HP Service Manager Mobile Applications

For the Supported Windows® and UNIX® operating systems

Software Version: 9.33

User Guide

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Copyright Notice

Trademark Notices

Documentation Updates

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

- Software Version number, which indicates the software version.

- Document Release Date, which changes each time the document is updated.

- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

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

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

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

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

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

Support

Visit the HP Software Support Online web site at:

http://www.hp.com/go/hpsoftwaresupport

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

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

- Search for knowledge documents of interest

- Submit and track support cases and enhancement requests

- Download software patches

- Manage support contracts

- Look up HP support contacts

- Review information about available services

- Enter into discussions with other software customers

- Research and register for software training

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

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

To find more information about access levels, go to:

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

Contents

Chapter 1

Getting Started with HP Service Manager Mobile Applications

Service Manager Mobile Applications connect your company's people and information by providing your team access to the Change Management, Incident Management, and Service Desk applications through the use of smartphones. When these staffs are away from the office, they can perform the tasks below by using the Mobile Applications client:

- Approve and deny change requests

- Approve and deny interaction

- Reassign incidents/changes to the proper support group

- Continue working on-site with customers

This chapter includes:

- "How can Service Manager Mobile Applications be used" below

- "Preparing to launch Service Manager Mobile Applications on your smartphone" on the next page

- "Launching Service Manager Mobile Applications on your smartphone" on the next page

- "Views within Service Manager Mobile Applications" on page 10

- "User Interaction Management mobile application" on page 13

- "Incident Management mobile application" on page 15

- "Change Management mobile application" on page 17

How can Service Manager Mobile Applications be used

The field engineers are typically tasked to work with business users at a customer site, and they spend most of their time away from the office to resolve tickets. When Change Approvers are away from the office, they need a way to quickly approve or deny changes, so that pending work orders can be assigned. These users can log in to Service Manager Mobile Applications from a smartphone to receive and view work assignments; and review and approve or deny pending change requests. These quick responses improve business metrics, as service level objectives are met.

When you launch Service Manager Mobile Applications, you can:

- Log on with your Service Manager user name and password

- Select the preferred language for the Service Manager Mobile Applications. The language defaults to your settings on Service Manager.

- Tap on the **login** button to log in to the Mobile Applications client.

- View incidents or changes or interactions

- Remove the related configuration items

- Search incidents or changes or interactions

- Sort incidents or changes or interactions

Preparing to launch Service Manager Mobile Applications on your smartphone

To prepare for launching Service Manager Mobile Applications on your smartphone, make sure:

1. Your smartphone meets the requirements that are described in the Service Manager server compatibility matrix. For details, see HP Support matrices on the Software Support Online site.

2. Your smartphone browser conforms to the following configuration:

   - Cookies are enabled.

   - JavaScript is enabled.

   - Pop-ups are enabled. At a minimum, add the Service Manager Mobile Applications host name to the pop-up exception list.

3. Your System Administrator has provided you with the web URL needed to access the Service Manager server from the Mobile Applications.

   For example: `http://<servername>:<portnumber>/<appname>/std/`

   `/std/` can be omitted.

4. You have a valid Service Manager username and password.

Launching Service Manager Mobile Applications on your smartphone

User role: IT Operator

To launch Service Manager Mobile Applications on your smartphone:

1. In the web browser on your smartphone, type the Service Manager Mobile Applications web URL provided by your System Administrator. The Login page opens.

2. On the Login page, type your user name and password. The user name is auto-filled in the login screen the next time you log in.

3. Tap on the **Language** field and scroll down to select your preferred language from the list, and then tap on **Done**. The language defaults to your settings on Service Manager.

> **Note:**
> - Service Manager 9.33 Mobile Applications does not support right-to-left displayed languages such as Arabic and Hebrew.
>
> - Available languages are retrieved from the Service Manager server. Only when your Service Manager server has a language pack installed, the corresponding language appears in the language selection list.
>
> - If you clear your browser cookies from the mobile, you need to type your user name and select the preferred language again the next time you log in.

4. Tap on **Login** to log in to the Mobile Applications client.

> **Note:** Service Manager Mobile Applications supports multi-tenancy mode.

Views within Service Manager Mobile Applications

After you logged in to Service Manager Mobile Applications,the default view is displayed depending on your user role. Service Manager Mobile Applications provides the following default views to access individual and group assignments and enables you to address any critical and pending issues that need immediate attention. If you are a Change Approver, you will also see change requests waiting for your approval.

Service Manager Mobile Applications Default Modules and Views

Module	View
Incident	- Assigned to Me - Assigned to My Groups
Change	- Awaiting My Approval - Assigned to My Groups
Interaction	- My Open Request - Awaiting Approval

Service Manager Mobile Applications Default Modules and Views, continued

Module	View
Approval	• My Pending Approvals • My Pending Delegated Approvals

List view

Being the default home page after you log on to Service Manager Mobile Applications, the List view enables you to navigate through lists of Incidents and Change requests. In the List view, you can perform the following tasks:

- Switch between different modules (Incident, Change, Interaction and Approval).

- Switch between different list views (For example, Assigned to Me, Assigned to My Groups, and so on).

- Scroll vertically through a list of records.

- Search for specific incidents, change requests and interactions by record ID.

Common tasks in the List view

Refer to the following content for some common user tasks in the List view.

- **To switch between different modules:**

  Tap on the Module icon at the top and select other categories from the list. The default categories includes **Incident**, **Change** and so on.

- **To switch between different list views:**

  Refer to the Incident module as an example. Tap on **Assigned to My Groups** at the top and scroll down to select **Assigned to Me** and so on from the list.

  > **Tip:** For more information about how to add views on Mobile Applications client, see "Add a view for Mobile Applications" on page 37.

- **To access the Detail view of a record:**

  When navigating through the records list, tap on a record to access its Detail view.

- **To search for specific incidents and change requests by record ID:**

a. Tap on the Magnifier icon at the top. A Search field opens.

b. In the Search field, type the `IM` or `C` prefix with ID of the incident record or change request. For example: `IM10002` or `C10003`.

c. Tap on **Enter**. The specific incident record or change request opens in the Detail view.

> **Note:**
> - When using the search function, make sure the prefix of the incident record or change request aligns with those in your Service Manager environment. For example, `C` is the prefix for a change request. For more information about how to configure the prefix of an incident record or a change request, see "Configure the prefix of a record" on page 35.
>
> - Service Manager Mobile Applications supports wildcards in the Search field. If you type `IM1000*` and tap on **Enter**, the multiple search results will be displayed as a list of Incident records.

- **Tap on the Ellipsis icon at the top** and select corresponding option in the list opened to:

  - View or clear system messages for the current user

  - Log out of the mobile session

- **Tap on the floating action bar** and select corresponding option in the list opened to:

  - Refresh the current page

  - Sort the records in the List View

Detail view

The Detail record view enables you to view or update the details of a record. In the Detail view, you can perform the following tasks:

- Browse the summary information and the updates of a record.

- Update the editable fields of a record (for example, Description, Status, Affected Service/CI).

- Reassign a record (update the Assignee and Assignment Group).

- Use the click-to-dial functionality and the click-to-email functionality. For example, if a field engineer wants to notify a customer that he is going to stop by, he can drill into the contact information of a record and use the single-click method to call or email the customer.

Common tasks in the Detail view

Refer to the following content for some common user tasks in the Detail view.

- **To access the List view of a record:**

  When navigating through detailed records, you can tap on **Back** to go back to the List view.

- **Tap on the tabs** at the top to display the detailed information of a record.

- **Tap on the Fill icon** to update the editable fields of a record (for example, Status, Affected Service/CI, Assignee/Assignment Group).

- **Tap on the bulb icon** in the contact information of a record, and then tap on the telephone number to use the click-to-dial functionality. The dial dialog box will open.

- **Tap on the bulb icon** in the contact information of a record, and then tap on the email address to use the click-to-email functionality. The email application embedded in your smartphone opens.

- **Tap on the Ellipsis icon at the top** and select corresponding option in the list opened to:

  - View or clear system messages for the current user

  - Log out of the mobile session

- **Tap on the floating action bar** to display the options that you can perform on the current record.

User Interaction Management mobile application

After a user contact with the Service Desk is logged as an interaction, the User Interaction Management mobile application provides the Service Desk Agents the ability to perform the following tasks from their smartphone:

- Browse and review interactions.

- Approve, deny or close an interaction.

- Update interactions. For example, a field engineer can update the details and add an activity (or journal entry) update to an interaction record.

- Approve or deny a Service Catalog request.

Update an open interaction

User role: Service Desk Agent

To update an open Service Desk interaction, follow the steps below:

1. Tap on the Service Desk interaction record you want to update. The Detail view of this record opens.

2. In the **Interaction Details** tab, update the request details as needed.

3. Tap the **Updates** tab.

4. In New Update Type field, scroll up or down to select a type, and then tap **Done**.

5. In the New Update field, add the details for the new activity (or journal entry).

6. Tap **Save** from the the action bar to save the record.

The details of the new activity entry will become available for customer viewing on your customer support portal.

Approve or deny an interaction

User role: Service Desk Agent

When an order is submitted from Service Desk, Service Manager automatically creates an interaction that, based on approval requirements, may have to be approved before its fulfillment or to be denied.

To process an interaction, follow the steps below:

1. Tap on an Service Desk interaction record from the Awaiting Approvals view. The Detail view of this record opens.

2. Review the Service Desk interaction and determine how you will process the approval interaction.

3. To approve an Service Desk interaction, tap on **Approve** from the Ellipsis icon options.

   The record is now approved and disappear from the view list.

4. To deny an Service Desk interaction:

   a. Tap on **Deny** from the the action bar.

   b. Type the reason you are denying the request, and then tap on **Save**.

The record is now denied and disappears from the view list.

Close an interaction

User role: Service Desk Agent

You can close an existing Service Desk interaction if the user accepts the proposed solution. If you or the user disagree with the proposed solution, you need to resubmit the related incident for further investigation.

To close an existing Service Desk interaction, follow the steps below:

1. Tap on the Service Desk interaction record you want to close. The Detail view of this record opens.

2. Tap on the Fill icon in the Contact field to determine which user will be notified of the solution.

3. If necessary, update the Notify By field to determine how the user will be notified.

4. Tap on the Fill icon in the Closure Code field to select a closure code.

5. Type the solution in the Solution field.

6. Tap on **Close Interaction** from the the action bar. The status of this interaction record changes to Closed.

Approve or deny a Service Catalog request

User role: Service Catalog approver

When an order is submitted from Service Catalog, Service Manager automatically creates an interaction that, based on approval requirements, may have to be approved before its fulfillment or to be denied.

To process a Service Catalog request, follow the steps below:

1. Tap on a request record from the My Pending Approvals view. The Detail view of this record opens.

2. Review the request and determine how you will process the approval request.

3. To approve a Service Catalog request, tap on **Approve** from the the action bar.

   The record is now approved and disappear from the view list.

   > **Note:** You can also approve delegated approvals from the My Pending Delegated Approvals view.

4. To deny a Service Catalog request:

   a. Tap on **Deny** from the the action bar.

   b. Type the reason you are denying the request, and then tap on **Save**.

The record is now denied and disappear from the view list.

Incident Management mobile application

When incidents are escalated from Service Desk interactions, opened by support staff, or reported by event monitoring tools, the Incident Management mobile application provides the Incident Management staff the ability to perform the following tasks from their smartphone:

- Browse and review incidents.

- Assign or reassign an incident.

- Investigate incidents.

- Update incidents. For example, a field engineer can add an activity (or journal entry) update to an incident record and set the customer-visible flag to make the update available for customer viewing on the customer support portal.

- Resolve or close a ticket. When a field engineer attempts to resolve or close an incident, Service Manager determines the business logic and displays Resolve or Close accordingly.

Set the customer-visible flag for an incident's activity

User role: IT Operator

When you want to publish the activity (or journal entry) details of an incident for customer viewing, you can set the customer-visible flag in a new activity entry.

To set the customer-visible flag in a new activity (or journal entry) entry, follow the steps below:

1. Tap on the incident record you want to resolve. The Detail view of this record opens.

2. Tap the **Updates** tab.

3. In New Update Type field, scroll up or down to select a type, and then tap **Done**.

4. Tap to highlight the check mark in the Visible to Customer field.

5. In the New Update field, add the details for the new activity (or journal entry).

6. Tap **Save** from the the action bar to save the record.

The details of the new activity entry will become available for customer viewing on your customer support portal.

Reassign an incident

User role:Incident Analyst, Incident Coordinator, Incident Manager

At times you will need to reassign incident records when an Incident Analyst is unavailable.

To resolve an incident, follow the steps below:

1. Tap on the incident record you want to resolve. The Detail view of this record opens.

2. Tap on the Fill icon in the Assignee field, and then select an operator from the list of names to reassign the incident to that person.

3. Tap **Save** from the the action bar to save the record.

Resolve an incident

User role:Incident Analyst, Incident Coordinator, Incident Manager

To resolve an incident, follow the steps below:

1. Tap on the incident record you want to resolve. The Detail view of this record opens.

2. Tap on **Resolve Incident** from the the action bar to close the incident record.

3. Tap on the Fill icon in the Closure Code field to select a closure code.

4. Type the solution in the Solution field.

5. Tap on **Close Incident** ffrom the the action bar. The status of this incident record changes to Closed.

Change Management mobile application

When a change request is logged, the Change Analyst assesses the change request, implements a plan for delivering the change, and then notifies the Change Coordinator as to the impact of the change. The change request is then submitted for Change Approver, or Change Advisory Board (CAB)'s approval. Service Manager Mobile Applications provide the Change Management staff the ability to perform the following tasks from their smartphone:

- Review change requests

- Approve or deny changes

- Coordinate change implementation

- Handle emergency change requests

- Assign or reassign change requests

- Add activity (or journal entry) entries

- Review change requests

An example of a change approver's possible actions for a change record include approving or denying change requests. To deny a pending change request, a Change Approver would do the following:

- Drill down into a single record.

- Deny the ticket.

- In the Update field, type detailed notes about the denied request.

Users can also drill down to the details of a field within a record. For example, if the Change Management staff wants to add an activity (or journal entry) update to a change request, they would do the following:

- Search for the change record.

- Drill down into the record's activities.

- Add the necessary activity update.

- Make any other necessary changes.

Set the customer-visible flag for a change's activity

User role: All users

When you want to publish the activity (or journal entry) details of achange for customer viewing, you can set the customer-visible flag in a new activity entry.

To set the customer-visible flag in a new activity (or journal entry) entry, follow the steps below:

1. Tap on the change record you want to resolve. The Detail view of this record opens.

2. Tap the **Activities** tab.

3. In New Update Type field, scroll up or down to select a type, and then tap **Done**.

4. Tap to highlight the checkmark for the Visible to Customer field.

5. In the New Update field, add the details for the new activity (or journal entry).

6. Tap **Save** from the the action bar to save the record.

The details of the new activity entry will become available for customer viewing on your customer support portal.

Approve, deny or retract a change

User role: Change Approver

You can approve or deny a change that is pending approval only if you are a member of the necessary approval group and you are assigned the appropriate Change Management user profile. You can also retract a change that has been previously approved or denied, if you are unwilling to commit resources or know of technical incidents that affect the request.

To process a change approval request, follow the steps below:

1. Tap on a change record from the Awaiting My Approval view. The Detail view of this record opens.

2. Review the change information and determine how you will process the approval request.

3. To approve a change, tap on **Approve** from the the action bar.

   Service Manager changes the Approval Status to approved, and the Change Manager updates the change and passes it to the Change Coordinator for implementation.

4. To deny a change:

   a. Tap on **Deny** from the the action bar.

   b. Type the reason you are denying the change, and then tap on **Save**.

   Service Manager changes the Approval Status to denied, and no further approvals are possible until the denial is retracted.

5. To retract a change:

   a. Tap on **Retract** from the the action bar.

   b. Type the reason you are retracting the change, and then tap on **Save**.

   Service Manager changes the Approval Status to pending, and the change request requires a new approval cycle to progress.

Chapter 2

System administration

This chapter provides details about how to install, implement and tailor Service Manager Mobile Applications to support your business processes.

This chapter includes:

- "Installing Service Manager Mobile Applications" below

- "Implementing Mobile Applications on Service Manager 9.30 and 9.31" on page 23

- "Tailoring Mobile Applications in Service Manager" on page 34

Installing Service Manager Mobile Applications

This section provides details about how to install Service Manager Mobile Applications to support your business processes.

This section includes:

- "Before you start" below

- "Install Service Manager Mobile Applications" on the next page

Before you start

As the System Administrator, you must:

- Have already installed Service Manager 9.32 or later on a web accessible location. For installation information, see the *HP Service Manager 9.30 Interactive Installation Guide* and the *Service Manager 9.32 Release Notes*.

    Note: For the Mobile Applications client, only the Service Manager 9.32 server and later versions are supported.

- Have already installed the Apache Tomcat 7.0.32 or later web application server or the IBM Websphere Application Server (WAS) 8.5.5 or later.

- Install the Oracle Java SE Runtime Environment (JRE) 1.7 or later (for Tomcat only); or install the IBM Java SE Runtime Environment (JRE) 7.0 or later (for WAS only).

- Configure the JVM memory settings on the web application server as below:

- ■ Minimal setting: `-Xms:1024m, -Xmx:1024m, -XX:PermSize=256m`

- ■ Recommended setting: `-Xms:1500m, -Xmx:1500m`

- Set `JAVA_HOME` to the location where the JDK was installed (for Tomcat only), or enable the profiles to use the version 7.0 SDK (for WAS 8.5.5 only).

  For example, use the following command in a 32-bit operation system:

  `managesdk -enableProfileAll -sdkname 1.7_32 -enableServers`

- Review the browser requirements for smartphones.

- Install the Service Manager 9.33 Mobile Applications client.

- Set up your Mobile Applications preferences.

- Configure Service Manager.

Install Service Manager Mobile Applications

When you have finished preparing for your installation (see Introduction to installing and configuring Service Manager Mobile Applications), you can perform the following tasks to install Service Manager Mobile Applications.

1. "Edit the configuration file in the war archive" below.

2. "Install Service Manager Mobile Applications client" on the facing page.

Edit the configuration file in the war archive

To edit `web.properties` in `webapp-9.33.xxxx.war`, follow the steps below:

1. Open `webapp-9.33.xxxx.war` in an archive management program.

2. Extract the `web.properties` file from the `WEB-INF` directory to your local system, and then open this file in a text editor.

3. Set the Service Manager server and port parameters as follow to add your server connection information:

Required parameters for Service Manager Mobile Application client connection

Parameter	Default value	Description
endpoint	`http://localhost:13080/SM/ui`	Change `localhost:13080` to your Service Manager server host name and port number.
resourceRoot	None	This parameter is commented-out by default. You need to update this value only when the `*.js` image files and the `*.css` files are stored on another server. For example, if you moved the static files to another Apache server, change this value to `resourceRoot=http://<host name of another Apache server>:8080/mobile/statics/`.

Tip:

- Optionally, you can also define the number of records that appear in every page of the List View by configuring the value in the `recordlistcount` parameter.

- To support the FIPS (Federal Information Processing Standards) mode for Service Manager 9.32 and later versions, you need to specify the JCE provider name in the `JCEProviderName` parameter, and then specify the the JCE provider class name in the `JCEProviderClassName` parameter. Note that both parameter values are case-sensitive.

4. Save the file and add the updated file back to the `WEB-INF` directory of the `webapp-9.33.xxxx.war` archive.

Install Service Manager Mobile Applications client

The Service Manager Mobile Applications contains a J2EE-compliant web application that runs on your web application server. Each web application server has its own method of deploying web applications. See your web application server documentation for specific instructions on deploying a web application.

Note: Currently the Service Manager Mobile Applications client supports the Apache Tomcat 7.0.32 web application server and IBM Websphere Application Server 8.5.5.

The following table provides a summary of deployment methods required.

Web application server	Deployment method
Apache Tomcat	Copy the `webapp-9.33.xxxx.war` file to the `<Tomcat>\webapps` folder and start the web application server.
IBM Web Application Server	Open the administration console and install the web application from the `webapp-9.33.xxxx.war` file.

Implementing Mobile Applications on Service Manager 9.30 and 9.31

Service Manager 9.32 and later versions implements Mobile Applications out-of-box. However, if you are using Service Manager 9.30 or 9.31, you need to configure Service Manager to implement Mobile Applications by performing the following tasks:

Note: The manual configurations listed below are to avoid overwriting your configuration implemented before. If you did not tailor records listed in the following table, skip the first seven tasks below and import the `mobile2-update-9.30-9.31.unl` file directly.

Table	Records
ScriptLibrary	Records with the name of "urlCreator".
dbdict	Records with the name of "inbox" or "svcCartItem".
datadict	Records with the name of "inbox" or "svcCartItem".
displayscreen	Records with the screen.id of "inbox.view".
format	Records with the name of "inbox.view".
link	Records with the name of "svcCartItem".
globallists	Records with name of "Incidents Activity Types","Resolution Code","problem status edit","Interactions Activity Types" and "Change Activity Types".

1. "Update the urlCreator script" on the facing page

2. "Update the ApprovalDelegationGroups script" on page 25

3. "Add the Mobile Accessible check box" on page 26

4. "Add an alias to the svcCartItem file" on page 28

5. "Add a link for the svcCartItem file" on page 29

6. "Update the inbox.view display screen record " on page 30

Update the urlCreator script

You can update the `urlCreator` script so that when tickets are assigned, field engineers can receive email notification and click on the URL link to go directly to the assigned ticket. For more information about how to include URL links in email notifications, see "Set up email notifications to include URL links" on page 34.

To update the `urlCreator` script, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Type `sl` on the command line, and then press **Enter**.

3. Type `urlCreator` in the **Name** field, and then click **Search**.

4. Locate the `function getMobilityURLFromQuery` section.

5. Replace `url = url + objType + "/find/" + objKey;` with `url = url + "?record=" + objKey;`.

   Refer to the following screenshot as an example:
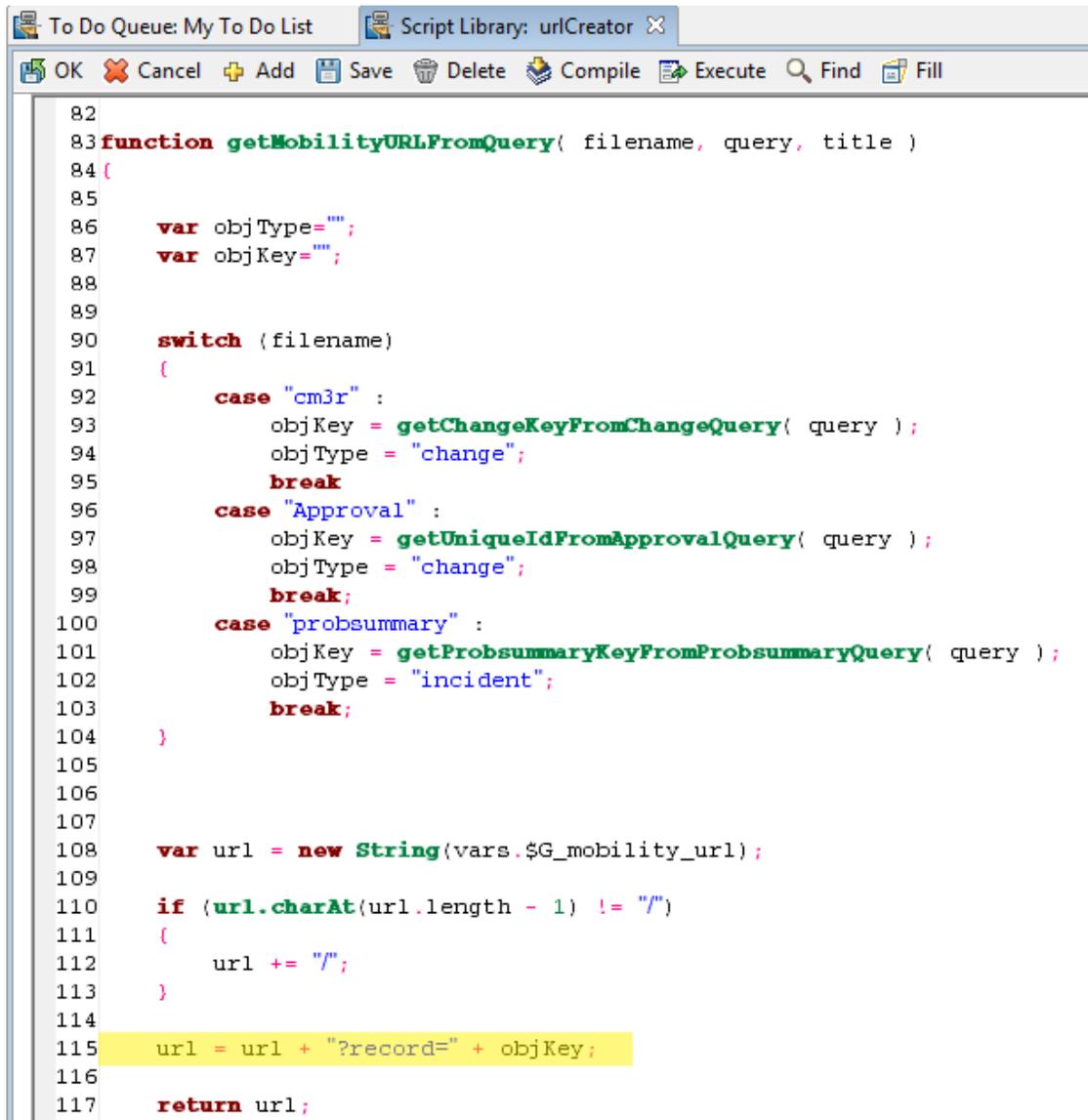
```
82
83 function getMobilityURLFromQuery( filename, query, title )
84 {
85
86     var objType="";
87     var objKey="";
88
89
90     switch (filename)
91     {
92         case "cm3r" :
93             objKey = getChangeKeyFromChangeQuery( query );
94             objType = "change";
95             break
96         case "Approval" :
97             objKey = getUniqueIdFromApprovalQuery( query );
98             objType = "change";
99             break;
100        case "probsummary" :
101            objKey = getProbsummaryKeyFromProbsummaryQuery( query );
102            objType = "incident";
103            break;
104     }
105
106
107
108    var url = new String(vars.$G_mobility_url);
109
110    if (url.charAt(url.length - 1) != "/")
111    {
112        url += "/";
113    }
114
115    url = url + "?record=" + objKey;
116
117    return url;
```

6. Click **Save**, and then click **Compile**.

Update the ApprovalDelegationGroups script

You can update the ApprovalDelegationGroups script so that the line item level delegated approvals can be approved on Mobile Applications client.

To update the ApprovalDelegationGroups script, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Type sl on the command line, and then press **Enter**.

3. Type `ApprovalDelegationGroups` in the **Name** field, and then click **Search**.

4. Locate the `function addDelegateGroups` section.

5. Replace `if(module=="incidents")` with `if(module=="incidents" || module=="svcCartItem")`.

   Refer to the following screenshot as an example:
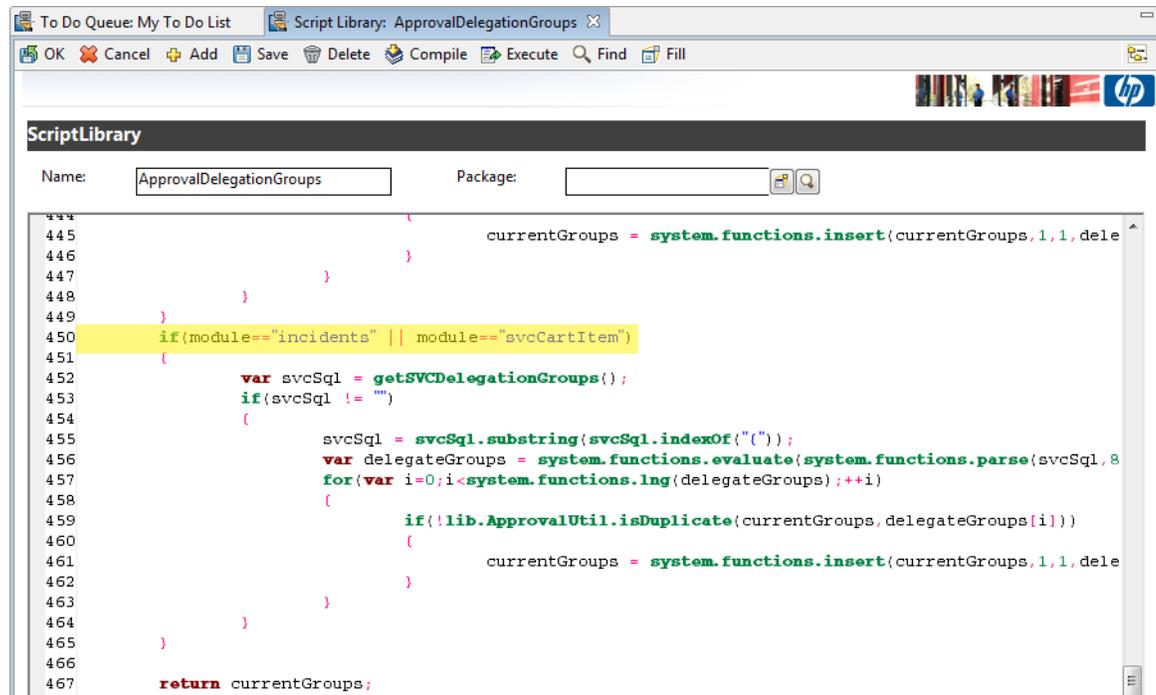
6. Click **Save**, and then click **Compile**.

Add the Mobile Accessible check box

You can add the **Mobile Accessible** check box for the users to users to define the views on Service Manager Mobile Applications client. For more information about how to add views for Mobile Applications, see "Add a view for Mobile Applications" on page 37.

To add the **Mobile Accessible** check box, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Add a field to the `inbox` file.

   a. Type `dbdict` on the command line, and then press **Enter**.

   b. Type `inbox` in the **File Name** field, and then click **Search**.

    c. Click **New Field/Key** to add a new field as illustrated below:
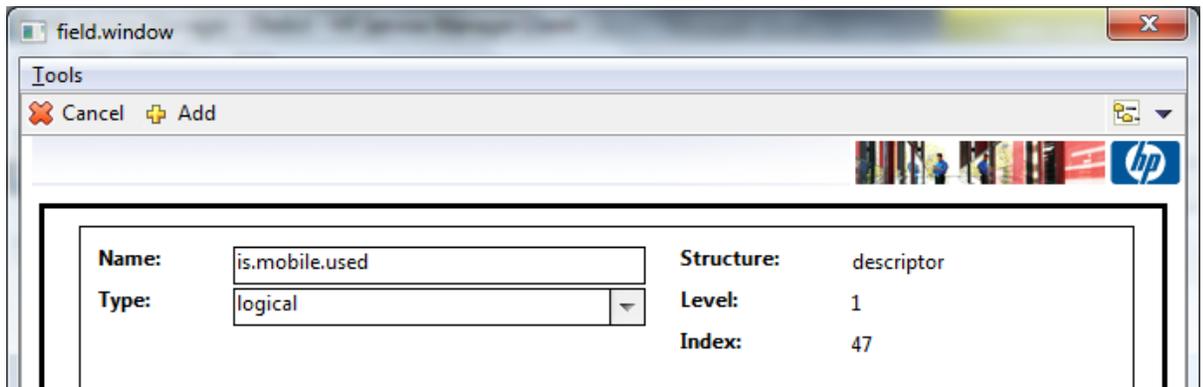
Property	Value
Name	is.mobile.used
Type	logical

    d. Click **Add**.

    e. Click **Edit Field/Key** to configure the SQL properties of the new field as illustrated below:
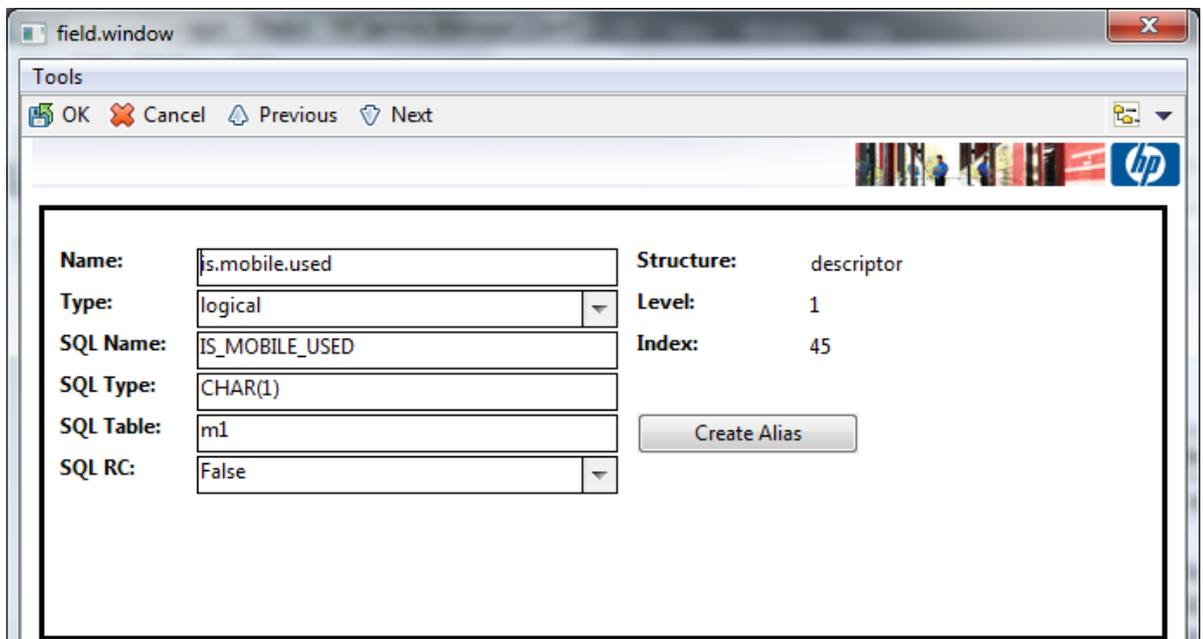
Property	Value
SQL Name	IS_MOBILE_USED
SQL Type	CHAR(1)
SQL Table	m1
SQL RC	False

f. Click **OK** twice.

g. Click **SM Alters**.

3. Add the **Mobile Accessible** check box to the `inbox.view` form.

a. Type `fd` on the command line, and then press **Enter**.

b. Type `inbox.view` in the **Form** field, and then click **Search**.

c. Click **Design**.

d. Add a check box with the caption of **Mobile Accessible** as illustrated below:
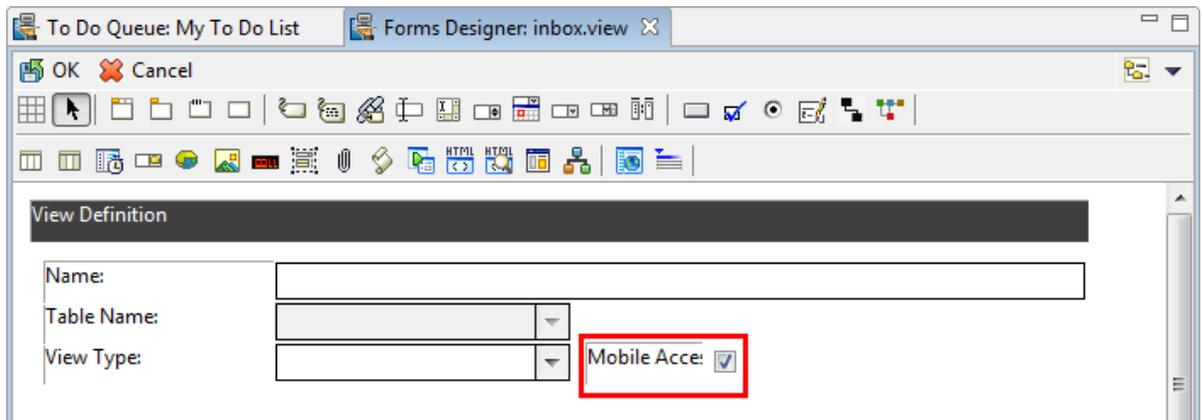
e. Set the properties of the new check box as follows:

Property	Value
Input	is.mobile.used
Visible Condition	[$L.mobile.accessible]

f. Click **OK** twice.

Add an alias to the svcCartItem file

You can create an alias named `sdID.cartItem` for the sdID field. This alias is used in link record.

To add the `sdID.cartItem` alias, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Type `dbdict` on the command line, and then press **Enter**.

3. Type `svcCartItem` in the **File Name** field, and then click **Search**.

4. Click the **sdID** field in the list. The field.window tab opens.

5. Click **Create Alias** to add the new alias as illustrated below:
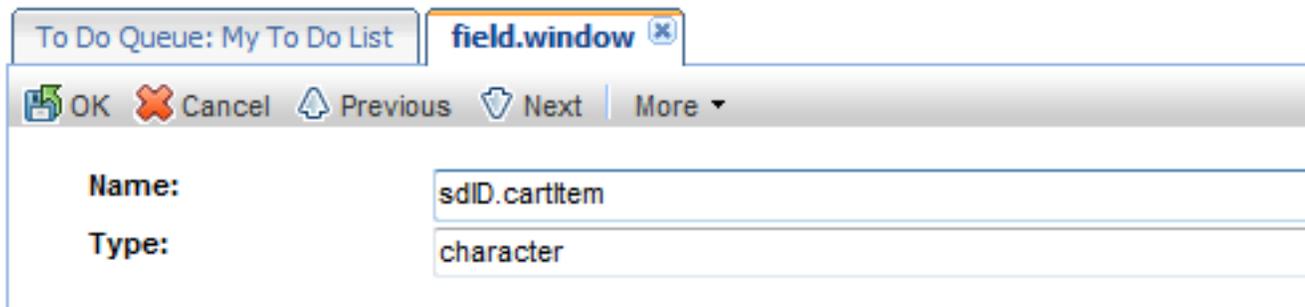
Property	Value
Name	sdID.cartItem
Type	character

6. Click **OK** twice.

7. Click **SM Alters**.

Add a link for the svcCartItem file

To add a link line for the `svcCartItem` file, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Type `link` on the command line, and then press **Enter**.

3. Type `svcCartItem` in the **Name** field, and then click **Search**.

4. Click **Add** to add the new link as illustrated below:
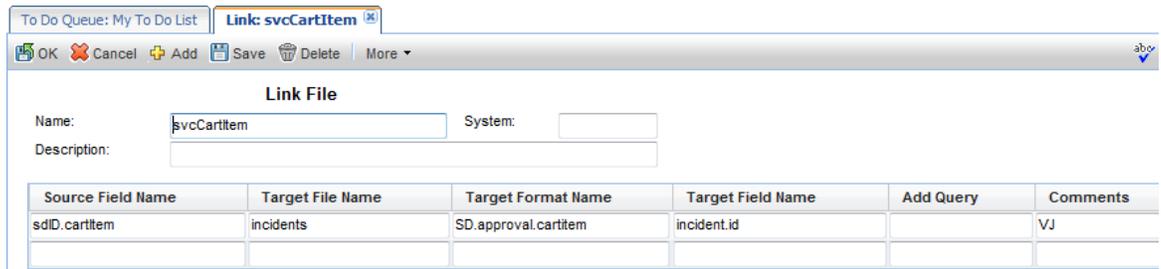
Property	Value
Source Field Name	sdID.cartItem
Target File Name	incidents
Target Format Name	SD.approval.cartitem
Target Field Name	Incident.id
Comments	VJ

5. Click **Save**.

Update the inbox.view display screen record

Each inbox record is evaluated in display screen to determine whether it is enabled for Mobile Applications.

To update the `inbox.view` display screen record, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Type `ds` on the command line, and then press **Enter**.

3. Type `inbox.view` in the **Screen ID** field, and then click **Search**.

4. Add the following expression to the Initializations tab:

   `$L.mobile.accessible=index(inbox.type in $L.file, $G.mobility.area)>0`

5. Save and exit.

Add or update the globallists definitions

As listed in the following tables, you need to add or update the global lists definitions which are used by Mobile Applications forms.

Global List Definition: Change Activity Types

Property Name	Value
List Name	Change Activity Types
Build List on Startup?	true
List Variable	$G.cm.activity.type
Display Variable	$G.cm.activity.type.local
List Field	activity.name
Display Field	
Filename	activitytype
Limiting SQL	table="cm3r" and visible="YES"
Use Localized Values?	true

Global List Definition: Incidents Activity Types

Property Name	Value
List Name	Incidents Activity Types
Build List on Startup?	true
List Variable	$G.im.activity.type
Display Variable	$G.im.activity.type.local
List Field	activity.name
Display Field	
Filename	activitytype
Limiting SQL	table="probsummary" and visible="YES"
Use Localized Values?	true

Global List Definition: Interactions Activity Types

Property Name	Value
List Name	Interactions Activity Types
Build List on Startup?	true
List Variable	$G.sd.activity.type

Global List Definition: Interactions Activity Types, continued

Property Name	Value
Display Variable	$G.sd.activity.type.local
List Field	activity.name
Display Field	
Filename	activitytype
Limiting SQL	table="incidents" and visible="YES"
Use Localized Values?	true

Global List Definition: problem status edit

Property Name	Value
List Name	problem status edit
Build List on Startup?	true
List Variable	$G.user.pm.status.edit
Display Variable	
List Field	name
Display Field	
Filename	pmstatus
Limiting SQL	name~="Suspended" and name~="#NULL#" and name~="Closed" and name~="Resolved"
Sort By	sort.order

Global List Definition: Resolution Code

Property Name	Value
List Name	Resolution Code
Build List on Startup?	true
List Variable	$G.resolution.code
Display Variable	$G.resolution.code.local
List Field	resolution.code

Global List Definition: Resolution Code, continued

Property Name	Value
Display Field	
Filename	probcause
Limiting SQL	
Use Localized Values?	true

Load the unload file

You need to load the `mobile2-new-9.30-9.31.unl` unload file to add support for Service Manager Mobile Applications.

To load the `mobile2-new-9.30-9.31.unl` unload file, follow the steps below:

1. Log on to the Service Manager server as a System Administrator.

2. Type `db` on the command line, and then press **Enter**.

3. Click **More** or the More Actions menu, and select **Import/Load**.

4. Fill in the following fields:

Field	Value
File Name	Type the name and path of the file to load. For example: `C:\mobile2-new-9.30-9.31.unl`.
File Type	Select **winnt**.
Messages Option — All Messages	Select this option to see all messages that HP Service Manager generates loading the file.

5. Click **Load FG**.

6. Restart the Service Manager server.

Update the Awaiting Approval view query

The Awaiting Approval view utilizes the cross table query feature which is available for Service Manager 9.32 and later versions only. if you are using Service Manager 9.30 or 9.31, you need to update the Awaiting Approval view query to avoid the performance problems.

To update the Awaiting Approval view query, follow the steps below:

1. Log on to Service Manager as a System Administrator.

2. Click **System Administration** > **Base System Configuration** > **Miscellaneous** > **Views/Favoriates**.

3. Type `Awaiting Approval` in the Name field and click **Search**.

4. Click the Query definition tab and overwrite the Query field with the following expression:

   ```
   incident.id isin jscall("CheckClientType.getInteractionApproveIds")
   ```

5. Click **Save**.

Tailoring Mobile Applications in Service Manager

When you have finished installing Mobile Applications, you can tailor the following in Service Manager:

- "Set up email notifications to include URL links" below

- "Configure the prefix of a record" on the next page

- "Add a view for Mobile Applications" on page 37

- "Add a form for Mobile Applications" on page 39

- "Customize the fields on Mobile Applications form" on page 39

- "Customize the action bar options" on page 40

Set up email notifications to include URL links

The Service Manager System Administrator can set up email notifications to include the mobility URL so that when tickets are assigned, field engineers can receive email notifications and click on the URL links in the emails to go directly to the assigned ticket.

Service Manager Mobile Applications automatically synchronizes users' mobile data with information in the Service Manager database. When an email notification is sent to a field engineer, Service Manager Mobile Applications searches for the record by name and then displays it. If the record is not in the cached database, Service Manager will be queried to fetch the record.

To set up email notifications, follow the steps below:

1. Restart the Service Manager Mobile Applications server.

2. Log on to the Service Manager server as a System Administrator.

3. Click **System Administration** > **Base System Configuration** > **Miscellaneous** > **System Information Record**.

4. Select the **Active Integrations** tab.

5. In the **Mobility URL** field, type the fully-qualified URL to the Service Manager server from the Mobile Applications client.

   For example: *http://<servername>:<portnumber>/<appname>*/std/

   Where:

   servername is the host name or IP address of the Service Manager server.

   portnumber is the port number. For example,8080.

   appname is the name of the deployed Service Manager Mobile Applications client WAR/EAR file. For example, webapp-9.33.9000-SNAPSHOT.

   The server stores the value of this field in the $L.mobility.url global variable.

6. Save your changes.

Configure the prefix of a record

To configure the prefix of an incident record or a change request which already has a prefix, follow the steps below:

1. Log on to the Service Manager server as a System Administrator.

2. Type gl on the command line, and then press **Enter**.

3. Type UniSearch Types in the **List Name** field, and then click **Search**.

4. Verify and configure the values in the **Value List** field and the **Display List** field. Refer to the following screenshot as an example:

5. Click **Save**, and then click **OK**.

To configure the prefix of an incident record or a change request which does not have a prefix, follow the steps below:

1. Log on to the Service Manager server as a System Administrator.

2. Type `gl` on the command line, and then press **Enter**.

3. Type `Universal Search Customize List` in the **List Name** field, and then click **Search**.

4. Add customized record type to the **Value List** field and then add the corresponding prefix to the **Display List**.

   Refer to the following screenshot as an example:

The out-of-the-box record is `svcCartItem` with the prefix `sci`. When you search for `sci1`, the svcCartItem record with the ID of 1 is displayed in the List view.

5. Click **Save**, and then click **OK**.

Add a view for Mobile Applications

Service Manager Mobile Applications provides several out-of-box views to access individual and group records. For example, the default views of Incidents are **My Group's Incidents** and **My Incidents**. As the system administrator, you can create more views for one or more users to customize the default log-on view. For example, if a group of users regularly searches on the same query, you can provide them with a shared query view as their default whenever they log on to Service Manager from the Mobile Applications client.

To display an existing view in the Mobile Applications client, follow the steps below:

1. Log on to Service Manager using the Windows client as a System Administrator.

2. From the System Navigator, click **Favorites and Dashboards**.

3. Right-click the favorite that you want to edit, and then select **Properties**. The View Definition form opens.

4. Mark the **Mobile Accessible** checkbox.

5. In the Audience tab, update the audience which are exposed to the view and then click **Save**.

> **Tip:** You may need to configure the access to browse for certain views:
>
> 1. From the System Navigator, click **System Administration** > **Base System Configuration** > **Miscellaneous** > **View/Favorites**.
>
> 2. Select the view and click the **Audience** tab.
>
> 3. Select **Selected Groups** and update the Groups list.

To create a new view for the Mobile Applications client, follow the steps below:

1. Log on to Service Manager using the Windows client as a System Administrator.

2. Click **System Administration** > **Base System Configuration** > **Miscellaneous** > **Views/Favorites**.

3. Click **New**. The New View wizard opens.

4. Select the Area to create the view in and then click **Next**.

5. Specify the name and type for the view you wish to create, and then click **Next**.

6. Select the fields you want in your view:

   a. Click **Fields**.

   b. To add fields, select items from the table menu and click **Add to List**.

      > **Note:** If you select a field that has a link to another table, select from the secondary menu to add fields you want in the view.

7. Select properties for Group By, Sort By, Filter, and Autoformat as desired.

8. Click **Finish**.

9. Mark the **Mobile Accessible** checkbox.

10. In the Audience tab, select an audience for the view and then click **Save**.

11. Open the To Do Queue, select the area in the Queue field as you defined in step 4 and check which form is used by the new view.

12. Open Form Designer and search for the form.

13. Click **More Actions** > **Copy/Rename** to copy the form with a `mobile` suffix.

   > **Note:** When copying the forms, do not omit the `.g` suffix which is used by some forms. For example, you can copy `sc.manage.cmr.g` to `sc.manage.cmr.g.mobile`.

To remove a view from the Mobile Applications client, follow the steps below:

1. Repeat step 1 to step 3 as described in "To display an existing view in the Mobile Applications client, follow the steps below:".

2. In the Audience tab, update the audience which are to be excluded from the view; or you can clear the **Mobile Accessible** checkbox to remove the view from the Mobile Applications client.

3. Click **Save**.

Add a form for Mobile Applications

After you added a new view which enables you to navigate through lists of records, you need to add forms for these records in the List view.

To add a form for the Mobile Applications client, follow the steps below:

1. Log on to Service Manager using the Windows client as a System Administrator.

2. Select the area in the Queue field as you defined in step 4 of "To create a new view for the Mobile Applications client, follow the steps below:" on the previous page.

3. Select the view you created in the View field.

4. Open a record and check which form is used by the record .

5. Click **Tailoring** > **Forms Designer** and search for the form.

6. Click **More Actions** > **Copy/Rename** to copy the form with a `mobile` suffix. For example, you can copy `IM.close.incident` to `IM.close.incident.mobile`.

> **Note:** The form used by a record may vary with different status or phases of that record. You need to add a form for each status or phase respectively. For example, the form associate with an Incident can be either `IM.close.incident` or `IM.update.incident`. If you have made any omissions, the Mobile Applications client will automatically synchronize data with the original form in the Service Manager database after you logged on to the system.

Customize the fields on Mobile Applications form

For a better appearance of a record's Detail view on the screen of your smartphone, you may need to add, rearrange or remove the fields on a Mobile Applications form.

For detailed information about the widgets on HP Service Manager Mobile Applications forms, see "Mobile Applications Form Widgets" on page 50.

To customize the fields on a Mobile Applications form, follow the steps below:

1. Repeat step 1 to step 4 as described in "Add a form for Mobile Applications" on the previous page.

2. Click **Tailoring** > **Forms Designer** and search for the form with the `.mobile` suffix.

3. Click **Design** to open design mode.

4. Remove the fields which are not exposed to be displayed on the form. The field groups will be displayed as corresponding tabs in the Detail view on Mobile Applications client.

   > **Note:**
   > - Do not nest field groups.
   >
   > - For usability and performance issues, do not include more than ten fields in a group.
   >
   > - If there is one field group defined on a form at a minimum, the widgets which are not included in this group will not be displayed on a Mobile Applications form.

5. Specify the **Label for** property of every lable to match with the **Name** property of the widget next to it.

   Take the `IM.close.incident.mobile` form for example. If the **Name** property of the Incident ID text box is `id`, the **Label for** property of the Incident ID lable must be specified to `id`.

6. Before adding a field, make sure the field exists in the Database Dictionary.Otherwise, you must firstly add this new field to the Database Dictionary. See *Service Manager 9.33 Web Help > Tailoring > Data management > Fields and Keys tab > Add a field to a table* for detailed steps.

7. Click **OK** to save your customization.

Customize the action bar options

To customize the action bar options on the Mobile Applications client, follow the steps below:

1. Log on to Service Manager using the Windows client as a System Administrator.

2. Select the area in the Queue field as you defined in step 4 of "To create a new view for the Mobile Applications client, follow the steps below:" on page 38.

3. Open a record and check which display screen is used by the record . For example, `cm.view.display`.

4. From the System Navigator, click **Tailoring** > **Tailoring Tools** > **Display Screens** and search for the display screen.

5. Click **Show in Mobility**.

6. Select the area in the File Name field.

7. Select **Mobile** in the Client Type field, and then click **Search**. IDs of the action bar options are displayed in the Button Ids field.

8. Refer to the option IDs and the actions listed in the Options tab, add or remove the IDs.

9. Click **Save** to save your customization.

Protecting communications between Mobile Applications and the Service Manager server

To protect communications between Mobile Applications and the Service Manager server, you can perform the following tasks:

- "Set up Secure Sockets Layer (SSL)" below

- "Set up trusted sign-on (TSO)" on page 45

- "Set up Lightweight Single Sign-On (LW-SSO)" on page 46

Set up Secure Sockets Layer (SSL)

HP Service Manager supports Secure Hypertext Transfer Protocol (HTTPS), which encrypts and decrypts message requests and responses. Service Manager uses Secure Sockets Layer (SSL) for encryption only and relies on the server to authenticate each operator's user name and password. Service Manager supports SSL for the following connections:

- SSL on the Service Manager server to encrypt all communications between clients and the server.

- SSL on the Mobile Applications client to verify the client's identity and limit server connections to these identified clients

Enable SSL on the Service Manager server

For detailed information about how to enable SSL on Service Manager server, refer to the *HP Service Manager 9.33 Help Center*.

Enable SSL on the Mobile Applications client

To enable SSL on the Mobile Applications client, follow the steps below:

1. Open `webapp-9.33.xxxx.war` in an archive management program.

2. Copy the cacerts file to the `WEB-INF` directory.

3. Extract the `web.properties` file from the `WEB-INF` directory to your local system, and then open this file in a text editor.

4. Locate the following scripts and configure the parameters as follows:

   ```
   endpoint=https://full.qualified.domain.name:13443/SM/ui
   ```

   ```
   cacerts=
   keystore=
   keystorePassword=
   ```

Required parameters for Mobile Application client SSL configurations

Parameter	Default value	Description
endpoint	`https://full.qualified.domain.name:13443/SM/ui`	Change `full.qualified.domain.name` to the domain name of your Service Manager Web tier server. Change `13443` to your SSL port number.
cacerts	The default value is null.	Add the name of your cacerts file.
keystore	The default value is null.	Add the name of the keystore file.
keystorePassword	The default value is null.	Add the password of the keystore file.

5. Save the file and add the updated file back to the `WEB-INF` directory of the `webapp-9.33.xxxx.war` archive.

Set up SSL between the smartphone browser and Mobile Application on Tomcat

This section describes how to set up SSL between the smartphone browser and Mobile Application on Tomcat by using the following steps:

1. Generate the security files

2. Configure the Apache Tomcat server to use the security files

3. Configure your mobile application to work with SSL

Generate the security files

Check the connector used in Tomcat. If it is a Java (JSSE) connector, you need to generate a keystore file. If it is an APR connector, you need to generate an SSL key and a certificate.

The following steps are an example that uses OpenSSL to generate SSL keys and certificates for the APR connector:

1. Create and configure an `openssl.conf` file in the `bin` folder of your OpenSSL installation. See the following configuration as an example:

```
distinguished_name=test
    [test]
    countryName_default=CN
    stateOrProvinceName_default=SH
    organizationName_default=HP
    organizationalUnitName_default=SM
    localityName=Locality Name
    commonName=Common Name (e.g. server FQDN or YOUR name)
    emailAddress=Email Address
```

2. Open the command prompt.

3. Change directories to the OpenSSL `bin` folder.

4. Execute the following command to create the private key for your private certificate authority:

```
openssl genrsa –des3 –out tomcatkey.pem 2048
```

5. When prompted, type the password phrase you want to use to protect your certificate authority's private key file (`tomcatkey.pem`). For example, type `servicemanager`.

6. Execute the following command to create a public certificate for your private certificate authority:

```
openssl req -new –x509 -key tomcatkey.pem -out tomcatcert.pem –days
1095 -config .\openssl.conf
```

7. Copy the `tomcatkey.pem` and `tomcatcert.pem` files to a folder. For example, `c:\certs`.

Configure the Apache Tomcat server to use the keystore file

You need to update the `server.xml` file for the Apache Tomcat server, so that the Tomcat server knows the path to the SSL key and certificate files. To do this, follow the steps below:

1. Open the `server.xml` file for the Apache Tomcat server.

2. Find the connector element that contains `port="8443"`.

3. Change the section as the example below:

```
<Connector
            port="8443" maxThreads="200"
            scheme="https" secure="true" SSLEnabled="true"
            SSLCertificateFile="c:\certs\tomcatcert.pem"
            SSLCertificateKeyFile="c:\certs\tomcatkey.pem"
            SSLPassword="servicemanager"
            clientAuth="false" SSLProtocol="TLSv1"/>
```

Configure your mobile application to work with SSL

To configure your mobile application to work with SSL, follow the steps below:

1. Go to Tomcat webapp directory of Mobile Applications.

2. Open `WEB-INF\spring\security.xml`.

3. Find the section that contains `security:http pattern="/#{globalProps ['standardModePath']}/**"`

4. Add the **port-mappings** section to this section and update the **requires-channel** setting for all the URLs, as the bold text in the following example:

```
<security:http pattern="/#{globalProps['standardModePath']}/**">
    <security:custom-filter ref="logoutFilterStandard" position="LOGOUT_FILTER"/>
    <!-- <security:custom-filter ref="preAuthenticationFilter" after="SECURITY_CONTEXT_
FILTER"/>
    <security:custom-filter ref="lwSsoFilter" before="BASIC_AUTH_FILTER"/>
    <security:custom-filter ref="springSecurity2lwssoIntegrationFilter" position="LAST"/>
-->
    <security:port-mappings>
        <security:port-mapping http="8080" https="8443"/>
    </security:port-mappings>
    <security:intercept-url pattern="/#{globalProps['standardModePath']}/**"  requires-
channel="https" access="ROLE_USER"/>
    <security:intercept-url pattern="/#{globalProps['standardModePath']}/auth"
method="POST" access="ROLE_USER"/>
    <security:form-login login-page="/#{globalProps['standardModePath']}/login"
                         login-processing-url="/#{globalProps['standardModePath']}/auth"
                         username-parameter="user.id" password-parameter="old.password"
                         authentication-details-source-ref="detailSource"
                         authentication-failure-handler-ref="stdFailureHandler"
                         authentication-success-handler-ref="successHandler"
                         default-target-url="/#{globalProps['standardModePath']}/"/>
    <security:intercept-url pattern="/#{globalProps['standardModePath']}/logout"
method="POST"/>
</security:http>
```

> **Note:** Remember to update the port number to the same as the configuration in Tomcat.

5. Save the changes.

Set up trusted sign-on (TSO)

You can configure HP Service Manager Mobile Applications clients to automatically log on using the same authentication information as users entered when they logged onto their client workstation's operating system. When you enable trusted sign-on, users bypass the Service Manager logon screen and directly enter the application.

Enable TSO on the Service Manager server

For detailed information about how to enable TSO on Service Manager server, refer to the *HP Service Manager 9.33 Help Center*.

Enable TSO on the Mobile Applications client

To enable TSO on the Mobile Applications client, follow the steps below:

1. Open `webapp-9.33.xxxx.war` in an archive management program.

2. Extract the `web.properties` file from the `WEB-INF` directory to your local system, and then open this file in a text editor.

3. Locate the `isCustomAuthenticationUsed` script and set the value to `false`:

   ```
   # Set false to enable Trusted Sign-on
   isCustomAuthenticationUsed=false
   ```

4. Save the file and add the updated file back to the `WEB-INF` directory of the `webapp-9.33.xxxx.war` archive.

5. Extract the `security.xml` file from the `WEB-INF/spring` directory to your local system, and then open this file in a text editor.

6. Locate the following scripts:

   ```
   <!-- <security:custom-filter ref="preAuthenticationFilter" after="SECURITY_
   CONTEXT_FILTER"/>
       <security:custom-filter ref="lwSsoFilter" before="BASIC_AUTH_FILTER"/>
       <security:custom-filter ref="springSecurity2lwssoIntegrationFilter"
   position="LAST"/> -->
   ```

   Uncomment the first line as follows to enable TSO:

   ```
   <security:custom-filter ref="preAuthenticationFilter" after="SECURITY_
   CONTEXT_FILTER"/>
       <!--  <security:custom-filter ref="lwSsoFilter" before="BASIC_AUTH_
   FILTER"/>
   ```

```
        <security:custom-filter ref="springSecurity2lwssoIntegrationFilter"
position="LAST"/> -->
```

7. Save the file and add the updated file back to the `WEB-INF/spring` directory of the `webapp-9.33.xxxx.war` archive.

8. Configure the deployment environment to support the mobile system to receive the customized user information for authentication.

Set up Lightweight Single Sign-On (LW-SSO)

If Lightweight Single Sign-On (LW-SSO) is enabled on the Service Manager server and the Mobile Applications client, Service Manager authentication will be bypassed if you have logged into another web application which also has LW-sso enabled. The detailed bypass critieria includes both the protected domain/IP/DNS name and the initial LW-SSO string.

Enable LW-SSO on the Service Manager server

For detailed information about how to enable LW-SSO on Service Manager server, refer to the *HP Service Manager 9.33 Help Center*.

Enable LW-SSO on the Mobile Applications client

To enable LW-SSO on the Mobile Applicationsclient, follow the steps below:

1. Open `webapp-9.33.xxxx.war` in an archive management program.

2. Extract the `security.xml` file from the `WEB-INF/spring` directory to your local system, and then open this file in a text editor.

3. Locate the following scripts:

```
<!-- <security:custom-filter ref="preAuthenticationFilter" after="SECURITY_
CONTEXT_FILTER"/>
        <security:custom-filter ref="lwSsoFilter" before="BASIC_AUTH_FILTER"/>
        <security:custom-filter ref="springSecurity2lwssoIntegrationFilter"
position="LAST"/> -->
```

Uncomment the second line and the third line as follows to enable LW-SSO:

```
<!-- <security:custom-filter ref="preAuthenticationFilter" after="SECURITY_
CONTEXT_FILTER"/> -->
        <security:custom-filter ref="lwSsoFilter" before="BASIC_AUTH_FILTER"/>
        <security:custom-filter ref="springSecurity2lwssoIntegrationFilter"
position="LAST"/>
```

4. Save the file and add the updated file back to the `WEB-INF/spring` directory of the `webapp-9.33.xxxx.war` archive.

5. Extract the `lwssofmconf.xml` file from the `WEB-INF/classes` directory to your local system, and then open this file in a text editor.

6. Configure the boldface parameters as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<lwsso-config
    xmlns="http://www.hp.com/astsecurity/idmenablmentfw/lwsso/2.0">
    <enableLWSSO enableLWSSOFramework="true" enableCookieCreation="true"
cookieCreationType="LWSSO" enableSAML2Support="false"/>
    <webui>
        <validation>
            <in-ui-lwsso>
                <lwssoValidation  id="ID000001">
                    <domain>example.com</domain>
                    <crypto cipherType="symmetricBlockCipher"
                        engineName="AES" paddingModeName="CBC" keySize="256"
                        encodingMode="Base64Url"
                        initString="Please put your string here"></crypto>
                </lwssoValidation>
            </in-ui-lwsso>
        </validation>

        <creation>

            <lwssoCreationRef id="ID000002">
                <lwssoValidationRef refid="ID000001"/>
                <expirationPeriod>60</expirationPeriod>
            </lwssoCreationRef>

        </creation>

        <logoutURLs>
            <url>.*/std/logout</url>
            <url>.*/std/goodbye</url>
        </logoutURLs>

        <multiDomain>
            <trustedHosts>
                <!-- <DNSDomain>companydomain1.com</DNSDomain>
                <DNSDomain>companydomain2.com</DNSDomain>
                <NetBiosName>myserver1</NetBiosName>
                <NetBiosName>myserver2</NetBiosName>
                <IP>192.168.12.13</IP>
```

```
              <IP>192.168.12.14</IP>
              <FQDN>myserver1.companydomain1.com</FQDN>
              <FQDN>myserver2.companydomain2.com</FQDN>  -->
        </trustedHosts>
     </multiDomain>
   </webui>
</lwsso-config>
```

Required parameters for Mobile Application client LW-SSO configurations

Parameter	Default value	Description
enableLWSSOFramework	`false`	Change this value to `true` to enable the LW-SSO framework.
domain	`example.com`	Change `example.com` to the domain name of your Service Manager Web tier server.
initString	`Please put your string here`	Change `Please put your string here` to your settings. This value must be same as the initString value in the Service Manager LW-SSO configuration (minimum length: 12 characters). For example, smintegrationlwsso.

Note: Beginning from the `<creation>` section to the end of the `lwssofmconf.xml` file, the variables are subject to change according to your actual deployment.

7. Save the file and add the updated file back to the `WEB-INF/classes` directory of the `webapp-9.33.xxxx.war` archive.

Appendix A

Mobile Applications Form Widgets

This chapter provides detailed information about the widgets on HP Service Manager Mobile Applications forms.

This chapter includes:

Label control

Use this control to add a label. A label is a single line of text you can use to give titles to forms, give labels to objects within the form, or otherwise place text on the form.

Refer to the following screenshot as an example of the label control widget on a Mobile Applications form:

Configuration Item:
adv-nam-server-mail

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen.
	This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	(Required) Specify a text caption for the object.
Input	(Optional) Specify the database field or variable to associate with this control. When input is specified, the Label will be displayed as a read-only Text.
Label For	(Optional) Specify the widget which the label belongs to.

Note: A label which is neither referred by any field or variable nor belongs to any other widget will not be displayed on a Mobile Applications form.

Text control

Use this control to add a text box that displays the contents of a text field and conditionally enables users to enter or modify its contents.

Refer to the following screenshot as an example of the text control widget on a Mobile Applications form:
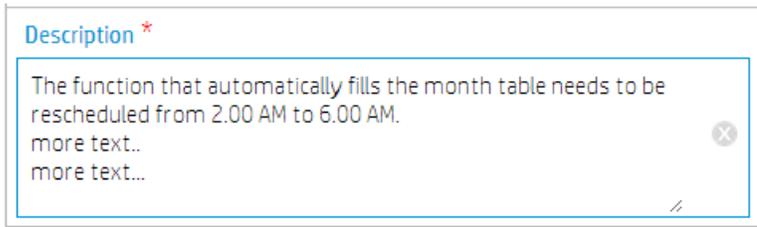
Title *
Webmail login failue

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen.
	This name is used by external applications, such as RAD, to dynamically change the properties of the object.
	This name is also used by the Label For property to specify the label of this widget.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field.
Mandatory	Setting Mandatory to **Yes** by selecting the check box indicates that the field is required and therefore an asterisk indicating a required field is displayed. This is a visible change only. To make the field mandatory for any form it appears on, use the System Definition Utility. To make the field mandatory for a small number of forms only, use Format Control.

> **Note:** If the text is too long for a mobile device to display in one line, use a Text area control instead.

Text area control

Use this control to add a text area that displays the contents of a text field and conditionally enables users to input several lines of data. This object contains scroll bars and allows text wrapping.

Refer to the following screenshot as an example of the text area control widget on a Mobile Applications form:

Description *

The function that automatically fills the month table needs to be rescheduled from 2.00 AM to 6.00 AM.
more text..
more text...

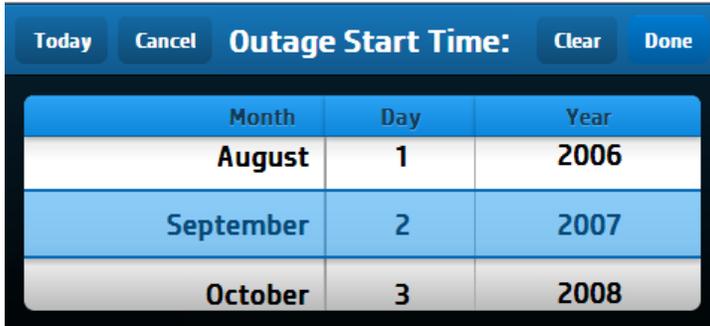| Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object. This name is also used by the Label For property to specify the label of this widget.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field.
Mandatory	Select this option so that a red asterisk indicating a required field is displayed. This is a visible change only. • To make the field mandatory for any form it appears on, use the System Definition Utility. • To make the field mandatory for a small number of forms only, use Format Control.

Date control

Use this control to add a text box that displays and enables users to update the contents of a date field.
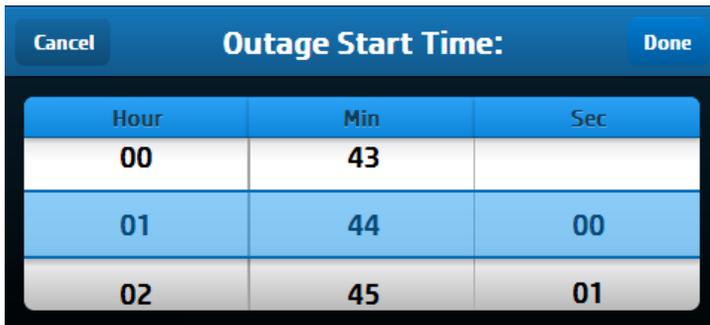
Refer to the following screenshot as an example of the date control widget on a Mobile Applications form:

Outage Start Time:
09/02/07   01:44:00

Refer to the following screenshot as an example of the date selector on a Mobile Applications form:

Today	Cancel	**Outage Start Time:**	Clear	Done
	Month	Day	Year	
	August	**1**	**2006**	
	September	**2**	**2007**	
	October	**3**	**2008**	

Refer to the following screenshot as an example of the time selector on a Mobile Applications form:

Cancel	**Outage Start Time:**	Done
Hour	Min	Sec
00	**43**	
01	**44**	**00**
02	**45**	**01**

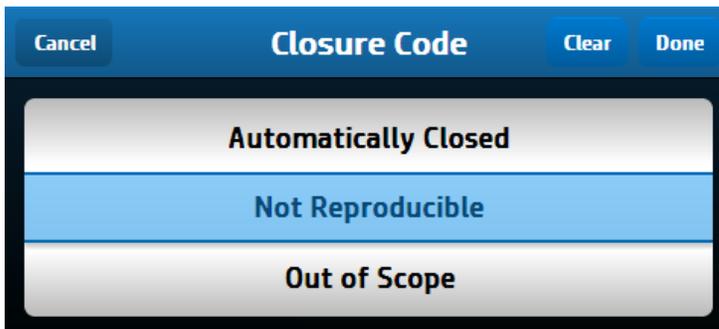| Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen.
	This name is used by external applications, such as RAD, to dynamically change the properties of the object.
	This name is also used by the Label For property to specify the label of this widget.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field.
Mandatory	Select this option so that a red asterisk indicating a required field is displayed. This is a visible change only.
	• To make the field mandatory for any form it appears on, use the System Definition Utility.
	• To make the field mandatory for a small number of forms only, use Format Control.

Combo Box control

Use this control to add a Combo Box that enables users to click a button and select from a drop-down list. The items in the list are associated with a database field or variable. Users can also type in a value if the check box in the Select Only property is cleared (set to false).

Refer to the following screenshot as an example of the Combo Box control widget on a Mobile Applications form:

Refer to the following screenshot as an example of the Combo Box selector on a Mobile Applications form:

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object. This name is also used by the Label For property to specify the label of this widget.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field. Give read–only fields a tab–stop value of –1 to prevent users from tabbing into them.
Mandatory	Select this option so that a red asterisk indicating a required field is displayed. This is a visible change only. • To make the field mandatory for any form it appears on, use the System Definition Utility. • To make the field mandatory for a small number of forms only, use Format Control.

Property	Usage
Value List	In conjunction with the Input property, defines how the Display List values are identified in the database. Value and Display Lists are entered using the Edit List dialog box. You can enter hard coded entries for each list, or you can supply a variable as the first and only entry. The run time values of the variable are used to populate these lists. **Note:** When defining Value List and Display List properties, you should avoid using the following reserved characters: • semicolon (;) • tab key • newline (carriage return) • form feed • backspace • equal sign (=) **Caution:** Do not use keys (such as backspace). The system cannot process their ASCII representation entries correctly, which may lead to unpredictable results.

Property	Usage
Display List	Specify the values that appear in the drop-down list at run time. There must be a one–to–one correspondence between the values for Value List and for Display List. If the Display List is the only populated property, the display values are written to the database. **Note:** When defining Value List and Display List properties, you should avoid using the following reserved characters: • semicolon (;) • tab key • newline (carriage return) • form feed • backspace • equal sign (=) **Caution:** Do not use keys (such as backspace). The system cannot process their ASCII representation entries correctly, which may lead to unpredictable results.

Note: Combo box is always select-only on HP Service Manager Mobile Applications.

Comfill control

Use this control to add a combination Combo Box and Fill button. Comfill has all the properties of a Combo Box, plus the capability for Fill button. You can select which comfill buttons to display. For example, to display just a Fill button, set the Third Button Visible property to true by selecting the check box and set the Combo Button Visible property to false, by clearing the checkbox.

Refer to the following screenshot as an example of the non-array comfill widget with popup form enabled on a Mobile Applications form:

Affected CI
adv-nam-server-mail

Refer to the following screenshot as an example of the array comfill widget on a Mobile Applications form:

Affected CI

Refer to the following screenshot as an example of the array comfill widget after clicking:

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object. This name is also used by the Label For property to specify the label of this widget.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field.
Mandatory	Select this option so that a red asterisk indicating a required field is displayed. This is a visible change only. • To make the field mandatory for any form it appears on, use the System Definition Utility. • To make the field mandatory for a small number of forms only, use Format Control.
Array Length	Specify the size of the scrolling region used to view array entries. A scroll bar appears beside the fields to allow users to view the array entries. • If a field is assigned an Array Length of 5, the form stacks five fields vertically to allow users to view the five array entries. • If Array Length is set to -1, the form dynamically creates as many fields as there are entries in the array. • If the Input data type is scalar, only a single text box appears. **Note:** The screen object must be associated with an array data structure. The default is 0, which means one vertical line of information appears.

Property	Usage
Value List	In conjunction with the Input property, defines how the Display List values are identified in the database. Value and Display Lists are entered using the Edit List dialog box. You can enter hard coded entries for each list, or you can supply a variable as the first and only entry. The run time values of the variable are used to populate these lists.
Display List	Specify the values that appear in the drop-down list at run time. There must be a one–to–one correspondence between the values for Value List and for Display List. If the Display List is the only populated property, the display values are written to the database.
Combo Button Visible	Select this option to make the Combo Button visible when the form opens. **Note:** When this property is enabled, the Fill Button Visible property is no longer effective.
Fill Button ID	Specify a Control ID to transmit when clicked.
Fill Button Visible	Select this option to make the Fill Button visible when the form opens.
Popup Subform Format	Specify the form to display.
Popup Subform Input	Specify the database field or variable to associate with this control.
Popup Subform Enabled	Select this option to enable the Popup Subform for this control.

Group control

Use this control to add a container that enables you to logically group associated items. In the Windows client the Group has a rectangular border with a text label at the top.

Refer to the following screenshot as an example of the group control widget on a Mobile Applications form:

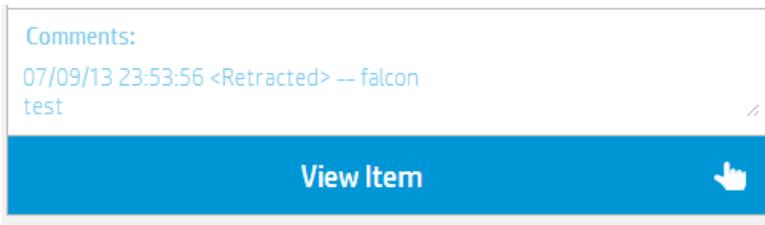| Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	(Required) Specify a text caption for the object.

Note:

- Do not nest field groups.

- For usability and performance issues, do not include more than ten fields in a group.

- If there is one field group defined on a form at a minimum, the widgets which are not included in this group will not be displayed on a Mobile Applications form.

Button control

Use this control to add an input field that displays and enables users to update the contents of a numeric field and offers spinner buttons to increase or decrease a value.

Refer to the following screenshot as an example of the button control widget on a Mobile Applications form:

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	Specify a text caption for the object.
Button ID	Specify a numeric identification that specifies a Control ID to transmit when clicked.

Check box control

Use this control to add a check box that displays and enables users to update the contents of a Boolean (logical) field, which can evaluate to true, false, unknown, or null.

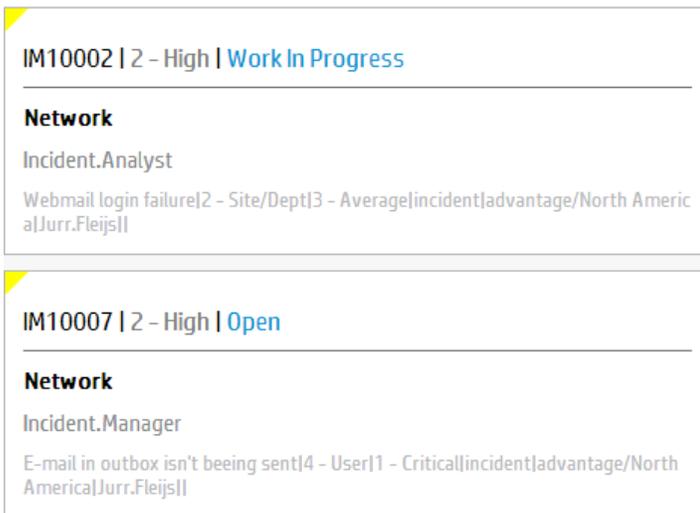Refer to the following screenshot as an example of the check box control widget on a Mobile Applications form:

CI is operational (no outage) ✓

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	Specify a text caption for the object.
Input	Specify the database field or variable to associate with this control.
Read-Only	Select this option to disable editing capabilities and provide only viewing access to the field. Give read–only fields a tab–stop value of –1 to prevent users from tabbing into them.

Table control

Use this control to add a table that displays one or more columns of data in a scrollable pane. The tables you create in the Form Designer appear as a rectangular region subdivided by rows and columns. The look and feel mimics tables in Microsoft Windows applications like Excel.

Refer to the following screenshot as an example of the table control widget in List view:

IM10002 | 2 – High | Work In Progress

Network

Incident.Analyst

Webmail login failure|2 – Site/Dept|3 – Average|incident|advantage/North America|Jurr.Fleijs||

IM10007 | 2 – High | Open

Network

Incident.Manager

E-mail in outbox isn't beeing sent|4 – User|1 – Critical|incident|advantage/North America|Jurr.Fleijs||

Refer to the following screenshot as an example of the table control widget in Detail view:

Activity List (6) ▶

Refer to the following screenshot as an example of the table control widget after clicking:

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen.
	This field is required if you enable the Multiple Selection property. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
	This name is also used by the "Label For" property to specify the label of this widget.
Read-Only	Always read-only.
Columns	Specify a list of columns in the table.

Table column control

Use this control to add a column to an existing table.

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen.
	This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	Specify a text caption for the object.
Input	Specify the database field or variable to associate with this control.
Field	In the case where the array specified in the input property is an array of structure, it specifies the field in the structure for this object.
Display List	Specify the values that appear in the drop-down list at run time. There must be a one–to–one correspondence between the values for Value List and for Display List. If the Display List is the only populated property, the display values are what were written to the database.

Property	Usage
Read-Only	Always read-only.

Subform control

Use this control to display a subform on another form.

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Format	Specify the form to display. Be sure you type the exact form name.
Virtual Join	Select this option to associate virtual join run time processing with the subform object. Clear the check box to use a same-file join.
Display Using Table	Select this option to display the subform in table format.
Input	Specify the database field or variable to associate with this control.

Dynamic Form control

Use this control to add a dynamic form that becomes visible when populated by XML from a RAD application or JavaScript. The aspect and content of the dynamic form depend on the XML.

To place a dynamic form on a form, click **Dynamic Form** and then click the form.

Be sure to put the name of the database field or variable that you want to associate with this control into the Input property.

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Visible	Select this option to make the object visible on the form. Clear the check box to hide the object from view on the form.
Read-Only	In this release, we does not support change user options from mobile. All the contents inside the dynamic form will be read-only.
Input	Specify the database field or variable to associate with this control.

Notebook control

Use this control to subdivide the contents of a screen into logical groups or categories. Notebooks provide an aesthetic way of organizing large amounts of data into small spaces.

Click to the right of the last tab on the notebook to open the notebook properties. Click the tab and then the blank area below the tab to open the notebook tab properties.

To place a notebook on a form, click **Notebook** and then click the form.

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Visible	Select this option to make the object visible on the form. Clear the check box to hide the object from view on the form.

Notebook tab control

Use this control to add a tab to an existing notebook. Navigate to each page of the notebook by selecting its tab.

Click to the right of the last tab on the notebook to open the notebook's properties. Click the **notebook** tab and then the blank area below the tab to open the notebook tab's properties.

Property	Usage
Name	(Optional) Specify a unique identifier for the object on the screen. This name is used by external applications, such as RAD, to dynamically change the properties of the object.
Caption	(Required) Specify a text caption for the object.
Visible	Select this option to make the object visible on the form. Clear the check box to hide the object from view on the form.

Appendix B

Mobile Applications for HP Service Manager Process Designer

In HP Service Manager 9.32 and later versions, multiple Mobile Applications forms are designed for Process Designer (PD) Content Pack 9.30.3 because this Content Pack provides different Change, Incident and Interaction logic comparing with HP Service Manager out-of-box data. Refer to the following table for detail:

Mobile Application forms designed for PD

Module	Category	Workflow	Phase	Display Option/Action/Transation	Forms for Mobile Applications
Change	Emergency Change	Emergency	E-CAB Approval	Approve, Deny, Retract and Save	chm.emergency.approval.mobile chm.subform.activity.mobile
Incident	incident	Incident	Categorization Investigation Review Recovery Closure	Save and Close	im.incident.categorization.mobile im.incident.investigation.mobile im.incident.recovery.mobile im.incident.review.mobile im.incident.closure.mobile
Interaction	service catalog	Service Catalog	Categorization Work In Progress Review Closure	Approve, Deny, Retract, Update and Close	sd.interaction.svc.categorization.mobile sd.interaction.svc.workinprogress.mobile sd.interaction.svc.review.mobile sd.interaction.svc.closure.mobile

Note: Being widely used in PD forms, the Dynamic View Dependencies (DVD) conditions for widgets are not supported by Mobile

Applications. On Mobile Applications client, errors may occur when you are updating a record which uses PD forms with DVD conditions. The errors include blank title on the Related Records tab, some invisible fields in HP Service Manager become visible on Mobile Applications client, and so on. HP recommends you to use customized forms on Mobile Applications client and avoid the DVD conditions.

PD Change module

A typical usage of your Mobile Applications is to approve or deny a change on the smartphone regardless of the change's category. Consequently, the `chm.emergency.approval.mobile` sample form is designed for Mobile Applications to address the Emergercy changes in the E-CAB Approval phase only. For Normal or Standard changes, or Emergency changes in a phase other than E-CAB Approval , you need to define your own forms. Otherwise, the original PD forms will be exposed on Mobile Applications client.

You need to move the created Emergency change to the E-CAB Approval phase in HP Service Manager before utilizing them on Mobile Applications client. For any Emergency change in the E-CAB Approval phase, Mobile Applications client displays Change Main, Updates, and Approval groups as corresponding tabs in the Detail view. You are able to approve, deny and update a change in this phase. In addition, you are also able to search for any approved or denied change by using global search and then retract the change.

PD Incident module

For a newly created incident in the Categorization phase, Incident Details, Categorization and Assignment, Major & Escalation, Activities, Proposed Solution and Related Records groups are displayed as corresponding tabs in the Detail view on Mobile Applications client. You are able to update the incident in this phase.

Change the incident's status to Work in Progress, the incident moves to the Investigation phase. You are able to update the incident in this phase.

After updating the proposed solutions and save the record, the incident moves to the Recovery phase. You are able to update and close the incident in this phase.

After changing the incident's status to Resolved, the incident moves to the Review phase. The Proposed Solution tab is renamed to Recovery Action and you are able to update and close the incident in this phase.

After closing the incident on Mobile Applications client, the incident moves to the Closure phase and all tabs become read-only.

PD Interaction module

If an interaction is ordered from the catalog and includes pending request level approvals, it is read-only on Mobile Applications client before all approvals are approved. You are able to approve or deny the interaction in this phase. In addition, you are also able to search for any approved or denied interaction by using global search and then retract the interaction.

After approving all pending approvals, the interaction moves to the Work In Progress phase. You are able to update and withdraw the interaction in this phase.

After updating the proposed solutions and save the record, the interaction moves to the Review phase. You are able to update and close interaction in this phase.

After closing the interaction on Mobile Applications client, the interaction moves to the Closure phase and all tabs become read-only.

Appendix C

Troubleshooting

This chapter provides troubleshooting information about HP Service Manager Mobile Applications installation and configuration issues and provide solutions.

This chapter includes:

- "Widgets do not support Dynamic View Dependencies (DVD)" below

- "Mobile Application icons are rendered as black squares on BlackBerry 7.0 and 7.1" on the next page

Widgets do not support Dynamic View Dependencies (DVD)

Issue

Some widgets on the forms do not support the Dynamic View Dependencies (DVD) feature of Forms Designer. How to solve this problem?
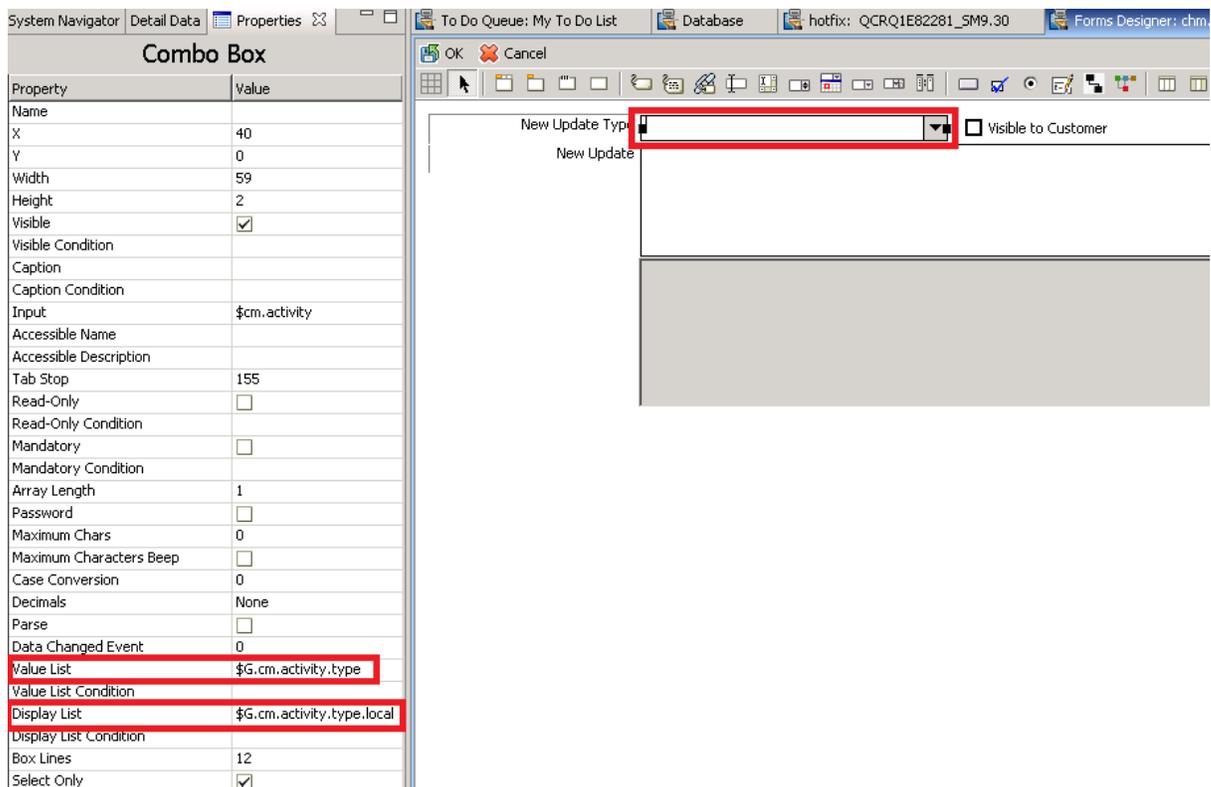
Solution

In the following example, the `chm.subform.activity` form has the **New Update Type** field using the DVD feature as illustrated below:

Since the current version of HP Service Manager Mobile Applications does not support the DVD feature, change the properties of Value List, Value List Condition and Display List as below to avoid using the DVD feature:

Property	Old Value	New Value
Value List	Null	$G.cm.activity.type
Value List Condition	select ("activity.name","activitytype","table","cm3r","visible", "YES")	Null
Display List	Null	$G.cm.activity.type.local

Refer to the following screenshot as an example:

Mobile Application icons are rendered as black squares on BlackBerry 7.0 and 7.1

Issue

Some icons in the Mobile Applications may be rendered as black squares on BlackBerry 7.0 and 7.1. How to solve this problem?

Solution

Follow the steps below to change the CSS style for BlackBerry users:

1. Open `webapp-9.33.xxxx.war` in an archive management program.

2. Extract the `sm-mobile.css` file from the `app\resources\css` directory to your local system, and then open this file in a text editor.

3. Locate the following scripts:

```
 .title-bar .type .arrow_down,.title-bar .search .x-button-icon,
.title-bar .trash.x-button-icon,.more .x-button-icon,.doc-new .x-button-icon,
.messages.x-icon-mask,.logout.x-icon-mask{
  background-color: #000 !important;
  background-image: none !important;
}
```

Replace the above scripts with:

```
.title-bar .type .arrow_down,.title-bar .search .x-button-icon,
.title-bar .trash.x-button-icon,.more .x-button-icon,.doc-new .x-button-icon,
.messages.x-icon-mask,.logout.x-icon-mask{
  background-color: #0096D6 !important;
  background-image: none !important;
}
```

4. Locate the following scripts:

```
.row-color {
  -webkit-mask-image:     url
(data:image/png;base64,iVBORw0KGgoAAAANSUhEUgAAABAAAAAQCAYAAAAf8/
```

```
9hAAAALElEQVR42qXLIQEAAADDIPqX/kNMIIFFLatZzWpWs5rVrGY1q1nNalazmtV8wluHefOB2u
QAAAAASUVORK5CYII=);
  width: 15px;
  height: 15px;
  -webkit-mask-size: 15px, 15px;
  background-color: #FFFFFF;
  background-image: none;
  display: block;
  position: absolute;
}
```

Replace the above scripts with:

```
.row-color {
  width: 15px;
  height: 15px;
  -webkit-mask-size: 15px, 15px;
  background-color: #FFFFFF;
  background-image: none;
  display: block;
  position: absolute;
}
```

5. Save the file and add the updated file back to the `app\resources\css` directory of the `webapp-9.33.xxxx.war` archive.

6. Clear the browser cache and refresh the browser window. The icons are correctly displayed on your BlackBerry smartphone.
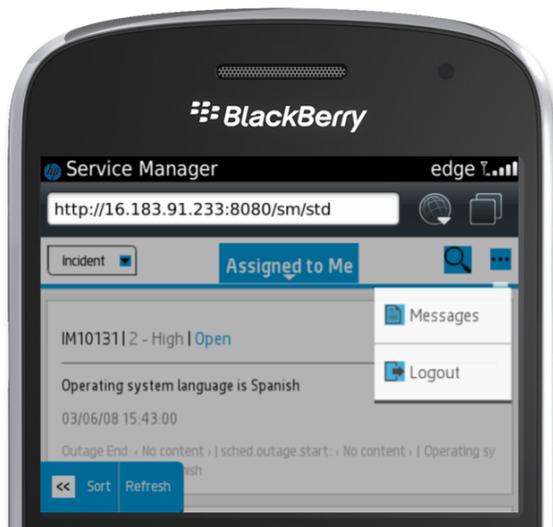
Note: The CSS change affects all Mobile Applications users. Though the UI will be slightly different with the original layout, the functionality of Mobile Applications is not changed.

We appreciate your feedback!

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

Feedback on Service Manager Mobile Applications, 9.33 User Guide

Just add your feedback to the email and click send.

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