A user cannot close tabs within Service Manager without activating them first by clicking on them. The tab should close by clicking on the "close" button of the tab exactly once.</p>	<p>The user can now close an inactive tab page directly without activating it first (unless it is the first tab page, or closing this page returns a confirmation).</p> <p>See also <a href="#">"Close Button on Inactive Tabs (Web Client Only)"</a> on page 26.</p>
QCCR1E97570	<p>The <code>externalLB</code> parameter does not exist in <code>web.xml</code>.</p>	<p>The <code>externalLB</code> parameter is now available in <code>web.xml</code>.</p>

## Windows Client

CR	Problem	Solution
QCCR1E72973	Line numbers are missing in the upgrade merge panel.	Line numbers are displayed in the upgrade merge panel.
QCCR1E89183	Service Manager 9.x Windows client is not supported on Windows 8.	Service Manager 9.x Windows client is now supported on Windows 8.
QCCR1E94117	There is no option in the connections dialog in the Windows client for setting an External Load Balancer. Users are required to manually edit the launch file to enable the "external_lb" parameter.	The Windows client now provides an option named <b>Connect to External Load Balancer</b> on the connections dialog. Users must select this option when connecting to a hardware load balancer.

## Service Request Catalog

CR	Problem	Solution
QCCR1M750	The Request opens up but the recurring cost does not show up.	Now the interaction details page and approval details page display the recurring cost.
QCCR1M1076	Users cannot change the person to be notified about a service catalog request. It is a step in the wizard, but there is no way to change the person to be notified.	The checkout panel is implemented as out-of-the-box custom fields. Users can define the checkout panel as they wish.

CR	Problem	Solution
QCCR1M1507	<p>The Dynamic Value Dependency (DVD) functionality is missing on Service Request Catalog (SRC) user options.</p>	<p>The following features have been implemented.</p> <ul style="list-style-type: none"> <li>• A new feature to support dynamic value dependency/dynamic visibility/dynamic mandatory for user options fields</li> <li>• Configurable out-of-the-box fields/sections in the checkout panel (including attachment enable/disable).</li> </ul>
QCCR1E71212	<p>When resubmitting a request in SRC, the user is not allowed to add more attachments. If a new item is added that needs an attachment, the user cannot add it.</p>	<p>Added a new panel to allow users to remove/add attachments while resubmitting a request.</p>
QCCR1E75671	<p>You cannot customize existing out-of-the-box fields in Service Request Catalog. The following list demonstrates some features that would be useful:</p> <ul style="list-style-type: none"> <li>• The ability to remove/modify out-of-the-box fields when submitting a request.</li> <li>• The ability to make out-of-the-box fields mandatory or non-mandatory.</li> <li>• The ability to modify out-of-the-box fields labels.</li> </ul>	<p>Now, users can use custom fields to collect request associated information instead of hardcoded fields.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1M3753	The input of English+Arabic+Number combination does not match Arabic native speaker's reading habit.	Now it carts to Arabic native speaker's reading habit.
QCCR1M4222	Monthly/Weekly/Daily recurring fees are not displayed in the Request/Approval details page. By default, all costs and recurring costs should be displayed in the Request and Approval details page (unless it is disabled in the property file).	Recurring costs are now displayed on submission pages, details pages, and approval pages.
QCCR1E79275	You cannot set the urgency for an Interaction when a catalog item has been requested through SRC.	Users now can enable/disable any of the out-of-the-box fields as they wish.
QCCR1E79725	An enhancement is requested to make the visibility of the SRC Attachment section configurable.	The visibility of the SRC Attachment section is now configurable.
QCCR1E84188	The closure code displayed for a closed interaction/request in SRC looks like a button. There should be a mechanism to remove or modify how the "Closure code" is displayed in SRC for a closed interaction.	The closure code's style has been modified. The font color has been changed to blue, and the background color has been removed.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E87627	There is no easy way to get back to the SRC search results screen after you have navigated away. If you click the browser back button several times, you typically return to the search results, but the behavior is inconsistent and not user-friendly.	A Back button was added to the Service and Support Details pages. Now, users can return to the previous page by using this button.
QCCR1E87630	Add an option to hide the first SRC service/support "Request" button to force users to read the item "Detailed Description" before requesting a service or support item from the service desk.	You can hide the Request button in Search/Browse list view by setting the following properties to false in the applicationContext.properties configuration file: <ul style="list-style-type: none"><li>• For Service: src.ui.service.enableDirectRequest</li><li>• For Support: src.ui.support.enableDirectRequest</li></ul> By default, these properties are set to true.

CR	Problem	Solution
QCCR1E87730	<p>The SRC "Line Item" status should display the real approval status of the line item.</p>	<p>SRC uses two statuses to show the progress of a requested line item: line item approval_status and request fulfillment_status for the line item. (here we can assume that request fulfillment record is quote).</p> <p>Before expanding request item details, users can see a line item's approval_status; after expanding the line item, users can see the corresponding request fulfillment_status for the request item. Request fulfillment_status is mapped from the quote by svcCatStatusMap, in accordance with the Service Manager process.</p> <p>Note that line item approval status is not equal to the related fulfillment record approval status. For example, if a line item has "approved" for the approval_status, a new fulfillment record (quote) will be created. If the current_phase of the quote is "Ordering" and in the "initial" status, the fulfillment_status in the request item will be "Requested Request Ordered Request Approved" according to the svcCatStatusMap definition.</p> <p>Now, the Line Item status can be hidden by setting the src.ui.service.enableLineItemStatus property to false in the</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
		applicationContext.properties configuration file.
QCCR1E87769	When adding user selections to catalog items, some new fields are configured to retrieve data from other tables and fields. However, there is no mechanism to tailor that search criteria for any table to add secondary fields in addition to the default fields.	The contact lookup component supports dynamic multi-column display.

CR	Problem	Solution
QCCR1E88075	<p>In some configurations, approvals may be performed on the quote instead of on an Interaction. In this case, when a user submits a service catalog request, the Interaction is created and approved automatically.</p> <p>Therefore, when an end user views the status of this request in the "Your Requests" widget, the request is displayed as "Approved" even though the related line item (the quote) is still pending approval. In addition, the "Pending" &amp; "Denied" status always has 0 records because the Interaction can never have an approval.status of pending or denied. These behaviors are very confusing to end users.</p>	<p>SRC now allows you to specify which status indicators will display in the "Your Requests" widget. To hide these statuses, remove the pound sign (#) from properties that are commented out in applicationContext.properties configuration file for those properties you wish to display. For example, remove the pound sign (#) for the following properties to hide the Pending and Approved statuses in the "Your Requests" widget:</p> <pre>src.ui.service.enablePendingOnWidget=false src.ui.service.enableApprovedOnWidget=false #src.ui.service.enableClosedOnWidget=false #src.ui.service.enableDeniedOnWidget=false #src.ui.support.enableDirectRequest=false #src.ui.service.enableLineItemStatus=false</pre> <p>In addition, you can specify the status indicators on the "Service" sub-menu of the "Request Inbox" section. For example, remove the pound sign (#) from the following properties to hide the Pending and Approved statuses:</p> <ul style="list-style-type: none"> <li>• src.ui.service.enablePendingInbox=false</li> </ul>



CR	Problem	Solution
		<ul style="list-style-type: none"> <li>• src.ui.service.enableApprovedInbox=false</li> <li>• #src.ui.service.enableClosedInbox=false</li> <li>• #src.ui.service.enableDeniedInbox=false</li> </ul> <p>Note: By default, all display options are set to true. Therefore, a property that is commented out, is equivalent to setting a property as true.</p> <p>To a change the widget label display name from "Approved" to another label, modify the following property in the custom.properties file. For example, change the "Approved" label to "open", remove the pound sign (#) (Not shown) and change "Approved" to "Open."</p> <ul style="list-style-type: none"> <li>• account_view.status_approved=Open</li> <li>• account_view.status_approved_approval=Open</li> </ul>
QCCR1E88705	In SRC, only one field is displayed to select user option values in a table. When selecting the user option, SRC should display a QBE format similar to that in the SM9 ESS client, which shows a list of useful columns to help select the correct value.	The contact lookup component supports dynamic multi-column display.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E88772	The Contact Name field is currently read-only when you submit a request from SRC. This field should be modifiable.	The Contact Name field is now modifiable when you submit a request from SRC.
QCCR1E90029	There is no text associated with the KM search button (it is a magnifying glass) in SRC 1.4. There should be a mechanism to label this icon with some text, like "Enter Search."	SRC now enables administrators to define descriptive text in the search area by default and customize the content . When the end user clicks or types in the search text area, the text will disappear.
QCCR1E90505	<p>SRC does not support the following functionalities for Arabic:</p> <ul style="list-style-type: none"> <li>• Text alignment is right-to-left.</li> <li>• Labels that describe the text boxes are to the right of the text box, and the same for any object.</li> <li>• Tabs start from right to left, and the first tab is to the right.</li> <li>• Menu driving (such as Catalog) is from right.</li> </ul>	To comply with the convention of Hebrew and Arabic customers, Hebrew language support (out-of-the-box support) and RTL support for both Hebrew and Arabic has been implemented.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E93703	Service Request Catalog does not allow administrators to hide or remove fields.	Out-of-the-box custom fields have been used instead of hardcoded fields in the check out panels to collect request information, so that customers can re-define (add,update, or remove) the out-of-the-box custom fields to meet their requirements.
QCCR1E93810	When you order an item from the Catalog in SRC, the 'Request Name' field is confusing.	Changed the "Request Name" to "Title". To keep consistency, changed the "Request Description" field label to "Description".
QCCR1M1929	On the dashboard, if you enter a search key in the search box, then click the search icon in the search box, no response is returned. The icon is disabled.	Now SRC enables the search icon, and it would return search results after clicking.

## Mobility Client

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E73069	Tomcat 7.0 was not officially supported by the SM Mobile Applications.	Tomcat 7.0 (7.0.32 or later) is now officially supported by the SM 9.32 Mobile Applications.

## Fixed Defects

This release fixes the following defects.

### Server

CR	Problem	Solution
QCCR1E31324	With Syslog audit turned on, only a syslog record showing login is created; no record for logoff is recorded if the user does not log out "normally."	If a user logs off, the corresponding log record in SYSLOGM1 will be identified. The STOP_TIME field in this record will be populated with the shutdown time and the CURRENT_STATUS field in this record will be set to "log off".
QCCR1E31614	Service Manager periodically produces core files that result in the loss of the session.	Service Manager no longer produces core files that result in the loss of the session.
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.  Known issues: <ul style="list-style-type: none"><li>• If DB and SM are installed in different machines, the sorting speed will be affected by network condition.</li><li>• The sorting speed will not improve if the customized view contains a field of another table.</li></ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E56278	<p>Joined queries in inboxes (views) perform poorly. When using views that utilize joins across tables, performance is very slow.</p> <p>There is a new feature in Service Manager (SM) 7.X that allows the creation of views that use joined query tables. When a view uses a join across two tables, the performance degrades substantially, particularly where there are large numbers of records in the joined tables (such as 20,000 records each). For example, selecting a view and displaying the search results in the Windows and web clients took four minutes.</p> <p>Note: If the same joined query is run directly against the database, the result is displayed in less than one second.</p>	<p>The new cross-table join queries feature has solved the performance issue.</p>

CR	Problem	Solution
QCCR1E62586	<p>If a date is entered incorrectly, the following error message is displayed:</p> <p>"Field contains an invalid date/time value (display,show.rio)."</p> <p>For example, if the text 'Bob' is entered into the expected.resolution.time (previously empty) field, the value defaults to 00:00:00 and exclude the date. The field only defaults back to the correct date and time format (such as, 10/12/10 22:04:58), if it was populated in the field previously.</p>	<p>If users enter a date incorrectly, the value no longer defaults to 00:00:00.</p>
QCCR1E65082	<p>JavaScript that triggers RAD application workflows with rio/fdisp or pop-up panels results in a Signal 11 error.</p> <p>Note: This behavior can apply to any RAD application/panel that internally call the evsuspend for asynchronous operation.</p>	<p>An error message is written to the log file (and a GUI alert if running in GUI mode) and the Signal 11 error no longer occurs.</p>
QCCR1E73860	<p>The server will leak memory when if it fails to send a message to the client due to a client connection error (for example, when the client is terminated by the user).</p>	<p>The server will not leak memory when if it fails to send a message to the client due to a client connection error (for example, when the client is terminated by the user).</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E78485	<p>Sometimes, a poorly constructed query results in a long running transaction. If the user waits for a few minutes, and then terminates the client session, the server session continues to run the query until the session is terminated from system status. However, the session should be terminated automatically when the client is disconnected.</p>	<p>The session is now terminated properly on the server side when the client session expires.</p>
QCCR1E83730	<p>In the SM9.30 documentation (under Knowledge Management -&gt; Searching the Knowledgebases -&gt; Special Characters in Search Queries); there is a cautionary note underneath the asterisk description that states the following:</p> <p>"Do not use the asterisk to specify the first character of a wildcard string."</p> <p>This is a request to make knowledge management work with an asterisk at the start of the search term.</p>	<p>Service Manager now allows searches to start with an asterisk.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E84136	<p>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.</p>	<p>This is a defect in JGroup. A timeout connect method is now used in JGroup API to work around this issue.</p>
QCCR1E88186	<p>When you add new fields through 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.</p>	<p>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.</p> <p>Now, when you add new fields through dbdict, the dbdict.alter.g form (which has the SM alters button) appears.</p>



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E88334	If the tablespace names do not match when loading in a system unload from db2 to a system running Oracle with a different tablespace, an error is returned that states the tablespace does not exist.	If the tablespace names do not match when loading in a system unload from db2 to a system running Oracle with a different tablespace, you can use the <code>ignoretablespacemapping</code> option to ignore the tablespace and use the default tablespace; or, you can use the <code>replacetablespacemapping</code> option to replace the tablespace by specifying the tablespace name.
QCCR1E88327	RTE Signal 11 occurs when running the <code>"xml.setContent"</code> js function.	Signal 11 does not occur when running the <code>"xml.setContent"</code> js function.
QCCR1E89016	The <code>CollectionDelete()</code> RAD function only removes all the items from a collection group, but not frees memory of each item.	The function now frees memory of each item.
QCCR1E89661	The core dump generated on AIX is not a full core dump, which makes it difficult to analyze.	Full core dump now can be generated on AIX.
QCCR1E90187	The Count button does not work when view recordlist is disabled and there is a date condition in the query.	The date condition in the "count" query is now properly translated.
QCCR1E91092	You cannot use the 'file.load' application to load interaction records from the command line.	You can load interaction records via the command line.

CR	Problem	Solution
QCCR1E91557	If you setup the Javamail as explained in the "Emailout parameters in the sm.ini file" help section, you can only configure one e-mail address in the mailFrom field of the form (Ex. <user@example.com>). However, there is no way to include the name of the user (Ex. user<user@example.com>).	This issue was caused by the Apache Email API. Now the SM RTE supports email addresses with an alias.
QCCR1E91996	The documentation for the agstackl parameter has a default value of 400, which is incorrect.	The correct value is 600. When you run the "sm – helpstart" command, the default value of agstackl displayed is now 600.
QCCR1E95026	In the wsdI responses the 'type' attribute is missing in the <messages> tag. It lacks the words "type=String". By the absence there is an error in the SAP system via which the web service is accessed. This system expects a 'type' attribute in the response.	Now in the wsdI response the 'type' attribute appears in the <message> tag.
QCCR1E95578	Message "STRING is not null terminated!!!" does not give much detail about which STRING has the problem.	The stack trace is printed when the RTE gets the error "STRING is not null terminated!!!", which is useful to identify the specific problematic string.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E95771	When the memory is freed unexpectedly, there is no clue for the developer to figure out the root cause.	Memory trace information is now provided when the memory is handled wrongly. A new parameter (tracememerror) has been added in the server to control whether to print stack trace or generate the coredump. You can set this parameter to: <ul style="list-style-type: none"><li>• 0: default value, disable this feature;</li><li>• 1: print call stack;</li><li>• 2: print call stack and generate coredump.</li></ul>
QCCR1E95954	When the mutex lock/unlock fails, you have no clue to analyze which mutex has the problem and what the status of the shared memory is.	In order to analyze why the mutex lock/unlock fails, SM will generate coredump and print a more detailed log.  Note: You need to set enablecoredump:1 in sm.ini.
QCCR1E95984	Java Script doCount does not return correct value when no record is found.	doCount returns 0 when no record is found.
QCCR1E96053	When running SM, if you run command "sm -reportstatus", a signal 11 will occur and core dump can be seen in sm.log.	When SM command exits, SM will check the database environment. If the database environment is not initialized, SM will skip the database operation. No signal 11 occurs.

CR	Problem	Solution
QCCR1E96115	The KMSecurity script does not appear to be building the \$G.viewid variable correctly as a number of users are missing kmcategory records for categories they should have permissions for.	There was a limit in the RTE DB access interface, which limited the records that could be fetched. Now the limit has been removed.
QCCR1E96102	The ir_sql_limit parameter does not take effect for a merged file, causing inconsistent and unexpected IR search results when searching Incidents using a combined IR and SQL query.	Now the ir_sql_limit parameter takes effect for a merged file. Furthermore, now you can configure ir_sql_limit:0 to fetch all the rows from the RDBMS for the IR query.
QCCR1E96157	When KMUpdate fails, incremental update does not continue.	When KMUpdate fails, incremental update continues to work.
QCCR1E96206	A field is displayed twice after it is added into a view.	The redundant field will now be filtered out when doing the DB query.

CR	Problem	Solution
QCCR1E96284	<p>The following message is received:</p> <p>The record being updated has been modified since read when saving around 10% of operator records.</p> <p>From the log trace, it looks like the operator capability array is truncated. This only occurs in environment where the binaries have been upgraded to 9.31.2018. If you restart the same server, using the backed up 9.30.282 binaries, you are able to save the record without the warning message.</p>	<p>This issue was caused by the attempt to remove those capabilities merged from the template record when a template-lized record became non-template-lized (see QCCR1E32145). After this fix, the capabilities that came from the template record will remain unchanged.</p>
QCCR1E96352	<p>KM Plugin crashes when transferring HTML to text.</p>	<p>KM Plugin will not crash when transferring HTML to text.</p>
QCCR1E96690	<p>Error message occurs in the log: _____ JNIMemoryAllocator::unlink - mem at 09a64600 is not in our map!</p>	<p>The changes of QCCR1E90073 have been reverted.</p>
QCCR1E96815	<p>A view that includes joined fields does not refresh as expected after making changes to a single record in the record set.</p>	<p>After making changes to a record, the refresh of the view including the changed record works well.</p>
QCCR1E96880	<p>Mass unload using Database Manager stops at 10 000 records when using merged file.</p>	<p>Mass unload using Database Manager will not stop at 10 000 records when using merged file.</p>

CR	Problem	Solution
QCCR1E96960	<p>The Inactivity Timer mechanism needs to be enhanced to improve performance.</p> <p>The default value of the inactivity timer is set in the scheduler application. When the user logs in, the SM server needs to fetch it from the database, which may result in performance issues.</p>	<p>The Inactivity Timer mechanism has been refactored for better performance.</p> <p>The inactive.startup background process is now obsolete, which eliminates the need to start this process in order to start the Inactivity Timer. Once your server has upgraded to 9.32 or later, you can delete this process if it still appears in your System Status's Start Scheduler list.</p>

## Web Client

CR	Problem	Solution
QCCR1E31719	<p>If there are unsaved changes and the user select disconnect, or click the "X" (Close) button, the current view or window will be directly closed without prompting for saving changes.</p>	<p>Now, a confirmation message box will be prompted when user clicks the "X" (Close) button in the browser.</p> <p>Limitations:</p> <ul style="list-style-type: none"> <li>The user should first change the default value of the context parameter "enableExitConfirmMessage" in web.xml to "true";</li> <li>The solution only works on the Web client.</li> </ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E53587	If a timer widget is added to the form SD.update.interaction with the input value set to \$L.handle.start, the Windows client and Web clients display different times for an existing record. The Windows client displays 00:00:00 and then increments, but the Web client displays the system time.	If a timer widget is added to the form SD.update.interaction with the input value set to \$L.handle.start, now both the Windows client and web client display the same value 00:00:00 for an existing record.
QCCR1E59865	In the Web client, a Comfill widget with the Mandatory property checked never displays the mandatory marker if the Array Length property of this Comfill is set to a number greater than 1.	In the Web client, a Comfill widget with the Mandatory property checked displays the mandatory marker as required.
QCCR1E60807	The HTML editor is still editable after it is set to read-only in the web client.	The HTML editor is read-only after it is set to read-only in the web client.

CR	Problem	Solution
QCCR1E65794	<p>If you extend the height of a Text Area widget with "Extend enabled" attribute set to true, it may overlap the widgets below it in Web client.</p>	<p>Now, if you extend the height of a Text Area widget with "Extend enabled" attribute set to true, it do not overlap the widgets below it in Web client.</p> <p>Known issues</p> <ul style="list-style-type: none"> <li>• "Extend enabled" attribute is only supported by the Text Area widget, do not use it for the Text widget;</li> <li>• For IE only: <ul style="list-style-type: none"> <li>The first time you click the expend button, there will be a slight position change for the Text Area on the web page.</li> </ul> </li> <li>• For both FireFox and IE: <ul style="list-style-type: none"> <li>If you expand at least two Text Areas on the web page by setting the height value to a very large number, and then collapse one of them, vertical scroll bar will appear for the group containing these Text Areas.</li> </ul> </li> </ul>



CR	Problem	Solution
QCCR1E65826	In the Web client, after continuously clicking on the "Save" button to save a "change" record, on-screen messages stop displaying and the System Navigator freezes.	In the Web client, after continuously clicking on the "Save" button to save a "change" record, on-screen messages display normally and the System Navigator works normally.
QCCR1E68874	<p>The Employee Self Service (ESS) client has overlapping buttons when the French language is applied.</p> <p>Note: This issue can be seen when you view closed requests on ESS.</p>	<p>Now, the buttons do not overlap with each other in the ESS mode.</p> <p>Limitation:</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, or</li> <li>• The user uses a low screen resolution, e.g. 1024*768, or</li> <li>• The browser width is resized too small.</li> </ul>
QCCR1E69692	The major Service Manager CSS and JavaScript resources do not expire if the customer upgrades the Web tier without changing the context path.	<p>The locations of the major CSS and JavaScript resources are changed to a path that reflects the current build number. Therefore, the client's browser does not make use of the CSS and JavaScript cache from an old version.</p> <p>See the "Updates to the Service Manager Web Tier Directory Structure" whitepaper at the HP Software support Web site.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E69935	While deploying Service Manager 9.X, users are not permitted to add or manage their favorites. Trying to hide the Add Favorite and Manage Favorite buttons by editing the web.xml and then stopping and restarting the Web Tier, but the favorite buttons still appear.	These parameters now take effect after you change the configuration in the web.xml file.
QCCR1E71401	Nothing happens when you press the Alt+F6 key command to close an Incident in the Web client.	Pressing Ctrl+Shift+F6 now closes an Incident in the web client.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E74392	It is difficult for blind users to define their position within the Accessible Web tier.	<p>Now the accessible web client behaves as follows:</p> <ul style="list-style-type: none"><li>• You can move the focus to the current active tab header using the keyboard shortcut "CTRL + ALT + H".</li><li>• When focusing on the tab header, use the left/right arrow key to switch to the left/right tab of the current active one.</li><li>• You can close the current active tab using the keyboard shortcut "CTRL + ALT + T".</li></ul> <p>Known issues:</p> <p>In accessible mode, the following known issues exist when JAWS is running:</p> <ul style="list-style-type: none"><li>• When using the "H" key or "CTRL + ALT + H" to focus a tab header, and then press Tab or Shift+Tab, the headers of the previous and next inactive tabs are still focusable.</li><li>• When using Shift + Tab to focus a tab header, the header will be read as "[header text] heading level one". The previous or next unfocusable element is focusable.</li></ul>

CR	Problem	Solution
QCCR1E76272	<p>In a customer's Production environment sometimes Tomcat memory suddenly spikes and then exceeds available memory when certain Change records are viewed in Web client. This problem neither occurs with all Change records nor occurs in a Test or Development environment with the same records.</p>	<p>By the timely releasing of Java heap memory, now the memory usage by the Web tier in an application server will not exceed the limits.</p>
QCCR1E76629	<p>A collapsed list view in a list detail page will expand again after the page is refreshed.</p>	<p>Changed the code to "remember" the list view current "state" in the list detail page. When any modifications were resulted from a page refresh, the list view retains its original state. The state is captured and saved in the current session for each tab, and in the same tab, for each type of list views, the state is remembered separately.</p> <p>Note: The list view always displays in expanded mode for search results of the first time search. To enable this feature, set "enableListFrameStateRetain" in the web tier's web.xml to "true".</p> <pre data-bbox="1283 1109 1822 1360"> &lt;context-param&gt; &lt;param-name &gt; enableListFrameStateRetain&lt;/ param-name&gt; &lt;param-value &gt; true&lt;/ param-value&gt; &lt;/context-param&gt; </pre>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79210	All collapsed sections in detail form are not accessible by the keyboard and JAWS cannot read the open status of these collapsable sections.	All collapsed section in the detail form are accessible now. When you focus on the toggle button, JAWS will read: "Expand/Collapse" + [section header text]
QCCR1E79208	RecordList data and header cannot be read by JAWS and is not keyboard-accessible in the Web client.	After setting ARIA related roles and attributes to RecordList, it can now be read by JAWS and is also keyboard-accessible.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79365	When multiple thread tabs are open, the JAWS screen reader cannot determine which tab is active or selected.	<ul style="list-style-type: none"><li>• The current active tab header can be focused by using the keyboard shortcut "CTRL + ALT + H".</li><li>• When focusing on the tab header, use the left/right arrow key to switch to the left/right tab of the current active one.</li><li>• The current active tab can be closed by using the keyboard shortcut "CTRL + ALT + T".</li></ul> <p>Konwn issues:</p> <p>In accessible mode, when JAWS is running:</p> <ul style="list-style-type: none"><li>• When using the "H" key or "CTRL + ALT + H" to focus on a tab header, and then press Tab or Shift+Tab, the headers of the previous and next inactive tabs are still focusable.</li><li>• When using Shift + Tab to focus on a tab header, the header will be read as "[header text] heading level one". The previous or next unfocusable element is focusable.</li></ul>

CR	Problem	Solution
QCCR1E79435	When new tabs or pages are loaded, the JAWS reads the tab headers as "[header text] Heading level one" instead of "[header text] tab"	<p>Only an active detail tab header is focusable, and when focused the tab header is read as "[header title] tab".</p> <p>Known issue:</p> <p>In accessible mode, when JAWS is running, if you use "H" key or "CTRL + ALT + H" to focus the header of the current tab, the header will be read as "[header text] heading level one" rather than "[header text] tab" only.</p>
QCCR1E79492	When opening a new change, the user is presented with a table object listing the Change Categories. However, the screen reader does not read these categories to the user when tabbing through the categories, nor does the screen reader provide a general overview of what is listed in the table object.	When the user tabs through the change categories list, the screen reader reads out the currently focused element.
QCCR1E79618	JAWS always reads the last item on the left Navigation pane as "List of two items" even if the list is collapsed. That is, the Miscellaneous option on the left Navigation pane always reads "List of two items" after focusing on Miscellaneous.	The Miscellaneous option on the left Navigation pane reads "Miscellaneous tab open/close", and no additional unnecessary statement is read out.
QCCR1E88476	When using the old ServiceCenter style menu, if users click the "Main Menu" tab, the tab disappears.	The "Main Menu" tab now displays correctly when users use the old ServiceCenter style menu.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E88836	The Decimal widget displays shorter in the Web client than in the Windows client.	Now the Decimal widget displays the same width in both the Web client and Windows client.
QCCR1E89209	The record list disappears after saving the record that contains special characters.	When saving a record which contains special characters, the record list does not disappear.
QCCR1E89670	When you try to show multiple records from a sub-format within the Notebook in the Web client, only the first record is shown, and it is shown multiple times.	When you try to show multiple records from a sub-format within the Notebook in the Web client, all records are shown correctly.
QCCR1E89764	When an array of records display in a Subform in the Web client, the clicking of the "find" button of each record always shows the detail information of the first record.	When an array of records display in a Subform in the Web client, now the clicking of the "find" button of each record shows the detail information of the corresponding record.
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 the Web client through a query URL even if after a failed login.
QCCR1E89976	In the 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 the 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.



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E90582	In the Web client grouping view, the previously focused group header still gets a focused style after the focus goes to a data row.	In the Web client grouping view, the previously focused group header gets a normal style after the focus goes to a data row.  Known issue:  If you move the focus off the RecordList, the focused style of the last focused group header or data row remains unchanged.
QCCR1E90705	Read-only Comfill and combo boxes allow you to move between items when you use a Value list or Display list.	No actions are allowed to change value in read-only Comfill or Combo boxes.
QCCR1E90749	When the Readonly DVD condition of a Comfill is true, the display value of the Comfill changes to its value after you save it.	The display value no longer changes after you save it.
QCCR1E90750	The current value of a select-only Comfill is cleared if the value list does not contain it.	The current value of a select-only Comfill is kept even if the value list does not contain it.

CR	Problem	Solution
QCCR1E90934	<p>When you search Knowledge Management and then click on any document in the hitlist, the webtier/browser generates the following error:</p> <pre>TypeError: parent.tpzExecute is not a function javascript:parent.tpzExecute ('activeLink90cdb1e13cb0f3ea013cb15d526e0011'); ()</pre> <p>Note: This error is retrieved from Firefox FireBug. Other browsers may generate a different error message.</p>	<p>The document opens correctly without errors.</p>
QCCR1E91182	<p>Pressing of the Enter key on the RecordList Count message box drills down to the detail view of the highlighted record instead of dismissing the message box.</p>	<p>Pressing of the Enter key on the RecordList Count message box now dismisses the message box instead of drilling down to the detail view of the highlighted record.</p>
QCCR1E91235	<p>The title on "mb.yes.no" windows is displayed as "Main Menu&lt;OPERATOR FULL NAME&gt;" on the Web client instead of the localized version.</p>	<p>Now, the Title is set as follows:</p> <ul style="list-style-type: none"> <li>• "Question" for a message box of "Yes/No" type.</li> <li>• "Warning" for a popup message box with "Warning" type.</li> </ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E91463	Affected CI text fields overlap with elements underneath it if you select more than three CIs back from the fill field form.	A vertical scroll bar is displayed if many affected CIs are selected.
QCCR1E91461	Focus moves unexpectedly after you fill in a value back from the fill field list form.	Focus is kept at the original fill input box when you go back to the detail page.
QCCR1E91511	The count-record button is not large enough for the full label in some languages.	This defect has been fixed by modifying the style sheet.
QCCR1E91524	JAWS fails to distinguish different buttons in the paging bar of the RecordList. It reads the same message "Button, to activate press the spacebar" for the First, Previous, Next and Last buttons.	JAWS can now distinguish different buttons in the paging bar of the RecordList. It reads different messages for different buttons.
QCCR1E91577	When setting "attributes and values" for "Expected States" of a Configuration Item (CI), if the type of the first field is array-of-datetime, the following array-type fields will also be displayed as array-of-datetime type.	When setting "attributes and values" for "Expected States" of a Configuration Item (CI), all array-typed fields are displayed correctly.

CR	Problem	Solution
QCCR1E91561	<p>When you open the "Search CIs" under Configuration Management -&gt; Resources, click the "CI Type" dropdown to make a selection, and then click "CI Subtype," all the valid CI Subtypes display as expected. However, if you have to leave the "Search CIs" tab open and then search CIs on any other module based on CI Type and CI Subtype, when you return to the "Search CIs" tab, click on CI Type dropdown to make another selection of the CI Type, and then click the CI Subtype dropdown, no values are returned.</p>	<p>Now the behavior is the same as the Windows client; the DVD Select statement lists the expected subtype values.</p>
QCCR1E91758	<p>The default focused row is not in the grid view area after the list-detail view is refreshed by pressing the ENTER key in the detail form.</p>	<p>The default focused row now displays in the grid view area after the list-detail view is refreshed by pressing the ENTER key in the detail form.</p>
QCCR1E91953	<p>The Web client hangs when trying to show a view with an array field.</p>	<p>The Web client now shows the view with an array field correctly.</p>
QCCR1E92503	<p>If Popup Subform is enabled for a Comfill field, when a value in the display list is equal to another value in the value list, the Popup Subform shows wrong detail information when hovering over the field.</p>	<p>If Popup Subform is enabled for a Comfill field, the Popup Subform always shows correct detail information when hovering over the field.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E92671	When you move the cursor over certain fields in Service Manager, a pop-up window appears in which you can see some information related to that field. When you do this with a field that is located on the very right side on the format, part of the pop-up is out of the range of the web client window.	The pop-up window now appears fully within the view.
QCCR1E92682	For ListBuilder in the web tier, the highlighting for an option is not removed from one list when you make a selection in the other list.	<p>For ListBuilder in the web tier, now at most one option of the two lists is allowed to be highlighted.</p> <p>Known issue:</p> <p>FireFox behaves differently from IE in the focus handling of the ListBuilder widget, such as clicking into the list or using space bar or arrow keys to select the option. This is the difference of browsers for handling the native HTML &lt;select&gt; element.</p>
QCCR1E93276	<p>The following message appears periodically in the SM web tier client logs:</p> <p>ERROR ajp-bio-8009-exec-16551 com.hp.ov.sm.client.webtier.SCLogging - Jan 14, 2013 20:12:15 GMT [ERROR] Dangling transition detected in workflow.</p>	The error message has been changed to a debug warning.

CR	Problem	Solution
QCCR1E93560	On a SM system with load balance configured and honorUrlPort enabled, a page refresh operation will cause the web client to display an inaccurate message "You are trying to connect to a different server while the Service Manager main application is already open in another browser tab. If needed, save your work in the other tab first, and then continue". After clicking the "OK" button on this message page, the web client logs off.	On a SM system with load balance configured and honorUrlPort enabled, a page refresh operation will cause the web client to display an accurate message "The Service Manager main application is already open in another browser tab or you recently refreshed the current page. If needed, save your work in the other tab first, and then continue". After clicking the "OK" button on this message page, the web client goes back to the previous page.
QCCR1E94522	The Fill function works incorrectly in the Web client when the focus is not on the related widget.	The Fill function works correctly in the Web client even when the focus is not on the related widget.
QCCR1E94524	If you click the "Manage Favorite" icon twice, the "Add Favorite" icon is displayed again although the parameter is set as false.	If you click the "Manage Favorite" icon twice, the "Add Favorite" icon is not displayed when the parameter is set as false.
QCCR1E95113	If a menu item on the System Navigator contains special characters, the web client does not render the menu tree correctly.	If a menu item contains special characters, the web client renders the menu tree in the same way as the Windows client.  Limitation:  If the menu item contains a colon (":"), it will not be rendered as expected.

CR	Problem	Solution
QCCR1E95522	Sometimes the focus is not on the RecordList when it is displayed in Internet Explorer (IE).	Now the focus is always set to the first cell of the RecordList when it is displayed in IE.
QCCR1E95569	In Change Management if you have multiple approvals for one change, when you try to override one approval, you will get an alert message "The cursor is not on a current or future pending group."	<p>In Change Management if you have multiple approvals for one change, you will now override one approval successfully without any alert messages.</p> <p>Known Issue:</p> <p>Now, you'll have to click in the "Correct" cell of a row before you can successfully carry out further operations base on your selection.</p> <p>For example, before doing an override operation, be sure to click in the "Group/Operator Name" cell of an approval in the "Future Approvals" table, or click in the "Approval Group/Oper" cell of an approval in the "Completed Approval Actions" table.</p>
QCCR1E95597	The "Collapse Enabled" function displays a JavaScript error for a group widget.	The "Collapse Enabled" function no longer display a JavaScript error for a group widget.
QCCR1E95809	After creating an Incident view with the "Assignee-Security Group" field and then trying to show this view, the Web client hangs and a blank page shows in the end.	After creating an Incident view with the "Assignee-Security Group" field and then trying to show this view, the Web client shows the view correctly.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E95969	You receive a "Webpage has expired" message if you press the backspace key when viewing a knowledge document in Internet Explorer.	<p>The backspace key is blocked for knowledge management records.</p> <p>Known issue:</p> <p>If the document type is external and status is external, when the focus is on the bottom frame of the document detail, the backspace key is not blocked.</p>
QCCR1E96013	The last active group is expanded or collapsed after pressing the spacebar on a focused column header.	The last active group stays unchanged after pressing the spacebar on a focused column header.
QCCR1E96047	Subformat table rows are not displayed in web client.	Rows are displayed correctly in web client.
QCCR1E96100	If you set Tab Stop value for a Notebook widget to "-1", the keyboard tabbing in the Web client still sets focus to the Notebook tabs.	The Tab Stop property works on the Notebook widget now. If you set Tab Stop value for a Notebook widget to "-1", the keyboard tabbing in the Web client will not set focus to the Notebook tabs.
QCCR1E96218	You cannot adjust the table column width of the ToDo Queue and View in the first tab using Firefox 21.	Now you can adjust the table column width of the ToDo Queue and View in the first tab using Firefox 21.



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E96430	The Web client freezes when trying to display a page with a ListBuilder widget, if the ListBuider selections contain the character '&'.	The Web client displays a page with a ListBuilder widget even if the ListBuider selections contain the character '&'.
QCCR1E96879	If one Tab of a Notebook widget is invisible on initial loading, and then you dynamically set the Visible Condition of this Tab to true, the Tab contents are still invisible.	If one Tab of a Notebook widget is invisible on initial loading, and then you dynamically set the Visible Condition of this Tab to true, the Tab contents are visible now.
QCCR1E97411	A new dashboard or folder can be created under an existing dashboard.	Users can no longer add a dashboard or folder under an existing dashboard now.
QCCR1E97455	Unable to use the "Up" or "Down" arrow to select from a Combo box in the list-detail view when JAWS is running.	Now you can use the "Up" or "Down" arrow to select from a Combo box in the list-detail view when JAWS is running.
QCCR1E97623	High CPU utilization occurs on the Service Manager Web client under concurrent load.	High CPU utilization has been eliminated under concurrent load.
QCCR1E97627	Icons in the workflow list toolbar are lost.	The Icon images file path has been corrected. Now icons are shown on the toolbar as expected.

**Localization**

CR	Problem	Solution
QCCR1E70535	<p>In QCCR1E69316, two new labels were added in client\webtier\src\java\com\hp\ov\sm\client\webtier\cp_e_web.properties:</p> <p>WebControllerServlet.login_process=Login is in progress, please wait ...</p> <p>WebControllerServlet.do_not_refresh=Please DO NOT refresh this page to avoid slowing down the login process.</p> <p>But they were not localized.</p>	The labels now have been localized.
QCCR1E70942	<p>A warning message that appears when you quickly switch between tabs in the web client is not localized.</p> <p>.</p>	The warning message has been localized.

## Windows Client

CR	Problem	Solution
QCCR1E49438	<p>When returning from certain formats (Ex. from activityservicemgt to SD.update.interaction), the function keys (Ex. F10 or F11) no longer work.</p>	The function keys always work as expected now.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
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>Note: 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 a Fill action.</p>
QCCR1E68848	<p>If the client session is terminated while a dialog box is open (for example, as a result of session a timeout), you can never close the client. You receive a "Session no longer valid" error message when you try to close the client.</p>	<p>The dialog box can be closed by clicking the "X" button.</p>
QCCR1E72274	<p>In the Windows client, when you try to print a form containing a comfill widget with DVD conditions, you will receive the following Java Runtime error: "Unable to get value of the property 'wrapComfill': object is null or undefined."</p>	<p>A form containing a comfill widget with DVD conditions can now be printed correctly in the Windows client without any errors.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E92085	With a list of "Object" records, after you view the "Search Configuration" tab in the detail view of one record, the Windows client shows blank contents for the "Search Configuration" tab for the rest of records.	With a list of "Object" records, the Windows client displays correct contents for the "Search Configuration" tab in the detail view for all records.
QCCR1E93015	The newly installed Windows client hangs when connecting to a server if an old version client was in use before. And then if you try to use any of the old versions, it also hangs.	The newly installed Windows client connects to a server successfully if an old version client was in use before, and any of the old versions also works correctly.
QCCR1E93996	When you configure Service Manager 9.31 with TSO, the user's language preference is set incorrectly. This issue occurs when the "Use Trusted Sign-on" option is selected in the connection screen.	The language setting now takes effect when a user logs in using Trusted Sign-on.
QCCR1E94930	When you try to close one of the open windows in the Windows client by using the File > Exit menu, all windows are closed. You can only close a single window by clicking the "close" button on the upper right corner of the window.	When multiple windows are open in the Windows client, the click of the File > Exit menu only closes the current active window.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E95200	<p>The following message box appears in the Windows client (Service Manager 9.31 Patch 2) when you switch selection in the Connection Configuration list:</p> <p>The configuration *** has unsaved changes. Do you wish to save them?</p> <p>This issue only occurs when you switch from a Connection Configuration with the "Remember my password" check box checked, even though there are no unsaved changes.</p>	<p>When you switch selection in the Connection Configuration list the "Save Changes" message box will not appear if there are no unsaved changes.</p>
QCCR1E97227	<p>If the operating system (OS) date format is set to Chinese (PRC), the Windows client does not display the Chinese names of the days of the week (such as Monday) completely in the pop-up calendar window for a date/time field. It displays only the first two Chinese characters.</p>	<p>If the OS date format is Chinese, the Windows client now displays only the last Chinese character (one, two, three, and so on) of each day of the week in the pop-up calendar window.</p> <p>Note: Starting with SM9.30p2, the Windows client has displayed the navigation menu (System Navigator) based on the OS display language instead of the OS date format. For example, if the display language is English, the menu will display in English even if the date format is Chinese.</p>

# Windows Client Configuration Utility

CR	Problem	Solution
QCCR1E95547	<p>The startup.jar file does not exist in the Client folder after the installation of SM 9.31.p2 Windows client.</p> <p>If you run the SM 9.30 Client Configuration Utility and input Directory as "C:\Program Files\HP\Service Manager 9.31\Client", when you click the Next button, the utility reports the following error message:</p> <p>"File does not exist: C:\Program Files\HP\Service Manager 9.31\Client/startup.jar".</p>	<p>The startup.jar file is not needed as of 9.31 patch 2. After removing the startup.jar validation, the Client Configuration Utility runs successfully without any errors.</p>

# Application

## General

CR	Problem	Solution
QCCR1E31131	<p>When using the Baseline Group Wizard, the dynamic Link in the form Filter.edit.addFilter.device does not work, and the following error message is received:</p> <p>"No link exists for this field, fill function cannot be performed"</p> <p>However, it is not clear what the missing link is.</p>	Updated the code to make the Link work properly.
QCCR1E31324	<p>With Syslog audit turned on, only a syslog record showing login is created; no record for logoff is recorded if the user does not log out "normally." If a user logs off, the corresponding log record in SYSLOGM1 will be identified.</p>	The STOP_TIME field in this record will be populated with the shutdown time and the CURRENT_STATUS field in this record will be set to "log off".

CR	Problem	Solution
QCCR1E32007	<p>Line 220 of the createARequest ScriptLibrary record currently reads as follows:</p> <pre>scmessage=system.functions.scmsg(158, "ScriptLibrary", [ScripLibrary, RCtoString(rc)]);</pre> <p>However, when you submit a ServiceCatalog Request, this line produces the following error message in the log file because of the syntax:</p> <pre>"Script 'createARequest' line 220: ERROR ReferenceError: ScripLibrary is not defined at char 1"</pre> <p>Note: The request is not created.</p>	<p>The syntax error has been fixed.</p>



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E32156	<p>The ServiceCenter process/client runs in an infinite loop when attempting to open a new task. In an OOB system, this happens if you remove all task categories except for the "Create Group" Task Category. Then, if you simply click on Open New Task from the navigation menu, the process enters an infinite loop.</p> <p>This behavior occurs because, when opening a task, the cm.open application looks for open Change Requests where the current phase is one of the available phases from that task category. If it cannot find one, the search is repeated in an infinite loop. When this occurs, the following message appears in the log repeatedly:</p> <p>"No Changes were found that match the allowable Phases."</p>	SM will not run into an infinite loop when attempting to open a new task.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E8754	<p>When you contribute a new KM document and do not specify an expiration date, no expiration date is set. This behavior occurs even though the KM environment record contains a note with the following field on the form:</p> <p>Default Expiration Period (0 if document never expires): 365 days (default)</p>	<p>When creating a new kmdocument, the expiration date will be set as defined in the environment record.</p> <p>Note: A value of 0 means the document will never expire.</p>

CR	Problem	Solution
QCCR1E32188	<p>When an operator does not have the appropriate rights set in the application profile, an attempt to create a favorite will result in a SOAP Fault occurred: "A CXmlApiException was raised in native code : error 19 : scxmlapi (19) - Doc Engine call failed with cc -1", followed by "You do not have rights to create public views."</p> <p>The SOAP Fault error message is unexpected. This issue occurs in the Web and Windows clients. When an operator does not have the appropriate rights set in the application profile, an attempt to create a favorite does not result in a SOAP Fault error message, and the message that follows has been changed to "You do not have rights to create personal views."</p> <ul style="list-style-type: none"> <li>• Updated the message when an operator does not have authority to create personal views;</li> <li>• Updated the message recipient to the current logged-in user.</li> </ul>	<p>When an operator does not have the appropriate rights set in the application profile, an attempt to create a favorite does not result in a SOAP Fault error message, and the message followed is changed to "You do not have rights to create personal views."</p> <p>Detail changes are as below:</p> <ul style="list-style-type: none"> <li>• Updated the message when operator does not have authority to create personal view,</li> <li>• Updated the message receiver to the current logged-in user.</li> </ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E54551	Clicking "OK" on a reopened incident ticket updates the record, but does not Save and Exit as expected.	The window now saves and exits correctly.
QCCR1E56235	In a fill widget, when the end user enters a few characters in a language other than English, and then hits the fill button, a database search is launched for values starting with these characters. Because the database contains only the English values, no results are returned, even if the characters are the valid beginning of a value.	A workaround is available.
QCCR1E57832	Service Manager will not open a related request for any Service Catalog item configured to open the specific request category.	Quotes are generated from Service Catalog correctly even if Quote Category names are similar.

CR	Problem	Solution
QCCR1E58482	<p>When a user has saved a view with a date in it (for example, in the Opened After field) and afterwards edits the view, the date values are not retained. For example, if a user makes changes by editing the date, saves the view again, and exits, when the view is reopened, the date that was entered is not correct. This applies to all date fields in the view. There are very different results; sometimes the whole date field is empty, sometimes the day and month have been replaced with each other, and other times a whole different date has been filled.</p>	<p>The date that was entered is correct when the view is reopened.</p>
QCCR1E62955	<p>SM treats the non-mandatory Date and Time fields defined inside Service Catalog User Selections as mandatory, as validation errors occur on null entries of these fields.</p>	<p>SM treats the non-mandatory Date and Time fields defined inside Service Catalog User Selections as non-mandatory, as validation errors no longer occur on null entries of these fields. The defect has been fixed by modifying ScriptLibrary: dynamicFormValidation.</p>
QCCR1E67490	<p>When selecting a localized item within a bundle, the additional text instructions do not display correctly.</p>	<p>When selecting a localized item within a bundle, the additional text instructions display correctly.</p>
QCCR1E67641	<p>Outage calculations for incidents logged with outage periods in the past are incorrect.</p>	<p>The slamonthly report is now recalculated after the new outage end is set.</p>

CR	Problem	Solution
QCCR1E68877	When you search for Items or Bundles in Service Catalog and you select a Category that contains only categories, no search results are received. However, if you browse through the catalog categories, you can find the items you are looking for.	Correct search results are now returned, which contain the category and the bundles or items you searched for.
QCCR1E70481	When you use Export to Text file with the delimiters other than Comma Separated Value (CSV) and Semicolon Separated CSV, if any of the fields contains a Line Break (New Line), an empty line is seen in the exported file. This defect is fixed.	Export to Text works fine for multiple-line text.
QCCR1E70993	The CI Relationship Graph collapses when you expand a group. Instead of extracting the two CIs from the group, the graph will be collapsed to its first version. All the nodes previously expanded have to be expanded again in order to see the CIs that were extracted from the group.	<p>The CI Relationship Graph is displayed correctly after the group is expanded.</p> <p>Note: When you change the decorator definition or the threshold for triggering the formation of a CI group, you need to log off and log back in for the change to take effect.</p>
QCCR1E71589	Users with the SysAdmin capability word cannot delete fields from Knowledgebase definitions. This issue occurs only with some users.	You can now delete a field from a Knowledgebase definition even if many knowledgebases are displayed.

CR	Problem	Solution
QCCR1E71665	You receive an error message when you create a new ticket if calendars were not extended to include 2012 dates: "Record was locked at: <date-infor>, rescheduling."	To resolve this issue, the holidays in calholiday were updated until the year 2014.
QCCR1E72733	The Template functionality in Change Management does not respect the selected Change Model or change category of the change to which it is applied. This results in invalid changes when the Process Designer Content Pack 9.30.0 is installed.	A validation for subcategory was added so that invalid subcategories are not saved.
QCCR1E72880	The Define View wizard does not hide fields that are marked as "unavailable" by using conditions.	The Define View wizard hides fields that are marked as "unavailable" by using conditions.
QCCR1E73953	Some RAD applications have references to a non-existent panel. This causes the applications to crash when executed.	The invalid references have been replaced with an appropriate panel.
QCCR1E73974	The calendar.calc.interval application doesn't calculate interval correctly under "24*7" Work Schedule when holiday is included into Working hours.	The calendar.calc.interval application now calculates interval correctly after changing the logic.
QCCR1E74348	An operator who has no folder right to view incident management records can incorrectly view all incident management records.	The operator cannot view the Incident Management records in the folder.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E74423	The calculation of payment due dates when using "Generate Payment Schedule" wizard does not populate due dates on all payments if the operator record and system information record are not configured for the US date format (mm/dd/yy).	Date Due by monthly generate payment schedule of contract is calculated correctly.
QCCR1E74482	CI decorators cannot accept multiple conditions.	CI decorators can accept multiple conditions.
QCCR1E75732	Expanding upstream groups in Relationship Graph shows extra physical connections. Specifically, in a device that has one upstream group and one downstream group, the individual CIs are shown below the initial CI and there is an extra physical edge connector after you expand the upstream group. The extra connections occur because the expanded CI is drawn twice. Because each instance of this drawn CI has the same ID, it appears as if one CI has two connections.	This issue was resolved by removing the redundant function invocation.



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E75856	<p>When you install the uCMDB Content Pack on a system that already has Process Designer installed, the following errors are generated at the end of the installation process:</p> <p>The record being added contains a duplicate key (sm.patchrel.data,add.save.record)</p> <p>file:(datadict) key:(name=NEWCPdevice) (sm.patchrel.data,add.save.record)</p>	<p>The uCMDB Content Pack installs without errors, if you tailor the devtype datadict.</p>
QCCR1E76034	<p>Users can attempt to use the WSDL to JS function to import a Webservice for consumption by Service Manager from uCMDB. To do this, authentication is required to access the wsdl. When the user enters the URL for the WSDL, enters a valid User Name and Password, and then runs the WSDL2JS function, the following 401 authentication failed error is received:</p> <p>WSDL request failed with exception Error calling method: doHttpRequest in class:com/hp/ov/sm/server/utility/HttpClient Exception (java.io.IOException: Server returned HTTP response code: 401 for URL</p>	<p>SM generates a wrong base64 code string which mismatches the base64 code string generated by the WSDL side.</p> <p>This problem has been fixed by correcting the base64 encode algorithm on the SM side.</p>

CR	Problem	Solution
QCCR1E76142	After turning on Response SLOs, users frequently encounter "record has already been modified" messages and lose their updates in Incident Management. This happens after updating an Incident but not changing its status. This issue occurs when many SLA refresh schedules are running in the background, which causes the locks the record.	Now, the record will no longer be updated by the SLA background refresh schedule, and the "Record has already been modified" message will not show.
QCCR1E76221	Updating a single change record in a QBE list causes all records in the list to have an "update" status.	Updating a single change record in a QBE list only has an impact on that record; It will not make other closed changes in the QBE list editable.
QCCR1E76960	Performing a Save & Exit after re-opening and then immediately closing an Incident does not return the user to the Incident list.	The window is now closed directly when a user clicks Save & Exit.
QCCR1E77703	Service Manager ignores the effective and expiration dates for an SLA when processing outages for an availability SLO.	<p>Service Manager now validates the effective and expiration dates for an SLA when processing outages for an availability SLO. If the SLA is not valid, Service Manager will not generate outage details for an availability SLO.</p> <p>Note: Although there is no outagedetail, the slammonthly will be generated at a regular interval with Actual Availability of 100% and attached to the incident record (the Uptime Objective area).</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E78057	SLO Response calculations can be incorrect when SLA State Change schedules are processed in the wrong order.	The schedules are now processed in the order of expiration time.
QCCR1E78441	When viewing a CI's relationship graph, if a CI contains too many relations, the following error is received and only the current CI is displayed:  "The where clause string exceeds 64k (display,process.option)"	The graph displays as expected and includes all CIs and their relations.
QCCR1E78450	Setting "Generate Order" to false in a Part record does not prevent an RM Order for the Quote Line Item from being generated.  This issue occurs because the "Generate Orders" control setting in Quote phase/ Model does not work as expected. Therefore, the order is generated regardless of whether "Generate Order" is set to true or false in the phase or the Model control settings;	Setting "Generate Order" to false in a Part record prevents an RM Order for the Quote Line Item from being generated.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E78471	<p>When performing a mass update on Configuration Items after using the "Search Specific Type" feature, users may experience errors that resemble the following:</p> <p>"An error occurred while attempting to apply template to update record."</p> <p>This issue occurs because when applying a template, the syntax of the generated source code is not correct.</p>	Added null check to prevent this syntax error.
QCCR1E78517	Service Manager does not handle outage records correctly when using the outage START and END dates.	Outage records are now used correctly.
QCCR1E78527	An operator cannot create a Known Error Task if an operator's Problem Profile does not allow the opening of Problem Tasks but allows opening new Known Error Tasks.	The creation of a task will no longer be impacted by the Problem Profile, but instead by the Known Error Profile.
QCCR1E78572	You cannot create an operator from an existing Contact if the "Always requires a password" option is enabled.	You can create an operator from an existing Contact if the "Always requires a password" option is enabled.

CR	Problem	Solution
QCCR1E78634	The Fill button of the owner field in the device form brings up entire list of departments. However, the list is not sorted according to the previous entry made to field before fill button is pressed.	The Fill button of the owner field in the device form brings up the list correctly.
QCCR1E78626	If a non-default date separator is used, applying a Template to a Change record may produce an error.	If a non-default date separator is used, applying a Template to a Change record will use the non-default data separator and will not produce an error.
QCCR1E78698	Slow performance when performing an initial load from uCMDB to SM.	The performance has been improved by using a better query.
QCCR1E78696	Unable to update budgetcode records because the update.by field in "budgetcode" file should not be mapped to "DATETIME"/"DATE."	This defect is fixed by mapping the update.by field in "budgetcode" file to VARCHAR(60).
QCCR1E78923	SM 9.30 Application Patch 2 deletes Data Policy entries for non-OOB fields.	SM Application Patch will not delete Data Policy entries for non-OOB fields.
QCCR1E78998	When a user logs in into to ess.do and wants to update an Interaction (menu-> View open requests), it may take 40 seconds or longer from the time the user clicks on the Interaction until the Interaction appears in the ess.SD.update.browse form.	The ess.SD.update.browse form now returns much more quickly.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79182	After associating a knownerror-based or rootcause-based knowledge record with an Interaction, you can no longer view the associated knowledge record from the Interaction.	Added a format to display rootcause and knownerror records.
QCCR1E79277	System triggers add a new mark for updating the Interaction kmknowledgebase index when creating a new SRCInteraction record. However, when adding the new mark in kmknowledgebaseupdate table, the wrong sedocid value is inserted. This causes errors in the KMupdate background process.	Modified the statement that provides the sedocid, and resolved the issue in the kmtriggerBeforeUpdate function.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79341	<p>When a specific month has holidays set, the calendar.calc.date.fc function adds the holidays to the total days of the month.</p> <p>Example:</p> <p>For the month of April, the following parameters are set to call the calendar.calc.date.fc function.</p> <p>Start: 01/04/2012</p> <p>End: 30/04/2012</p> <p>Schedule: 24 x 7</p> <p>When there are no holidays in the month, it returns correctly the amount of days (29 23:59:59). However, if three holidays are added to the month, it returns the amount of days as + 3 (32 23:59:56).</p>	<p>Changed the calculation logic to adjust to the status.</p>
QCCR1E79421	<p>When you order from the Service Catalog, the fulfillment records (that is, the change records or cm3r) are not created with the correct initial.impact and severity values.</p>	<p>These field are now populated with the correct values.</p>
QCCR1E79412	<p>The lock is not released if an error occurs when calling process in the se.view.engine application.</p>	<p>The lock will be released if an error occurs when calling process in the se.view.engine application.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79526	<p>After logging in through the Web tier with SSL, accessing a knowledge document in Knowledge Library results in the following security information popup:</p> <p>"This page contains both secure and nonsecure items. Do you want to display the nonsecure items?"</p> <p>This popup should not be displayed.</p> <p>Note: There is a workaround provided in KM1269225, but it is difficult for some users to change IE setting individually.</p>	Removed the useless style code that caused the security warning.
QCCR1E79820	<p>When Process Designer is configured so that when a user reverts a document from KM and has not provided feedback, the working copy is not deleted. However, Process Designer's handling of failed validation returns from the "Call a Process" action type presents some issues. Specifically, if you set \$L.exit to "bad.val" or "cancel" a bad validation situation should occur and the post action should not run. However, the action is still executed.</p>	The failed validation should halt the revert operation.



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79821	Request to understand conflict resolution of extaccess records.	Removed the following unnecessary fields from the extaccess table. <ul style="list-style-type: none"><li>• incident.id.aplog</li><li>• incident.id.approval</li><li>• incident.id.svcCat.</li></ul>
QCCR1E79883	When you are using SRC, dependent line item orders are not generated at the same time.	When you are using SRC, dependent line item orders are generated at the same time.
QCCR1E79928	SLAs on Incidents are not calculated correctly. For example, an Incident that is only open for 6 minutes and has an 8 hour SLA is shown as having breached the SLA. When you look at the slaactive table, it shows that the SLA is still active, even though the Incident is closed.	The sla schedule now updates the status correctly.
QCCR1E79938	When the timezone record is used for a time adjustment and there are no switch over dates, the application fails and some error messages are received.	When the timezone record is used for a time adjustment and there are no switch over dates, the application succeeds without error messages.

CR	Problem	Solution
QCCR1E79991	<p>When you update the options field in an svcCartItem record without entering any information, or you input a string that is not xml, the following user-unfriendly message is received:</p> <p>"XML.setContent(): XML document failed to parse".</p>	<p>Changes were made to the Applications to resolve this issue. In addition, a warning message was added to state what input is invalid.</p>
QCCR1E80230	<p>When searching with Japanese or Korean, stop words did not work well. Additionally, "&lt;&gt;" cannot be used in the KM Search box.</p>	<p>When searching with Japanese or Korean, stop words works well, and "&lt;&gt;" can be used in the KM Search box.</p>
QCCR1E80317	<p>If you open Interaction from a QBE list, make a change, and then click the 'Next' button without saving, you are asked whether you wish to save the changes or not. If you click 'Yes,' you are asked the question again, even though the save has been applied.</p> <p>Note: In the Eclipse client, if you do not have 'prompt on save' checked, the system will loop continuously.</p>	<p>Making a change to an Interaction and then clicking Next will not cause a loop.</p>

CR	Problem	Solution
QCCR1E83730	<p>In the SM9.30 documentation (under Knowledge Management -&gt; Searching the Knowledgebases -&gt; Special Characters in Search Queries); there is a cautionary note underneath the asterisk description that states the following:</p> <p>"Do not use the asterisk to specify the first character of a wildcard string."</p> <p>This is a request to make knowledge management work with an asterisk at the start of the search term.</p>	Service Manager now allows searches to start with an asterisk.
QCCR1E83762	When searching the Knowledge Base and using no search terms, and a record from the Knowledge library is selected as a solution for an Interaction, either an error occurs, or the next indexing pass omits the selected record from the index.	When you "Use solution" with an empty string, no phrase will be added to the kmadaptivelearning records, and no document is deleted from the search engine.
QCCR1E83860	You cannot view or delete a specific feedback record when multiple feedback records exist.	Now you can view and delete a specific feedback record as expected when multiple feedback records exist.
QCCR1E83847	When the security folders are enabled, closing the last phase of a change causes the background process to fail.	A Change Phase is automatically changed if the security folders are active when the last task is closed.

CR	Problem	Solution
QCCR1E83877	<p>The Knowledge Management (KM) advanced search does not return the correct results when searching against KM specific fields, such as the Title field. When you enter a search string in the Title field, your search should return all documents whose title contains that string; however, the correct documents are not returned, while some other irrelevant documents are returned.</p> <p>When searching in the Title field with a search string that contains two or more words, the search engine will look for only the first word in the Title field, and search for the rest of the words in the default search field (docbody). This causes the search results to contain irrelevant items.</p>	<p>The KM advanced search now returns correct documents when KM specific fields such as Title are used as search criteria. The issue is addressed by adding search keyword grouping to Title and other fields when the search string contains two or more words.</p> <p>Notes:</p> <p>After you add a query field in dbdict "kmquery", you need to add a row in the field mapping section in each &lt;library name&gt;_kmprocesslibcriteria record, using this format:</p> <pre>[ "&lt;query field name&gt;", "&lt;search engine alias&gt;", &lt;true or false&gt; ]</pre> <p>See examples below:</p> <pre>this.fieldmapping = [   ["incidentlib_number", "number", false],   ["incidentlib_status", "problemstatus", true],   .... </pre> <p>Where:</p> <ul style="list-style-type: none"> <li>• &lt;query field name&gt; (for example, incidentlib_number) is the field name you added to dbdict "kmquery";</li> </ul>

CR	Problem	Solution
		<ul style="list-style-type: none"> <li>• &lt;search engine alias&gt; is the alias of the field specified in the Field Definitions tab of the knowledgebase;</li> <li>• &lt;true or false&gt;: This part indicates if Advanced Search uses full match for this field (when set to true, full match is used); in addition, this will avoid the incorrect query grouping, which led to the issue.</li> </ul> <p>If there are custom search criteria that are not simply a 'field=value' query, add it to function:'processSpecial' defined in each &lt;library name&gt;_kmprocesslibcriteria record.</p>
QCCR1E83919	Target End Dates are not calculated correctly when using the calendar.calc.date RAD application.	Target End Dates are now calculated correctly.
QCCR1E84115	In a catalog that has a number of catalog items with date fields, the date format displays in US date format (where the server is located) despite users in other locations logging the request (so their regional settings on their PC are set to their local region). The users Operator and Contact records also have their regional time zones and date formats applied.	All Date fields in the user selection in a newly-ordered catalog item are shown with the current user's date format in the SM client.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E84113	Users receive duplicate email messages because the Approval Added notification record cannot reference the \$L.file.save variable.	It works fine when referencing the \$L.file.save variable in an Approval Added notification record.
QCCR1E84152	Low on memory message occurs across all servlets, and the system becomes unresponsive.	Re-factored the code to improve performance so that the memory issue will not occur.
QCCR1E84199	SD records are locked by the linker process and cannot be released.	The SD records can be released as expected.
QCCR1E84200	Many locks are generated for the Problem Sceduler, which causes the system memory to become exhausted.	The dirty schedule data will no longer affect the normal schedule process.
QCCR1E84282	There is no way to delete Affect CIs from Problem Management; When you try to delete and then save the record, the CIs are still present. This error also occurs in the OOB system.	The affected CI can now be deleted successfully from Problem record.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E84320	<p>In Service Request Catalog, a user orders two items, the first of which only requires manager approval and the second requires 2 levels of sequential approvals (for example, a manager approval first and then a security group approval) in the Interaction. If the manager approves the Interaction in the SRC interface, it generates a quote for the first item and the Interaction approval status shows approved. The approval record also shows as approved, but must still receive the approval of the security group in the current pending group field. If someone in the security group goes tries to approve the second item in SRC, users do not see the Interaction record pending approval because the Interaction approval status is already approved.</p>	<p>In Service Request Catalog, a user orders two items, the first of which only requires manager approval and the second requires 2 levels of sequential approvals (for example, a manager approval first and then a security group approval) in the Interaction. If the manager approves the Interaction in the SRC interface, it generates a quote for the first item and the Interaction approval status will be calculated based on the "aggregate Approval" configuration of the Object in Document Engine and the approval condition type defined in related Approval definitions.</p>
QCCR1E84402	<p>When the first line item of a bundle is closed, the third item is set to "ordered" status. This behavior violates the dependency sequence of the line items.</p>	<p>The logic of mark avail.to.order in ocml.mark.avail.init RAD has been fixed to apply the correct behavior.</p>
QCCR1E84548	<p>Templates created from a interaction record do not handle arrays correctly.</p>	<p>Certain array exceptions are now handled properly.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E84557	When closing an Interaction, the updated.by field does not use the full name even though the environment record and/or user profile specifies that the full name should be used. Instead, the opened.by field uses the Corp ID.	<p>When closing an Interaction, the updated.by and opened.by fields use the full name if the environment record and/or user profile specifies that the full name should be used. Two fields "opened.by.uid" and "updated.by.uid" have been added to store operator name only regardless of the environment/profile settings.</p> <p><b>Limitation:</b></p> <p>The opened.by.uid and updated.by.uid fields of existing incidents records will not be automatically updated when upgrading to or applying the applications patch. To update the existing records in the database and set proper values for these two newly added fields, follow these steps:</p> <ol style="list-style-type: none"><li>1. Go to <b>Tailoring &gt; Script Library</b>.</li><li>2. Search Script Library with name: <code>UpdateAllInteractions</code>.</li><li>3. Uncomment the last line of this script: <code>updateInteractionFields();</code></li><li>4. Click <b>Save</b>, and then click <b>Compile</b>.</li><li>5. Click <b>Execute</b>.</li></ol>



CR	Problem	Solution
		Service Manager updates all existing incidents records with proper values for the "opened.by.uid" and "updated.by.uid" fields.
QCCR1E84708	Modifying Columns using "Search Specific Type" displays one blank qbe list.	Modifying Columns using "Search Specific Type" now displays the qbe list correctly.
QCCR1E84714	<p>When you input text that can be rendered as HTML in the Notes field under Incident -&gt; More, the text is rendered as HTML, even though it should display as plain text. For example, if you enter the following in the Notes field:</p> <pre data-bbox="655 776 1138 847">&lt;table&gt;someinfo1&lt;/div&gt; someinfo2&lt;/div&gt; someinfo3&lt;/div&gt; someinfo3&lt;/table&gt;</pre> <p>This text is rendered as an HTML table, instead of plain text.</p>	When you enter text that can be rendered as HTML in the Notes field under Incident -> More, the text is now displayed as plain text.
QCCR1E84746	An error exists in RAD us.unload.delete.wrapper on the check.done panel.	The us.unload.delete.wrapper now calls us.unload.delete and checks the result correctly.
QCCR1E87617	Inconsistent permission behavior when a published doc or the doc from a link is displayed.	Fixed the permission check when viewing published documents so that the behavior is now consistent.

CR	Problem	Solution
QCCR1E87729	The Close Incident button is not displayed for Incident operators if the "Allowed" status is specified in their profiles.	The Close Incident button is displayed for Incident operators who have the "Allowed" status specified in their profiles.
QCCR1E87848	An ESS session crashes with a Signal 11 error after you update an Interaction. This issue occurs when the RAD flow attempts to display a dialog box from a background action.	The apm.mb.ok RAD application checks for the \$G.bg flag, bypasses the dialog box, and then issues a message by using the msg panel.
QCCR1E88011	When you try to update an Incident, you receive a notification error. This issue occurs when there is no value for \$file.save in us.notify. This causes the SD records to be locked and they cannot be unlocked. Investigation shows that the 'us.linker.remove' application exits an error, but does not unlock the SD record.	Users can now compare an old incident with a new incident file in a notification after a save, update, or close action.
QCCR1E88246	CI visualization can build a very long series of 'or' queries that cannot be parsed by the server. This results in an error message or a Signal 11 error.	There are no error messages when CI visualization has long queries. The ScriptLibrary builds queries by using 'isin' instead of 'or,' solved this issue.
QCCR1E88537	When you specify the following DEM rule, a CI is not created after you close a Change:  [Open a Change] for [Action if matching record does not exist]	A CI is created successfully after you close the Change.

CR	Problem	Solution
QCCR1E88801	<p>When the following error occurs in an alert process, the alert background process locks the associated incident ticket:</p> <p>"RAD E Unrecoverable error in application: se.call.process on panel call.rad.1"</p>	<p>When the Unrecoverable error occurs in an alert process, the associated incident ticket is now unlocked.</p>
QCCR1E88790	<p>Link fields on Template Update do not work when you run a mass update on a joinfile. This behavior occurs if the link is only on a device link and if the CI type has a second link on an attribute file or CI format.</p>	<p>Link fields now work as expected.</p>
QCCR1E88885	<p>SLA alerts for an Incident tickets are deleted only after the operator record is updated.</p>	<p>SLA alerts for an Incident tickets are deleted correctly.</p>
QCCR1E88939	<p>All non-English scmessage records are deleted when you try to create a production patch.</p>	<p>Non-English scmessage records are not deleted when you try to create a production patch.</p>
QCCR1E88984	<p>A language format issue prevents you using the kill command to terminate sessions in the status monitor.</p>	<p>The "Execute Commands" function works as expected in non-English environments.</p>
QCCR1E89086	<p>After you set the "items per page" value and then click the "Refresh Display" button on the system status page, the "items per page" value reverts to 20.</p>	<p>You can configure the "items per page" value as expected.</p>

CR	Problem	Solution
QCCR1E89342	There is no validation of the configuration admin group in Configuration Management.	A validation was added in configurationItem format control to validate the input against the assignment group table(assignment).
QCCR1E89403	The Assignment Group in a Known Error Task cannot be changed.	The Assignment Group in a Known Error Task can now be changed.
QCCR1E89449	Add a check to the APM tool to verify the value of the sessiontimeout and ir_disable parameters in sm.ini.	A new notes wizard page has been added in the first step when you apply a patch. This page informs the user to check the related settings.
QCCR1E89778	<p>After you place an SRC request or an order from the Service Catalog, the corresponding Change is either "opened," "in progress," or "closed." However, after some time, the svcCart for the Interaction disappears, and the cartId field in the Interaction is NULL.</p> <p>Additionally, if you display the cartId field in a list of Interactions, the field is empty. However, if you check the record (cartId in \$L.file), the field is populated. The svcCart for an Interaction will not disappear, and the field cartId in the Interaction is set to proper cart Id value.</p>	The sd.catalog.request RAD is recompiled so that data is not lost.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E89774	You cannot submit the cart in ESS if the "Purpose" field contains an empty line at the start. This issue occurs because the "Title" field is populated by using the first line of the "Purpose" field.	The "Title" field is now populated by using the first non-NULL line of the "Purpose" field, which enables you to submit a cart if the "Purpose" field contains an empty line at the start.
QCCR1E89814	<p>The Approval status field for service catalog tickets is null, regardless of whether they require approval. This behavior prevents the generation of IM or quote tickets.</p> <p>Note: Not all the SCAT tickets have the Approval status field set to null.</p>	The Approval status field for service catalog tickets is not Null.
QCCR1E89815	The kmknowledgebaseupdates table becomes corrupt, and records become stuck in the kmknowledgebaseupdates queue. This behavior causes the KMUpdate background process to crash. This issue occurs because of an incorrect OR conjunction that should be an AND conjunction.	The kmknowledgebaseupdates table no longer gets corrupt, and records are not stuck in the kmknowledgebaseupdates queue.
QCCR1E90058	Interaction templates do not display saved values in the Assignment Group field. Interaction templates display saved values in the Assignment Group field properly.	The wizard:template.editValue_globallist_array is modified to properly parse \$field.values and display the field values when you edit templates.

CR	Problem	Solution
QCCR1E90070	<p>After you upgrade to Service Manager 9.31, problems may occur with the configuration management module. Specifically, after you attempt to add or update a configuration item record by using Connect-It together with an icma, you receive the following errors:</p> <p>2012/12/21 09:39:13.000 0 4 Cannot execute application: scauto.inventory</p> <p>2012/12/21 09:39:13.000 0 4 Unrecoverable error in application: scauto.inventory on panel call.base.method</p> <p>2012/12/21 09:39:13.000 0 4 Unrecoverable error in application: se.base.method on panel start</p> <p>2012/12/21 09:39:13.000 0 4 Process panel start in RAD se.base.method encountered error in line 13 (se.base.method,start)</p>	<p>The defect is fixed by recompiling the RAD scauto.inventory.</p>
QCCR1E90161	<p>When you save a new configuration item, the 'StringUtil' script throws errors.</p>	<p>No errors are thrown by the "StrmgUtil" script when you save a new configuration item.</p>
QCCR1E90286	<p>Alert times for 25%, 50%, and, 75% of an SLA are calculated incorrectly in Service Manager 9.31 when you use the day schedule.</p>	<p>Alert times for 25%, 50%, and, 75% of an SLA are calculated correctly when you use the day schedule.</p>

CR	Problem	Solution
QCCR1E90525	There is no mandatory option available when you create a Pick List User Selection for service and support catalog items in Service manager 9.31.	The mandatory option is available when you create a Pick List User Selection for service and support catalog items.
QCCR1E90573	The Response Time Results of Service Catalog item SLOs are calculated incorrectly. The Response Time Results of Service Catalog item SLOs are calculated correctly.	The completed.time field is added to the svcCartItem table. You can use the completed.time field as the End time field in slamodulecontrol.
QCCR1E90658	When linker copies updates from related Incidents or Changes to Interactions, the time stamp in the update log of the Interaction uses the default or system date format Incorrectly, rather than the date format pertinent to the time zone the Interaction was opened in.	When linker copies updates from related Incidents or Changes to Interactions, the time stamp in the update log of the Interaction uses the specific timezone of the logged-in user.
QCCR1E90790	RAD applications do not check the record size limit correctly. This causes slow performance.	RAD applications check the record size limit correctly and with no performance issue.
QCCR1E90787	When you click “Back” or the “X” button on the Select Groups window, the review process is completed.	When you click “Back” or the “X” button on the Select Groups window, the review process is not completed.
QCCR1E90770	The Response SLO Expiration Time changes even if the state is achieved.	The Response SLO Expiration Time does not change when the state is achieved.

CR	Problem	Solution
QCCR1A156582	Service Manager creates duplicate incidents for a single OMi event.	<p>Now, Service Manager only creates one incident for a single OMi event.</p> <p><b>Note:</b> This fix may cause performance downgrade if the Service Manager system has a large amount of incidents. The root cause is that 'external.process.reference' is an array field and it resides in table m2.</p> <p>To avoid performance downgrade, you need to move the array field "external.process.reference" from the m2 table to an alias table as described below:</p> <ol style="list-style-type: none"> <li>1. Click <b>Tailoring &gt; Database Dictionary</b>.</li> <li>2. Type <code>probsummary</code> in the File Name field and then click <b>Search</b>.</li> <li>3. On the SQL Tables tab, add a new table a2.  If the a2 value has already been used, use the first available value between a2 and a99, depending on your specific implementation.</li> <li>4. On the Fields tab, change the SQL table for the external.process.reference fields: <ul style="list-style-type: none"> <li>■ external.process.reference (array type): change the SQL table from null to a2 (or whatever value</li> </ul> </li> </ol>



CR	Problem	Solution
		<p>you assigned in step 3 above).</p> <ul style="list-style-type: none"> <li>■ external.process.reference (character type): change the SQL table from m2 to a2 (or whatever value you assigned in step 3 above).</li> </ul> <p>5. Click <b>OK</b> to save the changes.</p> <p>This will solve the performance issue.</p>
QCCR1E90827	Interactions that are waiting for approval are invisible in SRC if the Cart has been changed.	If the Cart has been changed , the Approval records generated before will be considered dead and are now removed to prevent this issue.
QCCR1E90876	The linker background process loses the scope of the \$pmc.actions variable after executing an Interoperability Record schedule record.	The scheduled update of an Incident ticket does not use linker post values from another record.
QCCR1E90893	When you click the Insert an image button in the HTML editor in SM 9.31 Web tier, the table object that displays the attached documents on the Select Document Attachment page of the wizard is displayed to the right of the screen and cannot be accessed.	The table object that displays the attached documents on the Select Document Attachment page of the wizard is displayed correctly.

CR	Problem	Solution
QCCR1E90927	After users create Favorites Folders or Views, it is not correct behavior to set the selected groups to groups that are NOT included in the user's query groups defined in the operator record.	After users create Favorites Folders or Views, they can only set the selected groups to groups that are included in the user's query groups defined in the operator record.
QCCR1E90994	The cursor does not return to the array field that is defined by cursorPosition.	The cursor returns to the array field that is defined by cursorPosition.
QCCR1E91035	When you perform a search in Knowledge Management, and you type some key words in the "none of these words" field, the search result returns an incorrect document count, and some documents still contain the omitted key word. Additionally, highlighted search results in attachments causes a performance decrease.	The search result returns the correct document count, and no documents contain the omitted key word. Additionally, an option is added to remove highlighted search results in attachments.
QCCR1E91092	You cannot use the 'file.load' application to load interaction records from the command line.	You can load interaction records via the command line.
QCCR1E91148	OMi events generate duplicate incidents in Service Manager.	Service Manager does not create duplicate incidents for a single OMi event.
QCCR1E91171	A subcategory field in an ocmq record is not filled when a quote is created by the linker.	The subcategory field in ocmq records is populated with the last line item category when a quote is created by the linker.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E91367	The autoforamt rule of a view does not work properly if you add the rule to a field that has an IR Key.	The autoforamt rule of a view works as expected if you add the rule to a field that has an IR Key.
QCCR1E91416	The sla.refresh.active application takes a long time to process the validate.duration.field panel without a database query.	The sla.refresh.active application takes the expected time to process the validate.duration.field panel without a database query.
QCCR1E91579	Pick list columns are mismatched in the User Selection options if a value is deleted from the list.	Pick list columns now match correctly.
QCCR1E91650	<p>If you use "Order from Catalog" to place an SRC order that opens a change when the order is approved, and then another user change modifies the order, the svcCart record for the order is deleted, and the cartId field in the interaction is NULL.</p> <p>Additionally, if you display the cartId field in a list of interactions, the field is empty. However, when you check the record (d cartId in \$L.file), the field is populated.</p>	The svcCart record for the order is not deleted.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E91785	SvcCart records are deleted incorrectly when they are modified by multiple users. SvcCart records are not deleted when they are modified by multiple users.	The svcCartHelper.ClearDeadCartItems script is changed so that only the dead cart and cartItems that are owned and modified by the login user are checked and cleared. This behavior rules out the card and cartItems that are currently modified by another user on behalf of the login user.
QCCR1E91769	When you select Options > Order From Catalog > Cancel in an Interaction, the Interaction approval status is set to "approved."	The Interaction approval status is now set correctly.
QCCR1E91772	SRC generates a "request submission failed" error when you submit a request outside of the SLA hours.	SRC generates a message that notifies you the request is outside service hours for SLA when you submit a request outside of the SLA hours.
QCCR1E92149	Quote line items that have two dependent quote line items are ordered when only one of the dependent quote line items is closed. The expected behavior is that the quote line item is ordered when both of its dependent quote line items are closed.	Quote line items that have two dependent quote line items are ordered when both of their dependent quote line items are closed.
QCCR1E92230	Security roles are not interpreted correctly after templates that have related folder definitions are applied.	You can use a template that is created for a specific security folder.
QCCR1E92300	You cannot generate new reports by using the OOB Report Writer functionality.	The report can be generated and printed as expected.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E92489	The "Update when closed" property in Problem Management Security Profile on the Known Errors tab does not work. Therefore, users cannot update closed known errors.	The "Update when closed" property in Problem Management Security Profile on the Known Errors tab works as expected, and users can update closed known errors.
QCCR1E92622	You search for knowledge from an interaction and then you use a solution. Then, you search for and view a document from the same interaction again. When you click Cancel from the document view, you expect to return to the Related Search Knowledge Base screen. However, you return to the interaction ticket.	You return to the search result page after clicking the Cancel button in the View Record Detail page.
QCCR1E92804	It is possible to order an inactive item when the item is visible in the "Most Popular Requests" section.	The inactive items are no longer displayed in the "Most Popular Requests" section.
QCCR1E92780	When you perform a valid search on additional IP addresses that are defined within a configuration item, no records are returned.	When you perform a valid search on additional IP addresses that are defined within a configuration item, the correct records are returned.

CR	Problem	Solution
QCCR1E93038	<p>After you upgrade from Service Manager 9.20 to Service Manager 9.31, the Relative Date feature in the Advanced Filter tab of a search screen no longer works as it did in Service Manager 9.20. Specifically, the Filter.parseAdvanced RAD is updated (specifically the set.equals panel) so that every date field is surrounded by the date() function. This causes a full table scan against the database, and users experience a session timeout on the web client.</p>	<p>The Relative Date feature in the Advanced Filter tab of a search screen works as expected.</p>
QCCR1E93111	<p>When loading incident records via the command line, errors are generated in the sm.log file, and the load operation fails.</p>	<p>This issue is caused by an uninitialized variable in the RAD code. The RAD code is now modified not to use an uninitialized variable.</p>
QCCR1E93277	<p>The svcCartItem's duration and schedule is not correct.</p>	<p>The duration and schedule now use the information from the objective delivery of selected items .</p>
QCCR1E93367	<p>The generated JS from the WSDL to JS utility in SM 9.31 generates different script than in 7.11. This prevents the interface from connecting to the external system.</p>	<p>The generated JS from the WSDL to JS utility in SM 9.31 is correct.</p>
QCCR1E93622	<p>The SLA expiration time cannot be refreshed after the duration field is changed.</p>	<p>The SLA expiration time can be refreshed after the duration field is changed.</p>
QCCR1E93678	<p>Notifications generate duplicate emails to approvers when an Approval is added.</p>	<p>Notifications do not generate duplicate emails to approvers when an Approval added.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E93812	It takes a long time to apply the Service Manager 9.31 application patch.	A useless operation was removed to improve performance when you apply the application patch.
QCCR1E93868	The Elapsed Time in the sloresponse table is calculated incorrectly.	Elapsed time is calculated based on the order of consecutive holidays.
QCCR1E94134	<p>There are issues accessing and cancelling out of Knowledge Documents that you access via a link from another Knowledge Document. Specifically, when you click on the link you are not taken directly to the linked document. When you cancel out of the document, you are taken back to the Main Menu instead of the source document.</p> <p>This problem only occurs in Service Manager 9.31 webtier using ess.do.c</p>	You can access and cancel out of Knowledge Documents that you access via a link from another Knowledge Document as expected.
QCCR1E94227	On the Request Management line category selection screen, selecting 'Back' may have no effect.	On the Request Management line category selection screen, selecting 'Back' works as expected.
QCCR1E94268	When you export the content of a column that is reformatted by using a global list, the export process is slow.	Performance is improved when you export content and a large amount of items are in the global list.

CR	Problem	Solution
QCCR1E94283	<p>The advanced search function in Knowledge Management does not return correct results when you use the "Status" field to filter the KM libraries. For example, if you choose the knownerror library, select "Open" from the drop-down list in the "Status" field, and perform a true search, no result are returned. However, if you perform the same search, but manually type "open" in the "Status" field, the correct results are returned.</p>	<p>The advanced search function in Knowledge Management returns correct results when you use the "Status" field to filter the KM libraries.</p>
QCCR1E94329	<p>Tabs that contain unsaved changes can be closed directly.</p>	<p>A dialog box prompts users to confirm that they want to discard unsaved changes when they click the "x" button on the tab.</p>
QCCR1E94634	<p>When you approve an interaction and a conditional statement contains "\$L.file.save," the "sm.final.approval" notification fails for svcCartItem approvals, and you receive an error message.</p>	<p>The "sm.final.approval" notification does not fail for svcCartItem approvals, and you do not receive an error message when you approve an interaction and a conditional statement contains "\$L.file.save,".</p>



CR	Problem	Solution
QCCR1E94683	There is a leading space before "Work In Progress" in the validation condition of (not null (assignee.name in \$file)) of "rootcause" format control. For example, there are invalid terms in the format control rootcause, validations, line 12 (demanding not null(assignee.name in \$file)). The Add-, Update, and Delete conditions, contain the following term: (status in \$file) is in {"Accepted", " Work in Progress"}.	The leading space is removed from the term "Work in Progress" in the "rootcause" format control.
QCCR1E94697	The correct Date/Time format is not identified from the operator profile in the Catalog Information section on both Service Manager Windows clients and Service Manager Windows web clients in SRC 1.30p2 Hotfix 24.	The Date/Time format in the Catalog Information section is adjusted to match the operator's profile.
QCCR1E94733	When a problem record is locked by an operator session, another operator can still change the record by using the "Next Phase" or "prior Phase" actions.	When a problem record is locked by an operator session, other operators cannot change the record by using the "Next Phase" or "prior Phase" actions.
QCCR1E94767	The cm3r Data Policy changes are overwritten when you apply an applications patch.	The cm3r Data Policy changes are not overwritten when you apply an applications patch.
QCCR1E94862	The Refresh button on the queue screen in Service manager 9.31 does not refresh the queue in the same manner as earlier versions of Service Manager.	The Refresh button on the queue screen refreshes the queue correctly.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E94961	Dependent line item orders are generated incorrectly when an item is dependent on multiple items in different groups that have the same group name in Service Manager 7.11.	Dependent line item orders are generated correctly, regardless of the number of dependent items.
QCCR1E95020	Costs are not converted to the approver's operator currency in "Edit bundle components."	Costs are converted to the approver's operator currency correctly.
QCCR1E95120	When you add a new option to a Process Designer workflow ruleset in a Phase, will cause unpredictable results when displayoptions are executed.	When you add a new option to a Process Designer workflow ruleset in a Phase, displayoptions are executed properly as expected.
QCCR1E95206	The "To Do" page closes unexpectedly if you choose a view that has an xss expression in its name.	The "To Do" page does not close unexpectedly. Additionally, you can input only upper and lowercase letters, numeric digits, hyphen, dot, underscores, the percentage character (%), and blank signs in the view name.

CR	Problem	Solution
QCCR1E95182	<p>After you apply the HP Service Manager HTML Email Solution, the following buttons in the HTML editor in Service Desk do not work the same way as they do in Knowledge Management:</p> <ul style="list-style-type: none"> <li>• Insert an image</li> <li>• Insert a link toward an attached file</li> <li>• Insert a link toward another record</li> </ul>	<p>The following buttons in the HTML editor of Service Desk now work the same way as they do in Knowledge Management:</p> <ul style="list-style-type: none"> <li>• Insert an image</li> <li>• Insert a link toward an attached file</li> <li>• Insert a link toward another record</li> </ul> <p>This issue was solved by copying the solution from Knowledge Management to HTML Templates.</p>
QCCR1E95192	<p>An error occurs when you search for knowledge in the incidents or probsummary record and the name of "target search field" contains a period (.). This issue occurs after new field mapping is added to the Search tab of the kmmaping file.</p>	<p>No error occurs when you search for knowledge with the kmmapping field added.</p>
QCCR1E95417	<p>When you mouse over a CI, CI visualization only displays the CI name instead of additional information. Specifically, the Type and Subtype are missing.</p>	<p>When you mouse over a CI, the tooltip for the CI node displays correctly.</p>
QCCR1E95472	<p>Links that are created by Service Manager for SRC do not allow you to approve an approval.</p>	<p>Links that are created by ServiceManager for SRC can be used to approve approvals as expected.</p>

CR	Problem	Solution
QCCR1E95642	An incorrect exit exists for a process that has an "init.relationship" label in the "ddm.processData" application. Therefore, an incorrect DDM rule is selected.	The exit in the process is correct ("prepare.rule.lookup") and the correct DDM rule is selected.
QCCR1E95827	After you apply QCCR1E78572_SM931.unl to a Service Manager 9.31 system, password change error messages do not function as they did before.	The "Password Change" utility returns appropriate error messages.
QCCR1E95994	An item that has a "denied" approval status switches to "pending" status if another item in the cart is modified.	Users can define whether the approval status is reset or not.
QCCR1E95958	When approving a request (Change) in SRC and adding approval comments, the approval comments are not saved to the approval log.	When approving a request (Change) in SRC and adding approval comments, the approval comments are saved to the approval log.
QCCR1E96066	In Service Manager 9.31, the deadline alert function for incidents incorrectly uses intervals instead of expressions.	The deadline alert function for incidents now works correctly.
QCCR1E96059	An error message is thrown, which prevents users from saving updates to interactions.	No error message is thrown when updating the interactions.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E96161	CI visualization does not display the tooltip of an Array type field correctly.	CI visualization now inserts a line break for each element of the tooltip into Array type (multi-line text) fields. If the length of one element is greater than 55 characters, the line is truncated with an ellipsis mark (...).
QCCR1E96960	<p>The Inactivity Timer mechanism needs to be enhanced to improve performance.</p> <p>The default value of the inactivity timer is set in the scheduler application. When the user logs in, the SM server needs to fetch it from the database, which may result in performance issues.</p>	<p>The Inactivity Timer mechanism has been refactored for better performance.</p> <p>The inactive.startup background process is now obsolete, which eliminates the need to start this process in order to start the Inactivity Timer. Once your server has upgraded to 9.32 or later, you can delete this process if it still appears in your System Status's Start Scheduler list.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E97049	<p>The enable script throws an error if the ModuleStatus or extaccess data is modified in an environment that has PD CP4 applied.</p> <p>The error occurs if the following conditions are true:</p> <ul style="list-style-type: none"> <li>• The ModuleStatus "probsummary-Work in Progress" is not found.</li> <li>• The extaccess "probsummary" or "rootcause" is not found.</li> </ul> <p>This error blocks the enable process.</p>	The enable script does not throw an error.
QCCR1E97158	When upstream CIs are grouped, the grouped node appears below the target CI in hierarchical mode.	Upstream CIs appear above the target CI in hierarchical mode.
QCCR1E97332	The "Unload Manager" menu item disappears after you apply PD CP4.	The "Unload Manager" menu item displays correctly after you apply PD CP4.

CR	Problem	Solution
QCCR1E97362	<p>A true query is executed against the svcCart dbdict. This causes a performance problem when items are ordered from the Service Catalog.</p> <p>3368( 492) 06/26/2013 20:04:51 RTE D RADTRACE 5258 [ 0] svcCart.update.sdID select.svcCart select CPU( 0 732 )</p> <p>3368( 492) 06/26/2013 20:04:51 RTE D (0x3A9AA420) &gt;DBACCESS - Select against file svcCart</p> <p>3368( 492) 06/26/2013 20:04:57 RTE D DBQUERY^F^svcCart(oracle10)^0^0.000000^ ^500^5.616000^"true"^ ^0.000000^0.000000 ( [ 0] svcCart.update.sdID select.svcCart )</p> <p>3368( 492) 06/26/2013 20:04:57 RTE D (0x3A9AA420) &gt;DBACCESS - Select against file svcCart in 5.616000 seconds [rc=0] (cartId=4568)</p>	<p>The true query is no longer executed.</p>
QCCR1E97581	<p>The name of the Change tab is "Change Assessment" instead of "Change Assessment".</p>	<p>The name of the Change tab is now "Change Assessment".</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E97568	The Mass Cancel button is missing from the Change Tasks search list when viewrecordlist=false.	The Mass Cancel button is available in the Change Tasks search list when viewrecordlist=false.
QCCR1E97755	The "hotfix.manager" form on the "Unload Manager" page does not display correctly.	The "Unload Manager" page displays correctly.
QCCR1E97867	When cursor.field.name.set() is used in a display option, it does not work. Specifically, the cursor stays where it was before.	When cursor.field.name.set() is used in a display option, the cursor focuses on the specified field in the display option.

### Integrations

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E56128	Release Control receives no results when requesting Service Manager to retrieve the latest changes for display in the Change Calendar. No records are found.	Release Control can retrieve records from Service Manager via a Web service to get the latest changes for display in the Change Calendar.



CR	Problem	Solution
QCCR1E84364	<p>When “Run in Multi-Company Mode” is enabled in the System Information Record in Service Manager (SM), the UCMDB integration fails to create changes or incidents in SM because the configuration item data modification event fails.</p> <p>The following error occurs:</p> <p>ERROR TypeError: lib.uCMDBConfiguration.isEnabled is not a function at char 1</p>	<p>The UCMDB integration now creates changes or incidents in SM successfully without errors.</p>
QCCR1E91727	<p>When you invoke an OO flow from Incident or Knowledge Management, updates from OO are not created in the activity log.</p>	<p>If no fileName variable is passed to SM, a activity log record is updated/added as expected.</p>
QCCR1E91828	<p>When you change a single 1-to-1 relationship for a configuration item, all relationships for that configuration item are affected.</p>	<p>When a relationship record status is updated, only the relationship of the relationship is affected.</p>
QCCR1E97064	<p>You cannot select a different value in the fill/find widget in the build additional filter panel in Survey.</p>	<p>Now you can select a different value in the fill/find widget in the build additional filter panel in Survey.</p>

**Service Request Catalog API**

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E87775	In catalog items with date fields, the date format displays in US date format despite users in other countries logging the request and their regional settings on their PC are set to their country of origin. The Operator and Contact records for these users also have their regional time zones and date formats applied.	Converted the date format of the logged-in user to GMT in user options.
QCCR1E90082	When you approve a line item request in SRC, the "Approve" and "Deny" buttons on the request are randomly appearing or disappearing.	The "Approve" and "Deny" buttons now always display.

CR	Problem	Solution
QCCR1E91429	<p>Consider the following scenario in SRC 1.4 under SM 9.31:</p> <ul style="list-style-type: none"> <li>• Your Service Desk profile does not allow you to close an interaction ticket.</li> <li>• You submit a support ticket to the SRC, and then you click the Status button.</li> <li>• In the details of the ticket, you click the Close button.</li> </ul> <p>In this scenario, you receive the following error message:</p> <p>Unexpected exception: Runtime error or exception incurred in server. Please contact your administrator.</p>	<p>This issue has been resolved by applying the unload file: "QCCR1E91429.unl".</p> <p>SM can return the error code to SRC, so SRC can determine the "close" action is negative.</p>
QCCR1E91771	<p>SRC generates a "request submission failed" error when you submit a request outside of the SLA hours. This defect is fixed.</p>	<p>Now SRC generates a message to show the request is outside service hours for SLA when you submit a request outside of the SLA hours.</p>
QCCR1E91922	<p>Setting applicationContext.properties: src.sm.enableSupport=false in SRC 1.4 cannot hide the Support tab. The footer still has the Support link, which directs the user to the Support section of SRC.</p>	<p>Disabled support requests in the account inbox when the src.sm.enableSupport is set to false.</p>

CR	Problem	Solution
QCCR1E94739	When approving a request (Interaction, Change or Quote) in SRC and adding approval comments, the approval comments are not saved to the approval log.	When approving a request (Interaction, Change or Quote) in SRC and adding approval comments, the approval comments are saved to the approval log; even if the 'Require app.comments' is not checked in the doc engine, the system also writes the comments to the database.
QCCR1E97365	If you have SRC 1.40 installed together with SRC 1.40 Hot Fix 5 or 6, SRC stops working after you apply Process Designer Content Pack 9.30.3.	<p>SRC works normally after you apply the Process Designer Content Pack 9.30.3. You must also apply the following unload files for Process Designer hotfixes over the previous versions of the unload for SRC to work again:</p> <ul style="list-style-type: none"> <li>• PD4_SRC1.40HF5_QCCR1E90727.unl</li> <li>• PD4_SRC1.40HF6_QCCR1E91429.unl</li> </ul>

## Language Pack

The Service Manager 9.32 language packs fix the following localization defects.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E48936	For all languages, including German, Spanish, French, Italian, Dutch and Portuguese, the Message, and the "Yes" / "No" button text in the popup box should be translated to the local language (such as "You have unsaved changes to this record. Save them now?").	The "Yes" and "No" button labels have been translated for all supported languages.
QCCR1E73102	On a system that has the Brazilian Portuguese Language Pack installed, the web tier client renders most objects in English when the browser language is set to Portuguese. However, if you set the browser language to English, forms render in Portuguese correctly.	The web tier client renders objects in Portuguese correctly.
QCCR1E94928	When upgrading the applications using this upgrade path: SM 9.30 apps + Spanish Language Pack + UCMDB Content Pack + SM 9.31 apps, none of the Spanish forms for CM.relationship, CM.relationship.qbe, CM.relationship.type, CM.relationship.type.qbe are getting updated to look like the English formats. The relationship type fields remain there in the English formats for logical/physical values that have been removed in the 9.31 apps by design.	These localized formats have been updated for the UCMDB Integration.
QCCR1E97779	Some menus that were newly added in Service Manager 9.31 are not localized.	The menus that were newly added in Service Manager 9.31 are now localized.

## Upgrade Utility

CR	Problem	Solution
QCCR1E72320	<p>After upgrading from SM 7.11 to SM 9.30 by using SM 9.30 Upgrade Patch 3, the following error is logged in the except.log file:</p> <p>"licenseinfo, field:id, field type is character -- expected to be:number"</p> <p>Once the id field is changed to number, you cannot log on to Service Manager.</p> <p>The documentation should reflect that this change should not be made. Additionally, the upgrade utility should list this as an exception because customers cannot log in after making the change to the "id" field in the licenseinfo file.</p>	<p>Updated the upgrade guide to let users ignore the licenseinfo exception in the except.log file, and also modified the code to ignore the licenseinfo exception in the except.log file.</p>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E77116	NEW930, PRE<version>, and OLD<version> records still exist after applying a custom upgrade package. It is time-consuming to delete these records manually.	<p>For the Purge Existing Upgrade Files feature, an option was added to only remove duplicate upgrade records that are prefixed with "NEW", "PRE" or "OLD".</p> <p>This option not only removes duplicate upgrade records, but also makes upgraded display screens and display options effective, and re-compiles upgraded display screens.</p> <p>The unique key values of the removed duplicate upgrade records and re-compiled display screen records are logged in the detail.log file.</p> <p>There are some sample messages in the detail.log:</p> <pre>4 06/19/13 02:41:32 Start purging duplicate upgrade records prefixed by NEW, PRE and OLD... 4 06/19/13 02:41:33 Finished purging scmessage;syslanguage="OLDSM7en" and class="object" and message.id="49" ..... 4 06/19/13 03:19:18 Finished purging with 17668 duplicate upgrade records prefixed by NEW, PRE and OLD. 4 06/19/13 03:19:18 Start compiling displayscreen records...</pre>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
		4 06/19/13 03:19:18 Compiling displaycreen;screen.id=CM.select.depts  ..... 4 06/19/13 03:19:26 Finished compiling 476 displayscreen records.



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E78893	<p>Cannot merge certain records when upgrading from SM 9.20 (No applications patches) by using SM 9.30 Upgrade Utility (UP5).</p> <p>The following error is received when a merge is attempted:</p> <p>Process panel get.xml.data in RAD run.merge.tool encountered error in line 1 (run.merge.tool,get.xml.data)</p> <p>Cannot evaluate expression (run.merge.tool,get.xml.data)</p> <p>Bad arg(2) oper = (run.merge.tool,get.xml.data)</p> <p>Cannot evaluate expression (run.merge.tool,get.xml.data)</p> <p>Script 'upgradeHelper' line 337: ERROR TypeError: strAncestorXml.replace is not a function at char 1</p> <p>Unable to open file /dev/Install_Files/930_UpgradeUtilities/SM9.30-UP5/AppUpgrade/localized_app_upgrade/SC6.2-9.30.002_v1.5_L10N/3waymerge/oob/9.2/link/contacts.search.xml for reading</p>	<p>No error occurs when merging certain records during an upgrade from SM 9.20 (No applications patches) by using the Upgrade Utility.</p> <p>The missing xml files have been added.</p>



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E78754	The total cost for a Catalog item with default settings is not calculated correctly. This is noticeable in the pending request status details page in SRC.	This occurs if there are default settings for user selections in a catalog item. The value with space character in the picklist is calculated to cost.

CR	Problem	Solution
QCCR1E78892	<p>You cannot add attachments through SRC when running in a TSO environment.</p> <p>With the new upload feature, attachments can be uploaded correctly even under an SSO authentication environment (such as NTLM). To enable the new upload feature, set the new <code>src.security.flex.UploadByUrlLoader</code> property to "true" in <code>applicationContext.properties</code>.</p> <p>Note the following limitations of the new upload feature:</p> <ol style="list-style-type: none"> <li>a. SRC only supports attachment files that are less than &lt; 30 MB. If user selects a file that is greater than 30 MB, the Upload button will not appear.</li> <li>b. The accurate progress of Uploading will not display. An indeterminate progress bar will show instead.</li> <li>c. When a user uploads a large file (&gt; 10 MB), the GUI may apparently hang for some time after the Upload button is clicked. This time depends on the size of the file and the performance of user's local machine. We recommend uploading files that are less than 10 MB.</li> </ol>	<p>With the new upload feature, attachments can be uploaded correctly even under an SSO authentication environment (such as NTLM). To enable the new upload feature, set the new <code>src.security.flex.UploadByUrlLoader</code> property to "true" in <code>applicationContext.properties</code>.</p> <p>Note the following limitations of the new upload feature:</p> <ul style="list-style-type: none"> <li>• SRC only supports attachment files that are less than &lt; 30 MB. If user selects a file that is greater than 30 MB, the Upload button will not appear.</li> <li>• The accurate progress of Uploading will not display. An indeterminate progress bar will show instead.</li> <li>• When a user uploads a large file (&gt; 10 MB), the GUI may apparently hang for some time after the Upload button is clicked. This time depends on the size of the file and the performance of user's local machine. We recommend uploading files that are less than 10 MB.</li> </ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79169	When adding a comment to a request in SRC in a locale other than English, the comment is not posted and a localized error is received.	Updated the urgency label from English to French in the support interaction page.
QCCR1E79281	When you open an Incident of the Request for Change type in the SM Web Client tier or in the SM Windows Client, the category is displayed as a Request for Change. However, if look at the same interaction in SRC, the category is displayed as "Incident."	The Change Management module is now available from the Choose Type dropdown list.
QCCR1E79594	The statuses of the individual items in a bundle are not displayed. If the items that make up the bundle are ordered as individual items and then submitted as one SD, the item status values can be displayed correctly.	This issue occurs because of the difference between null and "" when comparing bundle item properties. By ignoring this difference, the issue has been fixed.
QCCR1E80249	Date formats display in the US date format (where the server is located) despite users logging the request from another country (so the regional settings on the PC differ). This behavior occurs even though these users Operator and Contact records also have Australian time zones and date formats applied.	This issue is not related to user's profiles. Now, SRC uses a fixed GMT date format (yyyy/MM/dd HH:mm:ss), and the time zone information was added to the item option.
QCCR1M5068	Images that are embedded in a Knowledge Management document appear as a red X.	Images that are embedded in a Knowledge Management document now display normally.

CR	Problem	Solution
QCCR1M5235	With Process Designer Content Pack 9.30.1 applied in Service Manager, after logging in to SRC, an operator who has a required change security role (for example, a system administrator) cannot select the Change Management module for Approval Delegation (on the Approval Delegation page, the Change Management module is not available from the Choose Type dropdown list).	Now, the approve delegation capability is retrieved from a global variable, but the selection list is from the profile table.
QCCR1E88365	After submitting a support case through SRC, the contact information is truncated in the status record.	This issue has been fixed by adding a maxwidth attribute to the "TileLayout" component in the supportrequest details and servicerequest details pages.
QCCR1E88960	When you perform a Knowledge search in SRC 1.4 together with an upgraded SM 9.31, the catalog items that contain the search terms show up, but a run-time error appears on the screen and nothing is returned. This issue occurs when the "category" or "categorystr" fields are missing in KM document and SRC could not handle this case.	Now, SRC ignores the missing fields, and a warning message is logged on the server.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E89728	<p>The URL generated from the Notification engine by using the urlCreator Script Library is not valid and does not take the user to the service request/approval page. SRC defines a new URL format to access the service and approvals. The urlCreator Script Library is updated to align with this change.</p>	
QCCR1E89904	<p>Consider the following scenario when your Service Desk profile does not allow you to close an interaction ticket:</p> <ol style="list-style-type: none"><li data-bbox="577 760 1113 873">1. You submit a support ticket to Service Request Catalog (SRC), and then you click the Status button in the pop-up dialog box.</li><li data-bbox="577 917 1113 990">2. You click the Close button in the request details page.</li></ol> <p>In this scenario, SRC displays the following error message:</p> <p>Unexpected exception: Runtime error or exception incurred in server. Please contact your administrator.</p>	<p>In this scenario, SRC only displays the following error message:</p> <p>"You do not have permission to close this support request. Contact your Service Manager administrator."</p>

CR	Problem	Solution
QCCR1E90727	<p>After an SRC order from catalog order has been placed, a change is opened and is in progress or even closed. However, after some time, the svcCart for the Interaction no longer exists.</p> <p>In addition, the cartId field appears empty if you view the field in a list of Interactions, but the field is populated if you check the record (d cartId in \$L.file).</p>	<p>Now, the cartID field is added to the Interaction records for SRC Requests. Therefore, when the user submits an SRC request, the cartID field is populated in the list of Interactions.</p> <p>Note: The fix for this issue is delivered via an unload file. You must load the unload file into Service Manager for this fix to take effect.</p>
QCCR1E91065	<p>In SRC, when an interaction is locked for an update, a runtime error appears. However, SRC should display a more user-friendly message.</p> <p>Additionally, when a user clicks on update, locks should be checked at that time, so the user does not enter in an update that cannot be submitted due to the lock status. This behavior leads to a great deal of user frustration.</p>	<p>This CR only fixes the issue of runtime error message in SRC, the enhancement to check the lock status when a user clicks update is handled in another CR.</p>
QCCR1E91589	<p>The back arrow icon for the Back button in the detail item page does not clearly reflect the button's function.</p>	<p>The back arrow icon was changed to a link button together with an icon and label.</p>



<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E92867	You create a request in SRC 1.40 using a catalog item, for which you have prepared several checkboxes in User Options. However, if you do not mark the checkboxes, you do not see these options in SRC.	You can see these options in SRC even if you do not mark the checkboxes.
QCCR1E97229	If the user selects "Keep me logged in", and then their password is changed, they are no longer able to log in to SRC. This occurs even if the user de-selects the "Keep me logged in" option and enters the new password.	End-users can now log into SRC with their new password as expected if they selected "Keep me logged in" option, even when their password is changed in SM client.

## Mobility Client

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E63548	On an android phone, the log-in screen username and password labels are inside the text fields.	The labels are now displayed correctly.
QCCR1E69056	The memory settings for the SM Mobile applications are conflicting. The Java heap settings being set by the installer conflict with the initial Memory Pool and the Maximum Memory Pool.	Provided the recommended heap size settings in the SM9.32 Mobile Applications User Guide. There is no confusion or ambiguity about what the proper Java heap settings should be.

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E79019	When one user logs in to the Mobility client, two or three sessions are initiated. Additionally, after the user logs out, the sessions are not released.	During login, the Mobility client uses one session per user and releases the sessions on logout.
QCCR1E70703	Drilling down to a specific change record from Service Manager Mobile Applications does not display time, but only date information.	Drilling down to a specific change record from Service Manager Mobile Applications now displays both date and time information.
QCCR1E71857	The SM Mobility log contains the following warning message: "WARN: Timezone offset is missing in SM Mobility".	This error no longer occurs in the log.

CR	Problem	Solution
QCCR1E71858	<p>SM Mobility creates an instance of ThreadLocal with a key of type [null], but fails to remove it when the Web application is stopped. When this issue occurs, the following log entries are generated:</p> <p>" SEVERE:</p> <p>The web application [/mobileltsmWebApp] created a ThreadLocal with key of type [null] (value [org.codehaus.groovy.grails.commons.spring.ReloadAwareAutowireCapableBeanFactory\$2@4effa014]) and a value of type [java.lang.Boolean] (value [false]) but failed to remove it when the web application was stopped. "</p>	<p>The log entries are no longer generated.</p>
QCCR1E76231	<p>The Mobile Applications shows different records from those in the Web and Windows clients.</p>	<p>The Mobile Applications shows the same records as the Web and Windows clients do, including the 'Assigned to My Groups' change view.</p>
QCCR1E71856	<p>The SM Mobility log contains useless warning messages.</p>	<p>The SM Mobility log no longer contains useless warning messages.</p>

CR	Problem	Solution
QCCR1E95590	The modified CustomConfig.groovy causes SM Mobility mobileltsmWebApp application unavailable.	This issue no longer exists due to refactoring of the Mobility client.
QCCR1E79188	The Mobility client does not initially display the "Search" button or the "Sort by" options in the list page. Instead, you must drill down to the details page, and then return to the list page.	The Mobility client now initially displays the "Search" button or the "Sort by" options in the list page.

## Knowledge Management Search Engine

This release fixes the following defect in the KM Search Engine.

CR	Problem	Description
QCCR1E91035	When you perform a search in Knowledge Management, and you type some key words in the "none of these words" field, the search result returns an incorrect document count, and some documents still contain the omitted key word. Additionally, highlighted search results in attachments causes a performance decrease.	<p>The search result returns the correct document count, and no documents contain the omitted key word.</p> <p>Additionally, an option is added to enable administrators to remove highlighted search results in attachments.</p> <p><b>Note:</b> This fix is provided through the QCCR1E91035_SM932_SM930.unl file, shipped with the KM package. See <a href="#">"Knowledge Management (KM) Update Installation"</a> on page 218.</p>

## Documentation

CR	Problem	Solution
CCR1E72765	The SM online help incorrectly states that affected.ci.count (read-only field) should fill automatically with the count of all problems related to the Configuration Item (logical.name) specified in the problem record.	Updated help topic "Problem record information" as follows:  Affected CI Count: A system-generated count of the number of CIs affected by the outage. The count does not include the Primary CI. Affected CI count is based on the number of items entered in the Assessment section. It is calculated based on what is in the Assessment section in the Affected CIs table.
QCCR1E74511	Documentation is incomplete for implementing the "database record auditing" functionality.	Updated the "Invoke auditing from Format Control" help topic to provide additional parameter values, and added a new topic "Invoke auditing for joindefs tables".

CR	Problem	Solution
QCCR1E78493	<p>When trying to use the Compare/Merge tool in SM 9.30up5, the following errors are received during conflict resolution phase:</p> <p>Script 'upgradeHelper' line 304: ERROR TypeError: lib.upgradeMerging.getOOBFileName is not a function at char 1</p> <p>Cannot evaluate expression (run.merge.tool,get.xml.data)</p> <p>Bad arg(2) oper = (run.merge.tool,get.xml.data)</p> <p>Cannot evaluate expression (run.merge.tool,get.xml.data)</p>	<p>Added the following note in Upgrade Guide under "Using the Auto Merge and Revert options:" "If you do not choose to use the auto-merge option, you must manually unzip the OOB data to the same folder in which you extracted the Merge Tool. If you do choose the auto-merge option, the OOB data is extracted automatically by the Merge Tool."</p>
QCCR1E80006	<p>There is no documentation to explain how to apply Mandanten in Knowledge Management in Service Manager 9.30 utilizing the SOLR search engine.</p>	<p>Added the documentation to the Service Manager 9.32 Search Engine Guide.</p>
QCCR1E95326	<p>Documentation provided for RAD function iscurrent() is confusing. In the document, the description of iscurrent() is A RAD function that determines if the record that you are working with is identical to the version in the database. if opening a ticket and modifying some fields, what is returned by calling iscurrent()? Need to cover some scenarios to give more details in the document.</p>	<p>The Programming Guide has been updated with the following information:</p> <ul style="list-style-type: none"> <li>• Further clarification that this function only determines if another user has changed the current record since you open it;</li> <li>• Two example scenarios in which calling iscurrent() returns true and false, respectively.</li> </ul>

<b>CR</b>	<b>Problem</b>	<b>Solution</b>
QCCR1E96019	Documentation of parameter appthreadspersession needs update.	<p>When appthreadspersession:5 is specified in sm.ini, users cannot open the 4th tab for executing a command such as "db".</p> <p>The following note is added to the description of the appthreadspersession parameter:</p> <p>Note: A user cannot open the last allowed tab by executing a command via the command line. For example, the appthreadspersession parameter is set to 5, user has four open tabs (including the first tab). The user tries to open the fifth tab by executing a command (for example, the db command) via the command line. In this scenario, the fifth tab cannot be opened. However, the user can open the fifth tab from the System Navigator.</p> <p>This is a known limitation caused by the mechanism that calculates the number of open tabs.</p>
QCCR1E97505	The current statement of maximum file attachment size is unclear.	<p>Updated the online help as follows:</p> <ul style="list-style-type: none"><li>• Updated the "Setting file attachment size limits" topic to add a description of total attachment size.</li><li>• Added two new topics on how to set the total attachment size:<ul style="list-style-type: none"><li>■ Set the total file attachment size for the entire company</li><li>■ Set the total file attachment size for an operator</li></ul></li></ul>

## Known Problems, Limitations, and Workarounds

This software release has the following known issues and limitations. This is a cumulative list of known issues and limitations in Service Manager 9.32, including those that are already documented in previous release notes (Service Manager 9.31 and patches).

### Issues in SM9.31 and Patches

Global ID	Problem	Workaround
QCCR1E63663	The Service Manager (SM) client loses connectivity during JavaScript execution of the file.list RAD application.	No workaround available.  Created a knowledge article (KM1166532), which states that Service Manager does not currently support calls from JavaScript on RAD applications that use the rio/fdisp panels.



Global ID	Problem	Workaround
QCCR1E57385	When Service Manager is running on Unix, the legacy listener may log intermittent signal 11 upon CIT initial connectivity test if exec-shield is not set properly.	<p>Use one of the following solutions to solve this issue on Unix.</p> <p><b>Solution 1:</b></p> <p>Connect Connect-It to the Web Services connector instead of the Legacy Listener connector.</p> <p><b>Solution 2:</b></p> <p>Before connecting Connect-It to the Legacy Listener connector, do the following:</p> <ol style="list-style-type: none"><li>1. Add <code>usethreading:0</code> in the <code>sc.ini</code> file, which is located in <code>&lt;Service Manager server installation path&gt;\LegacyIntegration\RUN</code>.</li></ol> <p><b>Note:</b> For 64-bit RedHat Linux servers only, you can alternatively run the following shell commands as root:</p> <pre># sysctl -w kernel.exec-shield=0</pre> <pre># sysctl -w kernel.randomize_va_space=0</pre> <ol style="list-style-type: none"><li>2. Start the legacy listener.</li></ol>

Global ID	Problem	Workaround
QCCR1E67491	<p>When the collation of the db instance is Chinese_PRC_BIN, Web service clients fail to connect to Service Manager (SM). Only ASCII operator names are supported, so only ASCII operator names can be used.</p>	<p><b>Note:</b> This issue only exists in Web service integrations. Therefore, the SM clients do not have this problem.</p> <p>When SM is handling an incoming SOAP request, the authorization string is decoded by BASE64Decoder. SM uses the decoded string value to construct a UTF-8 string that is used in the RTE. However, the authorization string is in the header and SM does not know the charset or encoding of the underlying string value, which is BASE64 encoded.</p> <p>Therefore, if the underlying string value is not UTF-8, this problem will occur. In SM, when fetching an operator record from the database, no matter what collation the database uses, the operator record finally will get a UTF-8 operator value. However, even if users put the same value in the authorization header, the operator name may differ because of the charset/encoding issue. Because of this, the operator will fail to log on.</p> <p>This is a limitation of SM. Do not use non-ASCII characters in operator names. Created a knowledge article (KM1442479) to document this limitation.</p>

<b>Global ID</b>	<b>Problem</b>	<b>Workaround</b>
QCCR1E75182	HTML email truncates the body of the message and sends the HTML code without translating it.	<p>When the content of an HTML email template exceeds 8192 bytes in size, the content will be truncated and displayed as HTML code.</p> <p>Make sure your HTML email templates do not exceed this size limit.</p>
QCCR1E89890	Grouped Views are not correctly updated after logging a new Incident.	<p>When you log a new incident, to keep consistency with actual incidents, the group number is not updated.</p> <p>You need to click the "Refresh" button to update grouped Views.</p>
QCCR1E72835	Add the ability to limit the memory consumed by individual threads in SM as specified by an Administrator.	<p>The requested change is not implemented to avoid performance degrade.</p> <p>No workaround is currently available.</p>
QCCR1E77563	Signal 11 error is received when calling the toXMLString() routine of the Users object.	<p>No workaround is currently available.</p>

Global ID	Problem	Workaround
QCCR1E88222	An unload file that is exported from an Oracle to an SQL Server database fails to import when the unload file already contains a RECORD_KEY field and the length of first unique key exceeds the db limitation.	<p>This request is caused by the product running in an unsupported configuration. Change to a documented and supported configuration. If the problem still exists in a supported environment, contact HP Support.</p> <p>To work around this issue, do not use "RECORD_KEY" as a SQL Name for a field in dbdict. This field name is reserved by SM. To do this, follow these steps:</p> <ol style="list-style-type: none"> <li>1. Enter dbdict in the SM command line box.</li> <li>2. Enter "esdquestions" in to the search field, and then click the Search button.</li> <li>3. Select the "record.key" field, and then change the SQL Name from "RECORD_KEY" to anything else.</li> </ol>
QCCR1E74808	After clicking the <b>Cancel</b> button in the Condition Editor from the Workflow Editor, the current tab sometimes becomes a blank screen and the tab cannot be closed.	No workaround is currently available.

Global ID	Problem	Workaround
QCCR1E99940	Customers on Solaris 9 cannot upgrade to SM9.31p2 or a later patch because JRE7 does not support Solaris 9 and Service Manager starts with a JRE validation that does not allow a JRE version below JRE7 up15.	<p>To continue to use JRE 1.6 on Solaris 9, modify the following three lines in the <code>validjava.sh</code> file located in the SM server's <code>RUN/</code> folder.</p> <p>From:</p> <pre>JAVA_UPDATE_VERSION_SUPPORTED=15</pre> <p>To:</p> <pre>JAVA_UPDATE_VERSION_SUPPORTED= 20</pre> <p>From:</p> <pre>if [ "\${JAVA_VERSION}" = "1.7" ]; then</pre> <p>To:</p> <pre>if [ "\${JAVA_VERSION}" = "1.6 " ]; then</pre> <p>From:</p> <pre>echo "Install or setup Java 7 correctly and then run ./setupLinks.sh to re-create the symbolic links."</pre> <p>To:</p> <pre>echo "Install or setup Java 6 correctly and then run ./setupLinks.sh to re-create the symbolic links."</pre>

## Issues in SM9.32

### Service Manager Issues

Global ID	Problem	Workaround
QCCR1E64377	In the web client, when a Configuration Item (CI) record is opened, the CI label does not show (or only shows for the first time) in the CI Visualization (Relationship Graph). This issue occurs only when JRE 6 is used.	As Oracle has fixed this Applet issue, JRE 6 customers need to upgrade their JRE to the latest JRE6 or JRE7 on the machine that runs Internet Explorer or Firefox in order for CI Visualization to display CI labels correctly.
QCCR1E95418	CI Relationship Graph is not immediately refreshed after changing CI Relationships.	No workaround is currently available.
QCCR1E95725	Due to a known issue in JDK (bug id:7196513), CI icons are not displayed correctly in Firefox when Httponly cookies are enabled in the web application server.	When Httponly cookies are enabled, users can only use Internet Explorer 7 or higher for CI icons to display correctly. As Oracle has fixed the Httponly cookie issue as of JDK 7u6, users need to install the latest 32-bit JRE (7u6 or above) on the machine that runs Internet Explorer 7 or higher.
QCCR1E95963	An error occurs when loading a dbdict twice in an unload file. The two dbdict records have the same name, but different key types: the first one has unique key, while the second's key type is primary key.	Do not export to an unload file a dbdict record whose key type has changed.

Global ID	Problem	Workaround
QCCR1E97260	When SSL is enabled between the web application server and Firefox, a ClassNot found Exception error displays in the workflow section of the Change form. This issue does not occur in IE or in Firefox without SSL enabled.	There are two workarounds: <ul style="list-style-type: none"> <li>• Use Internet Explorer instead of Firefox.</li> <li>• If using Firefox, import the client certificate into the Java console on the end user's machine. Here are the steps for Windows 7:                             <ol style="list-style-type: none"> <li>a. Open Control Panel, and in the Control Panel Search box enter "Java Control Panel".</li> <li>b. Double-click the Java console icon to open the Java console.</li> <li>c. On the <b>Security</b> tab, click <b>Manage Certificates ...</b>.</li> <li>d. On the Certificates window, select certificate type: <b>Client Authentication</b>, and click <b>Import</b>.</li> <li>e. Follow the wizard and import the client user's certificate.</li> </ol> </li> </ul>
QCCR1E97492	Clicking the <b>Back</b> button on the CI Visualization page (which opens when you click <b>More &gt; Expand CI Visualization</b> in a CI record) causes a Firefox crash.	No workaround is currently available.

Global ID	Problem	Workaround
QCCR1E97539	<p>If JRE 7 (update 21 or greater) is used in the web browser, when the user opens a configuration item the browser displays a security warning:</p> <p>Block potentially unsafe components from being run?</p> <p>The reason why this warning occurs is that as of Java SE 7 update 21, JavaScript code that calls code within a privileged applet is treated as mixed code and warning dialogs are raised if the signed JAR files are not tagged with the Trusted-Library attribute.</p>	<p>This warning does not indicate the Service Manager product is unsafe.</p> <p>Ignore this warning and select <b>Don't Block</b> in the warning dialog to continue.</p>
QCCR1E97603	<p>If a format that contains a button with Enable condition is created or modified by using a SM9.31 patch 1 server, when using it in SM 9.31 GA or earlier, the client crashes. However, formats created by using the SM9.31 GA or earlier server work fine.</p>	<p>Upgrade both of the SM server and client to the same patch level: SM 9.31 patch 1 or later.</p>
QCCR1E94657	<p>When PD4CP is applied, the first group on the form is not shown in the Jump Address drop down list.</p>	<p>Move the scroll bar to the top-most position and then you will see the first group.</p>



Global ID	Problem	Workaround
QCCR1E97856	In a single-line text field, some special characters whose HTML code is &#x...; (where ... stands for a hex number) are not represented as their original format. Instead, they display as &#x...; . However, such characters are represented as the original format in other widgets (textarea, label, message panel, and so on).	No workaround is currently available.
QCCR1E98343	When you try to remove a group from the permission list of a Knowledge Category record, if you select the group by clicking on the white space in either cell and then click the "Remove" button, the group is still there.	Before clicking the "Remove" button to remove the group, try making the selection by clicking on the text in either cell.
QCCR1E98705	The image uploaded for a service catalog item displays as broken (a cross-mark).	Go ahead to save the current record. When you retrieve this record again, the image will display correctly.
QCCR1E93604	The HTTP Response Code is 200 instead of 400 when a RESTful request uses an invalid sort field separator (for example, a plus symbol).	Use a valid sort field separator.
QCCR1E94204	Because of the incorrect status, the operation could not proceed after merging a record.	Reset the status of this record (for example, reopen the closed record) and perform the last operation again.
QCCR1E94206	The last operation could not be repeated after merging a record because the button for the last operation disappears.	Reset the condition for the button in this record, for example, Reopen the closed record, and perform the last operation again.

Global ID	Problem	Workaround
QCCR1E96353	RESTful API: An incident record is successfully resolved when posting an incident resolve action with a blank "ClosureCode" and "Solution".	Validation is not performed for the fields.  To work around this issue, validate them at the RESTful client side, or manually add validation for the fields to the format control.
QCCR1E96391	Restful API: Results are in the wrong order when sorted by an array field.  This issue occurs because the SM RTE does not support sorting by array fields. A list is returned without any error message.	No workaround is currently available.
QCCR1E97898	Restful API: A 400 Bad Request error occurs when a RESTful API request is a cross-table join query.	The RESTful API framework supports simple queries and SM native queries.  Currently RESTful API framework does not support cross-table SQL queries.
QCCR1E98320	When a record is removed after being read, the Merge function still allows the user to merge the record and the user's input is lost.	No workaround is currently available.

Global ID	Problem	Workaround
QCCR1E98227	In Approval Delegation wizard, go to another page (do not change the delegation module) after choose the operator to delegate in "Select Approval Groups" page, then back to "Select Approval Groups" page again. You will find a blank line is displayed in the right table, instead of the operator record.	This is only a display issue, and will not impact the functionality. If you need to remove the operator from the delegation list, choose the blank line, and then click the remove icon; otherwise the operator will be successfully delegated once you save the update.
QCCR1E98576	when there are conflicted updates on system fields, the system displays the message "The conflicted fields cannot be merged. Reload the record.", whereas the Merge button is available. Actually, the merge function should not be available in such case.	Ignore the Merge button. Reload the latest record to edit this record again.
QCCR1E98398	When you are updating a record and adding attachments to this record, if your updates conflict with another users' updates or the updates of a background process, the attachments will be lost after either automatic or manual merge.	After automatic or manual merge, add the attachments again before saving the merged result of the record.
QCCR1E98411	SRC failed to retrieve service catalog items from SM on upgrade from SM 7.11 to SM 9.32.	In the svcCatalog dbdict, the id.attach field is character type, which should be number type. The id.attach field is an alias of the id field in the svcCatalog table.  To fix the issue, change the field type using the Dbdict Utility.

Global ID	Problem	Workaround
QCCR1E98606	<p>When purging all duplicated records for upgrade, the following error message occurs:</p> <p>No display screen named "kmgroun.save" found</p>	No workaround is currently available.
QCCR1E98618	<p>Subcategory data on the Incident form is not available after upgrading from ServiceCenter 6.2 to Service Manager 9.32.</p> <p>Subcategory data is not upgraded.</p>	<p>If necessary, manually add the subcategory data.</p> <ol style="list-style-type: none"> <li>1. Enter <code>db</code> in the SM command line box.</li> <li>2. In the Table field, enter <code>subcategory</code>, and click <b>Search</b>.</li> <li>3. For each Category in the dropdown list, add the following Areas (enter a value in the Area field and click <b>Add</b>): <code>access</code>, <code>data</code>, <code>failure</code>, <code>hardware</code>, <code>performance</code>, and <code>security</code>.</li> </ol>

Global ID	Problem	Workaround
QCCR1E98713	<p>After applying an upgrade, the following error message occurs:</p> <p>Unable to open file &lt;file path&gt; for writing</p>	<p>This error has no impact on the upgrade, and can be ignored.</p> <p>To prevent this message from occurring, do the following before applying an upgrade:</p> <ol style="list-style-type: none"> <li>1. In Database Manager, search for table <code>help</code>.</li> <li>2. Double-click <b>help.detail</b>.</li> <li>3. Enter the following values, and click <b>Search</b>:           <p>File Name: <code>formatctrl</code></p> <p>Format: <code>formatctrl.maint.seq.b</code></p> <p>Term: <code>Format Control maintenance - Sequentially Numbered fields</code></p> </li> <li>4. Click <b>Delete</b> to delete the record.</li> </ol>
QCCR1E98298	<p>Survey Integration: If you use an invalid parameter name when you configure a survey with an API-based connector, the parameter is replaced with an empty value incorrectly.</p>	<p>Do not use invalid parameter names.</p>
QCCR1E98299	<p>Survey Integration: When you use the Mass Update utility to update multiple survey records, ruleset validation does not work.</p>	<p>No workaround is currently available.</p>

Global ID	Problem	Workaround
QCCR1E98475	<p>With Process Designer Content Pack 9.30.3 applied, the Merge functionality does not work when a user clicks <b>Save &amp; New</b> in an interaction record opened through a search.</p> <ol style="list-style-type: none"> <li>1. Open an interaction through a search.</li> <li>2. Update the Title.</li> <li>3. Another back-end process has updated the Title to another value.</li> <li>4. Click <b>Save &amp; New</b>. An error occurs: This record has changed since you selected it.</li> </ol> <p>You cannot perform Merge for the conflicted updates as expected.</p>	<p>If you encounter the error "This record has changed since you selected it." when clicking the <b>Save &amp; New</b> button on an interaction opened through a search, to avoid abandoning your updates, do not use the <b>Save &amp; New</b> button to save your updates; instead, first click the <b>Save</b> button to save your updates with the merged result, and then register a new interaction from the navigation menu.</p>
QCCR1E99998	<p>The following text string in the web tier is not localized:</p> <p>File: &lt;webtier-9.32.war&gt;WEB-INF/lib/cwc-9.32.jar/com/hp/ov/cwc/web/login.properties</p> <p>Text: Logout.WarningMessage.CloseBrowser&gt;Please close your browser window.</p>	<p>Manually localize it using the native2ascii tool.</p> <p>For detailed steps, see the SM9.31p2 Release Notes: <a href="http://support.openview.hp.com/selfsolve/document/KM00408894">http://support.openview.hp.com/selfsolve/document/KM00408894</a></p>

### Service Request Catalog Issues

Global ID	Problem	Workaround
QCCR1E90074	When entering a search string in Service Request Catalog, auto-complete does not work if the browser's preferred language is set to an East Asian language (for example, Simplified Chinese).	No workaround is currently available.
QCCR1E98339	Custom fields do not load the DEFAULT company value when the checkout panel is empty for one of the three checkout panels of your company.	After upgrade, you should manually add the same structure configuration of the DEFAULT company for the empty checkout panel of your company. For example, before upgrade, you, as an SRC administrator, only defined custom fields for the Service Catalog checkout panel for your company. After upgrade to SM932, if you want to use the support checkout panel and generic support checkout panel in SRC correctly, you need to manually add OOB configurations for the Support Catalog and Generic Support checkout panels, which you can copy from those panels of the DEFAULT company.

# Backup and Backout Instructions

In case you need to restore your Service Manager system to its original state after installing the component patches in this release, make necessary backups before each patch installation. If a rollback is needed, follow the backout instructions.

## Server

### Backup

Before applying the server patch, make a backup of the server installation folder. For example, C:\Program Files\HP\Service Manager 9.30\Server.

**Note:** If you have a horizontally scaled system, be sure to back up the server installation folder for each server instance.

### Backout

Service Manager 9.32 supports FIPS mode. To run SM in FIPS mode, you must upgrade your database to the 256-bit AES encryption algorithm. Once you change all of the encrypted fields to use the new 32 character encryption you cannot roll back the RTE and still read the encrypted data.

After installing the patch, do the following to backout:

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, because the version of the embedded Tomcat may have dependency on a specific server version.

**Note:** If you have a horizontally scaled system, make sure that every server instance is replaced with its backup.

4. If you have also loaded platform unload files required for your server changes, you must also roll back the application changes made by the unload files. See "[Applications](#)" on page 194.
5. For Unix-based platforms other than Linux, make a backup of your JRE if you have not yet



upgraded to JRE 1.7.

6. Restart the Service Manager server.

## Web Tier

### Backup

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

- web.xml file
- application-context.xml
- log4j.properties
- splash screen
- style sheets
- any other customizations you made, including your webtier-`<version>.war` (webtier-ear-`<version>.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

### Backup

1. Make a backup of your Windows client home folder, for example, `C:\Users\<username>\ServiceManager`. Your connections and personalized settings are stored in this folder.

**Note:** This is the out-of-the-box home directory, and could differ from yours if you made changes to <Client>\configuration\config.ini file. If so, back up the files from the location specified in that file.

2. Make a backup of your certificate 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

If you plan to upgrade your applications to this release level, make a backup of your database before the upgrade, in case you need to restore your database after the upgrade. Creating a backup of the entire database and restoring the database if needed is a better approach for a full applications upgrade.

If you plan to load individual unload files in this release, follow the backup and backout instructions below.

### 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.



File	Record
Process	svc.add.cart
application	money.format  <b>Note:</b> The <code>scmessage</code> records listed under each RAD application are messages used in this RAD application; no backup is needed for them.
ScriptLibrary	svcCartHelper
datadict	activity
dbdict	activity  <b>Note:</b> The “activity” file with no records actually represents the dbdict record of the activity file.
scmessage	The record whose message class is “fc” and message number is 1000.

3. Go to Database Manager, in the Table field enter a file name you got in step 2, and click the Search button.
4. If the format selection page shows, select the proper format by double-clicking it (for example, select the `device` format for the `device` file), and then search for the file record.
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**.

## Knowledge Management Search Engine

To backout your Knowledge Management (KM) search engine changes, make a backup before your KM patch installation.

**Note:** Keep in mind that you also need to roll back KM-related server side and application side changes. For details, see the Server and Application backup and backout Instructions.

### Backup

Before applying the KM patch and upgrading the JDK and KM embedded Tomcat, do the following:

1. Make a backup of the search engine installation folder. For example, C:\Program Files\HP\Service Manager 9.30\Search Engine Backup
2. Make a backup of the files to be modified by the unload files in the KM patch.
3. Make a backup of your schemastub.xml file under directory <SM server>/RUN/km/styles/.

### **Backout**

After installing the patch, do the following to backout:

1. Stop your KM search engine.
2. Remove the existing search engine installation folder.
3. Copy the backup folder back.
4. Rollback the previous JDK installation and change the JAVA\_HOME environment variable back.
5. Be sure to roll back KM related changes on the SM server and application sides, including the kmsolr unloads files and the server's schemastub file.
6. Restart your KM search engine.
7. Perform a full re-indexing on all of your knowledgebases.

# Installation Notes

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

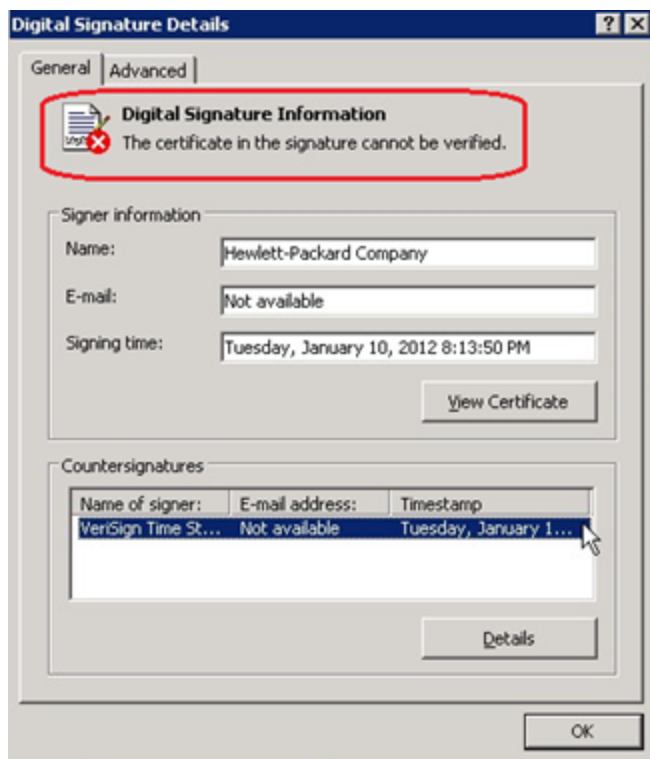
Before you proceed, HP recommends that you consult the latest *Service Manager 9.32 Support Matrix* and the *Compatibility Matrix for Service Manager Applications Content* at:

[http://support.openview.hp.com/sc/support\\_matrices.jsp](http://support.openview.hp.com/sc/support_matrices.jsp)

For more information, see "[Service Manager Support Matrix and Applications Content Compatibility Matrix](#)" on page 226.

## Digital Signature Notice

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



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

## Server Update Installation

The server update for your operating system (OS) consists of a compressed file, `sm9.32.0016_<OS>.zip` (or `.tar`), which contains updated files of the Service Manager server. These files add to or replace the files in the `[SM Server Root]\([SM Server Root]/)RUN`, `irlang`, `bin`, `legacyintegration`, and `platform_unloads` directories.

**Note:** If using an Oracle RDBMS, be aware that Oracle Call Interface (OCI) 11.2.0.3 is required for SM9.30p5, SM9.31, SM9.32 and later. See the latest *Service Manager 9.32 Support Matrix* at [http://support.openview.hp.com/sc/support\\_matrices.jsp](http://support.openview.hp.com/sc/support_matrices.jsp).

### Built-In Troubleshooting Tool (SM Doctor)

Additionally, this server patch includes an installation of the HP Service Manager Doctor (SM Doctor) tool. The server patch will install the tool in the `[SM Server Root]\([SM Server Root]/)smdoctor` directory. For information on how to use this tool, see the *Guides and reference > Troubleshooting > HP Service Manager Doctor* section in the online help.

### Upgrade Paths

This server patch must be applied on top of one of the following versions/patch levels of the SM server:

- SM9.30 GA
- SM9.30 Patch/Hotfix
- SM9.31
- SM 9.31 Patch/Hotfix

The following server upgrade paths are recommended:

- New customers: Install the SM9.30 GA server, and then directly apply the 9.32 server patch;
- Existing SC6.2, SM7.11 and 9.21 customers: Uninstall the old server, install the SM9.30 GA server, and then apply the 9.32 server patch;
- Existing SM9.30 or 9.31 customers: Apply the 9.32 server patch.

For installation instructions of the SM9.30 GA server, see the *Service Manager 9.30 Interactive Installation Guide*, which is available from the HP Software Manuals Site:

**<http://support.openview.hp.com/selfsolve/document/KM1195794>**

For installation instructions of the server patch, see "[Server Patch Installation Steps](#)" below.



### Compatibility Mode for Installation on Windows Server 2012

As of this release, Windows Server 2012 is supported. Be aware that compatibility mode is required for installing the SM9.30 GA server on Windows Server 2012 (not required for Windows Server 2008). To run your server installation in compatibility mode, do the following:

1. Right-click the server's `setupwin32.exe` file icon.
2. Click **Properties > Compatibility**.
3. Click **Run this program in compatibility mode for** and select **Windows Vista (Service Pack 2)**.
4. Click **Apply** and **OK**.
5. Run the `setupwin32.exe` file to complete the installation.

When uninstalling your server on Windows Server 2012, you should also use compatibility mode. To do so, set your Windows server uninstaller file (`_uninst\uninstaller.exe`) to compatibility mode as described above and then uninstall the server using the uninstaller or from your Control Panel.

### Server Patch Installation Steps

#### Caution:

- The server patch will upgrade your embedded Tomcat to version 6.0.36, and therefore requires additional steps.
- The server patch will upgrade your JGroups (in the `RUN/lib` directory) to version 3.2.
- Starting with SM9.31p2, 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
```

**Note:** If you have a horizontally scaled system, you must upgrade all of your server instances.

1. Stop all Service Manager clients.
2. Stop the Service Manager server.
3. Make a backup of the Server installation directory. See also "[Backup and Backout Instructions](#)" on page 192.
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 9.31p2. 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 9.30\Server`.
8. For UNIX servers, set the file permissions for all Service Manager files to 755.
9. For the following Unix servers, manually upgrade to JRE1.7 if you have not already done so.

- 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. Your old `schemastub.xml` file (in the `<SM_Server_Home>\RUN\km\styles\` directory) has been updated to a newer version. Either keep your old file by copying it back or keep the updated version (a KM knowledgebase full reindexing is then required).
12. Run the `sm -unlockdatabase` command.

**Note:** This step is required the first time you upgrade to 9.30p4 or later; it is also required whenever you change the server's IP address after your upgrade to 9.30p4 or later. 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.

13. Restart the Service Manager server.
14. Restart the Service Manager clients.
15. Check the version in **Help > About Service Manager Server**. The server should be Release: 9.32.0016.

## Web Tier Installation

The web tier update consists of a compressed file, sm9.32.0016\_Web\_Tier.zip, which contains the installation files (both the .war and .ear files) for installing the SM9.32 web tier. Installing the new web tier will upgrade your web client to this release level.

The installation steps are the same as installing the SM9.30 web tier. The specific installation process depends on your particular web application server. For detailed steps, see the *Service Manager 9.30 Interactive Installation Guide*, which is available from the HP Software Manuals Site: <http://support.openview.hp.com/selfsolve/document/KM1195794>

### New Customers

You only need to install the new web tier using the .war or .ear file from the sm9.32.0016\_Web\_Tier.zip file in this release. For installation instructions, see the *Service Manager 9.30 Interactive Installation Guide*.

### Existing Customers

To upgrade your web tier to this patch level, you need to back up and uninstall your old web tier and then install the new web tier. The upgrade does not automatically save your web tier customizations. To keep your changes, you must back up your customized files and restore your customizations in the new deployment.

*Note on Tomcat 7.0:* If you plan to deploy the web tier on Tomcat 7.0 using the Tomcat Manager, be sure to set the max-file-size and max-request-size parameters (default: 52428800) in the <Tomcat 7.0\_Home>webapps\manager\WEB-INF\web.xml to an appropriate value greater than the web tier .war file size; otherwise the deployment request will be rejected because the web tier .war file exceeds the default maximum values. This restriction does not exist in Tomcat 6.0.

To install the new web tier:

1. Make necessary backups. For details, see "[Backup and Backout Instructions](#)" on page 192.
2. Delete or uninstall the existing web tier .war (or the .ear) file.
3. Clear the cache of your web application server.
4. Deploy the new webtier-9.32.war (or the .ear) file following the instructions in the *Service Manager 9.30 Interactive Installation Guide*.

**Note:** It is best practice to deploy with a unique context root. For example: /webtier-9.32.0016

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.
7. Restart the web application server.
8. Check the version by clicking the HP logo (About HP Service Manager) icon. The web tier version should be: 9.32.0016.

## Windows Client Installation

**Note:** No features are being added to the Service Manager Windows (Eclipse) Client. HP recommends that Service Manager administrators deploy one of the other three clients (Web Client, SRC client or Mobility client) to end users. You still need the Windows Client to perform administrative tasks.

The Windows client update consists of a compressed file, `sm9.32.0016_Windows_Client.zip`, which contains the executable installation files of the new Windows client. Installing the new Windows client will upgrade your Windows client to this patch level.

The installation steps are the same as installing the SM9.30 Windows client. See the *Service Manager 9.30 Interactive Installation Guide*, which is available from the HP Software Manuals Site:

**<http://support.openview.hp.com/selfsolve/document/KM1195794>**

### New Customers

You only need to install the new Windows client. by following the steps in the *Service Manager 9.30 Interactive Installation Guide*.

### Existing Customers

You need to back up and uninstall the old Windows client, and then install the new Windows client.

To install the new Windows client:

1. Stop the Service Manager Windows client.
2. Make necessary backups. For details, see "[Backup and Backout Instructions](#)" on page 192.

3. Uninstall the Service Manager Windows client. (Your connection and personalized settings are retained.)
4. Run `setup.exe` from this Windows client patch to install the new client by following the instructions in the *Service Manager 9.30 Interactive Installation Guide*.
5. Check the version in **Help > About Service Manager Client**.

The client should be Release: **9.32.0016**.

## Windows Client Configuration Utility Installation

Service Manager 9.32 includes an updated version of the Windows Client Configuration Utility (`sm9.32.0016_Windows_Client_Configuration.zip`). It is intended only for customers who have upgraded their Windows client to version 9.31p2 or later (for example, 9.32).

For detailed installation instructions, see the *Service Manager 9.30 Interactive Installation Guide*, which is available from the HP Software Manuals Site:

<http://support.openview.hp.com/selfsolve/document/KM1195794>

## Applications Update Installation

You apply the 9.32 applications using either the SM9.32 Applications Patch Manager (`sm9.32.0016_Application.zip`) or Upgrade Utility (`sm9.32.0016_Application_Upgrade.zip`) depending on your current application version. You must also be aware of the dependencies if you have already installed or plan to install SM9.3x content patches.

### Prerequisites

- Service Manager application release level
  - If using Applications Patch Manager: 9.3x (9.30, 9.30 Applications Patch, or 9.31)
  - If using Upgrade Utility: 6.2, 7.11 or 9.2x
- Service Manager application release language: All languages for 9.32
- Service Manager client/server release level: 9.32 or greater
- The Service Manager server process must have read-write access to the database

## Content Patch Dependencies

Refer to the *Compatibility Matrix for Service Manager Applications Content* document, which is available from the HP Support Matrices portal:

[http://support.openview.hp.com/sc/support\\_matrices.jsp](http://support.openview.hp.com/sc/support_matrices.jsp)

## Upgrading to the 9.32 Applications

**Note:** For upgrades from Service Manager 7.11, 9.30, or 9.31, make sure that primary key mode is disabled before upgrading from the Service Manager 7.11, 9.30, or 9.31 applications; for new installations of Service Manager, make sure that primary key mode is disabled before loading the OOB application data. Also, if you plan to install Process Designer Content Pack 9.30.2 or 9.30.3, make sure primary key mode is disabled before the content pack installation. For more information, see ["Primary Key Mode" on page 18](#).

Existing customers and new customers can upgrade to the 9.32 applications using different approaches. For detailed instructions, see the Applications Patch Manager Guide and Upgrade Guides for Service Manager 9.32.

For a list of changed objects, see the *List of objects added or updated by the 9.32 Applications Patch Release*.

For existing customers:

1. Upgrade the SM server and clients to version 9.32.
2. To upgrade from a 9.3x version of the applications, use the SM9.32 Applications Patch Manager.
3. To upgrade from the 6.2, 7.11 or 9.21 applications, use the SM9.32 Upgrade Utility.

For new customers:

1. Install the SM9.30 GA server and load SM9.30 GA demo data.
2. Install the SM9.32 server patch.
3. Install the SM9.32 Windows or web client.
4. Upgrade to the SM9.32 applications using the SM9.32 Applications Patch Manager.

## Application Unload Installation

**Note:** All unload files in the server's platform\_unloads directory in this release have been already merged into the Service Manager 9.32 applications. These files are provided just in case you do not plan to upgrade to applications 9.32 while still want to take advantage of the relevant new features/fixes.

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 sm9.32.0016\_<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.
- 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, QCCR1Exxxx\_SM930P4.unl is normally intended for applications versions 7.11, 9.20, and 9.30 (which are compatible with Service Manager server 9.30), unless otherwise specified in the unload file description. For information on the applicable applications versions for each unload file included in the current patch, see [Unload Files Included in the Current Patch](#).

### Unload Files Included in the Current Patch

The following are unload files included in the current patch release.

Unload file	Introduced in 9.3x patch	Used for apps version (s)	Description
QCCR1E31324_SM932.unl	9.32	7.11, 9.21, 9.30 and 9.31	Fixes this issue : With Syslog audit turned on, only a syslog record showing login is created; no record for logoff is recorded if the user does not log out "normally."  <b>Associated server fix:</b> QCCR1E31324
QCCR1E96802_SM931P3.unl	9.31p3	7.11, 9.21, 9.30 and 9.31	Changes the behavior when handling web service request user passwords. See the SM9.31p3 Release Notes.  <b>Associated server fix:</b> QCCR1E96802

Unload file	Introduced in 9.3x patch	Used for apps version (s)	Description
QCCR1E52767_ SM931P3_SM930.unl	9.31p3	9.30	<p>Fixes the issue that users cannot add data policy definitions on joined tables.</p> <p><b>Note:</b> You do not need to load this unload if you are running on SM9.31, 9.21, or 7.11 applications.</p> <p><b>Associated server fix:</b> QCCR1E52767</p>
QCCR1E76724_ SM931P2_SM930.unl	9.31p2	9.30 and 9.31	<p>Fixes the issue that after deleting the unique key of cm3r, a signal 11 happened while doing an IR regeneration.</p> <p><b>Associated server fix:</b> QCCR1E76724</p>
QCCR1E76227_ SM930P6_SM930.unl	9.31	9.30	<p>Contains the code changes to support localization of incident/change priority and urgency strings for the 9.31 Mobility Client.</p> <p><b>Note:</b> Not needed for the SM9.32 or later Mobility client.</p>
QCCR1E78794_ SM930P6_SM930.unl	9.31	9.30	<p>Removes incident.assignee when a Web Service call specifies the assignee as 'NULL' through the SM9.31 Mobility Client.</p> <p><b>Note:</b> Not needed for the SM9.32 or later Mobility client.</p>

Unload file	Introduced in 9.3x patch	Used for apps version (s)	Description
QCCR1E76796_ SM930P6_SM930.unl	9.31	9.30	Provides the ability to turn on debugging dynamically for user sessions or schedulers.  <b>Note:</b> This unload requires the SM9.31 server.
QCCR1E71099_ SM930P5_SM711.unl	9.30p5	7.11	Displays Value Lists instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.  <b>Associated server fix:</b> QCCR1E71099
QCCR1E71099_ SM930P5_SM920.unl	9.30p5	9.20	Displays Value Lists instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.  <b>Associated server fix:</b> QCCR1E71099
QCCR1E71099_ SM930P5_SM930.unl	9.30p5	9.30	Displays Value Lists instead of the data directly retrieved from the database in a QBE list when adding a field by using Modify Columns.  <b>Associated server fix:</b> QCCR1E71099
QCCR1E71139_ SM930P5_SM930.unl	9.30p5	9.30	Works with server fix QCCR1E71139 to solve this issue: When Service Manager is configured to use LDAP as the authentication data source, the user is still forced to change the password if the user is expired in the local database.

Unload file	Introduced in 9.3x patch	Used for apps version (s)	Description
QCCR1E31941_ SM930P4_SM930.unl	9.30P4	9.30	<p>Enables users to use a pre-configured decimal symbol when completing numeric fields.</p> <p><b>Note:</b> This enhancement requires a 9.30p4 or later server; however if you are using RTE version 9.30 with applications version 7.11 or 9.20, do not load this unload file; you can safely upgrade your server to 9.30p4 or later without applying this applications change.</p> <p><b>Associated server fix:</b> QCCR1E31941.</p>
QCCR1E73452_ SM930P4.unl	9.30P4	7.11 - 9.30	<p>Enables Mandanten restricting queries to be updated correctly after a profile is edited.</p> <p><b>Associated server fix:</b> QCCR1E71897</p>
QCCR1E67072_ SM930P4_SM930.unl	9.30P3	7.11 and 9.20	<p>Enables users to take advantage of the new KMStatusListener background process.</p> <p><b>Note:</b> This unload file is not needed for applications version 9.30 or later, which supports only the Solr Search Engine.</p> <p><b>Associated server fix:</b> QCCR1E67071</p>
QCCR1E70163_ SM930P4_SM711.unl	9.30P3	7.11	<p>Fixes the issue that the KMUpdate process terminates abnormally.</p> <p><b>Associated server fix:</b> QCCR1E69687</p>

Unload file	Introduced in 9.3x patch	Used for apps version (s)	Description
QCCR1E70163_ SM930P4_SM920.unl	9.30P3	9.20	Fixes the issue that the KMUpdate process terminates abnormally.  <b>Associated server fix:</b> QCCR1E69687
QCCR1E70163_ SM930P4_SM930.unl	9.30P3	9.30	Fixes the issue that the KMUpdate process terminates abnormally.  <b>Associated server fix:</b> QCCR1E69687
QCCR1E67647_ SM930P3.unl	9.30P3	7.11 - 9.30	Updates the exception message that occurs in the request response when closing an interaction by calling CloseInteraction from a web service without specifying the localSolution field in the request.  <b>Associated server fix:</b> QCCR1E54192
QCCR1E67610_ SM930P2.unl	9.30P2	7.11 - 9.30	Enables you to block potentially dangerous attachments.  <b>Associated server fix:</b> QCCR1E64290

**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 it 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 ["Backup and Backout Instructions" on page 192](#).

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**.

## Service Request Catalog (SRC) Installation

Service Manager 9.32 includes the SRC package (`sm9.32.0012_SRC.zip`), which contains the following files:

- a .war file for SRC 9.32 (`src-9.32.war`)
- a migration tool for upgrading customizations from an SRC 1.4 deployment to SRC 9.32 (`src-migration-9.32.zip`)
- an encryption tool for generating an encrypted password (`encryptor-9.32.zip`)
- a validation tool that you can use to help ensure that your `manifest.xml` file is valid and usable (`validator-9.32.zip`)

Before you proceed, download the *Service Request Catalog 9.32 Interactive Installation Guide* and *Service Request Catalog 9.32 Customization Guide* from the HP Software Manuals Site:

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

These guides provide details about deploying the .war file and the usage of the three tools.

### **New Customers**

1. Install SRC 9.32, deploy the `src-9.32.war` file by following the instructions in the *Service Request Catalog 9.32 Interactive Installation Guide*.
2. Configure SRC 9.32 by following the instructions in the *Service Request Catalog 9.32 Customization Guide*.

### **Existing Customers**

1. Install SRC 9.32, as described above.
2. Migrate the customizations from your old deployment to SRC 9.32.
  - SRC 1.4 customers: Run the SRC migration tool to migrate your specific customizations from your old SRC 1.4 deployment to SRC 9.32. For details, see the *Service Request Catalog 9.32 Customization Guide*.
  - SRC 1.2x or 1.3 customers: Manually restore your customizations.



# Mobile Applications Installation

Service Manager 9.32 includes a new version of the Mobility client (sm9.32.0005\_Mobility.zip). New customers can directly install the new Mobility client by deploying the webapp-9.32.0005.war file, while existing customers can only uninstall their old Mobility client and then install the new one.

## Installation Steps

**Note:** The Service Manager 9.32 Mobility client supports Apache Tomcat 7.0 (7.0.32 or greater) web application server only.

To install the SM9.32 Mobility client:

1. Stop the Tomcat Web application server.
2. Copy the webapp-9.32.0005.war file to your Tomcat webapps directory. For example, C:\Program Files\Apache Software Foundation\Tomcat 7.0\webapps
3. In the web.properties file, specify the Service Manager server host and port in the endpoint parameter.

```
http://<server host>:<port>/SM/ui
```

For details, see the *Service Manager 9.32 Mobile Applications User Guide*.

4. Add the updated web.properties file back to the .war archive.
5. Restart Tomcat.

## Application Changes Required for SM9.31 or SM9.30

The Service Manager 9.32 Mobility client can work with the SM9.32, SM9.31, or SM9.30 applications; however, if using the SM9.31 or SM9.30 applications, before users can use the Mobility client, you ,as an administrator, need to make additional application changes by either

importing or manually implementing the unload files shipped with the Mobility client package (be sure to import or implement them in listed order):

- mobile2-update-9.30-9.31.unl
- mobile2-new-9.30-9.31.unl

For details, see the *Service Manager 9.32 Mobile Applications User Guide*.

## Knowledge Management (KM) Update Installation

The KM package (sm9.32.0016\_KM.zip) in this release includes updated files for the KM Solr Search Engine and the KM Import Utility.

### KM Search Engine Update Installation

The KM Search Engine update contains the following files:

Folder	Files
kmsolr_unloads	<ul style="list-style-type: none"><li>• QCCR1E67750_SM930P4_SM930.unl</li><li>• QCCR1E75104_SM930P5_SM930.unl</li><li>• QCCR1E77409_SM930P5_SM930.unl</li><li>• QCCR1E91035_SM932_SM930.unl</li></ul>
knowledgemanagement	<ul style="list-style-type: none"><li>• installasservice.cmd and startup.cmd (updated for JDK7 support added in 9.31p2)</li><li>• kmsearchengine subfolder (which contains several search engine fixes)</li></ul>

The Solr Search Engine update aims to enable the following features or fixes for Knowledge Management searches:

- Support of Knowledge Management search for Service Request Catalog (SRC) 1.4 or greater. For more information, see the SM9.31 Release Notes.
- Ability to specify search result sort preferences in Knowledge Management (by Modified Date, Status, or Relevancy). For more information, see the SM9.30p4 Release Notes.
- Ability to select whether or not to highlight attachment content in KM search results. A new option (**Highlight content of attachment in search result?**) is available in the KM environment record. By default, this option is not selected, and therefore attachment content in user's KM search results will not be highlighted. This can significantly improve search performance when there are a large number of large-size attachments like PDF manuals in the knowledgebases. For more information, see the *Highlighting Attachment Content in Search Results Optional* section in the 9.30p5 Release Notes.
- Fix QCCR75104 (Searches that use "NOT" or '-' to exclude terms produce unexpected results. For example, the search results when using the **None of these words** option in Advanced Search may include the search terms that should have been excluded. For more information, see the 9.30p5 Release Notes.
- JDK 7 support ("[Knowledge Management Search Engine](#)" on page 172): To use JDK7 on a Windows platform, you need to update your `installservice.cmd` and `startup.cmd` files with those shipped with this KM patch; for UNIX platforms, no file changes are needed to use JDK7.
- Fix QCCR1E91035 (which fixes the issue that search results using the **None of these words** option display incorrect total number of documents searched, and also provides the option to make search results highlight search words in attachments)

**Prerequisites:**

This KM Search Engine patch can be applied on top of any of the following versions of the KM Solr Search Engine:

- SM9.30 GA
- SM9.30 Patch/Hotfix

- SM9.31
- SM 9.31 Patch/Hotfix

### **Compatibility Mode for Installation on Windows Server 2012**

As of this release, Windows Server 2012 is supported. Be aware that compatibility mode is required for installing the SM9.30 GA KM search engine on Windows Server 2012.

1. Right-click the search engine's `setup.exe` file icon.
2. Click **Properties > Compatibility**.
3. Click **Run this program in compatibility mode for** and select **Windows Vista (Service Pack 2)**.
4. Click **Apply** and **OK**.
5. Run the `setup.exe` file to complete the installation.

When uninstalling your KM search engine on Windows Server 2012, you should also use compatibility mode. To do so, set your search engine uninstaller file (`Search_Engine_Uninstall\change_or_uninstall.exe`) to compatibility mode as described above and then uninstall the search engine using the uninstaller or from your Control Panel.

### **KM Search Engine Patch Installation Steps**

To install the KM Search Engine update:

**Note:** JDK 7 Update 17 and Tomcat 6.0.36 have been certified on this release of the KM Search Engine. Upgrading to JDK 7 or Tomcat 6.0.36 is optional but recommended.

1. Stop your KM Search Engine.
2. Make a backup of your Search Engine installation folder and other necessary backups. See the instructions in "[Knowledge Management Search Engine](#)" on page 197.
3. Optionally, update the JDK installed on your search engine server host to JDK7 Update 17, if you have not already done so.

**Note:** If you are using a Windows platform, be aware that if you do not update your JDK, later you will need to copy your old `installservice.cmd` and `startup.cmd` files back (located directly under your search engine backup folder).

4. Optionally, update the KM embedded Tomcat to version 6.0.36.
  - a. Download the Tomcat 6.0.36 zip file specific for your operating system.

**Caution:** The KM search engine requires a 32-bit Tomcat if running on a 32-bit operating system, and a 64-bit Tomcat on a 64-bit operating system.

- b. Extract the zip file to overwrite your existing Tomcat folder.

**Caution:** Before this step, be sure not to remove the embedded Tomcat folder, which contains certain files that do not exist in the Tomcat 6.0.36 zip file that you downloaded. This way these files will remain after you overwrite the old Tomcat folder.

- c. Copy your old Tomcat configuration file (`server.xml` in the `conf` folder) back to the updated Tomcat folder.
5. Make sure you have already installed the SM9.32 server package.

**Note:** The server package will update your `schemastub.xml` file to support the new features. If you do not want to use the new features, copy your old `schemastub.xml` file back from the backup of your server's RUN directory so that your search engine can continue to work.

6. Copy all files and folders in the `knowledgemanagement` folder to your existing search engine installation folder (for example: `C:\Program Files (x86)\HP\Service Manager 9.30\Search_Engine`).
7. Load the unload files in the `kmsolr_unloads` directory into Service Manager in the following order:
  - `QCCR1E67750_SM930P4_SM930.unl`
  - `QCCR1E75104_SM930P5_SM930.unl`
  - `QCCR1E77409_SM930P5_SM930.unl`
  - `QCCR1E91035_SM932_SM930.unl`

**Note:** This step is required only when you are using an applications version earlier than 9.32. These unload files have been already merged into the SM9.32 applications.

8. (Windows platforms only) If you selected to not update your JDK, copy your old `installservice.cmd` and `startup.cmd` files back.
9. Restart your KM search engine.
10. Log off Service Manager and log back in for your changes to take effect.
11. Perform a full re-indexing for all of your knowledgebases.

## KM Import Utility Installation

**Note:** The km-import-9.32.zip file included in this release is the same as the one shipped with previous releases.

Extract km-import-9.32.zip in the Knowledge Management package to a local drive. For detailed instructions on the use of the import utility, see the README file packaged in this .zip file.

## ODBC Driver Update Installation

This release does not contain any ODBC Driver update. The latest ODBC Driver package has been shipped with the SM9.30p4, SM9.30p5, and SM9.31 releases.

You can download the package from:

<http://support.openview.hp.com/selfsolve/document/KM00207925>

The ODBC Driver package 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.

## Language Pack Installation

Service Manager 9.32 includes language packs for the Service Manager server, for 15 supported languages other than English. For a list of supported languages, see "[Local Language Support](#)" on page 227.

To install the language pack for a language:

1. Install the Service Manager 9.30 GA language pack.
2. Upgrade to the Service Manager 9.32 language pack.

For detailed installation instructions, see the *Service Manager 9.32 Language Pack Installation Guide*, which is available from the HP Software Manuals Site:

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

## Online Help Installation

Service Manager 9.32 includes only an English version of the online help. You should follow the SM9.30 online help installation steps, except that you need to download the online help zip file from the HP Software Manuals Site instead of from the product DVD. The *Service Manager 9.30 Interactive Installation Guide* is available from:

<http://support.openview.hp.com/selfsolve/document/KM1195794>

To install the Service Manager 9.32 online help:

1. Download the Service Manager 9.32 online help zip file from the HP Software Manuals Site:

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



2. Install the online help by following the installation steps for the SM9.30 online help, except that you download the zip file from the manuals site instead of from the product DVD.
3. Configure the Service Manager web tier and Windows preferences so that end users can access the online help from the SM UI. For details, see the *Service Manager 9.30 Interactive Installation Guide*.

# Service Manager Support Matrix and Applications Content Compatibility Matrix

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

The Applications Content Compatibility Matrix (named *Compatibility Matrix for Service Manager Applications Content*) provides compatibility information for Service Manager applications content packs (for example, Process Designer Content Packs).

**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 Support Matrix and Applications Content 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

This section includes localization information of this release.

### User Interface Localization

The following table lists the supported languages for the Service Manager clients. All languages listed are supported, except that two right-to-left display languages (Arabic and Hebrew) are not supported for the Mobility client.

**Note:** Those highlighted in green are new languages added in this release.

Language	Windows Client	Web Client	Mobility Client	SRC Client
Arabic	√	√	×	√
Brazilian Portuguese	√	√	√	√
Chinese Simplified	√	√	√	√
Czech	√	√	√	√
Dutch	√	√	√	√
English	√	√	√	√
French	√	√	√	√
German	√	√	√	√
Hebrew	√	√	×	√
Hungarian	√	√	√	√
Italian	√	√	√	√
Japanese	√	√	√	√
Korean	√	√	√	√
Polish	√	√	√	√
Russian	√	√	√	√
Spanish	√	√	√	√

## **Service Manager Applications Language Packs**

A language pack is available for each of the languages listed in the table above.

## **Documentation Localization**

This release includes only English documentation, except that the Service Request Catalog 9.32 online help (which is embedded in the product) is available in all supported languages.

