HP Service Manager

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For the supported Windows® and UNIX® operating systems

Change Management help topics for printing

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About this PDF Version of Online Help

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Contents

Chapter 1: Change Management user roles

The Change Management module has the following user roles:

- "Change Analyst" below
- "Change Coordinator" on the next page
- "Change Manager" on page 13
- "Change Approver" on page 15
- "Release Packaging and Build Manager" on page 15
- "E-CAB" on page 16

Change Analyst

The Change Analyst user role has the following responsibilities:

- May be involved in the change assessment and planning phase to deliver input to the Change Coordinator when assessing the change impact
- Verifies that tasks are correctly assigned and rejects tasks if needed
- Builds, tests, and implement changes based on the change plan
- Executes the backup plan if required

To execute this role, the Change Analyst has following tasks available:

Note: For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• None
"Change review (ST 2.2)" on page 26	• None
"Change assessment and planning (ST 2.3)" on page 31	• None

ITIL workflow	Tasks
"Change approval (ST 2.4)" on page 34	• None
"Coordinate change implementation (ST 2.5)" on page 39	• "Validate a change task" on page 42 • "Reject a change task" on page 43 • "Build and test a change" on page 43 • "Implement a change and perform a production test" on page 45 • "Execute a fall-back scenario" on page 48
"Change evaluation and closure (ST 2.6)" on page 49	• None
"Emergency change handling (ST 2.7)" on page 52	• None
"Change Management tasks" on page 56	• "Close a change task" on page 58 • "Set a reminder for a change request" on page 61

Change Coordinator

The Change Coordinator user role has the following responsibilities:

- Register changes
- Review the changes received and validate the change after filtering
- Complete registration of changes by applying the correct change model and providing the change details
- Coordinate the assessment phase of the change, and create change planning based upon the assessment information
- After approval, coordinate the change implementation according to the planning created earlier
- Assign tasks to the Change Analysts and perform action based on the outcome of the change implementation
- After implementation, evaluate the change handling and close the change

To execute this role, the Change Coordinator has following tasks available:

Note: For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• "Create a new change request" on page 24 • "Update a change request" on page 25
"Change review (ST 2.2)" on page 26	• "Review a new change request" on page 27 • "Relate a new change to a change" on page 28 • "Delete a related change to a change" on page 28 • "Return a change request to the requester" on page 29 • "Reject a change request" on page 30
"Change assessment and planning (ST 2.3)" on page 31	• "Assess change impact and risk" on page 32 • "Plan and schedule a change" on page 34
"Change approval (ST 2.4)" on page 34	• None
"Coordinate change implementation (ST 2.5)" on page 39	• "Schedule a change implementation" on page 40 • "Process a successful change implementation" on page 46 • "Process an unsuccessful change implementation" on page 47
"Change evaluation and closure (ST 2.6)" on page 49	• None
"Emergency change handling (ST 2.7)" on page 52	• None
"Change Management tasks" on page 56	• "Create a change task" on page 57 • "Update a change task" on page 58 • "Close a change task" on page 58 • "Reopen a change request or task" on page 59 • "Print a change request" on page 60 • "Print a change request list" on page 60

ITIL workflow	Tasks
	• "Associate a change with another change" on page 61 • "Set a reminder for a change request" on page 61 • "Complete a phase" on page 71 • "Send a notification from a task or change request" on page 69 • "Open a new change with a Release Management category" on page 140 • "Terminate a release change" on page 140

Change Manager

The Change Manager user role has the following responsibilities:

- Review all changes after the assessment and planning phase and address the right Change Approvers
- Organize Change Advisory Board meeting if necessary
- Update the change after approval is given
- Periodically review changes in a Post Implementation Review and determine and execute follow-up actions
- Coordinate all activities in case the emergency change handling procedure is triggered

To execute this role, the Change Manager has following tasks available:

> **Note:** For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• None
"Change review (ST 2.2)" on page 26	• "Relate a new change to a change" on page 28 • "Delete a related change to a change" on page 28

ITIL workflow	Tasks
	• "Reject a change request" on page 30
"Change assessment and planning (ST 2.3)" on page 31	• None
"Change approval (ST 2.4)" on page 34	• "Prepare a change for approval" on page 35 • "Process an approved, denied, or retracted change" on page 38
"Coordinate change implementation (ST 2.5)" on page 39	• None
"Change evaluation and closure (ST 2.6)" on page 49	• "Evaluate change handling" on page 50 • "Close a change" on page 51 • "Generate a list of closed changes for review" on page 52
"Emergency change handling (ST 2.7)" on page 52	• "Log an emergency change" on page 53 • "Approve an emergency change" on page 54 • "Recategorize an emergency change" on page 55
"Change Management tasks" on page 56	• "Update a change task" on page 58 • "Close a change task" on page 58 • "Print a change request" on page 60 • "Print a change request list" on page 60 • "Set a reminder for a change request" on page 61 • "Update multiple change requests" on page 67 • "Update multiple task records" on page 68 • "Complete a phase" on page 71 • "Open a new change with a Release Management category" on page 140 • "Terminate a release change" on page 140

Change Approver

The Change Approver user role has the following responsibilities:

Approve or deny Change when requested. This can be either electronically by using the service management tool or by using a Change Advisory Board (CAB) or Emergency-Change Advisory Board (E-CAB) meeting.

To execute this role, the Change Approver has following tasks available:

> **Note:** For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• None
"Change review (ST 2.2)" on page 26	• None
"Change assessment and planning (ST 2.3)" on page 31	• None
"Change approval (ST 2.4)" on page 34	• "Approve, deny, or retract a change" on page 36 • "Approve multiple change requests" on page 39
"Coordinate change implementation (ST 2.5)" on page 39	• None
"Change evaluation and closure (ST 2.6)" on page 49	• None
"Emergency change handling (ST 2.7)" on page 52	• None
"Change Management tasks" on page 56	• "Set a reminder for a change request" on page 61

Release Packaging and Build Manager

The Release Packaging and Build Manager user role has the following responsibilities:

Change Analyst who transfers the new release from development to test environment or from test to production environment.This role cannot be fulfilled by the Change Analyst who has built the new release.

To execute this role, the Release Packaging and Build Manager has following tasks available:

Note: For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• None
"Change review (ST 2.2)" on page 26	• None
"Change assessment and planning (ST 2.3)" on page 31	• None
"Change approval (ST 2.4)" on page 34	• None
"Coordinate change implementation (ST 2.5)" on page 39	• None
"Change evaluation and closure (ST 2.6)" on page 49	• None
"Emergency change handling (ST 2.7)" on page 52	• None
"Change Management tasks" on page 56	• None

E-CAB

The E-CAB user role has the following responsibilities:

Selection of Change Approvers who need to provide approval in case of an Emergency Change.

To execute this role, the E-CAB has following tasks available:

Note: For an overview of how these tasks fit in the Change Management workflow, see "Change Management workflows and user tasks" on page 18.

ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• None
"Change review (ST 2.2)" on page 26	• None
"Change assessment and planning (ST 2.3)" on page 31	• None
"Change approval (ST 2.4)" on page 34	• "Approve, deny, or retract a change" on page 36 • "Approve multiple change requests" on page 39

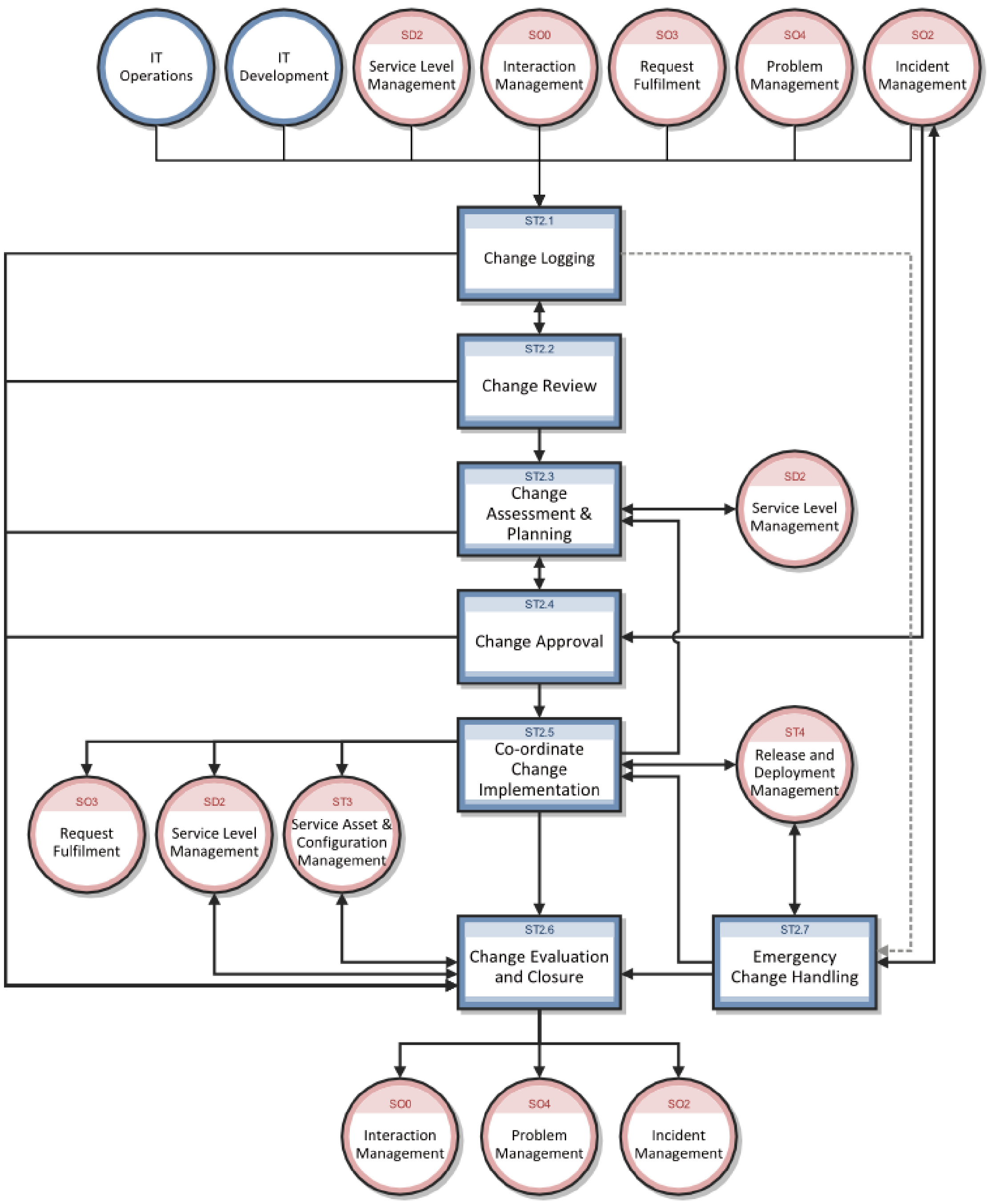
ITIL workflow	Tasks
"Coordinate change implementation (ST 2.5)" on page 39	• None
"Change evaluation and closure (ST 2.6)" on page 49	• None
"Emergency change handling (ST 2.7)" on page 52	• None
"Change Management tasks" on page 56	• "Set a reminder for a change request" on page 61

Chapter 2: Change Management workflows and user tasks

The Change Management process includes the activities necessary to control changes to service assets and configuration items across the entire service life cycle. It provides standard methods and procedures to use when implementing all changes.

The Change Management process consists of the following workflows and user tasks.

Change Management workflow



ITIL workflow	Tasks
"Change logging (ST 2.1)" on page 22	• "Create a new change request" on page 24

ITIL workflow	Tasks
	• "Update a change request" on page 25
"Change review (ST 2.2)" on page 26	• "Relate a new change to a change" on page 28 • "Delete a related change to a change" on page 28 • "Review a new change request" on page 27 • "Return a change request to the requester" on page 29 • "Reject a change request" on page 30
"Change assessment and planning (ST 2.3)" on page 31	• "Assess change impact and risk" on page 32 • "Plan and schedule a change" on page 34
"Change approval (ST 2.4)" on page 34	• "Approve, deny, or retract a change" on page 36 • "Approve multiple change requests" on page 39 • "Prepare a change for approval" on page 35 • "Process an approved, denied, or retracted change" on page 38
"Coordinate change implementation (ST 2.5)" on page 39	• "Validate a change task" on page 42 • "Reject a change task" on page 43 • "Build and test a change" on page 43 • "Implement a change and perform a production test" on page 45

ITIL workflow	Tasks
	• "Execute a fall-back scenario" on page 48 • "Schedule a change implementation" on page 40 • "Process a successful change implementation" on page 46 • "Process an unsuccessful change implementation" on page 47
"Change evaluation and closure (ST 2.6)" on page 49	• "Evaluate change handling" on page 50 • "Close a change" on page 51 • "Generate a list of closed changes for review" on page 52
"Emergency change handling (ST 2.7)" on page 52	• "Log an emergency change" on page 53 • "Approve an emergency change" on page 54 • "Recategorize an emergency change" on page 55
"Change Management tasks" on page 56	• "Create a change task" on page 57 • "Update a change task" on page 58 • "Set a reminder for a change request" on page 61 • "Close a change task" on page 58 • "Reopen a change request or task" on page 59 • "Print a change request" on page 60 • "Print a change request list" on

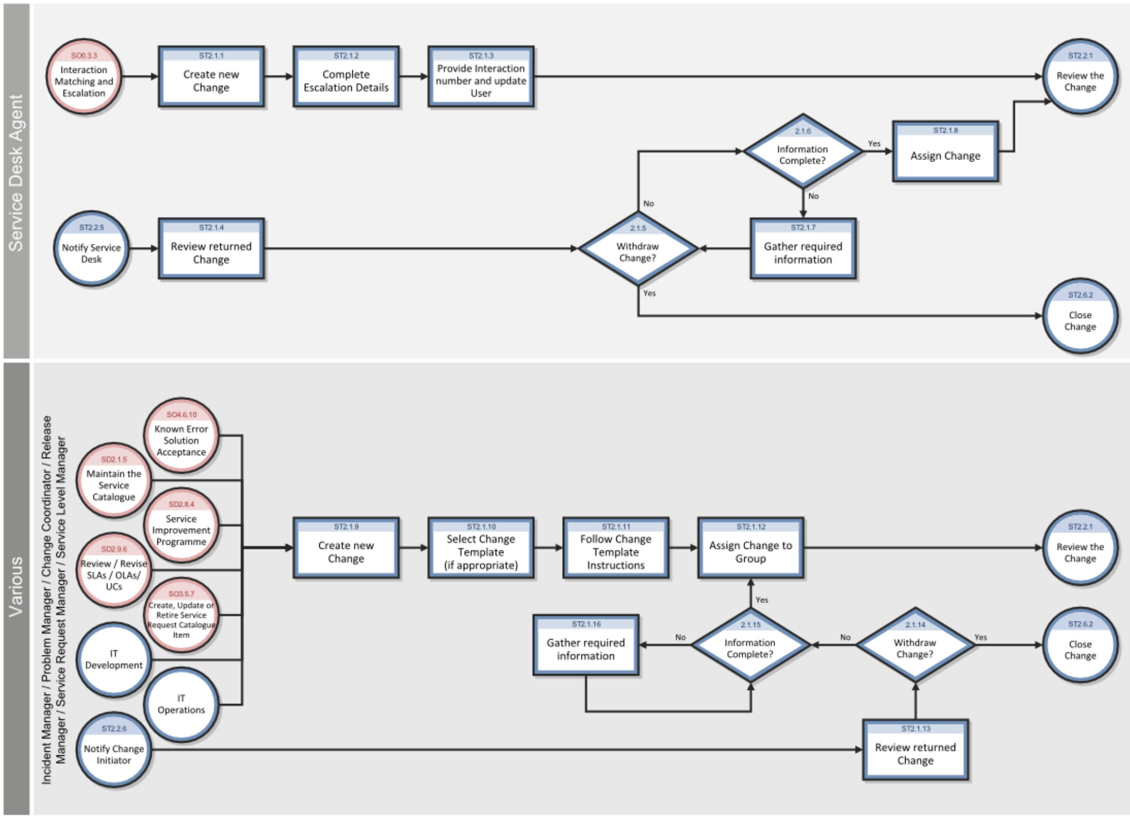
ITIL workflow	Tasks
	page 60 • "Associate a change with another change" on page 61 • "Complete a phase" on page 71 • "Send a notification from a task or change request" on page 69 • "Open a new change with a Release Management category" on page 140 • "Terminate a release change" on page 140 • "Update multiple change requests" on page 67 • "Update multiple task records" on page 68

To see the workflow diagrams and other information about this process, refer to the *HP Service Manager Processes and Best Practices Guide* linked to in the related topics.

Change logging (ST 2.1)

An individual or organizational group that requires a change can initiate a Request for Change (RFC). Change requests can be initiated as part of a variety of management processes, including User Interaction Management, Incident Management, Problem Management, and Release Management. Each RFC must be registered in an identifiable way. HP Service Manager provides change templates that standardize and speed up the change logging process.

Details for this process are displayed in the following flowchart.



Create change request from user interaction

Applies to User Roles:

Service Desk Agent

As a Service Desk Agent, you can escalate an interaction to a change record that is linked to the interaction.

To create a change request from a user interaction, follow these steps:

1. Click **Service Desk** > **Interaction Queue** or select **Interaction** from your To Do Queue list.
2. From the record list, double-click the open-idle Interaction that you want to escalate to a change.
3. Click **Fill** for the **Category** field.
4. Double-click **Request for Change** and select the subarea.
5. Click **Escalate**. The **Escalation Details** wizard opens.

6. Click the list fields to select the Location, Assignment, and Requested End Date for the change.

    Note: A Change Coordinator is automatically assigned based on your selections.

7. Click **Finish**. A notification message with the change number displays above the interaction detail fields and the Service Desk application notifies the original end user of the actions taken.

8. Click **Save & Exit**.

Create a new change request

Part of Workflow(s):

"Change logging (ST 2.1)" on page 22

Applies to User Roles:

Problem Manager

"Change Coordinator" on page 11

Release Manager

Sometimes you will need to create a new change request that is not based on an existing interaction or known error.

To create a new change request, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.

2. Click **New**. HP Service Manager displays a list of categories specific to your user profile.

3. Click a category for the new change request. Service Manager displays a new form and populates the following fields based on your previous selections:

    - Change ID
    - Phase
    - Status
    - Approval Status

4. Complete the form with all of the required information and any additional information.

5. If you are logged in as a Problem Manager and want to associate an existing known error with this change, use the **More** button or the **More Actions** icon to associate a known error record with this change.

6. Click **Save**. A message displays the change number and a notification of the change is sent to the selected change initiator.

7. Click **More** or the **More Actions** icon and then select **Change Phase**.

8. Select the applicable phase. For example, Change Review. The phase status changes to the phase you selected.

Update a change request

Part of Workflow(s):

"Change logging (ST 2.1)" on page 22

Applies to User Roles:

Service Desk Agent

Problem Manager

"Change Coordinator" on page 11

Release Manager

You may be notified (for example, by telephone or email) that a change you created has been returned to the Change Logging or Change Assessment and Planning phase and needs to be updated. For example, the change may have been assigned to the wrong Change Coordinator or the Change Manager may disagree with the impact assessment or risk categorization and request an update.

To update a change request, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.

2. Select the change request to update from the record list.

3. In the **Activities** section, use the applicable entries in the **Activity Type** table to view the details of the updates needed for the change record.

4. Modify the applicable fields and then click **Save**.

5. Click **More** or the **More Actions** icon and then select Change Phase. Double-click the applicable phase.

6. Click **Save & Exit**.

Withdraw a change request

Applies to User Roles:

Service Desk Agent

Service Desk Manager

In some cases, the Change Coordinator will return a change request, which the Service Desk Agent or Service Desk Manager will need to withdraw.

To withdraw a change request, follow these steps:

1. From the To Do queue, select **Change** from the **Queue** list.

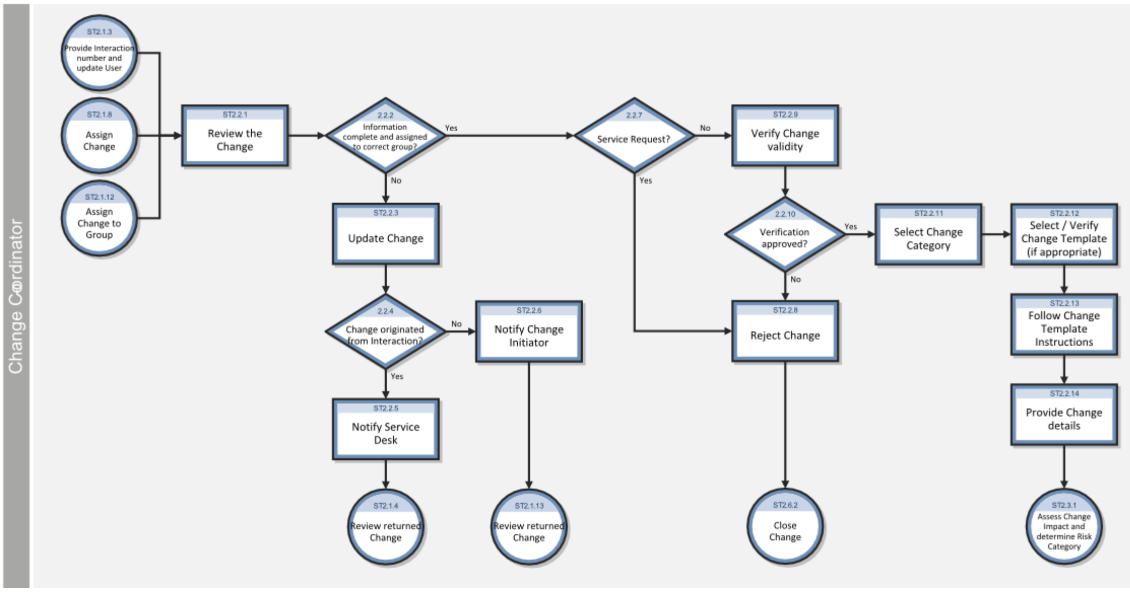
2. Expand **Phase: Change Logging**, and then click a change request to display its detail.

3. Click **Withdraw**. A notification appears, confirming the change request's closed status.

Change review (ST 2.2)

After a change request is logged, the Change Coordinator verifies that the request is logical, feasible, necessary, and complete. If more information is needed, the Change Coordinator will request that the initiator update the request. The Change Coordinator also checks to see if the change has already been previously submitted and rejected. If a requested change does not meet the requirements, the Change Coordinator rejects the change and communicates the reason for the rejection to the change initiator.

Details for this process are displayed in the following flowchart.



Review a new change request

Part of Workflow(s):

"Change review (ST 2.2)" on the previous page

Applies to User Roles:

"Change Coordinator" on page 11

After a user creates a new change request or a Service Desk Agent escalates an interaction to a change, the change request moves to the Change Review phase. You can then review the information to verify that all the information you need is provided and that the change is assigned to the correct support group.

To review a new change request, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and **My Open Changes** from the **View** list.

2. Expand **Phase: Change Review** from the record list, and then click the change request to view its detail.

3. Check to see if the change request is a standard request to be handled by the request fulfillment process. If it is, select **Reject** from the **More Actions** menu to reject the change.

4. Enter the reason for the rejection and click **Finish** to move to the Evaluation and Change Closure phase.

5. Review the information in the form to determine if it is complete and verify that the change is assigned to the correct support group. If more information is needed or the support group is incorrect, send the request back to the requester or to the Service Desk.

6. If the request status in the **Category** field is **Default**, select **Change Category** from the **More Actions** menu and select the appropriate category. Fill in any other required fields.

7. Click **Close Phase**. The phase status changes from Change Review to Change Assessment & Planning.

Relate a new change to a change

Part of Workflow(s):

"Change review (ST 2.2)" on page 26

Applies to User Roles:

"Change Manager" on page 13,

"Change Coordinator" on page 11

To relate a new change to an existing change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.

2. Select the change from the record list.

3. Click **More** or the **More Actions** icon and then select **Related** > **Changes** > **Open**.

4. Complete all of the required information for the change record form.

5. Click **Save & Exit**.

You can view the Change in the Related Records section to verify the newly related change record.

Delete a related change to a change

Part of Workflow(s):

"Change review (ST 2.2)" on page 26

Applies to User Roles:

"Change Manager" on page 13,

"Change Coordinator" on page 11

If a change is related to another change, the relationship between the two can be deleted so that the two changes are no longer related to each other. Note that deleting a related change does not delete either change record. Both change records continue to exist, but they are no longer related to each other.

To delete a related change to a change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.
2. Select the change from the record list.
3. From the **More Actions** menu, select **Related** > **Changes** > **View**.
4. Select the change record you want to delete (unrelate) from the list of related changes.

   To select a record in the web client, click a non-link section of the record.

   To select a record in the Windows client, click the record.
5. Click **Delete**.
6. Click **OK** to confirm that you want to delete this record from the list of related change records.
7. Type a reason for unrelating the changes in the text box.

   > **Note:** You may not be required to provide a reason for unrelating the changes in some installations.
8. Click **OK**.

You can view the changes in the **Related Records** section to verify that the change records are no longer related.

Return a change request to the requester

Part of Workflow(s):

"Change review (ST 2.2)" on page 26

Applies to User Roles:

"Change Coordinator" on page 11

If the information in the change form is not complete, you may contact the requester to get the missing information and then enter it in the Activities section of the change record. If the change is assigned to the wrong support group, you should return it to the requester by changing the phase back to Change Logging and then contacting the requester to have the requester correct the change record. The requester then places the request in the Change Review phase.

To return a change request to the requester, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list, and then select **My Open Changes** from the **View** list.
2. Click a change request from the record list.
3. Open the **Activities** section and select the type of update in the **New Update Type** field.
4. Type the reason for returning the change in the **New Update** field.
5. Click **More** or the **More Actions** icon and then select **Change Phase**.
6. Double-click **Change Logging**.

   The phase status changes from Change Review to Change Logging.
7. Contact the requester (by telephone or email) to let the requester know that the change was returned to the Change Logging phase and that the requester must correct it.

Reject a change request

Part of Workflow(s):

"Change review (ST 2.2)" on page 26

Applies to User Roles:

"Change Manager" on page 13,

"Change Coordinator" on page 11

You may need to reject a change request during the change review. For example, you may need to reject a standard change that should have initially been handled using the request fulfillment process or because the change is not valid. The reason for the rejection could be because it is not logical or feasible, is not in line with company standards and policies, or it has already been raised and rejected in an earlier phase. You may also reject a change during the Change Assessment and Planning phase if change assessors do not support approval.

To reject a change request, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and **My Open Changes** from the **View** list.
2. Click a change from the record list and select **Reject** from the **More Actions** menu.
3. In the **Rejection Details** wizard, type the reason for the rejection and click **Finish**.

   The change is now in the Change Evaluation and Closure phase.

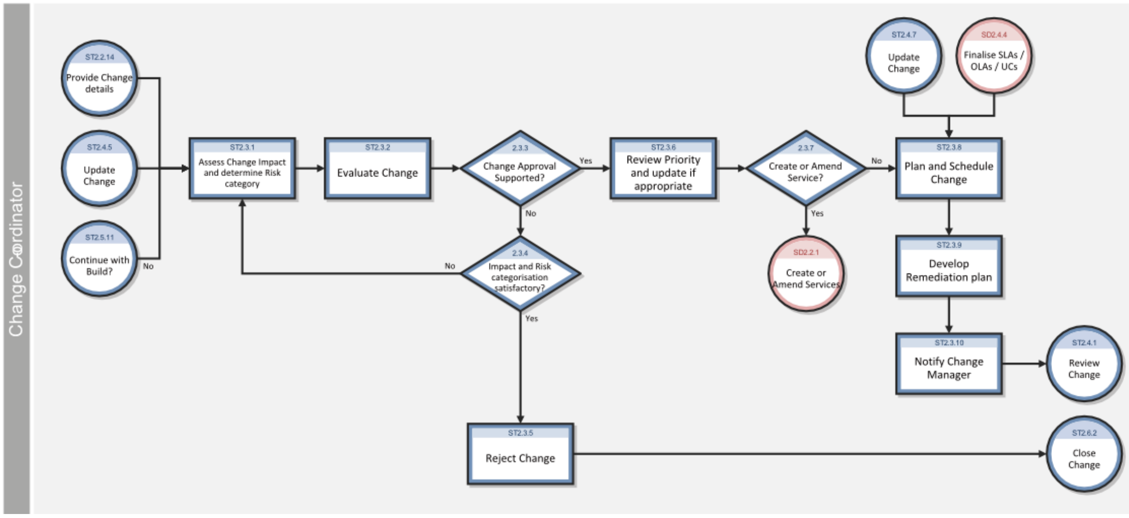
Change assessment and planning (ST 2.3)

For all normal changes, the Change Coordinator assesses the need for a change based on answers to the following questions:

- Who is the requestor that initiated the need for the change?
- What is the reason for the change?
- What is the result required from the change?
- What are the risks involved in the change?
- What resources are required to deliver the change?
- Who is responsible for the build, test, and implementation of the change?
- What is the relationship between this change and other changes?

Based on the answers to these questions, the change is categorized, prioritized, and planned, and then a remediation plan is developed.

Details for this process are displayed in the following flowchart.



Assess change impact and risk

Part of Workflow(s):

"Change assessment and planning (ST 2.3)" on the previous page

Applies to User Roles:

"Change Coordinator" on page 11

After a change is reviewed and its validity is verified, it moves to the Change Assessment and Planning phase. You can then start the impact and resource assessment.

To register your assessment, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and then select **My Open Changes** from the **View** list.

2. Expand **Phase: Change Assessment Planning** from the record list, and then click the change request.

3. Select or revise the values in the **Impact**, **Urgency**, and **Risk Assessment** fields in the **Change Details** section. You can also use the **Description** field for additional notes.

   Make sure to consider the following impacts in your assessment:

   - Impact of change on business operations

   - Impact on infrastructure and customer service

- Impact on other services that run on the same infrastructure
- Impact on infrastructures in the organization that are not Information Technology (IT) related
- Impact of not implementing the change
- IT, business, and other resources required to implement the change
- Current change schedule (CS) and projected service outage (PSO)
- Additional ongoing resources required if the change is implemented
- Impact on the continuity plan, capacity plan, security plan, regression test scripts, data and test environment, and Service Operations practices

> **Note:** After you add values to the Impact and Urgency fields, the Priority field is automatically calculated based on those values.

4. Contact the change assessors for their evaluation of the change, and then update the change with their comments.

   The result of the evaluation is:

   - Temporary approval
   - Readjust the impact and risk categorization
   - Reject the change and update the description with an explanation for the rejection

     Click **More** or the **More Actions** icon and then select **Reject** to forward the change to the Evaluation and Closure phase. In the **Rejection Details** wizard, type the reason for the rejection and then click **Finish**.

5. Determine whether or not the change needs to be implemented using Release and Deployment Management due to a functional change to the service. If so, select the **Release Management** check box in the **Change Details** section.
6. Click **Save & Exit**.
7. After completing these steps, plan and schedule the change if necessary.

Plan and schedule a change

Part of Workflow(s):

"Change assessment and planning (ST 2.3)" on page 31

Applies to User Roles:

"Change Coordinator" on page 11

After assessing the change impact and risk and registering the results of your assessment, you can plan and schedule the change.

To plan and schedule a change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and **My Open Changes** from the **View** list.

2. Expand **Phase: Change Assessment Planning** from the record list and click the change request.

3. In the **Change Details** section, enter the **Planned Start** and **Planned End** dates.

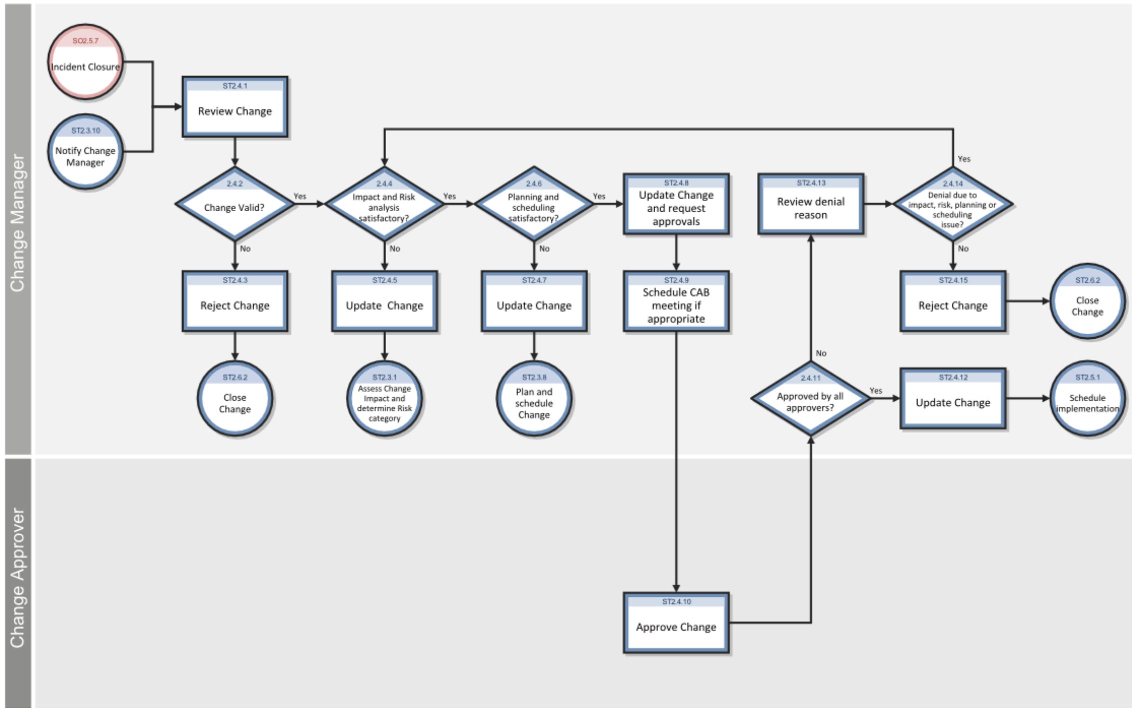
4. Type the details of the plan changes in the **Plan** field.

5. Click **Close Phase**. The phase status changes from Change Assessment & Planning to Change Approval.

Change approval (ST 2.4)

Every change requires a formal authorization from a change authority, which may be a role, person, or group of people. The levels of authorization for a particular type of change are judged by the type, size, or risk of the change.

Details for this process are displayed in the following flowchart.



Prepare a change for approval

Part of Workflow(s):

"Change approval (ST 2.4)" on the previous page

Applies to User Roles:

"Change Manager" on page 13

After a change is planned and scheduled by the Change Coordinator, it moves to the Prepare for Change Approval phase. During this phase, the Change Manager reviews the change for completeness and validity and then rejects or updates the change or prepares the change for approval.

To prepare a change for approval, follow these steps:

1. From your To Do Queue, select **Change** from the **Queue** list and **All Open Changes** from the **View** list.

2. Expand **Phase: Prepare for Change Approval** from the record list, and click a change request to view its detail.

3. Review the change to verify that it is valid. Reasons a change could be considered invalid are if the information is not complete, it is not compliant with change and company policies, or it has already been raised and rejected in an earlier phase.

4. If the change is not valid, select **Reject** from the **More Actions** menu on the details toolbar to reject the change. In the **Rejection Details** wizard, type the reason for the rejection and then click **Finish**.

5. If the change is valid, assess the change impact and risk categorization.

6. If you disagree with the impact assessment and risk categorization:

   a. Update the description with the reason you disagree.

   b. From the **More Actions** menu on the details toolbar, click **Change Phase** > **Change Assessment & Planning**. HP Service Manager returns the change to the Change Assessment and Planning phase.

7. If you agree with the impact assessment and risk categorization, review the change schedule and plan.

8. If you disagree with the change schedule and plan:

   a. Update the description with the reason you disagree.

   b. From the **More Actions** menu on the details toolbar, click **Change Phase** > **Change Assessment & Planning**. Service Manager returns the change to the Change Assessment and Planning phase.

9. If you agree with the schedule and change plan, determine the level of authorization based on the type, size, or risk of the change, and then select the change approvers.

10. Determine whether a Change Advisory Board (CAB) meeting must be scheduled to discuss the change approval or if the change can be authorized by using email or using the automatic notification system.

11. Click **Close Phase**. Service Manager moves the change to the Change Approval phase.

Approve, deny, or retract a change

Part of Workflow(s):

"Change approval (ST 2.4)" on page 34

Applies to User Roles:

"Change Approver" on page 15

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 these steps:

1. From your To Do Queue, select **Change** from the **Queue** list and then select **Awaiting My Approval** from the **View** list.

2. Click to open the change request you want to approve.

3. Open the **Approvals** section to determine which approvals are required. The Current Approvals form lists the approval type and approval status.

4. Double-click **Approval** in the **Approval Type** field to learn which approval group is assigned this approval type. When a change request requires more than one approval, the approvals must occur in the order listed in the Sequence column.

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

6. To approve a change, click **Approve**.

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

7. To deny a change, click **Deny**. Type the reason you are denying the change, and then click **OK**.

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

8. To retract a change, click **Retract**. Type the reason you are retracting the change, and then click **OK**.

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

   > **Note:** Select **Retract** to remove a previous approval or denial and reset the change request to **pending.**

Process an approved, denied, or retracted change

Part of Workflow(s):

"Change approval (ST 2.4)" on page 34

Applies to User Roles:

"Change Manager" on page 13

After a change is approved, denied, or retracted by the Change Approver, you can move it to the applicable phase. If the change is approved, update the change and move it to the Implementation procedure. If the change is denied or retracted, return the change to the Change Assessment and Planning procedure for updates or reject the change.

To process an approved, denied, or retracted change, follow these steps:

1. From your To Do Queue, select **Change** from the **Queue** list and **All Open Changes** from the **View** list.
2. Select a change request to view its detail.
3. Review the **Approval Status** field.
4. If the change was approved by all approvers:
    a. In the **Activities** section, select an update type from the **New Update Type** list and then type the approval information in the **New Update** field.
    b. Click **Close Phase**. HP Service Manager closes the current phase, and it may move the change to the next phase, depending on the phase configuration and work flow.
5. If the change was denied or retracted by all approvers:
    a. In the **Activities** section, select an update type from the **New Update Type** list and then type the denial or retraction information in the **New Update** field.
    b. If the change was denied or retracted because of impact, risk planning, or scheduling issues, click **More** or the **More Actions** icon and then select **Change Phase**. Change the phase to the phase used for assessment and planning.
    c. If the change was denied for a reason other than impact, risk planning, or scheduling, click **More** or the **More Actions** icon and then select **Reject** to reject the change request.

d. Open the **Activities** section to provide a reason for the rejection.

   The change is now closed.

Approve multiple change requests

Part of Workflow(s):

"Change approval (ST 2.4)" on page 34

Applies to User Roles:

"Change Approver" on page 15

You can approve multiple change requests by using mass approval. When you select the **Mass Approve** option, all the requests on the list that are waiting for your approval are immediately approved.

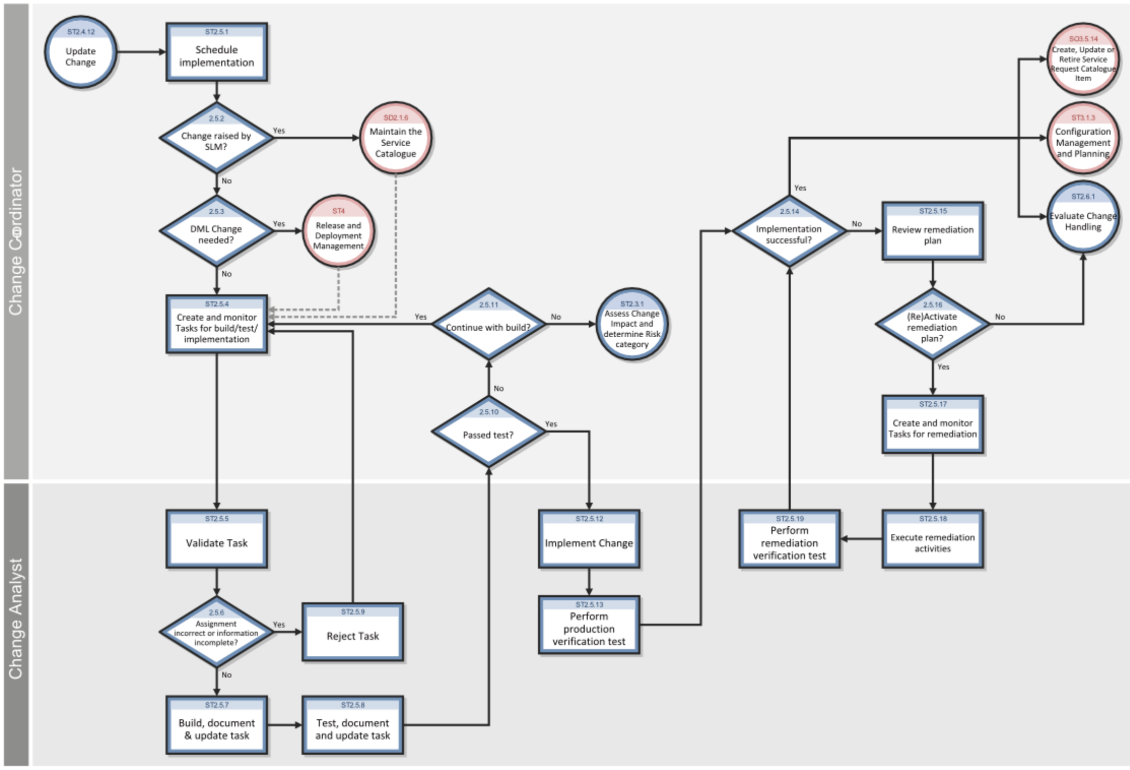
To approve multiple change records, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.
2. Use search or advanced search to find one or more records.
3. Click **Mass Approve** in the **More Actions** menu to approve all records in the list that are pending your approval.

Coordinate change implementation (ST 2.5)

Authorized change requests should be passed to the relevant technical groups for building, testing, and implementing the change. The Change Coordinator schedules tasks for the build, test, and implementation phases and assigns those tasks to the responsible Change Analysts. Change Management is responsible for ensuring that changes are implemented as scheduled. The actual implementation of authorized changes is performed by Change Analysts in the specialist groups.

Details for this process are displayed in the following flowchart.



Schedule a change implementation

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on the previous page

Applies to User Roles:

"Change Coordinator" on page 11

When a change is approved, it moves to the Coordinate Change Implementation phase and you can schedule it for implementation.

To schedule a change implementation, follow these steps:

1. Click **Change Management** > **Changes** > **Change Queue**.
2. Expand **Phase: Change Implementation** in the record list.
3. Find the change request you want to schedule. Use search or advanced search to find one or more records.
4. Double-click to open a record.

5. In the **Change Details** section, review the **Planned Start** and **Planned End** dates established in the Change Assessment and Planning phase and update the dates if necessary.

6. Determine whether the change needs to be implemented using Release and Deployment Management, due to a change in the Definitive Media Library (DML). If so, click the **Release Management** check box. HP Service Manager adds the change to the Release Management queue. After Release Management completes the release package, the change is returned to the Change Management process.

7. After you schedule the change implementation, you can create tasks for building, testing, and implementing the change.

Create a change task

Applies to User Roles:

"Change Coordinator" on page 11

After a change is scheduled, you can create the tasks for building, testing, and implementing the change.

To create a change task, follow these steps:

1. Click **Change Management** > **Changes** > **Change Queue**.

2. Expand **Phase: Change Implementation** in the record list.

3. Use search or advanced search to find one or more records.

4. Find the change request you want to create tasks from, and click the record to open it.

5. Click **More** or the **More Actions** icon and then select **Create New Task**.

6. Select a category for the new task.

   HP Service Manager opens a task information form. Service Manager automatically copies the following information from the change request:

   - Category
   - Status
   - Parent Change

- Description
- Impact
- Urgency
- Priority
- Planned Start
- Planned End

> **Note:** Click **Apply Template** if you want to use a predefined task template for the new task.

7. Complete the information in the **Change Task Details** section.
8. Assign the task to the designated Assignment Group and scheduled Change Analyst.
9. Click **Save & Exit**.
10. Repeat the above steps for each new task that you want to open. Service Manager automatically relates the task to the change.

Validate a change task

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Analyst" on page 10

When a change task is assigned to you or your group, verify that the information is complete and that the task is correctly assigned before implementing the task.

To validate a change task, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.
2. Select **Change Task** from the **Queue** list, and then select **Open Change Tasks Assigned to My Group** from the **View** list.

3. Find the change implementation task you want to validate. Use search or advanced search to find one or more records.

4. Click a record to view its detail.

5. Review the task to verify that it is correctly assigned and that the information needed to implement it is complete.

6. If the task information and assignment are correct, build and test the change.

7. If the task information or assignment is incorrect, reject the task.

Reject a change task

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Analyst" on page 10

You can reject a change task during the Coordinate Change implementation phase if the task information is incomplete or the task is incorrectly assigned.

To reject a change task, follow these steps:

1. From your To Do queue, select **Change Task** from the **Queue** list and **Open Change Tasks Assigned to My Group** from the **View** list.

2. Click a task from the record list and select **Reject** from the **More Actions** menu.

3. In the **Rejection Details** wizard, type the reason for the rejection, and then click **Finish**. HP Service Manager returns the task to the Change Coordinator to be corrected or reassigned.

Build and test a change

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Analyst" on page 10

After you verify that the change implementation tasks contain complete information and are correctly assigned, you can build and test the scheduled change. All hardware changes, software changes, and new releases must be tested before implementing them in a production environment.

Note: It is important to document all infrastructure changes and test results.

To build and test a change, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.
2. Click **Change Task** in the **Queue** list and **Open Change Tasks Assigned to My Group** in the **View** list.
3. Find the change implementation tasks for building and testing the change, and double-click the records to open the selected tasks. If you do not see the change implementation tasks in the record list, you can click **Search**. Use search or advanced search to find one or more records.
4. Perform the activities needed to complete the change implementation tasks for building and testing the change.
5. Update the change task record with the following information:
   - Assignment Group
   - Affected CI
   - Actual Start date
   - Actual End date
6. Document the infrastructure changes or test results. You can use the Work Notes section to document this information or attach the information as a separate file by using the Attachments section.
7. After the change implementation tasks for building and testing the change are complete, close the change tasks:
   a. Click **Close Task**.
   b. Select the Closure Code and type a closure comment.
   c. Click **Save & Exit**. HP Service Manager sets the task state to Closed.

8. Notify the scheduled Change Coordinator that change implementation tasks for building and testing the change are complete. The Change Coordinator will then verify that the change meets the test criteria and is authorized to be implemented in the production environment.

Implement a change and perform a production test

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Analyst" on page 10

After the Change Coordinator verifies that a change meets the test criteria and is authorized to be implemented in the production environment, you can implement the change and perform a production test as scheduled.

> **Note:** It is important to document all infrastructure changes and test results.

To implement a change and perform a production test, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.

2. Click **Change Task** in the **Queue** list, and then click **Open Change Tasks Assigned to My Group** in the **View** list.

3. Find the change implementation tasks for implementing the change and performing a production test. Use search or advanced search to find one or more records.

4. Double-click to open the records.

5. Perform the activities required to complete the change implementation tasks for implementing the change and performing a production test.

6. Update the change task record with the following information:

   - Assignee

   - Affected CI

- Actual Start
- Actual End

7. Document the infrastructure changes or test results. You can use the **Work Notes** section to document this information or attach the information as a separate file in the **Attachments** section.

8. After the change implementation tasks for implementing the change and performing a production test are complete, close the tasks:

   a. Click **Close Task**.

   b. Select the closure code and type a closure comment.

   c. Click **Save & Exit**. HP Service Manager sets the task state to Closed.

9. Notify the scheduled Change Coordinator that the change implementation tasks for implementing the change and performing a production test are complete. The Change Coordinator will then verify that the implementation is successful.

Process a successful change implementation

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Coordinator" on page 11

After you verify that a change is successfully implemented in the production environment, you can trigger the configuration management process to update the Configuration Management System (CMS) data model for the affected configuration item (CI).

To process a successful change implementation, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.

2. Select **Change Task** from the **Queue** list and **Open Change Tasks Assigned to My Group** from the **View** list.

3. Find the change implementation tasks for implementing the change and performing a production test. Use search or advanced search to find one or more records.

4. Double-click the records to open them.

5. Verify that the change tasks were completed successfully.
   - If the change implementation was successful, go on to the next step.
   - If the change implementation caused a severe disruption in the production environment, activate the remediation plan by creating change implementation tasks to execute a fall back scenario. Assign the tasks to the responsible Change Analyst.
6. Update the Change form description with the implementation remarks.
7. Create a change implementation task requesting an update to the CMS data model, and assign it to the responsible Configuration Manager.

   When all tasks are complete and the CI changes are registered in the CMS, HP Service Manager automatically moves the phase from Change Implementation to Change Evaluation and Closure.

Process an unsuccessful change implementation

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Coordinator" on page 11

If a change causes a severe disruption in the production environment, you can activate the remediation plan developed in the Change Assessment and Planning phase to reverse the change and return the environment to the prechange state.

To process an unsuccessful change implementation, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.
2. Select **Change Task** from the **Queue** list and **Open Change Tasks Assigned to My Group** from the **View** list.
3. Find the change implementation tasks for implementing the change and performing a production test. Use search or advanced search to find one or more records.
4. Click a task record to view its detail.
5. Verify that the change tasks were not completed successfully.

- If the change implementation was unsuccessful, go on to the next step.
- If the change implementation was successful, trigger the configuration management process to update the Configuration Management System (CMS) for the affected configuration item (CI).

6. Update the Change form description with details about the unsuccessful implementation.
7. Activate the remediation plan by creating change tasks to execute the fall back scenario, and assign the tasks to the responsible Change Analyst.
8. When all tasks are complete, HP Service Manager automatically moves the phase from Change Implementation to Change Evaluation and Closure.

Execute a fall-back scenario

Part of Workflow(s):

"Coordinate change implementation (ST 2.5)" on page 39

Applies to User Roles:

"Change Analyst" on page 10

If a change causes a severe disruption in the production environment, the Change Coordinator activates the remediation plan by creating tasks to execute a fall-back scenario. You will then perform the activities required to return the environment to the prechange state.

To execute a fall-back scenario, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**.
2. Click **Change Task** in the **Queue** list and **Open Change Tasks Assigned to My Group** in the **View** list.
3. Find the change implementation tasks for executing the fall-back scenario. Use search or advanced search to find one or more records.
4. Double-click the records to open them.
5. Perform the activities required to complete the fall-back scenario change tasks.
6. Update the change task form with the following information:

- Assignee
- Affected CI
- Actual Start
- Actual End

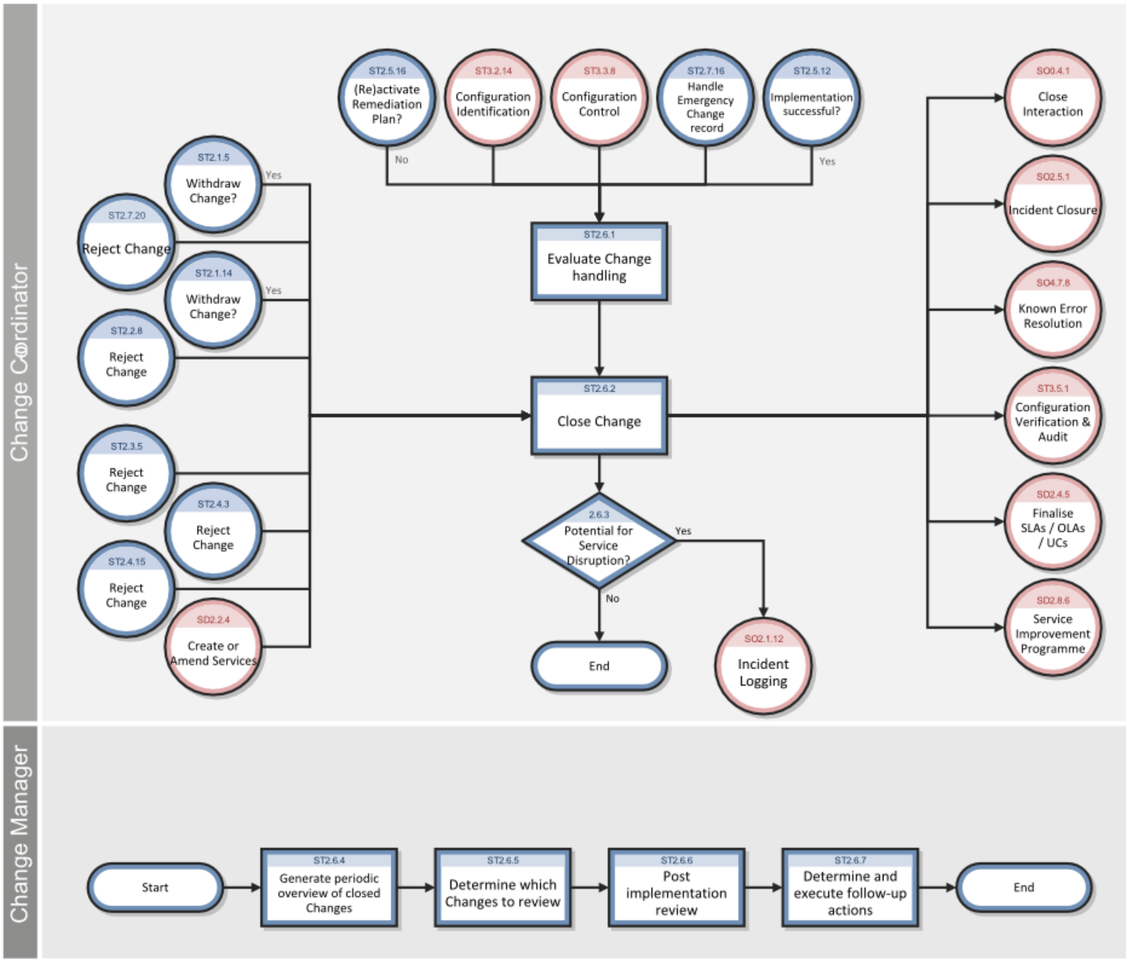
7. Document the results. You can use the **Work Notes** section to document this information or attach the information as a separate file in the **Attachments** section.
8. After the fall-back scenario change tasks are complete, close the tasks:
   a. Click **Close Task**.
   b. Select the closure code and type a closure comment.
   c. Click **Save & Exit**. HP Service Manager sets the task state to Closed.

When all change tasks are complete, Service Manager automatically moves the phase from Change Implementation to Change Evaluation and Closure.

Change evaluation and closure (ST 2.6)

After a change is completed, the results must be reported for evaluation to those responsible for managing changes, and then presented for stakeholder agreement. This process includes the closing of related user interactions, incidents, and known errors.

Details for this process are displayed in the following flowchart.



Evaluate change handling

Part of Workflow(s):

"Change evaluation and closure (ST 2.6)" on the previous page

Applies to User Roles:

"Change Manager" on page 13

After a change implementation is complete, the change advances to the Change Evaluation and Closure phase. You must verify that the change was handled correctly and that the administration of the change is complete. After evaluating the change handling and determining that the information in the record is complete, you can close the change.

To evaluate change handling, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.
2. Use search or advanced search to find one or more records.
3. Select a record to view its details.
4. Open the **Related Records** section and then open each related record to review and verify that each record is correct.
5. Open the **Activities** section to enter any relevant implementation and process remarks.
6. In the **Change Details** section, select the applicable closure code from the list and type a comment in the **Closure Comments** field.
7. Make any other necessary updates in the record.
8. Click **Save & Exit**.

Close a change

Part of Workflow(s):

"Change evaluation and closure (ST 2.6)" on page 49

Applies to User Roles:

"Change Manager" on page 13

After you evaluate the change handling, update it by summarizing any implementation or process remarks, and determine that the administration of the change is complete, you can close the change.

To close a change, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.
2. Use search or advanced search to find one or more records.
3. Select the record you want to close.
4. Click **Close Change**.
5. Complete all required inputs. You must include the time format even if the task was completed in whole day increments. For example, if a task was completed in exactly three days, type `3 00:00:00 ddd hh:mm:ss`.

6. Select the **Closure Code** and type any comments in the **Closing Comments** field.

7. Click **Save & Exit**.

When the change is closed, all related interactions are set to Open-Callback status if the Notify By method is telephone. If the Notify By method is an automatically-generated email or no notification is required, and there are no related records, the status is set to Closed.

Generate a list of closed changes for review

Part of Workflow(s):

"Change evaluation and closure (ST 2.6)" on page 49

Applies to User Roles:

"Change Manager" on page 13

You should periodically generate a list of changes that have been closed since the last review. You can then review the list of closed changes to determine which closed changes should be reviewed during a Post-Implementation Review.

To generate a list of closed changes, follow these steps:

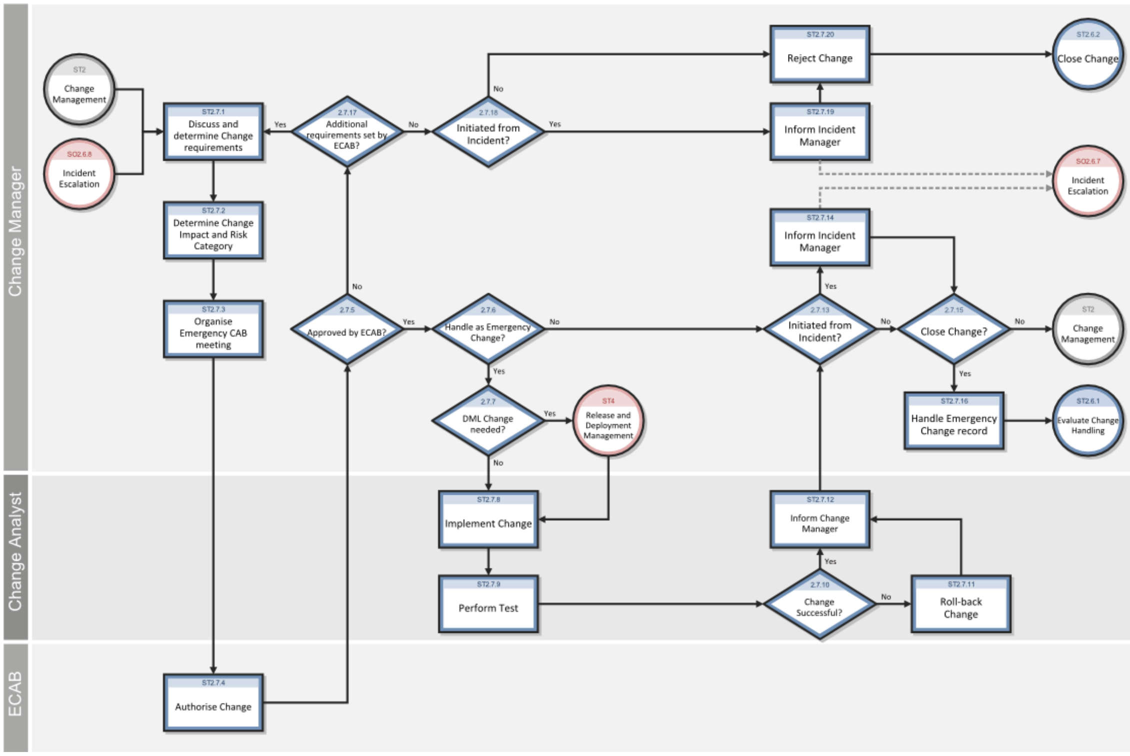
1. Click **Change Management** > **Changes** > **Search Changes**.

2. Use search or advanced search to find one or more records. You can select the date of the last review from the **Closed After** list, and then click **Search**. A list of changes closed since the date you entered is displayed.

Emergency change handling (ST 2.7)

Emergency changes can only be initiated from within the Incident Management process. They should be used only to repair an IT service error that is negatively impacting the business at a high level of severity. Changes that are intended to make an immediately required business improvement are handled as normal changes, although they may be assigned a high priority based on the urgency of the required business improvement.

Details for this process are displayed in the following flowchart.



Log an emergency change

Part of Workflow(s):

"Emergency change handling (ST 2.7)" on the previous page

Applies to User Roles:

"Change Manager" on page 13

If an IT incident is negatively impacting the business at a high severity level, the Incident Coordinator may escalate it and create an emergency change. The Incident Manager will notify you of the new change and inform you that the emergency change procedure must be started.

To log an emergency change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.
2. Click **Search**, and then select the **Emergency Change** check box.
3. Click **Search** to display a list of emergency changes.
4. Select a change request record to view its details.

5. Discuss the requirements with the Incident Manager, and then select or revise the values in the **Impact** and **Risk Assessment** fields based on your assessment.

6. Discuss the implementation with the Change Analyst, and then complete the **Planned Start** date, **Planned End** date, and **Affected CI(s)**.

7. Click **Close** to forward the change to the Change Approval phase.

Approve an emergency change

Part of Workflow(s):

"Emergency change handling (ST 2.7)" on page 52

Applies to User Roles:

"Change Manager" on page 13

Emergency changes must be approved by the Emergency Change Approval Board (E-CAB). The E-CAB consists of members authorized to make decisions about high-impact emergency changes. The E-CAB decides whether to approve the change, and if it should be handled as an emergency change. The Change Manager registers the results of E-CAB decisions.

To approve an emergency change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.

2. Click **Search**, and then select the **Emergency Change** check box.

3. Use search or advanced search to find one or more records.

4. Click the emergency change request to view the details.

5. Contact the E-CAB to obtain the results of their meeting. Their decision affects how you will proceed.

    - If the E-CAB approves the change and authorizes that it be handled as an emergency change, continue with step 6 to continue the approval process for the emergency change.

    - If the E-CAB approves the change but does not authorize it to be handled as an emergency change, re-categorize it as a normal change.

    - If the E-CAB does not approve the change because additional requirements are needed, go back to the Incident Manager to obtain additional information.

  - If the E-CAB rejected the change, click **More** or the **More Actions** icon and then select **Reject** to reject the change. In the **Rejection Details** wizard, type the reason for the rejection and then click **Finish**.

6. Click **More** or the **More Actions** icon and then select **Approval** > **Approve**.
7. Click **Save**.
8. Click **Close** to forward the emergency change to the implementation phase.

Recategorize an emergency change

Part of Workflow(s):

"Emergency change handling (ST 2.7)" on page 52

Applies to User Roles:

"Change Manager" on page 13

The Emergency Change Approval Board (E-CAB) may decide that a change originally logged as an emergency change is not that critical anymore, and should in fact be treated using the normal change procedure. The Change Manager registers the results of their decision and recategorizes the emergency change.

To recategorize an emergency change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and **Emergency Changes** from the **View** list.
2. Use search or advanced search to find one or more records.
3. Click a emergency change request to view the details.
4. Uncheck the **Emergency Change** check box.
5. Change the value in the **Urgency** field to an appropriate value.
6. Update the change with the decisions made in the E-CAB meeting.
7. Check the **Assignment**, **Affected CI**, and other fields to see whether any changes are necessary.
8. Schedule the change by entering dates in the **Planned Start** field and the **Planned End** field.

9. Click **Save**.
10. Click **Close Phase** to close the current phase.

Change Management tasks

Approved change requests generate tasks which must be completed to complete the change request. These tasks typically include a description of the task, the urgency and priority of the task, task scheduling information, and the task assignment.

Change Management tasks include:

- Opening, assigning, and associating a task with a change
- Searching for a task
- Managing task categories, environments, and phases
- Using the task queue

Access Change Management reports

User Roles: Change Manager; Change Coordinator

The Reporting tool in HP Service Manager provides a number of out-of-box reports on the change data in your system. You can view these reports through a dashboard named Change Overview (Global). You can also create your own dashboards to display other reports of your interest.

To access Change Management reports, follow these steps:

1. Click **Change Management** > **Change Overview**.

   By default, the **Change Overview (Global)** dashboard is displayed.

2. View the reports on the dashboard. For descriptions of these reports, see "Report descriptions and usage" on page 1.

3. If needed, click the **New Dashboard** button to add your own dashboards. For details, see "Create a dashboard" on page 1.

   Your custom dashboards are added to the dashboard list on the toolbar of the dashboard page.

> **Tip:** You can click **Export** to export the reports on a dashboard to PDF format.

4. Click the **Open dashboard settings** icon on a dashboard to set its properties, or click the **Set as Default Dashboard** button to set it as your default dashboard.

Create a change task

Applies to User Roles:

"Change Coordinator" on page 11

After a change is scheduled, you can create the tasks for building, testing, and implementing the change.

To create a change task, follow these steps:

1. Click **Change Management** > **Changes** > **Change Queue**.
2. Expand **Phase: Change Implementation** in the record list.
3. Use search or advanced search to find one or more records.
4. Find the change request you want to create tasks from, and click the record to open it.
5. Click **More** or the **More Actions** icon and then select **Create New Task**.
6. Select a category for the new task.

   HP Service Manager opens a task information form. Service Manager automatically copies the following information from the change request:

   - Category
   - Status
   - Parent Change
   - Description
   - Impact
   - Urgency

- Priority
- Planned Start
- Planned End

> **Note:** Click **Apply Template** if you want to use a predefined task template for the new task.

7. Complete the information in the **Change Task Details** section.
8. Assign the task to the designated Assignment Group and scheduled Change Analyst.
9. Click **Save & Exit**.
10. Repeat the above steps for each new task that you want to open. Service Manager automatically relates the task to the change.

Update a change task

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

To update a change task, follow these steps:

1. Click **Change Management** > **Tasks** > **Search Tasks**.
2. Use search or advanced search to find one or more records.
3. Click a record to view its detail.
4. Modify the record.
5. Click **Save & Exit**.

Close a change task

User roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

"Change Analyst" on page 10

After a task is complete, the person listed in the Assignee field of the task record can close the task.

To close a task, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Queue**. The **Change Task** queue opens.
2. Choose one of the following task queues from the **View** list:
   - **All Open Change Tasks**
   - **Open Change Tasks Assigned to Me**
3. Change Management displays the selected task queue. Click the task record you want to close to view its detail.
4. Click **Close Task**.
5. Enter the **Actual Start** and **Actual End** dates.
6. Select the appropriate **Closure Code**.
7. Add any relevant comments in the **Closure Comments** field.
8. Click **OK**.

Reopen a change request or task

Applies to User roles:

"Change Coordinator" on page 11

To reopen a change request or task, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes** or **Tasks** > **Search Tasks**.
2. Select **closed** from the **Status** list.
3. Use search or advanced search to find one or more records.
4. Click a record to view its detail.
5. Click **Reopen**.

6. Edit the record as necessary.

7. Click **Save & Exit**.

Print a change request

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

To print a change request, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.

2. Use search or advanced search to find one or more records.

3. Select a record from the record list.

4. Click **More** and select **Print** or click the **Print Page** icon.

Print a change request list

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

To print a change request list, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.

2. Use search or advanced search to find one or more records.

3. Select multiple records you want to print.

4. Click the **Print Page** icon and select **List View**.

Associating a change with another record

You can associate a change record with an existing Service Desk interaction, incident, known error, quote, or another change record. If the situation changes you can remove the relationship between the change record and the other record.

When a record is related to a change, the system tracks the history of this activity. This includes the changes that are related or dropped and the history of phase changes and transitions.

In the Related Records section, you can view the current related records, associate an existing record with the change record, or open a new change that is automatically related to the change being viewed.

When you associate a change record with another record, note the ID number of that record so you can verify it in the Related Records section.

Associate a change with another change

Applies to User Roles:

Service Desk Agent

Problem Manager

"Change Coordinator" on page 11

To associate a change with another existing change, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.
2. Select a change from the record list.
3. Open the **Related Records** section.
4. Click **More** or the **More Actions** icon and then select **Related** > **Changes** > **Associate**.
5. Type the change record number or click **Search** to find the change record.
6. Click **OK**.

You can verify that the related change record is associated with this change in the **Related Records** section.

Set a reminder for a change request

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

"Change Analyst" on page 10

"Change Approver" on page 15

From an existing change request, you can schedule a reminder to be sent to you at a specified time.

To set a reminder, follow these steps:

1. Click **Change Management** > **Changes** >**Search Changes**.
2. Use search or advanced search to find one or more records.
3. Click the record to view its detail.
4. Click **More** or the **More Actions** icon and then select **Set Reminder**.
5. Select one of the following to set the time when the reminder occurs:
    - Click **Remind At** to set a reminder for a particular day and time. Click **Fill** to display a calendar where you can select the date and time for the reminder.
    - Click **Remind In** to set the reminder to occur at a particular interval. If you choose this option, specify the time interval (in 00:00:00 format), and select a shift from the **Based On** list.
6. In the **Remind if** field, select an option from the list:
    - Always (the default)
    - Change is still open
    - Change is still assigned to me
7. In the **Pop-up Message** area of the form, select the type of notification you want to receive.
8. If you select **Pop-up** or **Page**, type the reminder message in the **Message** field.
9. If you select **Email** or **SM Mail**, HP Service Manager displays a **Title** field where you can enter a title for the email message and two Message Type option buttons.
10. Select the message type option in the Message Type frame.
    - Click **Send Change Record** to include a copy of the change record in the email.
    - Click **Fixed Text** and type the message you want to appear in the email.
11. Click **OK**.

Add an attachment to a change record

To add an attachment to a record, follow the steps below:

1. Open the record to which you want to add an attachment. To do this, select a record from the queue or search for a specific record.

   Note: You can also add an attachment when you create a new record.

2. Scroll down to and click the **Attachments** tab.

3. Click **Add files**, and then browse to the file or files that you want to attach to the record.

   After you confirm your selection, a progress bar in the **File Name** column displays the progress of the file upload process.

   Note: The multiple file upload and progress bar functionality is only available in browsers that support the HTML5 File API (for example, Mozilla Firefox, Google Chrome, or Windows Internet Explorer 10).

   The file is now uploaded. However, the file is not attached to the record until you click **Save**. To remove a file that is uploaded in error, click the **X** icon in the **Remove** column before you click **Save**.

   Note:

   - The size limit for individual attachments and the space that is available for storing attachments are displayed in the upper-right corner of the **Attachments** section.
   - If you try to attach a file that exceeds the size limit for individual attachments or the total available space, you receive an error message, and the attachment is not uploaded.
   - If you try to attach a type of file that is not permitted (for example, an .exe file), you receive a message that prompts you to remove the attachment. If you do not remove the attachment, it is removed automatically when you click **Save**.
   - There is no limit to the number of files that you can attach to a record, provided that they do not exceed the size limit. However, we recommend that you do not attach more than 20 files to a single record.
   - If you refresh the browser or click certain comfill buttons that refresh the browser before the file upload process is complete, the file is not uploaded.

- Whether you can attach a file with a duplicated name against the attachment list depends on the setting of the **preventDuplicatedAttachmentName** parameter.

4. Click **Save**.

Open an attachment in a change record

To open a file that is attached to a record, follow these steps:

1. Open the record to which the file that you want to open is attached. To do this, select a record from the queue or search for a specific record.

2. Scroll down to and click the **Attachments** tab.

3. To open a single file, click the file name or the download icon in the **Download** column.

   To open multiple files, select the files that you want to open by using the check-boxes next to the file names, and then click **Download**.

   Note: When you download multiple attachments concurrently, HP Service Manager packages the files in a compressed (zipped) folder. Some third-party unzipping tools may not correctly handle file names that contain non-Roman characters. In this situation, the name of the unzipped file may change unexpectedly. We recommend that you use WinRAR to unzip the compressed folder.

4. Click **Save**.

View the details of an attachment in a change record

To view the details of the files that are attached to a record, scroll down to and expand the **Attachments** section of the appropriate record.

Note: The number of attached files is displayed on the **Attachments** tab heading. This enables you to identify whether a record has attachments quickly without having to expand the **Attachments** section.

However, the number of attached files is not displayed if a custom dynamic view dependency is configured for the section or tab title. This is because the custom dynamic view dependency may include file count information.

If a file is attached to the record, the following information is displayed in the table in "Attachments" section:

- The name of the attached file
- The size of the attached file (in KB)
- The login name of the person who attached the file
- The date when the file was attached to the record

Attached files are displayed in the order in which they were uploaded.

Delete an attachment from a change record

To delete an attachment from a record, follow these steps:

1. Open the record from which you want to delete an attachment. To do this, select a record from the queue or search for a specific record.
2. Scroll down to and click the **Attachments** tab.
3. To delete a single file, click the **X** icon in the **Remove** column.

   To delete multiple files, select the files that you want to delete by using the check-boxes next to the file names, and then click **Remove**.
4. In the dialog box that appears, confirm the deletion.
5. Click **Save**.

View a list of services potentially affected by an outage

Applies to User Roles:
Incident Coordinator
Incident Manager
The View Affected Services menu option enables you to view a list of services that are potentially affected by an outage relating to CIs that are specified in an incident or change record. By viewing the affected services list, you can determine the potential impact of an outage related to critical, dependent services when you open an incident. You can also use the affected services list for planning when opening a change.

> **Note:** The list of CIs generated does not include the CIs specified in the primary incident or change record.

To view a list of affected services:

1. Perform one of the following actions.
   - Open an existing incident or change record. Use search or advanced search to find one or more records.
   - Proceed as if you are going to add a new incident or change record.
2. If you are in the process of adding a new record, fill in the **Affected CI**.
3. Click **More** or the More actions icon and select **View Affected Services**. The CI Identifier record opens.
4. Open the **Affected Services** section. A list of affected services opens or a message, stating that there are no services affected by the outage.

   > **Note:** For change records, a list of all affected business services is returned in all cases, whether the record has one primary CI or multiple CIs.

5. Select a CI from the list for detailed information from the Configuration Management record.
6. When you finish viewing the affected services, click **Cancel**.

Using Mass Update with Change Management record lists

Mass update enables you to select multiple records from a list of records and update them all at one time. You can update the value in a single field or in several fields in the selected records. The system provides a template form that displays the fields for the selected records and enables you to change the value of any of the fields displayed by the form. The Mass Update template form does not display all fields in the records. For example, fields marked as read-only in the data policy do not display. You can also do a complex update on the records you selected. A complex update uses rad expressions containing variables and concatenated fields to populate another field in the selected records.

When you perform a Mass Update, the value you enter for a particular field becomes the value for that field for all of the records you selected.

Mass Update is available for change request records, task records, and change queues. The ADMIN and SYSADMIN profiles in the out-of-box system provide the Template Mass Update and Complex Mass Update capability.

A System Administrator can edit the datadict table cm3r or cm3t so that a field does not appear in the list of fields displayed by the Mass Update template form. On the Data Policy form, change the Usage Type column for the field to System.

Update multiple change requests

Applies to User roles:

"Change Manager" on page 13

You can update more than one change request at a time by using the Mass Update template form or the Complex Update function.

To update multiple change requests by using the Mass Update template form, follow these steps:

1. From your To Do queue, select **Change** in the **Queue** list and then select the desired view.
2. Alternatively, you can click **Change Management** > **Changes** > **Search Changes** to use the Search to generate a record list. Use search or advanced search to find one or more records.
3. Holding down the **Ctrl** key as you click on each record to select multiple records in the list that you want to update.
4. From the **List** menu, select **Mass Update**.
5. Double-click the field you want to update.
6. Type the value for the field in the text box or use the Fill feature to display a list of potential values for the field.
7. Click **Next**.
8. Continue updating fields and click **Execute** when you complete your updates.

To update multiple change records by using the Complex Update function, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list and and then select the desired view.
2. Holding down the **Ctrl** key as you click on each record to select multiple records in the list that you want to update.
3. From the **List** menu, select **Mass Update**.
4. Click **Complex Update**.

5. Type the RAD code in the **Complex Update** form.

6. Click **Execute**.

Update multiple task records

Applies to User roles:

"Change Manager" on page 13

You can update more than one task at a time by using either the Mass Update template form or by using the Complex Update function, which enables you to enter RAD codes to further customize your update.

To update multiple task records by using Mass Update, follow these steps:

1. Click **Change Management** > **Tasks** > **Search Tasks**.

2. Use search or advanced search to find one or more records.

3. Holding down the **Ctrl** key as you click on each record to select multiple records in the list that you want to update.

4. Click **Mass Update**. The **Mass Update** wizard opens.

5. Double-click the field you want to update.

6. Type the value for the field in the text box or use the Find feature to display a list of potential values for the field.

7. Click **Next**.

8. Continue updating fields and click **Execute** when you complete your updates.

To update multiple tasks by using Complex Update, follow these steps:

1. Click **Change Management** > **Tasks** > **Search Tasks**.

2. Use search or advanced search to find one or more records.

3. Holding down the **Ctrl** key as you click on each record to select multiple records in the list that you want to update.

4. Click **Mass Update**.

5. Click **Complex Update**.

6. Type the RAD code in the **Complex Update** form.

7. Click **Execute**.

What are notifications?

Messages are generated by HP Service Manager events, such as opening or closing a change or task. Administrators can edit these messages, add new messages, change the conditions that trigger the messages, and select who will receive the messages.

The Notification Engine normalizes notification across the applications, removing the need for each module to define its own notification process (like cm messages).

The Notification Engine is called from either the document engine Processes, or, in a few cases, directly from RAD for some modules.

Access a notification definition record

Applies to User Roles:

System Administrator

Notifications are messages generated by HP Service Manager events, such as opening or closing a change or task. You can edit these messages, add or delete messages, change the conditions that trigger the messages, and select which people receive the messages.

To access a Notification Definition record, follow these steps:

1. Click **Tailoring** > **Notifications** > **Notifications**.

2. Use search or advanced search to find one or more records.

3. Click a record in the record list to view it in the **Notification Definition** form.

Send a notification from a task or change request

Applies to User roles:

"Change Coordinator" on page 11

To send a notification from a task or change request, follow these steps:

1. Do one of the following to generate a record list:
   - Click **Change Management** > **Changes** > **Search Changes**.
   - Click **Change Management** > **Tasks** > **Search Tasks**.
2. Use search or advanced search to find one or more records.
3. Click a record to view its detail.
4. Open the **More Actions** menu on the change or task form.
5. Click **Notify**.
6. Add one or more recipients to the **To** text box.
7. Type a message in the **Message** area.
8. Select one of the following notification methods:
   - **Mail**: Uses the internal Service Manager Mail application (not Email).
   - **Email** : Uses the Service Manager Email application.
9. Click **Send**.

Change Management and Service Level Agreements

Change Management enables you to select one or more Service Level Agreements (SLA) to relate to a change record. When you open a change, you can choose one Customer SLA for the contact, the same Customer SLA or a different one for the contact and one or more applicable Service SLAs for the contact's subscriptions to a service, or no SLAs at all. Service SLAs only apply if the change references a Business Service, the contact has a subscription to the service, and the subscription references an SLA. The following list describes the system's process for relating SLAs to a change record.

- If one SLA is associated with the change based on the contact, the Customer SLA is added to the change.
- If the contact has an Individual Subscription for the Configuration Item (CI), the Service SLA from that subscription is added to the change.

- If the contact has a Department Subscription for the CI, the Service SLA from that subscription is added to the change.
- If the contact has neither, then no Service SLA is added to the change.

The SLAs should contain all Service Level Targets (SLTs) that define the business rules for all response and availability metrics. You can choose as many SLTs as necessary to describe your response or availability commitment. If necessary, you can add more SLTs that meet your criteria.

When you view the new record, the SLT section lists the SLTs related to the change.

Complete a phase

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

When all the conditions for completing a phase are met, you can close the phase.

To complete a phase, follow these steps:

1. Click **Change Management** > **Changes** > **Change Queue**.
2. Click the change request to display its details.
3. Click **Close Phase**.

Chapter 3: Change Management administrative tasks

You can access Change Management for administrative tasks from the Change Management application or by using the Central Administration Utilities. If you use Change Management administration, you control access only for that application. If you use the Central Administration Utilities, you can access operator records for users and groups to update user and contact information, application profile privileges, and the mandanten utility for all applications.

> **Note:** Change Management controls override authority in an operator Change Management security profile record. Rights for the override option are normally available only to operators with SYSADMIN or ChMAdmin capability.

Enable Change Manager to prompt reason for relating and unrelating a change

Applies to User Roles:

System Administrator

The screlconfig record controls whether or not a text box appears in which the operator can type a reason for relating or unrelating a change record to another change record in Change Management. The Relation Configuration Record form for Change Management (the cm3r table) contains two check boxes: **Prompt Reason for Relating** and **Prompt Reason for Unrelating**. When these check boxes are selected, the system prompts the operator with a text box in which the operator can provide a reason for relating or unrelating a change to another change.

To configure the screlconfig record for Change Management history, follow these steps:

1. Type `db` in the command line field.
2. Type `screlconfig` in the **Form** field on the **Database Manager** page.
3. Use search or advanced search to find one or more records.
4. Click **Search** again to display a specific list of records with Relation Configuration Records.
5. Select **cm3r** from the record list to display the **Relation Configuration Record** form in Change Management.

6. Make the changes to the **Prompt Reason for Unrelating** and **Prompt Reason for Relating** check boxes.

7. Click **Save** and **OK**.

View Change Management security profile records

Applies to User Roles:

"Change Manager" on page 13

System Administrator

To view Change Management security profile records, follow these steps:

1. As a Change Manager, click **Change Management** > **Change Management Setup** > **Change Management Profiles**.

2. As a System Administrator, click **System Administration** > **Ongoing Maintenance** > **Profiles** > **Change Management Profiles**.

3. Use search or advanced search to find one or more records.

4. Select a profile from the record list to view its detail.

Modify an operator record to enable Change Management access

Applies to User Roles:

System Administrator

To modify an operator record to enable Change Management access, follow these steps:

1. Click **System Administration** > **Ongoing Maintenance** > **Operators**.

2. Use search or advanced search to find one or more records.

3. Click the operator record that you want to view.

4. Click the **Startup** tab.

5. Add the desired Change Management capability words to the **Execute Capabilities** table.

6. Click **Save**.

7. Click **OK**.

Configure a Change Management environment record

Applies to User Roles:

System Administrator

To configure a Change Management environment record, follow these steps:

1. Click **System Administration** > **Ongoing Maintenance** > **Environment Records** > **Change Management Request Environment** or **Change Management Task Environment**.

2. Choose the parameters for the entire change system.

Parameter	Description
Allow Operator Access without Operator Profile Record	Permit users without an Operator profile for Change Management to access the application using the default profile.
Change Manager	Enables you to specify the change manager.

3. Click **Save**.

4. Click **OK**.

Delegate approvals to another operator

Applies to User Roles:

System Administrator and other users with approval delegation authority

You can only delegate approvals to another operator if a System Administrator enables the **Delegate Approvals** or **Can Delegate Approvals** option for you in your application profile.

To delegate approvals to another operator, follow these steps:

1. Click **Approval Delegation**. The **Approval Delegation** wizard opens and displays any active approval delegations assigned to you.
2. To create a new approval delegation, click **Add New Delegation**.
3. Select whether to delegate all your approvals or to select approvals.
4. If you are selecting approvals, make the following choices:
   a. Choose which application's approvals you want to delegate.
   b. Choose how you want delegate approvals assigned to you:
      - Assigned as part of an assignment group
      - Assigned directly to you as an operator

   Note: You can select multiple assignment groups or operators as needed.
5. Select the delegate to whom you want to grant approval authority.

   Note: HP Service Manager only displays operators who are eligible approval delegates. If you do not see a particular operator listed as a potential delegate, it means that the operator does not have one or more of the rights required to be eligible for approval delegation. Consult your System Administrator if you want to assign additional rights to a particular operator.
6. Select the date range during which the approval delegation will be active.

Update an active approval delegation

Applies to User Roles:

System Administrator and other users with approval delegation authority

You can change the delegate, the start date, or the end date of any currently active approval delegation by using the Approval Delegation wizard. If you want to use a delegation as a template for a new delegation, use the Copy Approval Delegation wizard.

Note: To change approvals delegated by a specified assignment group or operator name, you must disable the current delegation and create a new one with the new assignment groups and operator names. HP Service Manager requires a new delegation in order to determine which operators are qualified to be delegates.

To update an active approval delegation, follow these steps:

1. Click **Approval Delegation**. The **Approval Delegation** wizard opens and displays any active approval delegations assigned by you.
2. Select the approval you want to edit from the list of active delegations.
3. Click **Edit Current Delegation**.
4. Select the new start and end dates for the approval delegation.

   Note: Service Manager dates always default to midnight (00: 00: 00) of the selected day. If you want to set a different start time, manually type in the new start time using the twenty-four hour: minute: second format notation. For example `23: 59: 59` represents 11: 59 PM and 59 seconds.

5. Click **Next** to save your changes and close the wizard.

Disable an active approval delegation

Applies to User Roles:

System Administrator and other users with approval delegation authority

You can disable any currently active approval delegation. You cannot disable an inactive past delegation.

To disable an active approval delegation, follow these steps:

1. Click **Approval Delegation**.

   The **Approval Delegation** wizard opens and displays any active approval delegations assigned by you.

2. Select the approval you want to disable from the list of active delegations.
3. Click **Edit Current Delegation**.

4. Clear the **Enabled** check box.

5. Click **Next** to save your changes and close the wizard.

> **Note:** To view your past delegations or delegations assigned to you, use one of the default approval delegation views.

Copy an approval delegation

Applies to User Roles:

System Administrator and other users with approval delegation authority

You can use an existing approval delegation as a template to create a new approval delegation. The wizard copies the values from the existing delegation and allows you to change the delegate and the delegation dates. You cannot change the application module, delegated approval groups, or operator when copying an approval delegation. If you want to change these values, you must create a new approval delegation.

To copy an approval delegation, follow these steps:

1. From the **To Do** view, select **Approval Delegation** from the **Queue** list. HP Service Manager displays the Approval Delegation view.

2. From the **View** list, select either **My active approval delegations** or **My past approval delegations**.

3. Select the approval you want to copy from the list of approval delegations.

4. Click **Copy Approval Delegation**. Service Manager displays the Copy Approval Delegation wizard and automatically fills in the delegate name, the delegated module, approval groups, and operator.

5. Select the new delegate if needed.

6. Select the new delegation start and end dates.

7. Select **Enabled**.

8. Click **Next** to create a new approval delegation.

View the Approvals section in Change Management

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

"Change Analyst" on page 10

"Change Approver" on page 15

The Approvals section of a record enables you to revew the current status of the approvals as well as an approval log and a list of pending reviewers of changes and tasks.

If you are a Change Manager, Change Coordinator, or Change Analyst, you will navigate to the change or task using steps 1 and 2 below. If you are a Change Approver, click **Favorites and Dashboards** > **Change Management** > **My Group's To Do List** and then select the record to view in the **Change Request** form.

To view the Approvals section, follow these steps:

1. Do one of the following to generate a record list:
   - Click **Change Management** > **Changes** > **Search Changes**.
   - Click **Change Management** > **Tasks** > **Search Tasks**.
2. Use search or advanced search to find one or more records.
3. Click a record to view its detail.
4. Open the **Approvals** section to review the approvals status and history.

The Approvals section has three subsections, which include approvals and review history:

- Current Approvals
- Approval Log
- Pending Reviews

Note: Some changes and tasks may not provide an **Approvals** section.

Create a Change Management Group Definition record

Applies to User Roles:

System Administrator

HP Service Manager Change Management uses message groups to identify the members of a work group, also known as a Message group.

To create a Change Management Group Definition record, follow these steps:

1. Click **System Administration** > **Ongoing Maintenance** > **Groups** > **Change Management Message Groups**.
2. Use search or advanced search to find one or more records.
3. Select a record to copy.
4. Type a new **Group Name**.
5. Edit other information on the form as necessary.
6. Click **Add**.

   Note: If you click **Save**, you will not create a new record.

7. From the **More Actions** menu, click **Rebuild Group**. The **Members** and **Approvers** fields are populated with information stored in the operator's Change Management profile.
8. Click **OK**.

View a change category record

Applies to User Roles:

System Administrator

You can view a change record to view the settings for a change category. The change category record also includes a graphic workflow of the phases associated with the category.

To view a change category record, follow these steps:

1. Click **Change Management** > **Changes** > **Change Categories**.
2. Use search or advanced search to find one or more records.
3. Click a change category record to view its detail.

View a task category record

Applies to User Roles:

System Administrator

You can view a task category record to view the settings for a task category. The task category record also includes a graphic workflow of the phases associated with the category.

To view a task category record, follow these steps:

1. Click **Change Management** > **Tasks** > **Task Categories**.
2. Use search or advanced search to find one or more records.
3. Click a Task Category record to view its detail.

Delete a category record

Applies to User Roles:

System Administrator

To delete a category record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Categories**.
   - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click a change or task category record to view its detail.

5. Click **Delete**.
6. Click one of the following:
   - **Delete All**

     A form opens that shows all phase, script, and format category components.
   - **Del Phases**

     A form opens that shows phases that you can select and remove.
   - **Del Scripts**

     A form opens that shows scripts that you can select and remove.
   - **Del Formats**

     A form opens that shows formats that you can select and remove.
   - **Del Category**

     A form opens that shows the category information.
7. Click **Delete** again to remove the category phase, script, form, or entire category.
8. Click **Back**.

Note: Make sure that you select the correct elements of the category you want to delete and that you choose the correct Delete option. Clicking on other delete options deletes the associated records for the phases, forms, or scripts for the selected category.

Print a category record

Applies to User Roles:

Change Manager, System Administrator

To print a change or task category record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Categories**.
   - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click a change or task category record to view its detail.
5. Click **More** and select **Print** or click the **Print Page** icon.

Update a category record

Applies to User Roles:

System Administrator

You can update the settings for a category record. This includes modifying the phases associated with the category.

To update a category record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Categories**.
   - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click a change or task category record to view its detail.
5. Modify any fields that need to be changed for the existing category. If you modify or add any phase names that are not already defined, a message prompts you to create a new phase record.
6. Click **Save**.
7. Click **OK**.

Security and access control

Change Management controls access to Change Management functions by following the steps below:

1. Change Management checks the user’s operator record for capability words that determine which, if any, of the functional areas within Change Management the user can access.

2. If the user has the right capability words to access Change Management functional areas, the system searches for the user ’s Change Management Profile record, based on the User Role specified in the Operator record.

3. If the Profile record is blank, Change Management checks the Environment record to determine if it can use the default Profile record to enable access to certain functions.

4. If no default profile exists for the specific function, the system searches for the default profile for all areas.

5. Change Management enables the user to access those functions permitted by the user role or default Profile record.

Depending on the conditions in the phase definition record, a user might not be able to update a change or task, even if granted the general capability to do so in the User Role profile record.

Change Management security profiles

Change Management security profile records define the access granted to Change Management users. Many users can share a single profile, and a user can have different profiles for tasks and changes. When you configure a large system with many operator records, you can assign members to a single profile group. The group profile is based on a common user role. This reduces the number of duplicate operator security profile records necessary.

When a user accesses Change Management, HP Service Manager checks the profile in the operator record for Change Management access rights.

As a system administrator, you can add, modify, or delete profiles.

Note: Profile records can work in conjunction with Message Group Definition records.

Change Management capability words

Change Management controls access based on capability words located in profile records and operator records. Capability words in these files control access to individual Change Management functions. It is important to note that the operator record overrides the profile record. In order to enable functional access to an operator, you must include the applicable capability words in both the profile record and in the operator record.

Users must have an operator record, but may not have a profile record. The Execute Capabilities table in the operator record specifies a user's Change Management permissions.

Capability word	Description
SysAdmin	Access all HP Service Manager user and administrative functions. Access to all Change Management applications for administration and user functions is available regardless of the change or task profile in the user's operator record.
ChMAdmin	Access to all Change Management applications for administration and user functions is available regardless of the change or task profile in the user's operator record. ChMAdmin is not required for SysAdmin.
change request	Access only to Change Management changes.
change task	Access only to Change Management tasks.

Note: The ChM Profile record controls only Change Management security access for users with ChMAdmin capability.

Change Management environment records

Change Management contains one environment record for changes and another environment record for tasks. These records contain options that define the functionality of the Change Management application for all Change Management users. There are separate Change Management environment records for changes and tasks. Each record contains the same options. You can also configure Change Management environment records using the Central Administration Utilities.

Create a new category from an existing record

Applies to User Roles:

System Administrator

To create a new category from an existing record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Categories**.
   - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click a Change or Task Category record to view its detail.
5. Replace the name in the **Category** or **Task Name** field with the name of your new category.
6. Modify any fields that need to be changed for the new category and list the appropriate phases. Click a row to select a new phase from the list. You can also type the new phase name that you want to create for the new category. You must specify at least one phase in the Phases array to create a category.
7. Click **Add**.
8. If a listed phase does not have a corresponding Phase record, a prompt appears that asks you to create a new phase record. Click **Add**. The default Phase record opens.
9. Type the new phase name and modify any necessary information.
10. Click **OK** when the information in the phase record is complete.
11. Click **Continue**.
12. Click **OK**.

Add a phase to a category

Applies to User Roles:

System Administrator

You can add a phase to a change category or a task category by choosing from a predefined list of available phases, or define your own phase.

To add a phase to a category, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Categories**.
   - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click the Category record that will have a new phase.
5. Locate the **Change Phase** array. Insert the cursor in the next blank row, click the arrow, and select a new phase. Alternatively, you can type in the name of a new phase, and define it later.
6. Click **Save**.
7. If you typed in a name of a new phase, HP Service Manager prompts you to create a new Phase record. Click **Yes**.
   a. Service Manager displays a new phase record that uses a standard default record with the name you specified for the new Phase record.
   b. Type a description for the new phase in the **Description** field.
   c. Modify fields on the other tabs as necessary.
   d. Click **OK**.
   e. Click **Continue**.
8. Click **OK**.

The graphic workflow shows the new phase added to the category.

Access a phase or task record

Applies to User Roles:

System Administrator

You can access a phase or task record to view and set it up so that the appropriate fields are displayed.

To access a phase or task record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
    - Click **Changes** > **Change Phases**.
    - Click **Tasks** > **Task Phases**.
3. Use search or advanced search to find one or more records.
4. Click a phase record to view it.

Access a phase or task record from a category record

Applies to User Roles:

System Administrator

You can access a phase or task record from a category record. You can then view the phase or task properties and set the appropriate fields.

To access a phase or task record from a category record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
    - Click **Changes** > **Change Categories**.
    - Click **Tasks** > **Task Categories**.
3. Use search or advanced search to find one or more records.
4. Click a category record to view its details, and then you can access the phase or task record.
5. To use the Find Phase option, follow these steps:
    a. Select a phase name in the **Change Phases** array of the category record.
    b. Click **More** or the **More Actions** icon.
    c. Click **Find Phase**.
6. To use the Search Phase option, follow these steps:

a. From the **More Actions** menu, click **Search Phase**.

b. Click **Search** to generate a record list, or type a phase name in the **Change Phase** field to narrow the search.

c. Click the desired record to view it in the **Phase** form.

Create a phase record

Applies to User Roles:

System Administrator

Change, task, quote, and order phase records contain field names that are applicable to the function of the record. Like categories, there are some differences between a change, task, quote, and order.

Caution: If you are using Service Catalog, you need to update svcCatStatusMap in Database Manager when you create or rename a phase record for cm3r or ocmq. This will ensure that any existing change requests or quotes created through Service Catalog will receive the necessary phase record assignments based on the phase record you just added.

To create a Change Management phase record, follow these steps:

1. Click **Tailoring** > **Process Designer** > **Workflows**.
2. To create a new phase record, select the workflow name that matches the category where you want to add a phase.

   Note: Select table name cm3r for a Change Request phase or cm3t for a Change Task phase.

3. Click the **Add Phase** button to add a phase to the category you selected.
4. Using the visual workflow representation, click on the phase that precedes your new phase and when the cursor changes to a hand, drag it to the new phase to link the two phases together.

   Note: If the new phase should also go to another phase, click on that phase and when the cursor changes to a hand, drag it to the corresponding phase.

5. Modify fields on the other tabs as necessary, and then save the new record.

6. Update svcCatStatusMap in Database Manager.

   As an example, create a new request order phase, **Ordering2**, and add the new phase after the Ordering phase on the Customer request category. To reflect the new phase on the quotes submitted through the Service Catalog, follow these steps:

   a. Go to **Tailoring** > **Database Manager**.

   b. In the **Form** field, type `svc` and then click **Search**.

   c. Select **svcCatStatusMap** in the list. The **Service Catalog Status Mapping** page opens.

   d. Click **Search** to open a list of Service Catalog Status Mapping phase records.

   e. Find and select the record with the Source Record Status of **Ordering** and the Source File Name of **ocmq**. Your new record needs to base on this existing record.

   f. In the **Source Status** field, type `Ordering2` and then click **Add**.

      Caution: Be sure to add the new phase record by clicking the **Add** button, rather than save updates to the existing record.

   g. Verify that the number in the **Status Score** field contains the right phase number. If you added an intermediate phase or changed the order of the original phases, you need to change the Status Score field number here to match the new order of the phases.

   h. Save the new phase record.

Delete a phase record

Applies to User Roles:

System Administrator

Change, task, quote, and order phase records contain field names that are applicable to the function of the record. Like categories, there are some differences between a change, task, quote, and order.

Caution: When you delete a phase record, you will need to update svcCatStatusMap in Database Manager. This will ensure that any existing change requests or quote orders will receive the necessary phase record assignments based on the phase record you just deleted.

To delete a phase record, follow these steps:

1. Go to **Tailoring** > **Process Designer** > **Workflows**.
2. Select the workflow name that matches the category where you want to delete a phase.

   > **Note:** Select table name cm3r for a Change Request phase or cm3t for a Change Task phase.

3. Using the visual workflow representation, click on the phase that you want to delete.
4. Click **Delete** and then save.
5. Update svcCatStatusMap in Database Manager.

   As an example, delete the Source Record Status for an ordering phase you created earlier but find you no longer need. For example, a phase titled **Ordering2** with the Source File Name of **ocmq**, as follows:

   a. Go to **Tailoring** > **Database Manager**.

   b. In the **Form** field, type `svc` and then click **Search**.

   c. In the **Find Format Name** field, select **svcCatStatusMap**.

   d. Click **Search** to open a list of Service Catalog Status Mapping phase records.

   e. Find and select the record with the Source Record Status of **Ordering2** and the Source File Name of **ocmq**. This is the record to be removed.

   f. Verify that the number in the Status Score field contains the right phase number. Since you deleted the phase or order of the original phases, you need to delete the Status Score field number here to match the order of the phases.

Generate an automatic task for all members of a group (array based)

Applies to User Roles:

System Administrator

To generate an automatic task for all members of a group (array based), follow these steps:

1. Click **Change Management** > **Changes** > **Change Phases**.
2. Use search or advanced search to find one or more records.
3. Select a phase record to view its detail.
4. Click the **Auto Open Tasks** tab.
5. In the **Automatically Open Tasks (array based)** section, select the **Open Tasks for each member? (array based)** check box.

   Note:
   - When this check box is selected, a task is opened for each member in the group when an associated CI is a Configuration Item group. If unchecked, a task is opened only for the Configuration Item group.
   - The thresholds set for members of a group must be equal to or greater than the number of members of the group for which you are opening automatic tasks. For example, if you are opening an automatic task for a group with six (6) members and your threshold is set to five (5), you will need to increase the threshold and start again, or create an additional task manually for the sixth member.

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

Generate an automatic task for all members of a group (standard)

Applies to User Roles:

System Administrator

To generate an automatic task for all members of a group (standard), follow these steps:

1. Click **Change Management** > **Changes** > **Change Phases**.
2. Use search or advanced search to find one or more records.
3. Select a phase record to view its detail.
4. Click the **Auto Open Tasks** tab.

5. In the **Automatically Open Tasks (standard)** section, add the following information in the table.

Field	Actions
Category	Click in the field and select the task category from the list.
Condition	Type a condition for the task. For example, type `release.type in $L.file="Software Release"`.
Background Open	This field contains a true or false value. If the condition is set to **true**, the task starts automatically. If the condition is set to **false**, the user can manually open or cancel the task.
Open for Each Member	This field contains a true or false value. If the value is set to **true**, a task opens for each member in the group when an associated CI is a Configuration Item group. If it is set to **false**, only one task opens for the Configuration Item group. If no value is set, the user opening the task is prompted to decide if it should be opened for each member or not.

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

Note: The thresholds set for members of a group must be equal to or greater than the number of members of the group for which you are opening automatic tasks. For example, if you are opening an automatic task for a group with six (6) members and your threshold is set to five (5), you must increase the threshold and start again, or create an additional task manually for the sixth member.

Manually create tasks for all members of a group

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

"Change Analyst" on page 10

"Change Approver" on page 15

If a change is assigned to a CI group and is in a phase in which you can create tasks, you can manually create a task for all members of the group.

To manually create tasks for all members of a group, follow these steps:

1. From your To Do queue, select **Change** from the **Queue** list.
2. Select the change request from the record list.
3. Click **More** or the **More Actions** icon and select **Create New Task**. The **Create Change Management Tasks** wizard opens.
4. If the CI Group is a Baseline group with multiple versions, select the version you want to use and click **Next**.

   If it is not a Baseline group with multiple versions, skip this step.
5. Select the **All Members of group** option.
6. Click **Next**, and then follow the instructions to complete the wizard.

Print a phase record

Applies to User Roles:

System Administrator

To print a change or task phase record, follow these steps:

1. Click **Change Management**.
2. Do one of the following:
   - Click **Changes** > **Change Phases**.
   - Click **Tasks** > **Task Phases**.
3. Use search or advanced search to find one or more records.
4. Click a change or task phase record to view its detail.
5. Click **More** and select **Print** or click the **Print Page** icon.

Update a phase record

Applies to User Roles:

System Administrator

Change, task, quote, and order phase records contain field names that are applicable to the function of the record. Like categories, there are some differences between a change, task, quote, and order.

Caution: When you update a phase record, you need to update svcCatStatusMap in Database Manager. This will ensure that any existing change requests or quote orders will receive the necessary phase record assignments based on the phase record you just updated.

To update a phase record for Change Management, follow these steps:

1. Go to **Tailoring** > **Process Designer** > **Workflows**.
2. Select the workflow name that matches the category where you want to update a phase.

   Note: Select cm3r for Change Request phases or cm3t for Change Task phases.

3. Using the visual workflow representation, click on the phase that needs to be modified and update it accordingly using the tabs located on the lower part of the workflow or click the option **Additional Phase Information**.
4. Click **Save** and close the workflow tab.

To update a phase record for Request Management, follow these steps:

1. Do one of the following:
   - Click **Request Management** > **Orders** > **Order Phases**.
   - Click **Request Management** > **Quotes** > **Quote Phases**.
2. Use search or advanced search to find one or more records.
3. Click a record to view its detail.
4. Modify any fields that need to be changed for the existing phase.
5. Click **Save** and **OK**.

Refer to the following example for how to update svcCatStatusMap in Database Manager.

To update the Source Record Status for the Ordering phase with the Source File Name of ocmq, follow these steps:

1. Go to **Tailoring** > **Database Manager**.

2. Type `svc` in the **Form** field, and then click **Search**.

3. Click **svcCatStatusMap** in the **Format Name** column. The Service Catalog Status Mapping form opens.

4. Click **Search** to open a list of Service Catalog Status Mapping phase records.

5. Find and select the record with the **Source Record Status** of **Ordering**and the **Source File Name** of **ocmq**. Your updated phase record needs to base on this existing record.

6. Verify that the number in the **Status Score** field contains the right phase number. If you updated the phase or changed the order of the original phases, you need to change the **Status Score** field number here to match the order of the phases.

7. Save the phase record.

Validate a phase record

Applies to User Roles:

System Administrator

After you create a new phase, you must validate the phase to ensure that all forms created for the new phase are accessible.

To validate a phase record, follow these steps:

1. Click **Change Management**.

2. Do one of the following:

   - Click **Changes** > **Change Phases**.

   - Click **Tasks** > **Task Phases**.

3. Use search or advanced search to find one or more records.

4. Click a change or task phase record to view its detail.

5. Click **More** or the **More actions** icon.

6. Click **Validate Phase**.

7. If you do not have a new form for your phase, HP Service Manager prompts you to create the form, and then opens **Forms Designer**.

8. When the new form is complete, click **OK**.

View the Change Management background processor

Applies to User Roles:

System Administrator

The default system start-up record (startup) lists all background agents, or processes, that start up each time you start HP Service Manager. Most specify 60-second wake-up intervals. This list includes despooler, report, alert (for Incident Management), change, availability, agent, marquee, lister, linker, and event. To add any other start-up records to the system startup record, type the new start-up records information at the bottom of the agent array on the system start-up record. The system startup default record processes records that are in the schedule file. The appropriate background agent picks up the related schedule record for processing.

To view the Change Management background processor, follow these steps:

1. Click **System Administration** > **Ongoing Maintenance** > **System** > **Startup Information**.

2. In the Type field, type `change.startup`. This is the default start-up record for the Change Management background processor.

3. Use search or advanced search to find one or more records.

Access an event definition record

Applies to User Roles:

System Administrator

Events are system occurrences triggered by new or updated change requests, such as creating or approving a change. Events can trigger special processing, such as alerts and messages. You can access Event Definition records in order to modify, add, or delete event definitions.

To access an Event Definition record, follow these steps:

1. Click **Change Management** > **Maintenance** > **Messages**.
2. Use search or advanced search to find one or more records.
3. Click an event record to view it in the **Change Management Event Definition** form.

Access an alert definition record

Applies to User Roles:

System Administrator

Alerts trigger a series of checkpoints in a change or task to ensure that the required work activities occur within the specified time frames. Alerts serve as reminders to keep a change or task on schedule. You can access alert definition records in order to modify, add, or delete alert definitions.

To access an Alert Definition record, follow these steps:

1. Click **Change Management** > **Maintenance** > **Alerts**.
2. Use search or advanced search to find one or more records.
3. Click a record to view it in the **Alert Definition** form.

Create an alert definition record

Applies to User Roles:

System Administrator

To create alert definition records for use by the Change Management, Problem Management, and Request Management applications, follow these steps:

1. Change Management: Click **Change Management** > **Maintenance** > **Alerts**.
2. Problem Management: Click **Problem Management** > **Administration** > **Alert Definitions**.
3. Request Management: Click **Request Management** > **Maintenance** > **Supporting Files** > **Alert Definitions**.
4. Type the alert name in the **Alert Name** field.
5. Type the alert description in the **Description** field.

6. Complete the remaining fields in the alert definition record form. If necessary, press **Ctrl+H** to view help for each field.
    - **Scheduling** tab: describes the calculations that trigger when the alert occurs.
    - **Update** tab: describes Format Control considerations and notification messages to be sent.
    - **Work Schedule** tab: specifies the work schedule to which the alert belongs.
    - **Time Zone** tab: enables you to perform the following actions:
        - Define a specific time zone.
        - Define a RAD expression to set the time zone alert.
        - Obtain the time zone from a table lookup.
7. Click **Add**.

Access phase definition alert controls

Applies to User Roles:

System Administrator

You can set alert controls in Change Management for the change or task phase definition records.

To access phase definition alert controls for changes or tasks, follow these steps:

1. Click one of the following:
    - **Change Management** > **Changes** > **Change Phases**.
    - **Change Management** > **Tasks** > **Task Phases**.
2. Use search or advanced search to find one or more records.
3. Select a phase record to view its details.
4. Click the **Alerts/Open & Close Behavior** tab. Refer to the following table for alert controls and the descriptions.

Control	Description
Reset	Sets the status of all current alert records associated with the current change or task to inactive and marks the last action field as reset. Then it schedules a calculate alert record to recalculate the item's alerts and restart the alerts process.
Recalc	Determines whether to recalculate alert notifications for the change or task.

Access the Alert Log file

Applies to User Roles:

System Administrator

To access the Alert Log file, follow these steps:

1. Click **Tailoring** > **Database Manager**.
2. Type `Alertlog` in the **Form** field and click **Search**.

   Note: Alertlog is case-sensitive.

3. Use search or advanced search to find one or more records.
4. Click a record in the list to view it in the **Alert Log** form.

Chapter 4: Change Management overview

You can use Change Management to track changes to service assets and configuration items in your infrastructure. The Change Management process creates a history log for each item that continues for the item's entire service lifecycle. Change Management enables you to achieve the following results:

- Prioritize, plan, and implement the change management process that your organization uses
- Require changes to follow a set process
- Designate reviewers to evaluate and authorize a change request prior to implementing it
- Create a record of each request to change a service asset or configuration item
- Send notifications to specified users at key points in the process or if deadlines are missed
- Coordinate related changes with a Release Management process
- Provide troubleshooting information for a Problem Management process

Note: Change Management uses the attribute data from Configuration Management to identify and compare configuration items. Before you configure Change Management, you must implement Configuration Management.

Change Management overview

All changes to the Service Portfolio or service catalog are implemented through Change Management and the changes that are managed by the Service Transition life cycle stage are defined and agreed. Standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change-related incidents on business continuity, service quality and re-work.

To be effective, Change Management requires the following input:

- Policy and strategies for change and release
- Request for change
- Change proposal

- Plans (change, transition, release, deployment, test, evaluation, and rendition)
- Current change schedule and projected service outage (PSO)
- Current assets or configuration items
- As-planned configuration baseline
- Test results, test report, and evaluation report

All updates to changes and releases are recorded against service assets and/or configuration items in the Configuration Management System.

What are changes?

Changes are the records submitted that initiate a change in an IT service. Each change has a life cycle of approvals, alerts, tasks (if required), phases, and closure. When you submit a change request, Change Management assigns a unique change record number.

Before you process a change, an administrator must define user profiles and groups for your HP Service Manager installation.

When should I use Change Management instead of Request Management?

- Change Management handles any change to your business that modifies or disrupts the current state of that environment. Usually these modifications or disruptions affect multiple users or business units.
- Request Management handles common user requests for products and services. These requests usually affect only the person making the request, or a subordinate group of employees.

Priority, impact, and urgency

Priority is how an individual service desk interaction, change request, incident, or problem fits into the ongoing sequence of tasks required to close the interaction, change request, incident, or problem. It also indicates how soon the work should begin. Determining the priority of a single service desk interaction, change request, incident, or problem depends on how many other defects need attention, the risk of delay, and the resources available to fix it.

Impact is the potential business vulnerability. There is no global value; it is subjective and each business must set and modify its own impact value list.

Urgency is a value that reflects how soon the defect must be resolved to avoid business consequences. It identifies how soon you must react to avert or reduce the impact of the defect on customers.

Assigning values to impact and urgency is subjective. Priority is a HP Service Manager calculation based on the values you specify for impact and urgency. As you can experience assigning impact and urgency values, you will refine your decision criteria. A service desk interaction, change request, incident, or problem that is isolated can have a low impact initially, but a high urgency because of the potential for damage if the defect becomes widespread. For example, a new computer virus is a problem that can escalate quickly.

Change categorization

HP Service Manager supports both major and minor changes using the Normal Change category and workflow. The subcategory then further differentiates the Change between minor and major. Significant can be added as a subcategory.

Hover-over forms for change records

Change Management change forms for open, update, and close include hover-over forms. A hover-over form opens for a field that supports hover-over forms when the user moves the mouse over the field. The hover-over form only displays when the field contains data. The data displayed on hover-over forms is read only.

The change record forms (open, update, close) contain the following hover-over fields.

Field	Subform fields
Initiated by	Full Name, Telephone, Email

Managing approvals in Change Management

Approvals are based on associated Service Level Agreements (SLA). Managers and sponsors associated with the SLA must be listed as approvers for each phase. Change Management requires approvals to be complete before the change request can move to the next logical phase.

A change request may require other approvals, depending on the category listed in the categorization field:

- Change requests with an impact of 3 (Major Impact) also require approval by an IT director.
- Change requests with an impact other than 1 (Minor Impact) must be approved by a member of the Change Advisory Board (CAB).

What is an approval?

An approval occurs when a user (approver) or a group of users (approval group) agrees to accept the risk, cost, and responsibility to implement a change request or complete a task. The System Administrator defines membership in an approval group in each user's operator record according to the User Role. Change requests and tasks contain approval requirements. Approvals give change management the ability to stop work and to begin certain work activities.

As an approver, you can also be part of a change message group that consists of reviewers and approvers. If you are an approver for a change message group, your task is to accept or deny the changes your group must approve.

When you select the **Mass Approve** option, all the records in the list that are awaiting your approval are immediately approved.

Note: Change Management does not prompt you to verify that this is the action you want to take.

What are approvers?

As an approver, your user profile must contain the approval type for the approvals you will make, and you must be a member of the approval group associated with each approval type that is listed in your profile. For example, the out-of-box Change Management Coordinator profile assigns the approval type of Assessment. If you are a member of the Assessment approval group, you can approve any change request that requires that approval type.

However, if your user profile changes and you no longer have the Assessment approval type, you cannot approve change requests that require the Assessment approval type. Even if you remain a member of the approver list for the Assessment approval type, you cannot approve unless your individual profile specifies this type.

What is approval status?

Approval status describes the condition of the change or task in the current phase and in the Change Management workflow. Each change request phase is marked with one of the following status options:

- Approved
- Denied
- Pending

Individual approval requirements within a phase are marked with one of the following status options:

- Approved
- Denied
- Pending
- Future

Pending approvals are awaiting action. Future approvals will be acted on following action on the pending approvals.

When a pending phase is approved, its status becomes **approved**. The next set of future approvals becomes **pending**, and subsequent approvals remain in the **future** status.

What is an approval sequence?

An approval sequence is the order in which approval requirements are activated. The lowest sequence numbers are available for approval activity. When approval occurs, the next highest number is activated. Some approvals must be sequential. In this case, approval sequence numbers reflect the required order. If an approval group shares the same sequence number, the group members can approve in any order.

Click here to show or hide links to related topics.

Related concepts

"What is an approval?" on the previous page
"What is approval status?" on the previous page
"Approvals and security profiles in Change Management" on the next page
"Approval options in Change Management" on the next page

Approval delegation

Approval delegation is an optional feature that enables users with approval rights to temporarily delegate their approval authority to another qualified operator. Operators with the **Delegate Approvals** or **Can Delegate Approvals** option enabled in their application profiles can delegate some or all of their approvals by using the Approval Delegation wizard.

Using the **Approval Delegation** wizard, an operator can grant another qualified operator the right to temporarily view and act on items in his or her approval queue. The wizard offers the following delegation options:

- Delegate all approvals to another qualified operator
- Delegate approvals from a particular application to another qualified operator
  - Delegate approvals directly assigned to you as an operator
  - Delegate approvals assigned to you as a member of an approval group
- Delegate approvals from a specified start date to a specified end date

The **Approval Delegation** wizard enables an operator to create any number of approval delegation combinations, including delegating the same approvals to multiple operators at the same time. Delegators can also update an existing approval delegation to change the delegation start and end dates, as well as change the delegate's name.

> **Note:** HP Service Manager tracks all changes to approval delegations using the standard field auditing capability.

When delegates log on to Service Manager, they see both their own and any delegated approvals in their approval list. For security reasons, delegates always retain their original application profiles and operator records. Service Manager determines what temporary rights delegates have when they view or act on an approval.

Approvals and security profiles in Change Management

If you are an authorized approver for any approval group, the group names, such as CHGCOMM or CUS, appear in your security profile. You may approve all changes and tasks assigned to your approval groups.

Approval options in Change Management

Change Management enables you to approve, deny, or retract changes or tasks.

Approval option	Description
Approve	The approver accepts the need for the change or task, and approves commitment of the resources required to fulfill the request. When all approvals are complete, work begins. When you choose this option, the record shifts to browse mode, and the retract option is available. If you are not a member of a group with approval rights to this change request, Change Management generates an error message.
Deny	The approver is unwilling to commit the required resources, or does not consider the change or task to be essential. No further approvals are possible until the denial is retracted. An administrative procedure should be set up to handle a denial. If you select deny, a dialog box opens with a prompt to specify the reason for your action. Type an explanation and click **OK**.
Retract	The approver accepts the need for the change, but is unwilling to commit the resources or perhaps there are technical incidents at the present time. Retract removes a previous approval or denial and resets the change request to pending approved status, which requires a new approval cycle. If you select retract, a dialog box opens with a prompt to specify the reason for your action. Type an explanation and click **OK**.

Note: Change Management controls override authority in an operator Change Management security profile record. Rights for the override option are normally available only to operators with SYSADMIN or ChMAdmin capability.

Approval phase for KM Document category

There is a sample change phase "KM Approval" for the "KM Document" change category in the out-of-box system. This approval phase can be tailored for any Knowledge Management or administrator approval group, notification, or alert.

Note: The Approve Internal and Approval External buttons on a Knowledge Management change request relate to the KCS status for a document only when it is in final form and may be viewed by an internal or external audience. The Approve Internal and Approval External status of a document is not related to Change Management approval categories or phases.

Knowledge Management uses the standard RAD application, cm.close, functionality for improved integration with Change Management so that approvals, alerts, and notifications are generated as appropriate for the change request.

KM Approval is present in the system as a sample phase only in Change Management. It is not part of the Knowledge Management document workflow unless the system is configured to make KM Approval a phase in Change Management.

Click here to show or hide links to related topics.

Related concepts

"Viewing and editing graphic workflows" on the next page

Message Group Definition record

HP Service Manager Change Management uses message groups to identify the members of a work group, also known as a Message group. Message groups include two types:

- Members receive work messages sent to the group, such as event and alert messages. For example, notifying members about the progress of requests and tasks that their group is responsible for managing. Members automatically act as reviewers.

- Approvers approve requests for the group. Approvers usually receive notifications when a request is awaiting their approval.

Approvers are not automatically reviewers. If an approver must receive all group notifications, whether related to work activities or to approvals, make sure to add them to both the Members list and to the Approvers list.

The Message Group Definition record stores the login IDs of all members and approvers who receive notifications and messages during a change project.

Managing categories and phases

Categories are used to classify changes and tasks. Changes and tasks each have their own categories. As an HP Service Manager administrator, you can use the default categories shipped with the product, or create new categories to match your business requirements. Refer to the following line items for more information:

- When you create a change request, you must select a category.

- Each category has predefined phases to ensure that the change occurs in an orderly progression. Phases are steps in the life cycle of the change or task. The phase determines which form is used with a record, along with behaviors such as approvals and edit.

- Each phase has one task, multiple tasks, or no tasks. A task is the work necessary to complete a single change phase.

- Each task is also assigned to a category that is almost identical to the change category, but there are some differences. The task category can have multiple phases, but most often, just one.

Default change categories

Change Management has the following default change categories.

Category	Description
CI Group	Manages Configuration Items Group changes.
Default	
Hardware	Manages hardware changes.
KM Document	Manages a Knowledge document.
Maintenance	Manages maintenance-related changes.
Network	Manages network-related changes.
Release Management	Manages the releases of hardware and software.
Software	Manages software-related changes.
Subscription	Manages changes to business service subscriptions.
Unplanned Change	Manages exceptions identified by a discovery process in the actual state of configuration items. For example, a computer CI might have exceptions in the system's IP address or amount of RAM installed. **Note:** The Discovery Event Manager uses this category to identify exceptions to the expected CI state.

Viewing and editing graphic workflows

The default Category form displays a graphic workflow of the predefined phases associated with a category record. You can use the following techniques to view the workflow:

- Click **plus sign** (+) to expand the view of any multi-step phase
- Click **minus sign** (-) to collapse the view of any multi-step phase

- Click the phase graphic to view the phase record information, and then update and save changes to the phase record before returning to the graphic workflow view
- Click the **Approval** box to view the **Approval Definition** form if the phase requires approval

Note: An Administrator can customize the category and phase definitions to fit business requirements. If you add or remove phases from the category, or make changes to any related phases, approvals, or tasks, you must save the change and navigate to the workflow view again to view. Changes to the category and phase definitions appear when you view the Workflow section after saving.

Creating a new category

If you are an HP Service Manager Administrator, you may want to create new change or task categories. You can create new category records by copying and modifying an existing record, or by creating a new record. Service Manager provides default category records that you can use or modify. The simplest way to create a new change or task category is to copy an existing record.

Creating a new change or task category may require that you create additional Service Manager components. Required tasks may include:

- Design a new form
- Add new fields to the database dictionary
- Create necessary Link records
- Create necessary Format Control records
- Create Approval and Member (Reviewer) groups
- Define alerts and associate any alert conditions with the phase definitions for the category you create
- Create necessary scripts

Designing new category forms

If you create a new category, you can design new forms to reflect the data requirements of the new category. These forms are related to the phases of the category.

You can specify the default and closing forms to view and modify any change or task.

- For changes, click **Change Management** > **Changes** > **Change Phases**. Locate an existing record, click the **Scripts/Views** tab and modify the **Default** and **Close** fields.
- For tasks, click **Change Management** > **Tasks** > **Task Phases**. Locate an existing record, click the **Scripts/Views** tab and modify the **Default** and **Close** fields.

Adding new fields to the database dictionary

You must add any new fields you create in any subform or new tabbed category form to the database dictionary. Because data files for Change Management are made up of structures, you must add new fields to the correct structure.

Add new category-specific data fields to the middle structure of the dbdict.

Creating necessary Link records

Link records bring related data from a supporting file into your change or task record. The name of the link record should match the name of the category-specific or phase-specific form you designed. Add any field from your new form to the link record if you want that field to display linked data.

Creating necessary Format Control records

When you create a new category, you have the option to define format control records that are specific to your new category. A format control record allows you to control both how HP Service Manager presents data on a form and how it stores the data in the application's back-end tables. Change Management applies format control differently than other Service Manager applications. Change Management offers the following types of format control records.

Type of format control	Description
Master format control record	A master format control record applies to all changes of a particular category regardless of the phase the change is in. This type of format control record is associated to a category name. Service Manager uses the cm3r master format control for changes and the cm3t master format control record for change tasks. Change Management applies any master format control options during all change and task processing except for approval and background processing. Change Management processes a master format control record before a detail format control record.
Detail format control record	A detail format control record applies only to changes in one particular phase. Service Manager processes a detail format control record when Change

Type of format control	Description
	Management opens the phase’s associated detail form (the default view of that phase).

Service Manager uses the following rules to process format control options:

- Service Manager processes add options when a user clicks Open.
- Service Manager processes update options when a user clicks Update or Reopen.
- Service Manager processes delete options when a user clicks Close.
- Service Manager processes display options when a user selects a record from a record list.

The format control functions for a particular option (add, update, delete or display) execute after Change Management invokes the process but before it updates the record permanently. For example, Change Management executes the add options after a user clicks **Create New Change** but before the user clicks **Save**. Furthermore, Change Management executes display options after a user selects a record from a record list but before the system actually displays the record.

You can have both a master format control and a detail format control for each change or task process. If any of the format control functions fail for any reason, Service Manager returns the user to the most recent form and displays the appropriate error messages.

Creating Approval/Member groups

Certain change and task phases require approvals before the process can move ahead to the next phase. If they do not already exist, you must create the necessary approval and member groups for each phase named in your new category.

Creating necessary scripts

You can create scripts that you want to execute during the change process. Scripts defined for the Open, Close, Reopen, or Update process execute prior to the change process start. Script definitions are optional. Creating new categories in Change Management is considered an advanced tailoring option.

Change and Task phases

If you create a new change or task category, you must specify at least one phase, which is an administrative step associated with the change or task category.

The default HP Service Manager installation has predefined phases, but you can also add new phases. If you specify a phase that does not exist, Change Management prompts you to create the new phase.

Company Master Phase record

Phase definition records define each phase. The Company Master record is the default phase record. You can specify the default values to be used when you create a new phase.

Phase records

Change and task phase records contain field names that are applicable to the change or task function of the record. Like categories, there are some differences between the change and task. Not all fields are required.

The Auto-Open Tasks tab records entries in an array field for individual tasks to be created. For example, your change form may contain an array called Locations Affected with several locations listed. Use the controls on the Auto Open Tasks tab to create a separate task for each of the locations listed in the array.

The Scripts/Views tab enables you to select the HP Service Manager scripts to run at various phase milestones of a change or task. Scripting enables you to alter the flow of an Service Manager process without changing the code.

Automatic task generation for all members of a group

There are several methods to automatically generate tasks using HP Service Manager. You can generate tasks from Incident Management, Change Management, and Request Management. When generating an automatic task from Change Management, if the associated Configuration Item (CI) for the task is a CI group, you can use the task generation wizard to generate tasks from a change and create the tasks for a single member, a group, or for all members.

In Change Management, the Max Size for Operation in your Configuration Management environment settings applies to Auto Open Tasks. If the group for which a task is generated is a baseline group, you must select a version prior generating the task.

Close phase and change phase

A phase can be closed only when the close conditions of the phase are met. In the out-of-box system, when you close a phase, the system moves the change record to the next phase in the workflow unless the change is in the last phase. When the change is in the last phase, there is a Close Change button instead of a Close Phase button.

Change phase allows you to move a change to another phase in the workflow. Change phase should be used only by administrators to accommodate unusual or special circumstances as it disrupts the workflow.

Closing a change phase

Before you close a change phase, you must close all tasks associated with the phase. The phase may also require approvals before you can close it. The phase record controls the criteria required for closure. This criteria can vary from one phase to the next.

Background processing

The processing that enables the alerts and updates in Change Management often occurs in the background. The background processor for Change Management event processing is named **change.startup** and handles only schedule records with a class of change. By default, the processor checks for new records every 60 seconds.

Managing Change Management messages

Change Management sends messages in response to an event. They are directed to specific operators listed in the event record and contain values from the specific fields in quote, order, and line item records that cause the initial event.

Change Management message processing includes the following actions:

- Check for Field Name and Operators in the cm3rmessages record or ends processing if neither Field Name nor Operators exist
- Record the generic message (from the cm3rmessages record Append Text field) in the msglog
- Send the standard message and the mail message to the operators defined in the Operators field of the cm3rmessages record.
- Send a message to the operators defined in those fields referenced by the Field Name field of the cm3rmessages record

  Change Management assumes the content of these fields is a group. If this group name is found in the cm3rgroups file, then either the Members or Approvers (depending on the Member List field) of that group are added to a working list. If the group name does not exist, the system searches the operator file. If an operator record is found, it is added to the working list.

- Check the working list for operators
- Send the message

What are message classes?

HP Service Manager provides several default message classes that you can use to define additional messages to display in Change Management.

How does Change Management process messages?

The following must occur for Change Management to process a message.

1. The record must exist.
2. The message flag in the phase definition record (cm3rcatphase/cm3tcatphase) must be true.
3. The operators and field names must be valid message groups, contacts, or operators.
4. The event must either be an alert definition (AlertDef) or a message (cm3messages). The event syntax generally used to check for an event is as follows:

   ```
   if (condition=true) then ($cm3messages file.$events.pntr in
   ```

   ```
   $cm3messages =“event name”;$cm3messages file.$events.pntr+=1)
   ```

   where:

   - The variable `$cm3messages` is an array of character strings that tracks the events occurring during a particular phase of processing.
   - The variable `$cm3messages.events.pntr` is a pointer to the next array element that records an event name.
5. When you add an event to the array, it is important to increment the pointer by 1. If you omit this step, the event previously recorded is overwritten.
6. Define the event that is scheduled if the condition is true in the cm3rmessages file.

Add a Message Class record

Applies to User Roles:

System Administrator

HP Service Manager provides several default message classes that you can use to define additional messages to display in Change Management.

To add a Message Class record, follow these steps:

1. Click **Tailoring** > **Notifications** > **Log Message Class** (or any other message class type). A blank **Message Class File** form opens.
2. Type the message class name and description.
3. Click **Add**.

Display the list of message classes

Applies to User Roles:

System Administrator

HP Service Manager provides several default message classes that a user can use to define additional messages to display in Change Management.

To display the list of message classes, follow these steps:

1. Click **Tailoring** > **Notifications**.
2. Click one of the following message types. They represent the possible action types for different message classes.
   - **External Mail Message Class**
   - **Internal Mail Message Class**
   - **Log Message Class**
   - **On Screen Message Class**
   - **Print Message Class**

View a message class record

Applies to User Roles:

System Administrator

HP Service Manager contains several default message classes that enable a user to define additional messages to display in Change Management.

To view a Message Class record, follow these steps:

1. Click **Tailoring** > **Notifications** > **Notifications**.
2. Click **Log Message Class** (or any other message class type).
3. Use search or advanced search to find one or more records.
4. Click a record to view its detail in the related **Message Class File** form.

Managing events

Events are system occurrences triggered by new or updated change requests, such as creating or approving a change. Events can trigger special processing, such as alerts and messages. When an alert condition becomes true, Change Management treats it as an event, and sends predefined notifications. You can create other customized routines to run as part of event processing.

The Events file contains the names and definitions of all valid Change Management events.

Change Management includes several default events, such as cm3r approved and cm3r closed. You can add others, according to your business requirements. For example, there may be activities or conditions to be checked or unique events that require user notification.

What controls events?

Event controls are options for processing messages and events. The change or task Phase definition record contains control information that defines when Change Management processes events for the named phase.

The cm3rmessages file

You must define all event names in the cm3rmessages file, or else no event processing can occur. Events are processed when the phase of the change or task is defined in the Phases field of the cm3rmessages file.

The ocmevents record

If the Phase field is NULL on the ocmevents record, the event is processed for all phases.

Checklist: Adding new events

You can perform the following software management tasks to add new events:

1. Activate the Change Management background processor (cm3r)
2. Activate the Change Management (cm3r) alerts schedule record
3. Set the environment record
4. Define the Messages/Events option for the phase
5. Set any RAD or Format Control definition to track a custom event
6. Define the operator groups in the cm3rmessages record in the cm3rgroups file
7. Define the appropriate operator records
8. Define the event in the cm3rmessages file
9. Define the Format Name in the format file
10. Validate the Message Notification controls

Click here to show or hide links to related topics.

Related concepts

"Managing events" on the previous page
"What controls events?" on the previous page

Related tasks

"Access an event definition record" on page 96

Managing alerts

Alerts trigger a series of checkpoints in a change or task to ensure that the required work activities occur within the specified time frames. Alerts serve as reminders to keep a change or task on schedule.

Alerts are timed or delayed conditions that are true or false. Requests for change proceed in phases, according to a predefined schedule. Alerts monitor the progress of these phases. An alert condition becomes true when circumstances require an automated response. Change Management treats it as an event, and sends the predefined notifications. For example, the late notice alert notifies a designated management group that a request for change is overdue for approval, and updates the alert status to include late notice.

Users can define any number of standard or customized alerts for any phase, control who is notified for each alert, and control the naming convention used for the alert itself. Alerts support other functions within the system.

Function	Description
Alert messaging	The event manager generates messages to designated recipients as a result of an alert, which updates the original request.
Batch scheduling	Change Management schedules all alerts associated with a phase at once when the phase occurs.

What are the alert controls?

The Phase record enables you to set alert controls.

Alert control	Description
Reset	Sets the status of all current Alert records associated with the current request to inactive. Marks the last action field as reset. Schedules a calculate alert record to recalculate the alerts and restart the alerts process.
Recalc	Retrieves each Alert associated with the request for change and performs the following processing: • If the current alert status is active, the alert condition is reevaluated, the alert is updated to reflect the correct status, and processing ends. • If the current status is not active, the Schedule Condition field is reevaluated. If Schedule Condition= true, Change Management updates the following fields: ◦ Status is set to scheduled.

Alert control	Description
	◦ Last Action is set to recalc. ◦ Action Time is set to current date/time. ◦ Schedule Condition is reevaluated. If true, Alert Time is recalculated and Status updated to scheduled. If false, Status is set to not required.

Alert processing files

There are two primary files used in alert processing:

- The Alert Definition (AlertDef) file defines the alerts used by all phases

  AlertDef defines the basic alert information for each named alert and all general alert definitions. AlertDef is a static file.

- The Current Alerts (Alert) file tracks the alerts created for each phase

  Alert is an active file.

Change workflows

The HP Service Manager Change Management module implements ITIL processes for change management. The module ensures that standardized methods and procedures are used for efficient and prompt handling of all changes to an organization’s infrastructure, from the time the need for the Change is realized until the time the Change is fully executed. Workflows for Normal, Standard, and Emergency changes are provided and additional workflows can be added by the customer if required by their processes. Each of these workflows enables personnel and management to:

- Create a request for change (RFC) record, assigning a unique number against which all activity can be tracked and reported

- Within a change record, identify the tasks (work processes) required to accomplish the change

- Follow, track, and query changes through the entire implementation cycle

  Workflow phases identify the logical sequence of repeatable steps within the change implementation cycle. There is also a visualization of the current phase, previous, and potential future phases of the RFC.

Response-time objectives are available for both changes and change tasks. These objectives set goals for the amount of time required to move the record from one phase to another and have associated business rules, alerts, escalations, and notifications.

Change workflow types

Specific workflows for Normal, Standard, and Emergency changes are provided and additional workflows can be added by the customer if required by their processes.

Change identifiers

HP Service Manager automatically creates a unique ID for each RFC and Change Task when the record is opened. This field is mandatory and read-only. The format of the ID is configurable to meet customer requirements.

Time and date stamp

HP Service Manager time and date stamps all events (manual or automated) associated with a Change record, from the time the record is opened until it is closed. These fields are mandatory and read-only.

Assessment capability

HP Service Manager offers the following assessment capabilities:

- Manual assessment of the impact of the change by the Submitter, Coordinator, or Assignee.
- Collision detection through an integration with HP Release Control: One or more RFCs for the same CI are proposed at the same time ().
- Resource limitations through an integration with HP Release Control: when two or more RFCs are proposed using the same resources to alert the CAB to potential resource constraints.
- Risk impact calculated using business rules and CMS relationship information at the CI level through an integration with HP Release Control.
- History of previous similar changes and how successful they were.

For more information, see the HP Release Control User Guide (Analysis Module Overview, Impact Analysis, Risk Analysis section) on the following Web site:https://softwaresupport.hp.com/

Prioritization

The Change form includes fields to capture the impact and urgency of the RFC. These fields can be set as part of the Change Model using the Templates feature. The fields can also be populated based on the Service or CI that is identified for the Change. HP Service Manager automatically calculates priority based on impact and urgency. The lists of values used for impact, urgency, and priority along with the calculation used to determine priority can be modified by the customer.

Impact codes include:

- 1 – Enterprise
- 2 – Site/Department
- 3 – Multiple Users
- 4 – User

Urgency and Priority codes include:

- 1 - Critical
- 2 - High
- 3 - Average
- 4 – Low

Closure phase

The Change workflows provided in HP Service Manager contain a Closure phase that indicates that the Change is closed. In the workflow viewer this phase is with a solid gray background so it is visually evident that Changes in this phase are not active.

Closure codes are captured in the Post Implementation Review phase and can be configured by the customer.

Post implementation review

HP Service Manager Change workflows contain a Post Implementation Review phase that supports notifying the person responsible for the review and capturing the details of the review when it is performed.

Back-out plans

HP Service Manager provides an out-of-box field that can be used to record the back-out procedures for a specific RFC. The information in the **Back Out Plan** field could reference attached documents or external sources for back out documentation.

The back-out plan review is part of the Deployment CAB approval process of the Normal Change workflow.

Change scheduling

HP Service Manager provides a Forward Schedule of Change. This calendar is accessible to anyone with view rights for Changes. Users with only view rights will have a read-only view and users with update rights have read/write access.

Service Manager provides two options for a Forward Schedule of Change:

- An embedded Change Calendar (also referred to as Service Manager Calendar), which is based on a Calendar widget. This calendar can display time period records and associated business records in a graphic and intuitive user interface. It enables users in different locations and departments of your organization to optimize their task planning accordingly.

  Service Manager Calendar has a huge benefit of being a part of Service Manager. Its time period rules engine more effectively integrates time period policy into the change process, with notifications of time period violations and the capability to require additional approvals if time periods rules are violated. It is easier to initially configure and maintain.

- The Release Control change calendar (also referred to as Release Control Calendar), in which the Change Requests - Calendar View pane in Release Control displays change requests that have been processed by HP Release Control for each calendar day in calendar format. Release Control Calendar requires an integration with HP Release Control.

  Release Control is better at change impact assessment, conflict detection, and leveraging CMDB data to reveal how multiple changes interact. While it offers time period rules, they do not interface with the change process. The Release Control interface still handles a very large system with a huge change workload better than the Service Manager Calendar view.

  For Release Control customers that are not leveraging the change assessment functionality (it depends on service and application mapping to be effective) and are primarily using it to provide a forward schedule of change, Service Manager Calendar may be a good replacement for Release

Control Calendar and its time period capabilities can provide a nice enhancement to the change process.

Projected service outage

HP Service Manager has fields to capture the Scheduled Downtime Start and Scheduled Downtime End, as well as the Actual Downtime Start and Actual Downtime End that is the result of the Change.

This information is visible in the Configuration Item or Business Service fields to show the Projected Service Outages for that CI or Service.

Change records and CIs

HP Service Manager Change Management provides the ability to link Configuration Items (CIs) to Change records. Change Tasks can be created based on the list of CIs in the Change record.

The Change record will also include a list of Affected Services that are based on the topology information for the linked CIs.

Release management

HP Service Manager Change Management includes a Release Management category that provides the ability to schedule and authorize coordinated release activities that span multiple RFCs. The Release record can contain links to one or more Change records. This allows several RFCs to be assessed, scheduled, approved, and deployed as a group. The execution of the changes happens in the individual Change and Change Task records that are linked to the Release. The execution of the individual Changes can be supported by the integration to HP Operations Orchestration (a run a run book automation workflow tool) that automates steps of software deployment through HP Server Automation and HP Client Automation depending on the target being deployed to.

Link Incident record to Change record

HP Service Manager allows the creation of links from a Change record to an Incident record. RFCs can be created from an Incident or an Incident can be related to an existing RFC. The Incident can also be indirectly related to a Change record through the Problem Management module.

Link Change to Known Errors

HP Service Manager provides the ability to create Changes from Known Errors and to link Changes to existing Known Errors as recommended in the best practice documentation. Service Manager can also associate Problems and Changes through configuration of the system.

The related records tab shows established relationships between Problems and Known Errors, which are stored as separate records in Service Manager, and Changes.

Service Desk email notification

Email can be generated when an RFC is created, updated or closed and sent via standard email delivery tools to individuals or groups. Emails can be generated and sent automatically or manually.

Service Desk agents can be given access to the forward schedule of changes and their profiles used to control their access rights. You may want to assign them read-only access to the forward schedule of changes to avoid the entire Service Desk team from consuming change licenses.

If an Incident record has one or more related Change records, the Service Desk agent can click on the link to see the related RFC(s).

Additionally, Service Desk agents (or anyone using HP Service Manager) can use charts and views to get visibility into Change Management information, such as a list of Changes scheduled for the next week.

Users can easily create these charts and lists on the fly, and save them to their favorites, or they can be used to create dashboards for groups of users.

Authorized users can drill down into the details of records that are behind the charts and see individual records and their details.

HP Universal CMDB (UCMDB) integration

HP Service Manager has an out-of-box integration with the HP CMS solution (UCMDB).

The HP CMS strategy is to leverage web services and use contributing CMDB and other data repositories through a common view of business services provided by the UCMDB. As such, the integration between HP UCMDB and HP Service Manager is using web services.

HP UCMDB and the HP discovery tools provide detailed CI and relationship information built using an innovative discovery capability. Essentially, by listening on the network and identifying applications and hardware “talking” through standard protocols, HP uses a spiral discovery approach, interrogating applications to gain information about levels 2 through 7. This discovery capability understands how applications and hardware are related and shows this in graphical form.

The information presented in the CMS is representative of the actual state and can be viewed within HP Service Manager in the “Actual State” tab in a CI record.

This is an alternative view of the same data. HP Service Manager also provides a deliberately simpler visualization of the CIs and their relationships designed to provide the Service Desk user a summary of the information held in the CMS.

Indicators are used on the CI icons to visually show the user there are open records for the CI.

Change Management assessment capabilities are integrated with HP UCMDB to provide impact analysis information based on the topological view of the CI data.

Also, HP UCMDB provides the ability to model the potential impact of changes on the fly without physically making the change.

Role-based authorization

Change Management uses a role-based authorization system. Different members of the CAB can have different roles and therefore different rights in the Change Management module. In addition, members of a Change Group can be identified as either Approvers or Members of the group.

HP Service Manager also provides the ability to temporarily assign approval capabilities to another user as long as that user also has the appropriate authorization. This is called approval delegation and customers often use this for when they are going on vacation or will be out of the office for a period of time.

Defining Approvers

The Change profiles include a setting that defines whether users with that profile are allowed to approve Changes.

Within the workflow for Change Management, HP Service Manager allows for approvals to be assigned to either individuals or Change Groups. Users who are approvers for the Change Group and who have the “Can Approve” right will be able to approve that individual change (or task).

Approval options

Changes may only be rejected by users who are assigned to approve the Change and who have the “Can Approve” change security right. The Approval Type set in the Approval Definition record will control whether a single denial of approval will result in the change being rejected (All must approve – immediate denial) or if denials by some members of the Approval Group can still allow the change to be approved (Quorum).

Approvers have the options to approve, deny, or retract change records.

Click here to show or hide links to related topics.

Related references

"Approval options in Change Management" on page 105

Approval status

In any workflow phase with an approval, the Approval Status field will indicate if the Change has been approved, denied, or is still pending the approval process. A Change will not be allowed to progress past any phase with approvals until all the required approvals have been given. In change records, the Approvals section reflects only all approvals that must be performed in the current phase of the change workflow, not all approvals that are required in the entire change workflow.

Alerts and escalations can be built into the change process to prompt approvers as the RFC approval phase runs out of time, and basic checks such as not allowing an approval after the proposed planned start date and time are also possible.

Approval can also be sequenced to allow for certain approvals to be given (perhaps the technical team's approval that the proposed RFC is technically feasible) before sending approval requests to managers for a business approval.

Change notification and escalation

Change Management leverages the new Process Designer workflows and rules. As such, there are numerous out-of-box notifications available. These rules can be customized easily to provide broad and deep control and oversight of the notifications and escalation behaviors throughout the workflow.

The Change Management workflows deliver alert options via the alert engine. This solution enables the definition of alerts including:

- When the alert should be evaluated
- What work schedule is appropriate for determining the alert evaluation
- What conditions of the ChM record are indicative that the alert should trigger
- Who should be notified when the alert has triggered
- What actions should take place

Change Management audit trail

For all records in HP Service Manager, a date time stamp and a user stamp are updated in the record when it is created or saved.

Service Manager provides an audit trail capability that identifies each step taken in the resolution of a change or task. Each time they are updated (whether manually or automatically), a separate historical activity is created for the record. An authorized user may review each historical activity to develop a comprehensive understanding of the history of the record and its resolution, including which operators took what actions at what times.

Service Manager also provides an auditing feature that records modifications to fields within the database. Field modifications are detected by comparing the fields in the original version of a record to the updated version. When modifications are detected, an Audit Log entry is recorded for each changed field showing the name of the modified field, the old and new version of the data, the current date/time, and the current operator’s user ID.

Change archival

Closure of processed changes and tasks is a standard part of the workflow. The closure action not only supports saving of the record but separate validations, rules, and possibly even separate forms to ensure business success. Closing a change does not remove it from the database.

The most typical approach for archiving records is to leverage the chosen RDBMS tools from Oracle or MS SQL Server to perform their database administration for purging and archiving.

HP Service Manager provides an archive and purge tool that can be configured by table and criteria for archiving. This is a facility only the administrator would use. This capability allows the ability to archive either manually or on a scheduled basis.

One new capability in this area is the ability to take advantage of the HP archive tool suite. These tools allow data to be archived out of Service Manager into a system accessible file system. The production or alternative instance of Service Manager can then be used to access these data records.

Change access control

Change Management utilizes the new Process Designer security controls to permit authorized users to create, modify, and close changes and change tasks. The system provides Update authorization options for **Never**, **Always**, **When Assigned** and **When assigned to workgroup**. For example, one user may be able to create and close changes or tasks but only modify changes assigned to them.

The system provides the construct of a user role which allows administration of many users with a single role definition.

Access to functionality within each module is governed by HP Service Manager security utilities, which define access based on role and user.

Service Manager provides a security control to segment data between multiple customers. The Mandantan controls identify which customer data a particular user or group can access, update, or both.

Management reports generation

HP Service Manager includes two options for generating management reports using key performance indicators: Service Manager Dashboard queries and charts, Reporting, and Service Manager Crystal Reports. These tools allow you to generate predefined and ad hoc reports to display any information. The following describes these tools.

Service Manager Reports

The Service Manager Reports module provides reports and dashboards to enable faster analysis and improved time to resolution. These reports organize data into various chart formats, and the dashboards display one or more reports to provide global information about critical activities or metrics. These reports display relationships among categories of data. For example, one report might display the number of incidents per customer, while another displays the number of incidents by priority. Viewing these reports together as a dashboard enables you to make better business decisions, such as assigning resources to close incidents. Report Managers can share a report or dashboard.

The Service Manager Reports module aims to provide a lightweight reporting feature for active operational data, and the reports are therefore designed to retrieve, represent and visualize up to 100,000 active records out of millions. To define analytical reports against the entire data set, you need to use a third-party business intelligence tool.

Service Manager Crystal Reports

For operational reporting or regularly scheduled reporting requirements, HP provides an OEM version of Crystal Reports with Service Manager. HP also delivers over 40 predefined reports. You can run reports on an ad hoc basis and system administrators can define an automatic report-generation schedule using the Service Manager Report Scheduler tool. Crystal Reports 2008 is required to view, generate, or modify these reports and is included with Service Manager.

Service Manager ships with the following predefined reports:

- Request Management Reports
  - Request Aging Report
- Service Desk Reports
  - Escalated Interactions
  - First Time Fixed Interactions
  - Interactions Closed in a Given Year
  - Interactions Resulting in Related Issues
  - Number of Service Desk Requests by Department
  - Service Desk Interactions Opened and Closed
  - Top 20 Operators by Average Interaction Time in Last 90 Days
- Change Management Reports
  - Changes Closed Meeting SLM Target
  - Changes Scheduled for This Week
  - Changes Opened and Closed
  - Percentage of Emergency Changes
  - Percentage of Rejected Changes
  - Percentage of Successful Changes
- Configuration Management Reports
  - CI Relationships
  - CI Summary
  - Percentage of CIs Related to Other CIs
- Incident Management Reports

  - Backlog of Incidents
  - Incidents Opened and Closed
  - Incident Aging Report
  - Incident Reassignment Analysis
  - Incidents by Assignment and Priority
  - Incidents Closed Meeting SLA Target
  - Open and Closed Incidents by Service
  - Open Incidents Monthly Analysis by Category
  - Percentage of Incidents by Priority
  - Reopened Incidents
- Knowledge Management Reports
  - Knowledge Management Activity
  - Knowledge Management Demand
  - Knowledge Management Summary
  - Knowledge Management Usage by Department
  - Self-Service Escalated Knowledge Management Search Escalation
  - Self-Service Knowledge Management Search History
- Problem Management Reports
  - Average Time to Diagnose
  - Open and Closed Problems by Service
  - Problems Opened and Closed
  - Problems Closed Meeting SLA Target
- Service Level Management Reports

- Service Level Management Availability Duration Metrics
- Service Level Management Availability Uptime Metrics
- Service Level Management Response Metrics
- Service Level Management Summary

In addition, you can perform a search within each module using different combinations of conditions, and the search results can be presented in list or chart.

You can also create your own management reports using Crystal Report and build your reports on any field in the database.

Change management reports

HP Service Manager provides out-of-box Crystal Reports for Change Management that includes the following reports:

- Changes Closed Meeting SLM Target
- Changes Scheduled for This Week
- Changes Opened and Closed
- Percentage of Emergency Changes
- Percentage of Rejected Changes
- Percentage of Successful Changes

In addition, the Service Manager user can search all change records using any combination of search conditions. The search results can be presented as a table or a chart.

Change Management reporting using HP IT Executive Scorecard

Companies can also use the HP IT Executive Scorecard for comprehensive management reporting. The HP IT Executive Scorecard is a key element in the HP IT Performance Suite and is a systematic approach to digitizing the sensing, measuring, and instrumentation of the entire IT-controlled landscape into single consolidated views for IT leaders and practitioners. The HP IT Performance Suite includes comprehensive families of proven software for strategy, planning, and governance, application lifecycle management, IT operations, information management, security intelligence, and risk management.

These solutions are unified by one of the most complete IT data models for collecting and relating data feeds from individual products.

What makes the HP IT Performance Suite much more than just a collection of management software is the Executive Scorecard—a single pane of glass that pulls all the information and analysis together. In short, HP IT Executive Scorecard can help track performance and communicate in business terms.

The HP IT Executive Scorecard allows companies to:

- Use a single pane of glass to view IT business services, programs, and financial status
- View performance and problem areas promptly
- Show historical data to highlight improvements and identify negative trends early
- Automate and decrease effort required for the data-gathering process to enable real-time reporting
- Cascade key performance indicators (KPI) across layers of scorecards
- Collaborate by adding annotations to KPIs and objectives
- Access the information from a desktop, tablet, or smartphone
- Add notes using collaboration in the context of a KPI or objective

With its balanced scorecard, best-practice dashboards, and over 135 key performance indicators already defined, the HP IT Executive Scorecard is a unique differentiator. The HP IT Executive Scorecard is an analytical product that renders performance from a broad range of data sources, including (not limited) HP Business Service Management, HP Service Manager, HP Asset Manager, and HP Project and Portfolio Management.

From a business point of view, the need to control information technology (IT) is driving a new level of maturity in performance management. Many organizations turn to executive scorecards to help drive performance and more are now pouring this approach into the context of IT. The out-of-the-box Scorecards in the HP IT Executive Scorecard are based around up to four high-level perspectives. These equate to high-level goals of IT or the business. The four used in HP IT Executive Scorecard are: IT Value, Customer, Operational Excellence, and Future Orientation.

The scoring of those objectives is based on one or more KPIs. In this way, the persona can gain a quick view of overall performance in an area of interest and drill down further if required into the KPI or KPIs that are responsible for the performance score.

KPIs reflect how well the organization is doing in areas that most impact financial measures valued by shareholders, such as profitability and revenues.

A KPI evaluates the performance according to expectations. The context is provided using:

- **Thresholds**. Upper and lower ranges of acceptable performance.
- **Targets**. Predefined gains, such as 10 percent new customers per quarter.
- **Benchmarks**. Based on industry wide measures or various methodologies, such as Six Sigma.
- **Trend**. The direction of the performance of the KPI, either Up,Down, or Static.

A KPI is a Metric, but a Metric is not always a KPI. The key difference is that KPIs always reflect strategic value drivers whereas Metrics represent the measurement of any business activity. Metrics always show a number that reflects performance. KPIs put that performance in context. Metrics are not matched against a threshold. An example of a metric could be an MTTR (mean time to recover) which measures the average time between the occurrence of a set of incidents and their resolution. An example of a KPI could be an MTTR, which measures the average time between the occurrence of a set of incidents and their resolution, compared to a defined threshold. For example: ‘MTTR less than one hour’.

The out-of-box KPIs can be altered to suit different personas or augmented by new KPIs created within HP IT Executive Scorecard.

Out-of-Box KPIs for Service Manager

HP Executive Scorecard has a number of KPIs to support Change Management from a Scorecard Level.

- % of Changes Resulting in Outage
- % of Emergency Changes
- % of Unauthorized Implemented Changes
- % of Unplanned Changes
- Approved vs Rejected Changes
- Automated Change Implementation Rate
- Automated Change Implementation Success Rate
- Change Backlog Size
- Change Success Rate
- Number of Completed Changes

The out-of-box KPIs can be altered to suit different personas or augmented by new KPIs created within HP IT Executive Scorecard.

Chapter 5: Release Management

Release Management is a category of Change Management that ensures that the Configuration Management Database (CMDB) is kept up to date, that changes are appropriately managed, and that all new software and hardware is stored in the Definitive Software Library (DSL) and Definitive Hardware Store (DHS). After one or more changes are developed, tested, and packaged into releases for deployment, Release Management is responsible for introducing these changes and managing their release. Release Management also contributes to the efficient introduction of changes by combining them into one release and deploying them together.

Release Management relies on the Change Management and Configuration Management applications.

Goal

The purpose of Release Management is to ensure that all changes are deployed successfully in the least disruptive manner. Release Management is responsible for the following functions:

- Driving the release strategy, which is the over arching design, plan, and approach for deployment of a change into production in collaboration with the Change Advisory Board (CAB)
- Determining the readiness of each release based on release criteria (such as quality of release, release package and production environment readiness, training and support plans, rollout and backout plans, and risk management plan)

Benefits

Release Management offers the following benefits for users:

- Provides a packaged release for all changes deployed into production and only deploys changes approved by change management
- Provides two different types of releases: hardware and software. Once the release type is determined, the application provides the appropriate tasks
- Provides the ability to manage changes of groups such as Configuration Item (CI) groups and business services

- Provides the ability to terminate a release at any time except in the Training phase or once it has been installed or verified
- Provides the ability to back-out the change
- Provides the availability of optional training phase

Release Management phases

The Release Management category includes seven phases, which follows the recommended Information Technology Infrastructure Library (ITIL) process by providing you with a set of approvals and tasks that you can expand.

Phase	Description
Assess	Determine the importance or value of a release.
Plan and design	Plan releases in line with requirements resulting from approved changes. Analyze all the affected Configuration Items (CIs) and CI Groups, review what software or hardware is needed to accomplish the plan, and determine the cost. This phase requires the plan and design approval before going to the next step.
Build and test	Build effective release packages for the deployment of one or many changes into production. Test release mechanisms to ensure minimum disruption to the production environment.
Training	Identify and fulfill training requirements for various users. This phase is optional and is activated when you select high Impact Assessment and high Urgency for the release change.
Distribution and rollout	The introduction of either a hardware or software release into the IT environment.
Back out	A plan detailing how a specific release can be undone after being applied, if deemed necessary.
Verification	Review preparation for the release to ensure maximum successful deployments.

Release Management: Assess phase

The first step in the release process is to determine the importance and value of a release. If the assessment determines that a release is indeed necessary, the next step is to plan and design the release.

Release Management has no out-of-box tasks or approvals created for the Assess phase.

Release Management: Plan and design phase

The second step in the release process is the creation of a plan identifying the activities and the resources required to successfully deploy a release into the production environment. The following is a summary of the release planning activities.

- Identifying scope and content of a change, and the release requirements for successful deployment
- Performing a risk assessment for the release and obtaining the appropriate approvals
- Prioritizing, planning, and scheduling release activities
- Establishing a suitable team for the release if required
- Coordinating with experts and interested parties to determine the required resources and strategy for the release
- Documenting and tracking all release planning activities

Release Management has no out-of-box tasks for the Plan and Design phase. However, it contains the plan and design approval type. This approval must be met in order to advance to the next phase (Build and Test).

Release Management: Build and test phase

After the release team agrees on a release plan, members of the release team identify and develop the processes, tools, and technologies required to deploy the release into production. The following is a summary of the release building activities.

- Selects a suitable release mechanism for the change that is a strategic fit, is repeatable, and is consistent
- Designs and builds a release package for the change that allows it to be successfully deployed
- Tests the release package to ensure that it delivers the change effectively in line with requirements
- Ensures the release package is updated to the Configuration Management Database (CMDB) as a pending release package and that any new script is added to the Definitive Software Library (DSL)

Release Management has two out-of-box tasks created for the Build and Test phase:

- Identify the affected systems (setting up the affected Configuration Items (CIs) – hardware and software
- Create release (software development, software push, hardware install, or other similar tasks) – software only

This phase of Release Management contains the build and test approval type. This approval must be met in order to advance to the next phase (Training or Distribution and Rollout).

Note: If the test fails, you return to the plan and design phase to reevaluate the scope and content of the change.

Release Management: Training phase

For some releases, it is necessary to train users, Service Desk staff, technical support teams, and operations staff in the skills and abilities they require to perform their job roles. Training may take the form of classroom training courses, workshops, or seminars, but it could also be provided by on-demand computer-based training (CBT) courses and simulations.

The Release Manager identifies and describes the type of training to be provided, when the training is to be conducted, how it is to be administered, and the reasons for providing it. A detailed estimate of cost may also be required.

This phase is optional and is activated when you select high Impact Assessment and high Urgency for the release change during the Assess phase.

The Training phase is the only phase in the Release Management process that does not include the option to either terminate or back out of the release.

Release Management: Distribution and rollout phase

After acceptance training and testing is complete, the next step is to deploy the release into the production environment. The process depends on the type and nature of the release and on the selected release mechanism. In all cases, however, the Release Manager should be provided with status reports and, where appropriate, tools and technologies that enable tracking and monitoring of deployment progress. As changes are made to IT components during deployment, corresponding changes are made to the configuration items and relationships modeling them in the CMDB.

The following is a summary of the activities in the Distribution and Rollout phase:

- Selects a suitable deployment group for the release
- Ensures users are adequately trained in a timely manner for the maximum benefit from the release
- Deploys the release into the production environment
- Reviews the deployed release, taking into account feedback and comments from all parties involved
- Passes the feedback to the change manager for the change review process

Release Management has one out-of-box Update System task created for the Distribution and Rollout phase.

This phase of Release Management contains the plan and design approval type. This approval must be met in order to advance to the next phase (Verification).

Release Management: Backout phase

If the release fails to meet expectations or if serious problems are encountered during deployment, Problem Management may be required to help identify and diagnose the root cause of the problem. If a suitable fix or workaround can be found, it should be documented and a Request for Change (RFC) created to deploy the fix or workaround into the production environment. If no fix or workaround is found, it may be appropriate to use the backout procedures to remove the release from that environment. If the release needs to be backed out, this should also be recorded, including any information that supports this decision.

The Backout option is available during the Distribution and Rollout phase or the Verification phase.

Release Management: Verification phase

After the release is deployed, the Release Manager confirms that the release is working correctly before proceeding with further deployments. The Verification phase ensures that the deployment of the release is successful and meets all required criteria.

When the release deployment phase is complete, the release process should ensure that any results and information about any workarounds or Request for Changes (RFCs) raised in support of the release are recorded. If the release needs to be backed out, this should also be recorded, including any information that supports this decision.

This phase of Release Management contains the verification approval type.

Terminating a release change

You can terminate a release in any phase except in the Training phase or after it has been installed or verified. If you reopen a change that was closed, you are returned to the assess phase to determine whether or not a release is still required. This behavior is different than if a release is closed. In that case, the release cycle is complete and therefore closed. When you reopen a closed release, you return to the verification phase since this is the last completed phase in the cycle.

Terminate a release change

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

To terminate a release change, follow these steps:

1. Click **Change Management** > **Changes** > **Search Changes**.
2. Find the record by selecting to search on the **Release Management** category. Use search or advanced search to find one or more records.
3. Click a record to view its detail.
4. Click **Terminate**. The **Process** window opens.
5. Click the drop-down list in the **Closure Code** field and select a **Closure Code**.
6. In the **Termination Reason** field, type a termination reason.
7. Click **Save**. The release is terminated.

Open a new change with a Release Management category

Applies to User Roles:

"Change Manager" on page 13

"Change Coordinator" on page 11

To open a new change with a Release Management category, follow these steps:

1. Click **Change Management** > **Changes** > **Create New Change**.
2. Click **Release Management** from the list of change categories.
3. Select the release type (hardware or software) from the **Release Type** list.
4. Fill in the other required fields.
5. Click **Save**.

   > **Note:** Before you can close the phase, you must complete all required fields.

6. Click **Close Phase**.

The Assess phase is closed and the change advances to the Plan and Design phase for the out-of-box workflow.

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