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1.0 Purpose of Change Management

Reduce the risk of downtime and unwanted incidents for our customers using our service environment.

2.0 Introduction

Change is the addition, modification or removal of anything that could have an effect on services. This includes changes to services and other configuration items, architectures, processes, tools, metrics and documentation.

3.0 Scope

To ensure that standardised methods and procedures are used for efficient and prompt handling of all Changes in order to minimise impact to the Service Environment.

4.0 Role descriptions

Role	Responsibilities	Comments
Change Process Owner	The Change Process Owner has responsibility for ensuring the that the Change Management process is fit for purpose	Transformation Director is the Change Process Owner
Change Requestor	The Change Requestor is to • Take ownership of each change requested • Ensure compliance with the Change Process • Raise Request in ServiceNow with accurate information • Ensure that Health & Safety, Business Risk, Security and Environmental risks are assessed for high risk activities. • Provide fall back plan information for each change • Minimize impact of change on the service environment or SLA	The Change Requestor is anybody who wishes to make a change to the Service Environment. This may be: • Service Team • Development Team • AVS Team • Site Managers • IT Manager • Security Manager The Change Requestor is responsible for driving the Service Change Request through all stages of the Service Change Life Cycle
Change Manager	The Change Manager is to • Coordinate the Service Change Management process • Organize the Incident, Problem, Change (IPC) meetings at which the (CAB) attend • Establish and enforce Levels of Quality • Monitor Effectiveness of the Service Change Management process • Monitor Compliance	Business Improvement Manager is the Change Manager. This role will change to the Operations Coordinator once ServiceNow reaches maturity.
Technical Assessor	The Technical assessor is to review the proposed change and recommend approval.	The Technical Assessor is a member of the Service Team who has not raised the request
Change Authorizer	Low and medium risk changes can be approved by Site Manager or Operations Manager. High and/or Very High Risk changes must be approved by CAB. **Emergency change:** Incident Manager (Tech on duty) is the first approver and in addition Management escalation list.	**Normal** – Low/Moderate risk requires 1 technical assessor and 1 authorizer **Normal** – High/Very High Risk requires 1 technical assessor and 2 authorizer (CAB) **Standard** – No approvers are required as this is a pre-authorized change
Change Advisory Board (CAB)	The Change Advisory Board is to	The CAB meets to discuss each RFC and considers the Risks to the Service Environment. Once satisfied that the risks are as low

	• Assess the Health & Safety, Business Risk, Security and Environmental risks involved in implementing a Service Change • Verify that adequate personnel and equipment resources are available • Communicate change to all parties involved • Approve or Reject High and Very High Risk Changes. •	as reasonably practical and that an effective back out plan exists, the CAB will Approve the Service Change. **High/Very High Risk changes are not to be started unless CAB Approval has been granted.**
Change Implementer	The Change Implementer is to • Implement the Service Change once approved • Document the Status and the result of the Implementation • Executing back-out procedures, if necessary • Communicating the process and outcome	The Change Implementer is the role that is going to make the Approved Service Change happen. This may be the • Service Team Manager, • Development Team • AVS Team • Site / Operations Managers • ICT Director • Security Manager In practice the Change Implementer and the Change Requestor may be the same person.
Change Reviewer (CAB)	The Change Advisory Board is to • To review all Changes that has been implemented. • Asses if any Change is a Standard Change. • Learn from experience and implement improvements.	The CAB meets/ or individual CAB member to approve. Review role for all implemented services.

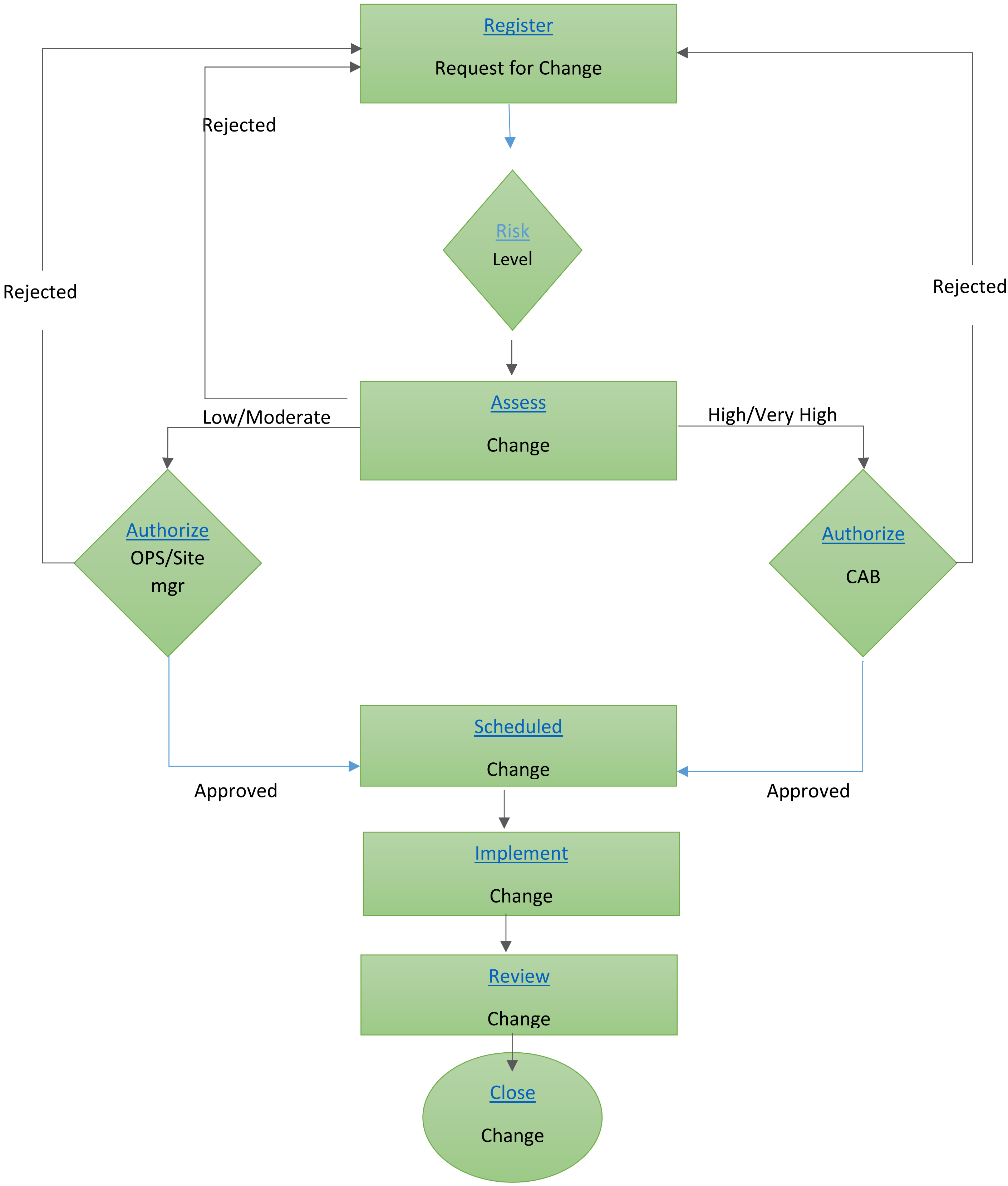
5.0 When to request for Change:

A Change is to be used for both proactive and reactive reasons. A request for Change is a formal request to change one or more CIs (Configuration Item) or processes.

Examples:

- CCUs
- Generators
- IT Equipment
- CCTV
- UPS
- Leak detection system
- etc

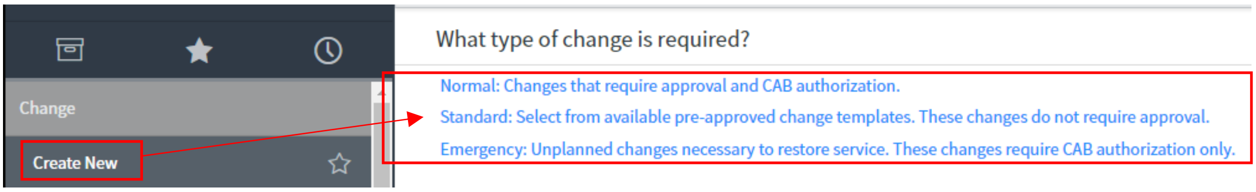
6.0 Process description


Register
Request for Change
Rejected
Risk
Level
Rejected
Rejected
Assess
Change
Low/Moderate
High/Very High
Authorize
OPS/Site
mgr
Authorize
CAB
Scheduled
Change
Approved
Approved
Implement
Change
Review
Change
Close
Change

6.1 Register request for Change

The one who requests a change has the role of Change Requestor. Members of the Service Team, Development Team, AVS Team, Site Managers, IT Managers, Security Managers and others can be Change Requestors.

To register a new change, select «Create new» in the Change module in ServiceNow. You will now be able to select from 3 types of change, Normal, Standard and Emergency.



6.2 Change types

There are 3 types of Service Change – *Emergency, Normal and Standard.*

Type of Change	Attributes	Remarks
Emergency	• Must be implemented as soon as possible (Within agreed SLA's) • May be High Risk but not always • This type of change follows the Emergency change procedure	**'Emergency'** Changes is reserved for changes intended to repair an error that is negatively impacting the business and must be implemented as quickly as possible. However, testing of the Emergency Change should still be carried out. Completely untested changes should not be implemented if at all avoidable. If something goes wrong the impact can be significant.
Normal	• Planned Changes that have a planned start and end date. • Risk must be evaluated • This type of change follows the Normal change procedure	Changes to Service portfolios, service definition, project changes, user access, must follow the "normal Change Management Process , and may be further categorized as Low, Moderate, High or Very High Risks **'Normal ' changes include:** Any change/addition/removal to/of a CI (Configuration Item) that is part of a live production system or service used within DigiPlex By definition a Normal change will proceed through all steps of the change management process and be reviewed by the Change Advisory Board (CAB). Exception is changes with Low – Moderate risk/impact.

Standard	• Preauthorized • Low Risk • Relatively common • This type of change follows the Standard change procedure	Based on SOP or EOP, RAMS A '**Standard'** Change will normally be Approved at the beginning of the year and be valid for the whole year.

When requesting a Change, one must include information in the following fields and sections:

Site - *This field is used to identify which DigiPlex Site the change is planned for.*

Location - *This field is used to identify which module, area, hallway, floor, room or other areas in the Site selected.*

CI (Configuration Item) is anything that is subject for the Change Request. The Item that is being changed.

Business Service is an especially important field. It expresses the end product/service that affects the Customer. Business Services are subject to SLA's, reporting, statistics and more.

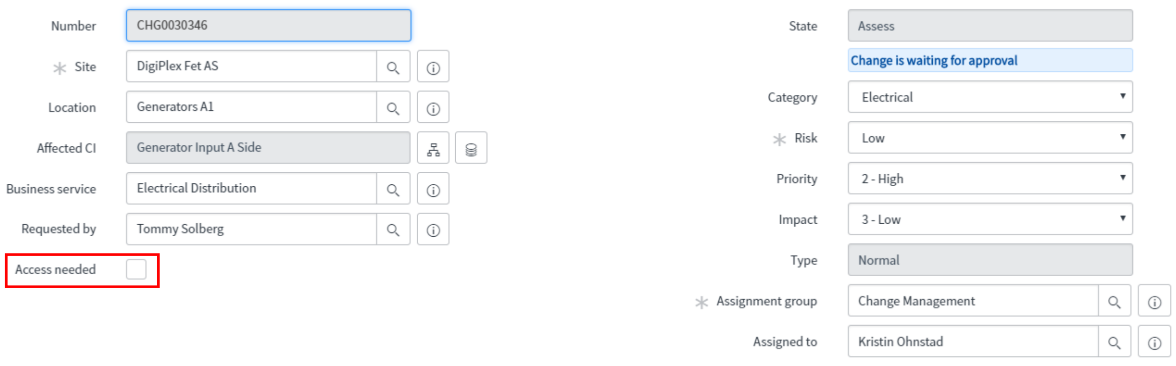
Requested by *(**note**: this field should be defaulted to the one who registers the change)*
This field is used to identify the one who requested the change in the first place. This can be a person other than the one who actually register the change. If this is the case, change this field to the correct person. Otherwise, leave yourself as «Requested by».

Category
Categories are used for statistics. Take care to select the right category.

Risk Level (see the Risk Matrix appendix in this document)

Priority and Impact
Priority is used to signify if a change has higher priority than another change. Use this with caution, as the planned date should be the guideline for prioritizing changes. Otherwise, leave the priority at its default setting.
Impact is to identify how much of the business is impacted. See the Risk matrix for specification of the impact levels.

Assignment Group and Assigned to
The assignment fields are used to identify who is responsible for the change.



The Access Needed checkbox is used when a customer specific area is affected by the Change. This means that the Change Requestor in addition must apply for access by using a Service Request; **Access Card Application.** You will find this on the Service Portal at https://digiplex.service-now.com/sp

Planning section:

This is to minimize the risk of errors, injuries and unwanted time spent during the implementation of the change. When the Planning part is properly filled in, it enables both Assessors and the Change Approvers to easily understand the purpose and is the basis for the final approval of the change.

Procedure section:

This section is meant to contain specific instructions for implementing a change, when the Description fields does not suffice. In the Procedure, one can fill in instructions and so on.
Tip: for repeatable jobs, create Templates in ServiceNow to avoid typing/copy and pasting.

Schedule section:
The schedule section is used to identify the start and end date/time for the implementation of the change. At this stage, only the Planned start date and Planned end date should be filled in. If the requestor has a specific requested date for the change to be completed, also fill in the Requested by date field.

Customer Notification Sent:

> ***Note:*** *CAB Date is filled in by the CAB after the Change has been handled in the CAB meeting.*
>
> ***Note:*** *CAB Required can be checked if you have a Low/Moderate Risk Change but still want it handled by CAB. The workflow automatically only sends High/Very High Risk changes for CAB Approval and Authorization. Low and Moderate Risk Changes is normally Approved and Authorized by outside the CAB.*
>
> ***Change Advisory Board (CAB):*** are at any time the persons registered in the CAB Approval Group in ServiceNow. It's required that two persons in the advisory board must authorize a Change with risk level High/Very High

Conflicts section (not applicable at the moment):

Although not completely configured in ServiceNow at the moment, the idea with this section is to make the Change Requestor aware if there are other changes for the same CI (Configuration Item) at the same time, if the change is planned outside agreed maintenance/change windows etc.

When you have completed your planning and registering of the Change Request, it is ready to be sent to assessment.

In the Change Management module in ServiceNow, press **«Request Approval»** to move it to the Assess-stage of the process.

Back to Process description

6.3 Assess Change

Technical Assessor is part of the Technical Team and is the first approver for technical issues. To ensure that this stage gives a second opinion of the planning of the change, this Assessor cannot be the same person who registered the change.

Review the content, adjust and Approve or Reject the Change. If you reject the change, you must also provide a reason why the change is rejected.

Based on the risk level (low, moderate, high or very high), the change is now ready to be sent for authorization from either CAB or outside the CAB (if low or moderate risk).

To approve the change and send it to authorization, simply approve the change, and the workflow in ServiceNow will automatically put the change in the Authorize stage.

6.4 Evaluation of Risk

Definition: Risk is the potential to cause harm, danger, an environmental incident, Security degradation or downtime on our services while implementing the change and how this will/can affect people/business services.

The objective of *Risk Management* is to *identify, assess* and *control risks*. This includes analyzing the value of assets to the business, identifying threats to those assets, and evaluating how vulnerable each asset is to those threats.
Ask questions like:

- What can go wrong, how likely is it, and what is the impact?
- What are the implications?
- Does it affect any other Business Services?
- Has it any impact to other CI's?
- What are the Risks of downtime during the Change?
- Are there any dependencies with this Change and other Changes?
- Are we sure that appropriate action is taken and verified that these changes are working as expected?
- Any risk of fire?
- Any risk of pollution of the external environment?
- Does the change affect the Security of the site
- Any risk of injury of employee or others?

6.4.1 Classifying Risk

Risks are classified according to the Risk Matrix

The Risk score is obtained from multiplying the Impact score by the Probability score

Example:

A Change that has the potential to cause harm to one person or have an impact on a single customer (Medium Impact Score 3) but is unlikely to occur (Probability Score 2) has a Risk Score of 6(3x2) ie a Moderate Risk and must be approved by a Technical Assessor and the Site Manager.

A Change that has the potential to harm all persons or have an impact on all customers(Impact score Very High 5) but is unlikely to occur (Probability score 2) has a Risk Score of 10 (5x2) ie a Very High Risk and must be approved by the CAB.

POTENTIAL CONSEQUENCE / IMPACT						
		No Impact	Impact on one person / Customer / Business Service	Impact on several persons / Customers / Business Service	Impact all persons / Customers / Business Services
		Low	Moderate	High	Very High
Probability		2	3	4	5
Almost certain to occur	5	10	15	20	25
Is likely to occur	4	8	12	16	20
Could Occur	3	6	9	12	15
Is unlikely to occur	2	4	6	8	10
Not Expected to occur	1	2	3	4	5

15 – 25 = VH -Very High Risk – Detailed planning and CAB Approval before Implementing
10 – 14 = H – High Risk – Needs CAB Approval before Implementing
5 – 9 = M – Moderate Risk – Technical Assessment and Site Manager Approval before Implementing
0 - 4 = L – Low Risk – Technical Assessment and Site Manager Approval before Implementing

6.5 Authorise Change

Based on the risk level, the change is now ready to be authorized for implementation. As already mention this is done by CAB if it is a high/very high-risk change or outside the CAB if it is low or moderate risk. The Authorizer reviews the content of the change, ensures that planning follows good practice, and all routines (health and safety measures included) are accounted for.

To approve the change and send it to implementation, simply approve the change, and the workflow in ServiceNow will automatically put the change in the Scheduled stage. Note: the change will automatically be set to the Implementation stage at the time of «Start date» given in the Change Request.

If you reject the change, you must also provide a reason why the change is rejected.

6.5.1 Approval Levels

The Change Advisory Board are tasked with approval of all Change Requests. The table below outlines the approval levels required per category.

	Change Priority					
Name	Standard	Normal Low	Normal Moderate	Normal High	Normal Very High	Emergency
Head of Operations				Yes	Yes	Yes
Site / Operations Manager- OPS Only	Yes	Yes	Yes	Yes	Yes	Yes
ICT Director –IT Only	Yes	Yes	Yes	Yes	Yes	Yes

Note: The Approval table indicates the Primary Approval CAB members. Additional Approvers are included in ServiceNow to support the process in the event of the absence of the Primary Approver

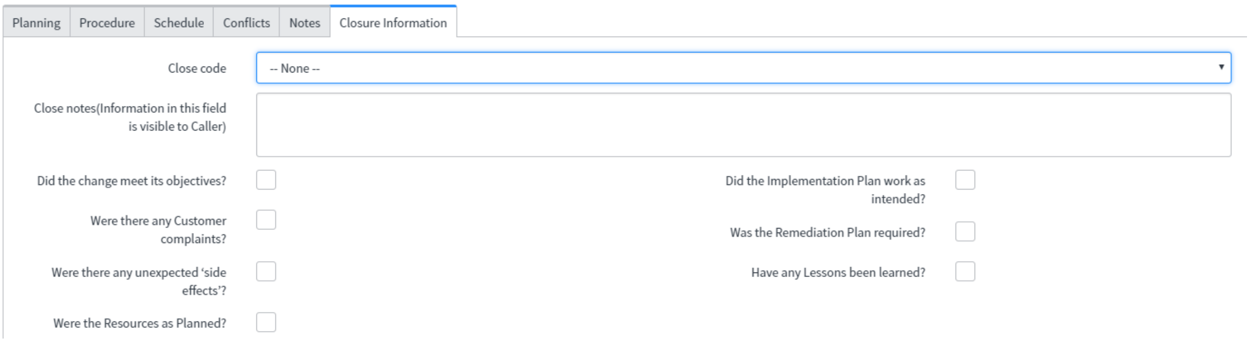
6.6 Change is Scheduled

The change will stay in the Scheduled stage until the time of «Start date» given in the Change Request.

6.7 Implement Change

At the date/time given in the «Start date» field in the Change Request, you can start implementing the change.

In the Notes section, provide information as you go, to document any relevant results, issues or other information that is useful. Take care not to overload this work-log with unnecessary information.



When you are finished with implementing the change, please complete the following fields prior to sending the change for Review:

Close code

The close code is to identify whether the change was successful. Use the close code applicable to the result from Implementing the change.

Close note and checkboxes

Please provide a descriptive Closure note. This should include any valuable information like learning points, roadblocks, complaints etc. E.g.; if you check «Have any Lessons been learned», it is expected that you also provide a Close note on what we learned.

To send the Change for review, click the «Review» button:

6.8 Review Change

All changes that are implemented are reviewed in weekly IPC meetings before they are closed. A result of this Review is e.g. if this change from now can be defined as a Standard (Pre-authorized) change, or if there were any problems in this change that needs to be addressed and corrected.

To close the change, press the «Close» button.

6.9 Close Change

After a review is completed and closed, the change request is now closed for editing.