Change Management

Process

The Change Management process consists of eight procedures; six for implementing planned changes, and two for implementing emergency changes.

The first procedure is called "Change Registration". This procedure is used by change coordinators when they are dealing with change requests.

The second procedure is called "Change Planning". It is used by change coordinators and specialists to prepare the implementation plans for planned changes.

The third procedure is called "Change Approval". It is used by the change manager and change approvers (i.e. customer representatives and service providers) to approve planned changes.

The fourth procedure is called "Infrastructure Change Implementation". It is used by specialists to implement infrastructure changes.

The fifth procedure is called "Application Change Implementation". It is used by specialists, release administrators, customer representatives and change coordinators to implement application changes.

The sixth procedure is called "Planned Change Closure". It is used by specialists when they perform a final production test after a change has been implemented and by change coordinators when they close out a change.

The seventh procedure is called "Emergency Change Implementation". This procedure is used by specialists and release administrators to implement changes to resolve incidents.

The eighth and last procedure is called "Emergency Change Closure". This procedure is used by specialists and change coordinators to complete and close out emergency changes.

For more details about these procedures, click on the Process button to return to the graphical representation of this process and click on the box that represents the procedure that you would like to know more about. The graphical representation of this procedure will appear and you will be able to click on the Description button in the upper left-hand corner of your screen to read more about it.

Mission

The mission of the Change Management process is to implement changes in the most efficient manner, while minimizing the negative impact on users when changes are implemented.

Scope

The scope of the Change Management process is limited to change implementations that will cause:

- a service to be unavailable or degraded during service hours,
- the functionality of a service to become different, or
- the CMDB to require an update.

Level of Detail

The level of detail in which Change Management information is to be registered is specified in the field utilization guidelines for the fields of the forms that are available in the service management application for the support of this

process.

The following forms are available in the service management application for the Change Management process:

Change
Work Order

Click on a form to obtain the field utilization guidelines for each of its fields.

Roles & Responsibilities

The table below lists the different roles that are involved in the Change Management process, along with their respective responsibilities. Click on a role to review its profile.

Role	Responsibility	
CAB member	Approves or rejects changes and their implementation timing upon the request of the change manager.	
Change coordinator	Assesses change requests that originated from Incident Management, Problem Management, Release Management and Continuity Management. Creates changes as needed to handle change requests. Coordinates the risk & impact analysis by creating and assigning risk & impact work orders. Answers the risk & impact work orders when possible. Develops implementation plans by creating and assigning implementation work orders. Monitors the progress of changes. Closes changes.	
Change manager	Reviews the risk & impact analysis to ensure that this has been performed thoroughly. Ensures that appropriate actions have been planned to minimize both the risk of failure and the impact on customers during change implementations. Ensures that the timing of implementations does not conflict with other planned changes or events. Obtains approval for changes by creating approval work orders and assigning them to the appropriate service providers and customer representatives.	
Customer representative	Ensures that new releases of applications are tested after they have been transferred to the test environment.	
Group coordinator	Assigns work orders that have been received from other groups to the most appropriate specialists (in terms of skills and availability) within the group coordinator's group.	
Release administrator	Transfers new releases of applications after their development in the development environment to the test environment. Transfers new releases of applications after they have been tested in the test environment to the production environment.	
Specialist	Answers risk & impact work orders and updates them with relevant information and status changes. Completes implementation work orders and updates them with relevant information and status changes.	

Key Performance Indicators

The table below lists the key performance indicators (KPIs) that have been selected for tracking the success of the Change Management process.

KPI	Definition	Frequency	Unit
Successful changes	The number of completed changes with the Completion code field set to "Implemented", divided by the total number of completed changes.	Monthly	%
Time to plan	The average time it takes, from the moment a support request with the Category field set to "Request for Change" has been registered, until the change to which it is linked has been set to the status "To Be Approved".	Monthly	# of work hours
Time to approve	The average time it takes for the status of a change to get from "To Be Approved" to "Approved" or higher.	Monthly	# of work hours

Beneficiaries

The roles that rely on the Change Management process are listed in the table below, along with their respective requirements for the Change Management process.

| Beneficiary	Requirement
CAB members	Information regarding changes for which the approval of a CAB member is required.
Change coordinators	Information regarding the progress of work orders.
Change managers	Information regarding the risk & impact analysis to ensure that it was performed thoroughly. Information regarding the change implementation plans to ensure that they do not conflict with other changes or events.
Configuration managers	Information regarding work orders for the registration or update of CI information.
Controllers	Information regarding the time spent on changes, and the link between changes and the affected services, to serve as input for service cost calculation.
Customer representatives	Information regarding changes that will affect services.
Customers	Information regarding the status of changes that were requested by customers. Information regarding changes that will affect services.
Group coordinators	Information regarding work orders (and the changes that they are a part of) that have been assigned to a group.
Operators	Information regarding planned changes that will cause alarms to be generated.

Problem managers	Information regarding the progress of changes that were requested by problem managers.
Service desk agents	Information regarding the progress of changes for which a status update has been requested.
Service level administrators	Information regarding changes for which an update of the Service Level Management information has been requested.
Service level managers	Information regarding the status of changes for which the requests were registered by a service level manager after having received the request from a customer representative. Information regarding the change implementation performance for change requests that were submitted using web request forms.
Service providers	Information regarding changes that will affect services.
Specialists	Information regarding work orders (and the change that they are a part of) that have been assigned to a specialist.

Owner

The owner of the Change Management process is the Service Management CAB.

This CAB is responsible for reviewing, and subsequently approving or rejecting, requests for improvement of the Change Management process and its supporting functionality in the service management application.

Process
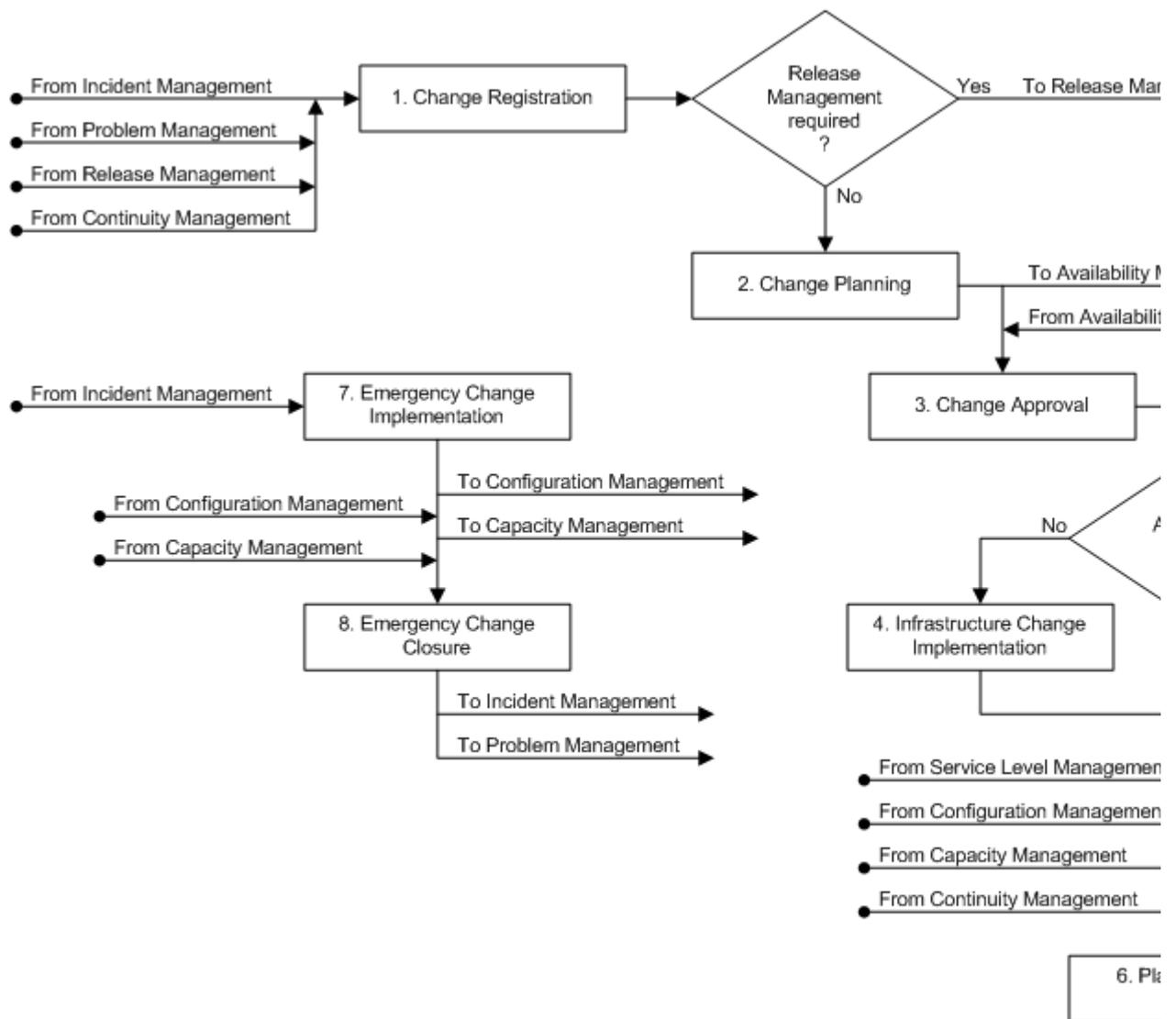
Procedure 1, Change Registration

The change coordinator receives the change requests for the service(s) that he/she coordinates the changes of. The change requests can originate from four sources:

> Incident Management, in the form of support requests,
>
> Problem Management, in the form of problems with the status "Change Requested",
>
> Release Management, in the form of documents that detail the requirements, and
>
> Continuity Management, in the form of return-to-production requests from a service provider following the recovery of a service infrastructure at its continuity site.

Upon receiving a change request, the change coordinator determines if a change has already been registered for a request that includes exactly the same requirements. If this is the case, the change coordinator links the change request to the existing change.

If the change request asks for the implementation of a standard change, the change coordinator uses the change template that was created for the standard change to register a new change, and links the request to it. The change coordinator subsequently follows the workflow that was copied from the template to get the change

implemented.

If the change request is not a request for a standard change, the change coordinator checks the request to ensure that it does not conflict with internal standards or policies. If it does conflict, the change request is rejected and the requester is informed of the internal standard or policy that the request conflicts with.

If there is no conflict, the change coordinator determines whether the change implementation really needs to be coordinated by Change Management. This is only necessary when the implementation will cause:

- a service to become unavailable or degraded during service hours,
- the functionality of a service to become different, or
- the CMDB to require an update.

If the change can be implemented without the involvement of Change Management, the change coordinator rejects the change request and informs the requester that Change Management is not required.

If it has been determined that Change Management is required for the implementation of the requested change, the change coordinator determines whether the change request should be passed on to Release Management. Release Management is not required if the change request asks for the prevention or fix of a problem, provided that:

- the change implementation can be coordinated by a single change coordinator,
- the implementation will not cause the functionality of the service to become different, and
- no additional funding is required to complete the implementation.

If Release Management is not required, or if the change request originated from Release Management, the change coordinator registers a new change and ensures that the requirements of the request are linked to it. All other change requests are assigned to Release Management.
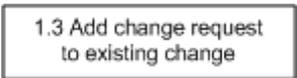
Procedure 1, Change Registration

Change Coordinator

From Incident Management step 2.14

From Problem Management step 3.8

1.1 Review details of change request

1.2 Change already registe[red] fulfill requirem[ents] of reques[t] ? — No

1.4 Request fo[r] standard cha[nge] ? — Yes

1.13 Create new [...] using appropriate [...]

1.5 Change request conflicts with internal standards or policies ? — Yes / No

1.6 Reject change request

To Incident Management step 7.3

To Problem Management step 4.1

1.7 Should request have been passed to Change Management ? — No / Yes

1.8 Reject change request

To Incident Management step 2.12

To Problem Management step 2.7

1.14 Risk and impact analy[sis] required ? — Yes / No

1.9 Release Management required ? — Yes / No

1.10 Pass change request to Release Management

To Release Management step 1.1

1.15 Approval required ? — No

From Release Management step 1.3 or 4.1

1.11 Review details of change request

From Continuity Management step 3.11

1.12 Create new change

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.1 Review details of change request	1.1.1 Examine the information in the support request or problem to gain an understanding of the change request's requirements.

Work Instructions

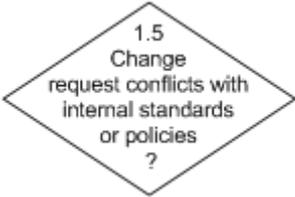| Procedure Step	Work Instructions for Change Coordinators
1.2 Change already registered to fulfill requirements of request ?	1.2.1 Look up the open changes for the service that is to be changed. Determine if a change has already been registered for a request that includes exactly the same requirements. 1.2.2 If such a change exists continue with 1.3.1. Otherwise go to 1.4.1

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.3 Add change request to existing change	1.3.1 If the change request was received from Incident Management in the form of a support request, click on its Relations tab to link the existing change to it. Indicate in the Information update field of the support request that the "Responsibility for coordination has been accepted by Change Management". Set the Status field of the support request to "Change Pending". 1.3.2 Similarly, if the change request was received from Problem Management in the form of a problem, click on its Relations tab to link the existing change to it. Indicate in the Information update field of the problem that the "Responsibility for coordination has been accepted by Change Management". Set the Status field of the problem to "Change Pending".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.4 Request for standard change ?	1.4.1 If the requested change can be implemented by following the workflow defined in a change template that has been approved by the service provider of the service that will be affected (i.e. if the request asks for the implementation of a standard change), go to 1.13.1. Otherwise continue

	with 1.5.1.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.5 Change request conflicts with internal standards or policies ?	1.5.1 Continue with 1.6.1 if the requirements of the change request conflict with an internal standard or policy. Otherwise go to 1.7.1.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.6 Reject change request	1.6.1 Make sure that the requester gets informed that the change request is in conflict with an internal standard or policy.
	1.6.2 If the change request was received from Incident Management in the form of a support request, do this by specifying in its Information update field which internal standard or policy the support request is in conflict with. Set the Completion code field of the support request to "Unable - Not Able to Solve or in Conflict with Standard or Policy", and set its Status field to "Completed".
	1.6.3 Similarly, if the change request was received from Problem Management in the form of a problem, do this by specifying in its Information update field which internal standard or policy the proposed structural solution is in conflict with. Set the Status field of the problem to "Rejected". This will cause the problem to be returned to its problem manager.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.7 Should request have been passed to Change Management ?	**1.7.1** If the change can be implemented without the involvement of Change Management, continue with 1.8.1. Otherwise go to 1.9.1. **Note:** A change must be coordinated by Change Management if its implementation will cause: a service to become unavailable or degraded during service hours, the functionality of a service to become different, or the CMDB to require an update.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.8 Reject change request	**1.8.1** Ensure that the change request is returned to the process from which it was passed to Change Management. **1.8.2** If the change request was received from Incident Management in the form of a support request, do this by specifying in its Information update field that the change can be implemented within the Incident Management process. Select your group coordinator in the Member field of the support request. Leave the Status field of the support request is set to "Assigned". **Note:** Do not set the Status field of the support request to "Rejected", as that will cause the service management application to automatically assign its to the service desk. **1.8.3** Similarly, if the change request was received from Problem Management in the form of a problem, do this by specifying in its Information update field that the change can be implemented within the Problem Management process. Set the Status field of the problem to "Rejected". This will cause the problem to be returned to its problem manager.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.9 Release Management required ?	1.9.1 Go to 1.12.1 if the change request asks for the prevention or fix of a <u>problem</u>, provided that: the change implementation can be coordinated by a single change coordinator, the implementation will not cause the <u>functionality</u> of the <u>service</u> to become different, and no additional funding is required to complete the implementation. Continue with 1.10.1 for any other kind of change request.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.10 Pass change request to Release Management	1.10.1 Assign the change request to the release manager of the service for which the change is requested. 1.10.2 If the change request was received from Incident Management in the form of a support request, do this by selecting the release manager of the <u>service</u> for which the change is requested in the <u>Member</u> field of the support request. Leave the <u>Status</u> field of the support request set to "Assigned". 1.10.3 Similarly, if the change request was received from Problem Management in the form of a problem, do this by selecting the release manager of the service for which the change is requested in the <u>Member</u> field of the problem. Leave the <u>Status</u> field of the problem set to "Change Requested".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.11 Review details of change request	1.11.1 Examine the information that was sent to you from Release Management to gain an understanding of the change request's requirements.

	Note: A change request from Release Management is normally a document that stipulates the change requirements. Alternatively, if Release Management is not required for a support request or problem that was passed on to Release Management earlier, the change request will be in the form of the support request or problem.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.12 Create new change	1.12.1 Open a new change and select the change template that will best facilitate the registration of the change for the change request. Leave the Status field of the change set to "Registered" (its default value).
	1.12.2 Ensure that you are selected in the Coordinator field of the change.
	1.12.3 In the Service field of the change, select the service that will be affected if the change is implemented.
	1.12.4 Provide a short description of the change in the Description field, and summarize the requirements in the Information update field of the change.
	1.12.5 Select the option "Distinct - Approved Change Template not Available" in the Category field, and select the reason why the change implementation has been requested in the Reason field of the change.
	1.12.6 If the change request was received from the Incident Management process in the form of a support request, click on the Relations tab of the change to link the support request to it. Indicate in the Information update field of the support request that the "Responsibility for coordination has been accepted by Change Management". Set the Status field of the support request to "Change Pending".
	1.12.7 Similarly, if the change request was received from the Problem Management process in the form of a problem, click on the Relations tab of the change to link the problem to it. Indicate in the Information update field of the problem that the "Responsibility for coordination has been accepted by Change Management". Set the Status field of the problem to "Change Pending".
	1.12.8 If the change request originated from Release Management, attach the requirements

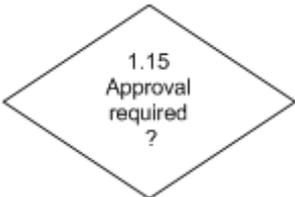|	
	documentation to the new change. Next, click on the <u>Relations</u> tab of the change and enter the number of the release for which the change has been requested in the <u>Release</u> field.
	1.12.9 Finally, if the change request originated from Continuity Management, attach the return-to-production tasks in the form of a document to the new change.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.13 Create new change using appropriate template	1.13.1 Open a new change and select the appropriate change template for the implementation of the requested change. This ensures that the fields of the change will be populated with values from the selected change template. It also ensures that work orders will be created and linked to the change in the same fashion that the work order templates are linked to the selected change template. Leave the <u>Status</u> field of the change set to "Registered" (its default value).
	1.13.2 Ensure that you are selected in the <u>Coordinator</u> field of the change.
	1.13.3 Ensure that the correct <u>service</u> has been selected in the <u>Service</u> field of the change.
	1.13.4 Adjust the short description of the change in the <u>Description</u> field as needed, and summarize the requirements in the <u>Information update</u> field of the change.
	1.13.5 If the change request was received from Incident Management in the form of a support request, click on the <u>Relations</u> tab of the change to link the support request to it. Indicate in the <u>Information update</u> field of the support request that the "Responsibility for coordination has been accepted by Change Management". Set the <u>Status</u> field of the support request to "Change Pending".
	1.13.6 Similarly, if the change request was received from Problem Management in the form of a problem, click on the <u>Relations</u> tab of the change to link the problem to it. Indicate in the <u>Information update</u> field of the problem that the "Responsibility for coordination has been accepted by Change Management". Set the <u>Status</u> field of the problem to

	"Change Pending".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.14 Risk and impact analysis required ?	1.14.1 Go to 2.1.2 if one or more risk and impact analysis work orders need to be answered for the change. Otherwise continue with 1.15.1.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
1.15 Approval required ?	1.15.1 Go to 2.5.1 if the change needs to be approved before it can be implemented. Otherwise, if no approval is required, go to 4.1.1.

Procedure 2, Change Planning

After having registered the change, the change coordinator starts the risk & impact analysis phase to gather the necessary information so that a change implementation plan can be created that minimizes both the risk of failure and the impact on the customer(s).

The change coordinator creates a separate risk & impact work order for each question that needs to be answered.

If a new service infrastructure is to be built, or if an existing service infrastructure is likely to require a modification in order to satisfy the change requirements, the change coordinator also assigns a risk & impact work order to the availability manager for the creation of a new, or the modification of an existing, service infrastructure design.

Whenever the change coordinator can answer a question, he/she completes the risk & impact work order him/herself. Risk & impact work orders that cannot be answered by the change coordinator are assigned to the most appropriate specialist within the change coordinator's group, or to another group.

Using the answers of the risk & impact work orders, the change coordinator adjusts the change plan that was copied from the template when registering the change to ensure that the risk of failure and the impact on the

customer(s) is minimized.

Procedure 2, Change Planning

From Change Management step 1.15

From Change Management step 1.12, 1.14 or 3.4

Change Coordinator

```
                                    2.3
                          No    Sufficient    Yes
                                information
                                    ?
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2.1 Assign risk & impact analysis work orders

2.4 Create change plan

From Availability Management step 1.9

Specialist

2.2 Complete risk & impact analysis work orders

To Availability Management step 1.1

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
2.1 Assign risk & impact analysis work orders	2.1.1 Create a risk & impact work order for each question that is to be answered in order to: identify, and determine how to minimize, each risk that could cause the implementation of the change to fail, and to identify, and determine how to minimize, the impact of the change implementation on the customer(s). 2.1.2 Determine for each risk & impact work order who the most appropriate member of your group would be to answer it. Select this person in the Member field of the work orders. Select yourself in this field whenever you can provide the answer yourself. If a risk & impact work order cannot be answered by a member of your group, select the group that can answer it in the Group field. In such a case, the group coordinator of that group will assign the work

	order to the most appropriate member of that group.
	2.1.3 Also assign a risk & impact work order to the availability manager for service infrastructure design if the change could require a new service infrastructure to be built, or if it could require an existing service infrastructure to be adjusted.
	2.1.4 Ensure that the date and time specified in the Target date field of the work orders is achievable.
	2.1.5 Set the Status field of the risk & impact work orders to "Assigned".
	2.1.6 Set the Status field of the change to "Risk & Impact".

Work Instructions

Procedure Step	Work Instructions for Specialists
2.2 Complete risk & impact analysis work orders	2.2.1 Open the risk & impact work order and read the instructions in the Information field.
	2.2.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note: If the work order had better be assigned to another specialist, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected.
	2.2.3 As soon as you are ready to start your work on the risk & impact work order, set its Status field to "In Progress" and try to find the answer to its question.
	Note: If for any reason you cannot continue your work on the work order (e.g. you are waiting for information from a supplier), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the answer can be expected.
	2.2.4 As soon as you know the answer to the risk & impact analysis question, enter it in the Result field and set the Status field of the work order to "Completed".
	Note: If you were unable to find an answer to the risk & impact analysis question, set the Status field of the work order to "Failed" and specify in the Result field why the question could not be answered.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
2.3 Sufficient information ?	2.3.1 Review the risk & impact analysis answers, by opening the completed risk & impact work orders. 2.3.2 If sufficient information has been provided to create a change plan that minimizes the risk of failure and the impact on customers, continue with 2.4.1. Otherwise return to 2.1.1 to request additional information.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
2.4 Create change plan	2.4.1 Develop a change implementation plan using the results of the risk & impact analysis. The objective is to create a plan that minimizes both the risk of failure and the impact on the customer(s). Do this by adding the necessary implementation work orders to the change. Also cancel any approval and implementation work orders, which were generated by the change template when the change was registered, if they do not apply to this change implementation. Note: A work order can be cancelled by setting its Status field to "Cancelled" and specifying in the Result field why it was cancelled. 2.4.2 Whenever practical, include work orders for testing the change in a separate environment (also for infrastructure changes). 2.4.3 Ensure that the change plan includes a work order for a production test after the implementation of the change. Note: When multiple tasks need to be assigned to the same person, and if these tasks are to be completed in sequence without interruption, a single work order can be created to cover all these tasks. 2.4.4 Determine for each implementation work order who the most appropriate member of your group would

be to execute it. Select this person in the Member field of the work orders.

If a work order cannot be completed by a member of your group, select the group that can complete it in the Group field. In such a case, the group coordinator of that group will assign the work order to the most appropriate member of that group.

2.4.5 Also assign work orders to:

> the configuration manager for the update of the CMDB if the change will cause the CMDB information to become out-of-date,
> the service level administrator for the update of the service level management information if a service, service catalog item, or service level agreement will be added or adjusted by the change, and to
>
> the capacity manager for capacity utilization threshold setting if the change will result in a new service infrastructure, or the adjustment of the available capacity level(s) of an existing service infrastructure.

2.4.6 When the change is going to impact one or more customer organizations, enter the codes of these organizations in the Impacted org. field of the work order(s) that describe the work that is going to impact them.

2.4.7 Select the expected downtime duration in the Downtime field of each work order. Normally this field should be set to "None", except for work orders that will cause the service to become unavailable when they are executed.

2.4.8 Ensure that the date and time specified in the Target date field of the work orders is achievable.

2.4.9 Link each work order to the CI(s) that will be changed (if any) when the work order is executed. To do this, click on the Affected CIs tab of the work orders.

2.4.10 Ensure that the Status field of the implementation work orders is set to "Registered".

2.4.11 In the Information update field of the change, specify how the change should be rolled back if a rollback turns out to be necessary. Specify for example: "In case a rollback is required, restore the backup that is planned to be taken just before the new release is transferred to production."

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
2.5 Update change to notify change manager	2.5.1 Set the Status field of the change to "To Be Approved". This will cause the change to appear in the change manager's list of changes that are waiting for approval.

Procedure 3, Change Approval

After the risk & impact analysis has been completed and the implementation plan has been developed, the change manager reviews the change. If the change manager finds the change to be in conflict with internal standards or policies, he/she informs the change coordinator that the change cannot be implemented.

If the change is not in conflict with any internal standards or policies, the change manager reviews the risk & impact analysis and the implementation plan. The change manager checks the plan to ensure that appropriate precautions have been planned to minimize both the risk of failure and the impact on the customer(s), and that the timing of the implementation does not conflict with other planned changes or events.

If the risk & impact analysis is found to be insufficient, the change manager requests additional analysis from the change coordinator. Similarly, if the planning does not adequately address the risk of failure or the impact on the customer(s), or if the planning conflicts with other planned changes or events, the change manager requests an adjustment of the implementation plan from the change coordinator.

On the other hand, if the risk & impact analysis and the planning of the implementation appear to be in order, the change manager determines the approval that is required for the change.

Approval is required from the representatives of customers who will be affected by the change implementation, if it will cause:

- a service to be unavailable or degraded during service hours, or
- the functionality of a service to become different.

Approval from the service provider is sufficient if these conditions do not apply to the planned implementation.

If the change is rejected by an approver, the change manager finds out why. The change manager asks the change coordinator to perform additional risk & impact analysis or to adjust the planning if that was the reason why the change was rejected.

If the change was rejected for any other reason, the change manager informs the change coordinator that the change cannot be implemented.
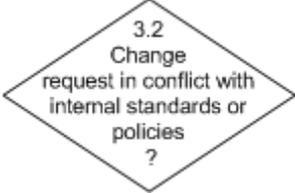
Procedure 3, Change Approval

Flowchart

From Change Management step 2.5 or 6.6

Change Manager

3.1 Review change details

3.2 Change request in conflict with internal standards or policies ? — Yes

No / Yes

3.10 Risk & impact or timing issue ? — No

3.3 Risk & impact analysis satisfactory ? — No → 3.4 Request further analysis → To Change Management step 2.1

Yes

3.11 In co[...]

3.5 Change plan satisfactory ? — No → 3.6 Request adjustment of change plan → To Change Management step 2.4

Yes

3.9 Approval for change obtained ? — Yes

No

3.7 Request required approval(s)

3.12 Upd notify cha[...]

CAB Member

3.8 Complete approval work order

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.1 Review change details	3.1.1 Review the requirements of the change to ensure that they do not conflict with an internal standard or policy. 3.1.2 Check the results from the risk & impact analysis to ensure that appropriate actions will be taken to minimize both the risk of failure and the impact on the customer(s). 3.1.3 Review the change plan to ensure that the timing of the implementation does not conflict with other planned changes or events.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.2 Change request in conflict with internal standards or policies ?	3.2.1 Go to 3.11.1 if the change is in conflict with an internal standard or policy. Otherwise continue with 3.3.1.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.3 Risk & impact analysis satisfactory ?	3.3.1 If the risk & impact analysis is inadequate because one or more specific questions have not been answered, continue with 3.4.1. Otherwise go to 3.5.1.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.4 Request further analysis	3.4.1 Specify in the Information update field of the change which questions still need to be answered in order to complete the risk & impact analysis. 3.4.2 Set the Status field of the change back to "Risk & Impact".

Work Instructions

Procedure Step	Work Instructions for Change Managers
 3.5 Change plan satisfactory ?	3.5.1 If the planning does not adequately address the risk of failure or the impact on the customer(s), or if the planning conflicts with other planned changes or events, continue with 3.6.1. Otherwise go to 3.7.1.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.6 Request adjustment of change plan	3.6.1 Specify in the Information update field of the change why the change plan needs to be adjusted. 3.6.2 Set the Status field of the change back to "Risk & Impact".

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.7 Request required approval(s)	3.7.1 Determine if approval is required from all CAB members (i.e. the customer representative(s) and the service provider) of the service that is to be changed, or just from the service provider. Note: Approval is only required from the customer representative(s) if the change implementation will cause: the service to become unavailable or degraded during service hours, or the functionality of the service to become different. 3.7.2 Determine who the customer representative(s) are of the service that is planned to be changed if customer representative approval is required. 3.7.3 Determine who the service provider is of the service that is planned to be changed. Note: Approval from the service provider is required for

		each change coordinated by Change Management, regardless of whether customer representative approval is required or not.
	3.7.4	Ensure that an approval work order exists for each CAB member whose approval is required for the change. If not enough approval work orders were generated by the template used to create the change, create additional approval work orders as needed using the approval work order template. If too many approval work orders were generated by the change template, cancel the ones that are not required.
	Note:	A work order can be cancelled by setting its Status field to "Cancelled" and specifying in the Result field why it was cancelled.
	3.7.5	Select a different CAB member, whose approval is required for the change, in the Member field of each approval work order.
	3.7.6	Ensure that the date and time specified in the Target date field of the approval work orders is achievable.
	3.7.7	Set the Status field of each approval work order to "Assigned".

Work Instructions

Procedure Step	Work Instructions for CAB Members	
3.8 Complete approval work order	3.8.1	Open the approval work order and read the instructions in the Information field.
	3.8.2	Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note:	If the approval work order had better be assigned to another person, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected.

Alternatively, select the person, to who you would like to re-assign the approval work order, in the Member field. Specify in the Information update field of the work order why you re-assigned the approval work order. |
| | 3.8.3 | As soon as you are ready to start your work on the approval work order, set its Status field to "In Progress". Access the details of the change from the work order to review its requirements, its risk & |

	impact analysis, and its implementation plan.
	Note: If for any reason you cannot continue your work on the work order (e.g. you are waiting for information from other persons before you can approve the change), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the approval work order is expected to be completed.
	3.8.4 As soon as you know that the change can be approved, set the Status field of the approval work order to "Completed". On the other hand, if the change cannot be approved, set the Status field of the approval work order to "Failed" and specify in the Result field why it cannot be approved.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.9 Approval for change obtained ?	3.9.1 If every approver updated the Status field of his/her approval work order to "Completed", go to 3.12.1. Otherwise, if an approver selected "Failed" in the Status field of his/her approval work order, continue with 3.10.1.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.10 Risk & impact or timing issue ?	3.10.1 Read the text in the Result field of every approval work order of which the Status field was set to "Failed" to find out why the change was rejected. 3.10.2 Return to 3.3.1 if the change was rejected because one or more approvers considered the risk & impact analysis inadequate, or if one or more approvers identified a timing conflict. If the change was rejected for any other reason, continue with 3.11.1.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.11 Inform change coordinator	3.11.1 Contact the coordinator of the change and explain why the change was rejected. 3.11.2 Ask the change coordinator to inform the requesters and approvers of the change and to subsequently close it.

Work Instructions

Procedure Step	Work Instructions for Change Managers
3.12 Update change to notify change coordinator	3.12.1 Set the Status field of the change to "Approved". This informs the change coordinator that the change has been approved.

Procedure 4, Infrastructure Change Implementation

The first implementation work order(s) are assigned after the change has been approved. If it concerns an application change, the implementation continues in Procedure 5, Application Change Implementation.

If the change is an infrastructure change, the specialist(s) prepare the implementation to ensure operational readiness. This could involve ordering hardware, configuring a test environment, performing tests, etc.

When everything is ready, the specialist(s) implement the change in accordance with the change plan.

Procedure 4, Infrastructure Change Implementation

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
4.1 Assign implementation work orders	4.1.1 Assign the first implementation work order(s) after the **Status** field of the change has been set to "Approved" by the change manager. Do this by changing the work order **Status** field from "Registered" to "Assigned". Note: Only assign the work orders that do not have to wait for other implementation work orders to be completed first. Once they have been completed, assign the next work order(s), and so on. 4.1.2 Set the **Status** field of the change to "In Progress"

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
	4.2.1 Continue with 4.3.1 if the change is an infrastructure change. Go to 5.1.1 if it concerns an application change.

Work Instructions

Procedure Step	Work Instructions for Specialists
4.3 Complete work order(s) for final preparations	4.3.1 The work orders for completing the final preparations can include tasks like ordering new hardware or software licenses, testing new equipment in a lab environment, etc. This means everything to ensure operational readiness. When the Status field of your work order has changed from "Registered" to "Assigned", open it and read the instructions in the Information field. 4.3.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it. Note: If the work order had better be assigned to another specialist, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected. 4.3.3 As soon as you are ready to start the work, set the Status field of the work order to "In Progress" and make the final preparations before the change is implemented. Note: If for any reason you cannot continue your work on the work order (e.g. because you are waiting for equipment to be delivered), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be completed. 4.3.4 As soon as you have completed the work, set the Status field of the work order to "Completed". On the other hand, if the desired result could not be achieved, set the Status field of the work order to "Failed" and specify in the Result field why it was

	not possible to complete it successfully.

Work Instructions

Procedure Step	Work Instructions for Specialists
4.4 Complete work order(s) to put change in production	4.4.1 When the Status field of your work order has changed from "Registered" to "Assigned", open it and read the instructions in the Information field. 4.4.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it. Note: If the work order had better be assigned to another specialist, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected. 4.4.3 As soon as you are ready to start the work, set the Status field of the work order to "In Progress" and complete the implementation. Note: If for any reason you cannot continue the work on the work order (e.g. because you are waiting for equipment to be delivered), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be completed. 4.4.4 As soon as you have completed the work, set the Status field of the work order to "Completed". On the other hand, if the desired result could not be achieved, set the Status of the work order to "Failed" and specify in the Result field why it was not possible to complete it successfully.

Procedure 5, Application Change Implementation

After the first implementation work order(s) of the application change have been assigned, one or more specialists develop and test the new release in the development environment.

When the new release has passed the tests that the specialist(s) submitted it to in the development environment, the release administrator transfers it to the test environment where the customer representative(s) ensure that it gets tested.

The change coordinator creates and assigns additional work orders if the new release did not pass customer testing, so that the new release can be corrected.

If, on the other hand, the new release passed customer testing, the specialist(s) ensure that everything is ready to take the new release into production (i.e. ensure operational readiness). This could involve user training, the addition of storage capacity for the production and continuity environments, ordering additional software licenses, etc.

Finally, the release administrator transfers the new release into production.

Procedure 5, Application Change Implementation

Work Instructions

Procedure Step	Work Instructions for Specialists
5.1 Complete work order(s) for building new release	5.1.1 When the Status field of your work order for the development of the new release has changed from "Registered" to "Assigned", open it and read the requirements in the Information field.

	5.1.2 Set the [Status](#) field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note: If the work order had better be assigned to another developer, ask the change coordinator to change its assignment. To do this, set the [Status](#) field of the work order to "Rejected" and specify in the [Information update](#) field why it has been rejected.
	5.1.3 As soon as you are ready to start the development of the new release, set the [Status](#) field of the work order to "In Progress" and develop the new release.
	Note: If for any reason you cannot continue your work on the work order (e.g. the development turns out to be more difficult than anticipated and you are waiting for help from a colleague), set its [Status](#) field to "Waiting for…", and specify in the [Information update](#) field what you are waiting for and when the work order is expected to be completed.
	5.1.4 As soon as you have completed the development of the new release, and you have tested it in the development environment, set the [Status](#) field of the work order to "Completed".
	On the other hand, if it was not possible to meet the requirements specified in the work order, set the [Status](#) field of the work order to "Failed" and specify in the [Result](#) field why it was not possible to develop the required functionality.

Work Instructions

Procedure Step	Work Instructions for Release Administrators
5.2 Complete work order for transfer to test	5.2.1 When the [Status](#) field of your work order for the transfer of the new release has changed from "Registered" to "Assigned", open it and read the instructions in the [Information](#) field.
	5.2.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note: If the work order had better be assigned to another release administrator, ask the change coordinator to change its assignment. To do this, set the [Status](#) field of the work order to "Rejected" and specify in the [Information update](#) field why it has been rejected.
	5.2.3 As soon as you are ready to start the transfer of the new release to the test environment, set the [Status](#)

	field of the work order to "In Progress" and perform the transfer.
	Note: If for any reason you cannot continue your work on the work order (e.g. because you have not been provided with the required access rights), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be completed.
	5.2.4 As soon as you have completed the transfer of the new release to the test environment, set the Status field of the work order to "Completed".
	On the other hand, if the transfer could not be completed successfully, set the Status field of the work order to "Failed" and specify in the Result field why it failed.

Work Instructions

Procedure Step	Work Instructions for Customer Representatives
5.3 Complete work order for testing new release	5.3.1 When the Status field of your work order for testing the new release has changed from "Registered" to "Assigned", open it and read the instructions in the Information field.
	5.3.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note: If the work order had better be assigned to another person, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected.
	5.3.3 As soon as you are ready to start testing the new release, set the Status field of the work order to "In Progress" and perform the tests in the test environment.
	5.3.4 Document the tests and their results in a document and attach this document to the work order.
	Note: If for any reason you cannot continue the work on the work order (e.g. it is temporarily impossible to access the test environment), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the tests are expected to be completed.

	5.3.5	As soon as you have finished testing the new release, and if it passed all tests, set the Status field of the work order to "Completed". On the other hand, if the new release did not pass all tests, set the Status field of the work order to "Failed" and specify in the Result field which test(s) caused the new release to function incorrectly.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
5.4 New release passed test ?	5.4.1 Go to 5.6.1 if the new release passed customer representative testing. Otherwise, if the new release failed the test, continue with 5.5.1.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
5.5 Create and assign additional work orders	5.5.1 Review the test result documentation from the customer representative(s) who discovered the malfunctioning of the new release. 5.5.2 Insert the necessary additional implementation work orders for correcting the new release and for getting it tested again by the customer representative(s). Note: When multiple tasks need to be assigned to the same specialist, and if these tasks are to be completed in sequence without interruption, a single work order can be created to cover all these tasks. 5.5.3 Determine for each new implementation work order who the most appropriate member of your group would be to execute it. Select this person in the Member field of the work orders.

	If a work order cannot be completed by a member of your group, select the group that can complete it in the Group field. In such a case, the group coordinator of that group will assign the work order to the most appropriate member of that group.
	5.5.4 In the new work orders, leave the Impacted org. field empty and set the Downtime field to "None".
	5.5.5 Ensure that the date and time specified in the Target date field of the new work orders is achievable.
	5.5.6 Click on the Workflow tab of each new implementation work order and use the Predecessors field to select the other work order(s) of the change that have to be completed before the work order may be executed. Also use the Predecessors field to put the new implementation work orders in the correct sequence with the ones that already existed and that still need to be completed.
	5.5.7 Link each new implementation work order to the CI(s) that will be changed (if any) when the work order is executed. To do this, click on the Affected CIs tab of the new work orders.
	5.5.8 Set the Status field of the work order(s) with which the change implementation should now continue to "Assigned".

Work Instructions

Procedure Step	Work Instructions for Specialists
5.6 Complete work order(s) for final preparations	5.6.1 The work orders for completing the final preparations can include tasks like adding storage capacity for the production and continuity environments, delivering training to users, etc. This means everything to ensure operational readiness. When the Status field of your work order has changed from "Registered" to "Assigned", open it and read the instructions in the Information field.
	5.6.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it.
	Note: If the work order had better be assigned to another specialist, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the

<table>
<tr>
<td></td>
<td colspan="2">Information update field why it has been rejected.</td>
</tr>
<tr>
<td></td>
<td>5.6.3</td>
<td>As soon as you are ready to start the work, set the Status field of the work order to "In Progress" and make the final preparations for transferring the new release into production (e.g. provide training to users of the application).</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td>If for any reason you cannot continue your work on the work order (e.g. because you are waiting for equipment to be delivered), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be completed.</td>
</tr>
<tr>
<td></td>
<td>5.6.4</td>
<td>As soon as you have completed the work, set the Status field of the work order to "Completed".

On the other hand, if the desired result could not be achieved, set the Status field of the work order to "Failed" and specify in the Result field why it was not possible to complete it successfully.</td>
</tr>
</table>

Work Instructions

Procedure Step	Work Instructions for Release Administrators
5.7 Complete work order for transfer to production	5.7.1 When the Status field of your work order for the transfer of the new release has changed from "Registered" to "Assigned", open it and read the instructions in the Information field. 5.7.2 Set the Status of the work order to "Accepted" if you are not yet ready to start working on it. Note: If the work order had better be assigned to another release administrator, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the Information update field why it has been rejected. 5.7.3 As soon as you are ready to start the transfer of the new release to the production environment, set the Status field of the work order to "In Progress" and perform the transfer. Note: If for any reason you cannot continue your work on the work order (e.g. because you have not been provided with the required access rights), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be

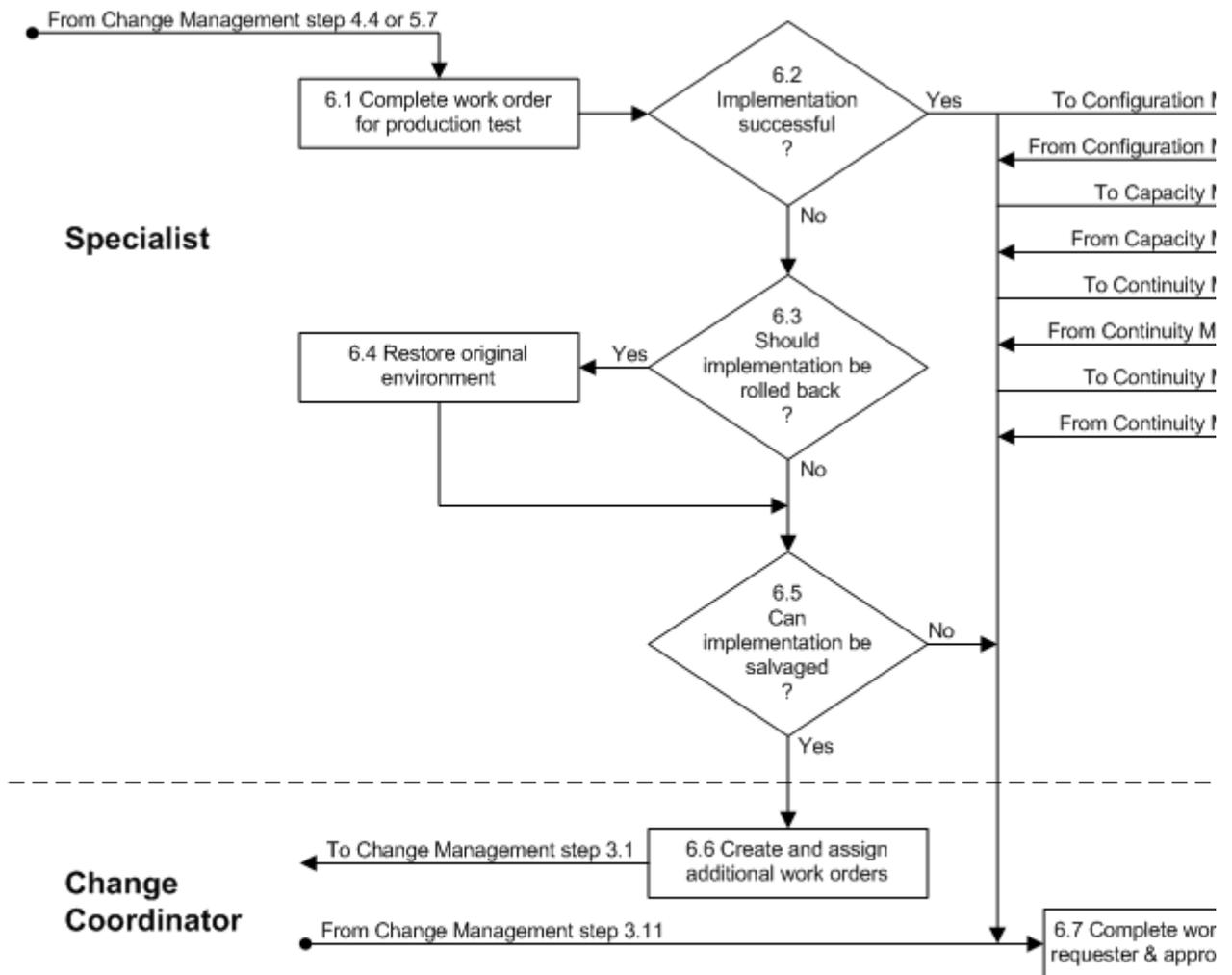| | | completed. |
| | 5.7.4 | As soon as you have completed the transfer of the new release to the production environment, set the <u>Status</u> field of the work order to "Completed". On the other hand, if the transfer could not be completed successfully, set the <u>Status</u> field of the work order to "Failed" and specify in the <u>Result</u> field why it failed. |

Procedure 6, Planned Change Closure

After the change has been put into production, a specialist (with the help of a <u>user</u> if the specialist does not have sufficient access rights) performs the production test to verify the success of the implementation.

The <u>CMDB</u>, the Capacity Management and the Continuity Management information is updated as needed after the specialist has determined that the change has been implemented successfully. The change coordinator subsequently informs the requesters and approvers of the change to let them know that it has been implemented successfully. Having done this, the change coordinator closes the change.

If the change was not successfully implemented, however, the specialist who performed the production test determines if the change should be rolled back. If the change does not provide an improvement over the previous situation, or causes a security or data integrity risk, the change is rolled back.

If the change implementation can still be made into a success, the change coordinator creates and assigns the necessary additional work orders. However, if there is currently no clear way to get the change implemented successfully, the change coordinator informs the requesters and approvers of the situation and closes the change.

From Change Management step 4.4 or 5.7

6.1 Complete work order for production test

6.2 Implementation successful? — Yes → To Configuration M... / From Configuration M... / To Capacity M... / From Capacity M... / To Continuity M... / From Continuity M... / To Continuity M... / From Continuity M...

No

6.3 Should implementation be rolled back? — Yes → 6.4 Restore original environment

No

6.5 Can implementation be salvaged? — No

Yes

Specialist

Change Coordinator

To Change Management step 3.1 ← 6.6 Create and assign additional work orders

From Change Management step 3.11

6.7 Complete wor... requester & appro...

Work Instructions

Procedure Step	Work Instructions for Specialists
6.1 Complete work order for production test	6.1.1 When the Status field of your work order for testing the implemented change has changed from "Registered" to "Assigned", open it and read the instructions in the Information field. 6.1.2 Set the Status field of the work order to "Accepted" if you are not yet ready to start working on it. Note: If the work order had better be assigned to another person, ask the change coordinator to change its assignment. To do this, set the Status field of the work order to "Rejected" and specify in the

	Information update field why it has been rejected.
	6.1.3 As soon as you are ready to start testing the implemented change, set the Status field of the work order to "In Progress" and perform a final test in the production environment to ensure that the change has been implemented successfully.
	6.1.4 Describe the test and its result in the Result field of the work order.
	Note: If you do not have the access rights to perform a test in the production environment, work with a user who does.
	Note: If for any reason you cannot continue to work on the work order (e.g. it is temporarily impossible to access the production environment), set its Status field to "Waiting for…", and specify in the Information update field what you are waiting for and when the work order is expected to be completed.
	6.1.5 As soon as you have completed the test, set the Status field of the work order to "Completed" if the implementation passed the test. On the other hand, if the implementation failed the test, keep the work order open and continue with the next step.

Work Instructions

Procedure Step	Work Instructions for Specialists
6.2 Implementation successful ?	6.2.1 If the change appeared to have been implemented successfully, go to 6.7.1. Otherwise continue with 6.3.1.

Work Instructions

Procedure Step	Work Instructions for Specialists
6.3 Should implementation be rolled back ?	**6.3.1** If the change provides an improvement over the previous situation, and does not cause a security or data integrity risk, go to 6.5.1. Otherwise continue with 6.4.1.

Work Instructions

Procedure Step	Work Instructions for Specialists
6.4 Restore original environment	**6.4.1** Return the production environment to its state prior to the change implementation. **6.4.2** Add a description of how the original environment was restored in the Result field of the work order for performing the production test.

Work Instructions

Procedure Step	Work Instructions for Specialists
6.5 Can implementation be salvaged ?	**6.5.1** Determine if the change implementation can still be made into a success if additional steps were performed. Ask for the help of the other specialists and/or the change coordinator if necessary. **6.5.2** Add a summary of the decision and why it was taken to the Result field of the work order for performing the production test. **6.5.3** Set the Status field of the work order to "Failed". **6.5.4** If it was determined that the change implementation can still be salvaged, continue with 6.6.1. Otherwise go to 6.7.1.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
6.6 Create and assign additional work orders	6.6.1 Review the information in the Result field of the work order for the production test, which Status field was set to "Failed" by the specialist. 6.6.2 Insert the necessary additional implementation work orders for making the change implementation successful. Note: When multiple tasks need to be assigned to the same specialist, and if these tasks are to be completed in sequence without interruption, a single work order can be created to cover all these tasks. 6.6.3 Determine for each new work order who the most appropriate member of your group would be to execute it. Select this person in the Member field of the work orders. If a work order cannot be completed by a member of your group, select the group that can complete it in the Group field. In such a case, the group coordinator of that group will assign the work order to the most appropriate member of that group. 6.6.4 When the execution of one or more of the new work orders is going to impact one or more customer organizations, enter the codes of these organizations in the Impacted org. field of the work order(s) that describe the work that is going to impact them. 6.6.5 Select the expected downtime duration in the Downtime field of each new work order. Normally this field should be set to "None", except for work orders that will cause the service to become unavailable when they are executed. 6.6.6 Ensure that the date and time specified in the Target date field of the new work orders is achievable. 6.6.7 Click on the Workflow tab of each new work order and use the Predecessors field to select the other work order(s) of the change that have to be completed before the work order may be executed. Also use the Predecessors field to put the new work orders in the correct sequence with the ones that already existed and that still need to be completed. 6.6.8 Link each new work order to the CI(s) that will be changed (if any) when the work order is executed. To do this, click on the Affected CIs tab of the new work orders. 6.6.9 Set the Status field of the change back to "To Be Approved".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
6.7 Complete work order for requester & approver update	6.7.1 After you have been notified that the work on the change has been completed, change the Status field of your work order for updating the requester(s) and approver(s) of the change from "Registered" to "Accepted" if you are not yet ready to start working on it. As soon as you are ready to update the requester(s) and approver(s) of the change, set the Status field of the work order to "In Progress".
	6.7.2 If the change implementation was not successful (e.g. because the change request was rejected or because the change implementation had to be rolled back), specify the reason in the Information update field of the change.
	6.7.3 Send an e-mail to the approvers of the change to let them know whether or not the change was implemented successfully. If the change implementation was not successful, include the reason for the failure in the e-mail.
	6.7.4 From the Relations tab of the change, open each change request that was received from Incident Management in the form of a support request (if any). If the change implementation met the change requirements specified in a support request, summarize how the change was implemented in the Solution field of the support request and set its Completion code field to "Solved - Root Cause Analysis not Required". On the other hand, if the change implementation did not meet the change requirements specified in a support request, specify the reason for the failure in the Solution field of the support request and set its Completion code field to "Unable - Not Able to Solve or in Conflict with Standard or Policy".
	Note: Selecting an option in the Completion code field causes the Status field of a support request to be set to "Completed". This ensures that the service desk will inform the person who is linked to the support request in the Customer field.
	6.7.5 From the Relations tab of the change, open each change request that was received from Problem Management in the form of a problem (if any). If the change implementation met the change

		requirements specified in a problem, summarize how the change was implemented in its Solution field and set its Status field of to "Change Completed". On the other hand, if the change implementation did not meet the change requirements specified in a problem, specify the reason for the failure in its Information update field. Set the Status field of such problems to "Rejected" if the change was rejected by its approver(s) or to "Change Completed" if the implementation of the change did not fulfill the requirements specified in a problem (e.g. because the implementation was only partially successful or because it had to be rolled back).
	Note:	Setting the Status field of a problem to "Rejected" or "Change Completed" causes a problem to be returned to its problem manager.
	6.7.6	If the requirements for the change were received from Release Management in the form of a document, send an e-mail to the release manager to inform him/her whether or not the change was implemented successfully. If the change implementation was not successful, include the reason for the failure in the e-mail.
	6.7.7	If the change implementation was performed to return a service to production after it had been recovered by Continuity Management, send an e-mail to the service provider to inform him/her whether or not the change was implemented successfully. If the change implementation was not completely successful, include the reason for the failure in the e-mail.
	6.7.8	As soon as you have completed the update of the requester(s) and approver(s), set the Status field of the work order to "Completed".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
6.8 Close change	6.8.1 Select "Cancelled" in the Status field of any work order that did not reach the status "Completed" or "Failed" and specify in their respective Result fields why they are cancelled. 6.8.2 Select the appropriate completion code in the Completion code field of the change.

	6.8.3 Ensure that the <u>Status</u> field of the change is set to "Completed".

Procedure 7, Emergency Change Implementation

After the service provider (or on-duty manager if the service provider was not available) has asked a specialist to resolve an <u>incident</u> by implementing an <u>emergency change</u>, the specialist starts to work on the implementation. If the emergency change concerns an <u>infrastructure change</u>, the specialist performs the implementation as if completing a normal support request.

Alternatively, if the emergency change is an <u>application change</u>, the specialist first builds a new release in the development environment and makes sure that it will fix the incident without introducing new <u>bugs</u>. The specialist subsequently asks a release administrator to transfer the new release to the test environment. In the test environment, the specialist tests the new release.

If the new release did not pass the test, the specialist goes back to the development environment to correct it. On the other hand, if the new release passed the tests, the specialist asks the release administrator to transfer it to the production environment.

Procedure 7, Emergency Change Implementation

Work Instructions

Procedure Step	Work Instructions for Specialists
7.1 Application change ?	7.1.1 Summarize the conversation with the service provider (or on-duty manager if the service provider was not available) in the Information update field of the support request. 7.1.2 Go to 7.7.1 if it concerns an infrastructure change. Continue with 7.2.1 if it concerns an application change.

Work Instructions

Procedure Step	Work Instructions for Specialists
7.2 Build release in development environment	7.2.1 Implement the change as discussed with the service provider (or on-duty manager if the service provider was not available) in the development environment and test it there. Request the help from other specialists as needed. 7.2.2 Once the new release appears to function properly, contact the release administrator and request the transfer of the new release to the test environment. 7.2.3 Summarize what you have changed in the application, and specify who you have asked to transfer the new release, in the Information update field of the support request.

Work Instructions
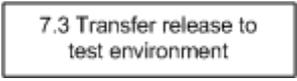
Procedure Step	Work Instructions for Release Administrators
7.3 Transfer release to test environment	7.3.1 Transfer the new release to the test environment. 7.3.2 Contact the specialist to inform him/her that the transfer has been performed.

Work Instructions

Procedure Step	Work Instructions for Specialists
7.4 Test new release	7.4.1 Test the new release in the test environment. 7.4.2 Summarize the tests that you have conducted, along with their results, in the Information update field of the support request.

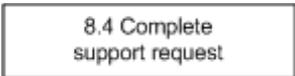## Work Instructions

Procedure Step	Work Instructions for Specialists
7.5 New release passed test ?	7.5.1 If the new release appeared to function as intended, contact the release administrator to request the transfer of the new release to the production environment. Specify whom you have asked to transfer the new release in the Information update field of the support request before continuing with 7.6.1. If, on the other hand, the new release did not pass your tests, return to 7.2.1.

Work Instructions

Procedure Step	Work Instructions for Release Administrators
7.6 Transfer release to production environment	7.6.1 Ensure that a rollback is possible. Make a backup if necessary. 7.6.2 Transfer the new release to the production environment. 7.6.3 Contact the specialist to inform him/her that the transfer has been performed.

Work Instructions

Procedure Step	Work Instructions for Specialists
7.7 Implement change	7.7.1 Implement the change as planned with the service provider (or on-duty manager if the service provider was not available). Request the help from other specialists as needed. 7.7.2 Summarize how the change has been implemented in the Information update field of the support request.

Procedure 8, Emergency Change Closure

The specialist performs the production test (with the help of a user if the specialist does not have sufficient access rights) after the implementation has been completed. If the implementation turns out to be unsuccessful, the specialist informs the service provider (or on-duty manager if the service provider is not available) to discuss the situation.

Conversely, if the specialist has determined that the implementation is successful, he/she completes the support request. In addition, the specialist asks the change coordinator of the affected service to register the emergency change.

The change coordinator registers the change and ensures that the CMDB and the Capacity Management information is updated if this is necessary. After that, the change coordinator informs the service provider to let him/her know that the emergency change has been implemented successfully. Finally, the change coordinator closes the emergency change.

From Change Management step 7.6 or 7.7 → 8.1 Perform production test

Specialist

8.2 Implementation successful ? — Yes → 8.4 Complete support request

To Incident Management

To Problem Management

No → 8.3 Inform service provider → To Incident Management step 6.1

8.5 Inform change coordinator

From Continuity Management step 3.9

Change Coordinator

8.6 Register change and assign work orders

8.7 Complete work or informing service pr

Work Instructions

Procedure Step	Work Instructions for Specialists
8.1 Perform production test	8.1.1 Perform a final test in the production environment to ensure that the change has been implemented successfully. Note: If you do not have the access rights to perform a test in the production environment, work with a user who does. 8.1.2 Summarize the test that you have conducted, along with its results, in the Information update field of the support request.

Work Instructions

Procedure Step	Work Instructions for Specialists
8.2 Implementation successful ?	8.2.1 Go to 8.4.1 if the implementation of the emergency change was successful. Otherwise continue with 8.3.1.

Work Instructions

Procedure Step	Work Instructions for Specialists
8.3 Inform service provider	8.3.1 Contact the service provider (in person or by telephone) to inform him/her that the emergency change implementation has failed. Note: Contact the on-duty manager instead if the service provider is not available.

Work Instructions

Procedure Step	Work Instructions for Specialists
8.4 Complete support request	8.4.1 Select the CI that caused the incident in the CI field if this has not been done yet, or if the wrong CI had been selected before. 8.4.2 Describe how the emergency change has been implemented to resolve the support request in the Solution field. 8.4.3 Select "Solved - Root Cause Analysis not Required" in the Completion code field if the root cause of the incident has been removed by the implementation of the emergency change. However, if the change implementation has not removed the root cause (e.g. the incident has been resolved by rebooting a server), select the completion code "Workaround - Root Cause not Removed". 8.4.4 If you believe that similar incidents are likely to occur if the root cause is not removed quickly,

| | | check whether the problem that caused the incident that you just resolved has already been registered. Do this by selecting the menu option "Actions - Open Problems for this Service". If the problem has already been registered, link the incident that you just resolved to this problem using the Relations tab of the support request. On the other hand, if the problem that caused the incident has not yet been registered, notify the problem manager of the service that was affected. Do this by e-mail or telephone and be sure to provide the problem manager with the support request number under which the incident is registered and explain to him/her why you believe that the incident is likely to recur. |
| | 8.4.5 | Set the Status field of the support request to "Completed" and perform a final review to ensure that the support request has been filled out correctly. |

Work Instructions

Procedure Step	Work Instructions for Specialists	
8.5 Inform change coordinator	8.5.1	Contact the change coordinator of the service that was affected and provide him/her with the support request number. Ask the change coordinator to register an emergency change for it in the service management application.

Work Instructions

Procedure Step	Work Instructions for Change Coordinators	
8.6 Register change and assign work orders	8.6.1	Open a new change and select the emergency change template.
	8.6.2	Ensure that the Status field of the new change is set to "In Progress".
	8.6.3	Ensure that you are selected in the Coordinator field of the change.

	8.6.4 In the Service field of the change, select the service that was affected by the incident for which the emergency change was implemented.
	8.6.5 Enter a short description of the emergency change in the Description field and summarize what has changed in the Information update field of the change.
	8.6.6 Ensure that the option "Emergency - Required for Incident Resolution" is selected in the Category field, and that "Correction of Infrastructure Component(s)" is selected in the Reason field of the change.
	8.6.7 Click on the Relations tab of the change and link the support request for which the emergency change was implemented to the change.
	8.6.8 If the CMDB needs to be updated, assign the work order for the update of the CMDB to the configuration manager of your group and set its Status field to "Assigned". On the other hand, if the CMDB does not require an update, set the Status field of this work order to "Cancelled" and specify in its Result field why the CMDB update is not required.
	8.6.9 If the available capacity level(s) of an existing service infrastructure have been adjusted, assign the work order for capacity utilization threshold setting to the capacity manager of the affected service and set its Status field to "Assigned". Alternatively, if the available capacity level(s) have not been adjusted, set the Status field of this work order to "Cancelled" and specify in the Result field that the available capacity level(s) have not changed.
	8.6.10 Assign the work order for informing the service provider of the implemented emergency change to yourself and set its Status field to "In Progress".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
8.7 Complete work order for informing service provider	8.7.1 Let the service provider (and the on-duty manager if he/she approved the emergency change implementation) know that the emergency change has been successfully implemented. Do this by sending an e-mail that summarizes the change that has been implemented.

	8.7.2 Paste the content of this e-mail into the Information update field of the work order.
	8.7.3 Set the Status field of the work order to "Completed".

Work Instructions

Procedure Step	Work Instructions for Change Coordinators
8.8 Close change	8.8.1 After all the work order(s) of the emergency change have been completed, set the Completion code field of the change to "Implemented".
	8.8.2 Ensure that the Status field of the change is set to "Completed".

Change

The table below lists the fields of the Change form and provides utilization guidelines for each field.

Page	Main	
Field	**Utilization**	
Number	This field contains the unique change number. This number is automatically generated by the application.	
Status	Use this field to select the appropriate status for the change from the following list of options:	
	Registered	The change is not yet ready for risk & impact analysis.
	Risk & Impact	The risk & impact analysis is being conducted for the change and the change plan is being finalized.
	To Be Approved	Approval has been requested for the change.
	Approved	The change has been approved.
	In Progress	The change is currently being implemented.
	Completed	No further action will be taken for this change because it

	has been implemented, rolled back, or rejected by its approver(s), as specified in the Completion code field.
	Separator
Coordinator	Use this field to select yourself as the coordinator of this change.
Service	Use this field to select the service that is to be changed. Select the special service "NORECORD - Service is not registered in database" if the service that is to be changed has not yet been registered in the application.
	Separator
Description	Use this field to enter a short description of the change.
Information	This field shows all information that was entered in the Information update field when the change was saved. Above each entry, the application indicates who entered the text in the Information update field and when it was saved. Each new entry is inserted at the top of this field.
Information update	Use this field to specify what the result should be after the change has been implemented and any additional information that could prove useful for the people affected by this change (including the specialists who are helping to implement it and the people who need to approve it).
	Separator
Category	Use this field to select the change category from the following list of options: Distinct - Approved Change Template not Available Emergency - Required for Incident Resolution Standard - Approved Change Template Was Used
Reason	Use this field to select the reason why the change has been requested from the following list of options: Expansion of Infrastructure or Service Improvement of Infrastructure or Service Replacement of Infrastructure Component(s) Correction of Infrastructure Component(s) Removal of Infrastructure or Service Move of Infrastructure Component(s)
	Separator
Creation date	This field is automatically set to the date and time at which the change was created.
Completion date	This field is automatically set to the date and time at which the change status was set to "Completed".
Completion code	Use this field to select the appropriate completion code for the change from the following list of options, after the change has

	been completed:
	Implemented Partially Implemented Rolled Back Rejected by Approver(s)
	Separator
Folder	This field is automatically set to the folder of the organization to which the person who created the change belongs.

Page	**Work Orders**
Field	**Utilization**
Work orders	Use this field to create new work orders and to link them to this change.

Page	**Relations**
Field	**Utilization**
Release	Use this field to create a link with the release for which this change was requested.
Relations	Use this field to create a link with the support requests and/or problems that form the requests for this change. Use this field also to create a link with the support requests that have been caused by the implementation of this change. In these cases, set the relation type to "Caused by Change Implementation".

Page	**Workflow**
Field	**Utilization**
Predecessors	Use this field to create a link with all the changes that must be completed before this change can be executed.
Successors	Use this field to create a link with all the changes that cannot be executed before this change is completed.

Page	**History**
Field	**Utilization**
Registration	The application automatically specifies in this field who created the item and when it was created. The application also uses this field to indicate who last updated the item and when this was done.

History	The application automatically creates a line when an audited field is filled out or updated. For each history line the application specifies who caused it to be created and when it was created.

Work Order

The table below lists the fields of the Work Order form and provides utilization guidelines for each field.

Page	Main	
Field	**Utilization**	
Number	This field contains the unique work order number. This number is automatically generated by the application.	
Status	Use this field to select the appropriate status for the work order from the following list of options:	

	Registered	The work order should not yet be executed.
	Rejected	The work order had better be assigned to another group or member.
	Assigned	The execution of the work order can start, unless it should not be executed before a specific date and time specified in the Information field.
	Accepted	The work order will be executed as soon as the member to whom the work order has been assigned is ready to start working on it.
	In Progress	The work order is currently being worked on.
	Waiting for…	It is temporarily not possible to make any further progress in the execution of the work order.
	Failed	An answer cannot be found for the risk & impact work order, the person to whom the approval work order was assigned cannot approve the change, or the objective of the implementation work order cannot be achieved.
	Completed	The answer has been provided for the risk & impact work order, the change has been approved by the person to whom the approval work order was assigned, or the execution of the implementation work order has achieved its objective.
	Cancelled	The work order should not be completed (e.g. because the change has been rejected, or the work order was generated by a change template but does not apply to

	this specific change implementation).
	Separator
Change	Use this field to select the change to which this work order should be linked. If this work order was created from within a change, then this change is automatically selected in this field.
	Separator
Description	Use this field to enter a short description of the work order.
Information	This field shows all information that was entered in the Information update field when the work order was saved. Above each entry, the application indicates who entered the text in the Information update field and when it was saved. Each new entry is inserted at the top of this field.
Information update	Use this field to specify how the work order should be executed, to describe what should be accomplished, and/or to provide a summary of the actions that have been taken to date.
	Separator
Folder	This field is automatically set to the folder of the organization to which the person who created the work order belongs.

Page	Details
Field	**Utilization**
Category	Use this field to select the work order category from the following list of options: Approval Implementation Risk & Impact
Impacted org.	Use this field to enter the codes of all customer organizations that will be impacted by the execution of this work order. Customers will be impacted if: the implementation of the change will cause the customer(s) to experience a service degradation or a service outage (regardless of the fact whether this is planned to occur during service hours), and/or the implementation of the change will cause the functionality that is provided to the customer(s) to become different.
Downtime	Use this field to select the downtime duration from the following list of options:

	None 15 Minutes 30 Minutes 1 Hour 2 Hours 3 Hours 4 Hours 6 Hours 8 Hours 10 Hours 12 Hours 16 Hours 20 Hours 24 Hours 30 Hours 36 Hours 42 Hours 48 Hours > 48 Hours Leave the default value set to "None" if the execution of the work order will not cause the service to be down.
	Separator
Creation date	This field is automatically set to the date and time at which the work order was created.
Target date	Use this field to select the date and time at which the execution of the work order should be completed.
Completion date	This field is automatically set to the date and time at which the work order status was set to "Completed", "Failed", or "Cancelled".
Assignment	Separator
Group	Use this field to select the group to which the work order is to be assigned.
Member	Use this field to select the person to which the work order is to be assigned.
Supplier	Use this field to select the supplier organization that has been asked to assist with the work order.
Reference number	Use this field to enter the unique reference number under which the work order has been registered by the supplier organization.
	Separator
Result	Use this field to provide information that might prove useful to the change coordinator, after the work order has been set to the status "Failed". For example, specify why the risk & impact work order could not be answered, or specify why the change was not approved in case of an approval work order. After the work order has been set to the status "Cancelled", enter the reason for the cancellation in this field. The work

order could, for example, require cancellation because the approver(s) of the change rejected it, or because the work order was generated by the change template used to register the change, but is not required for this specific implementation.

Also, fill out this field after having set the status to "Completed" and when the result is slightly different, or if the result was achieved in a different fashion, than specified in the Information field. If the work order was executed as specified, and the objective(s) have been achieved, there is no need to fill out this field.

Page	Affected CIs
Field	**Utilization**
Configuration Items	Use this field to create a link with all the configuration items that will be affected by the execution of this work order. Only use this field if the work order category is "Implementation".

Page	Workflow
Field	**Utilization**
Predecessors	Use this field to create a link with all the work orders that must be completed before this work order can be executed.
Successors	Use this field to create a link with all the work orders that should not be executed before this work order is completed.

Page	History
Field	**Utilization**
Registration	The application automatically specifies in this field who created the item and when it was created. The application also uses this field to indicate who last updated the item and when this was done.
History	The application automatically creates a line when an audited field is filled out or updated. For each history line the application specifies who caused it to be created and when it was created.