



GRC CLOUD WORKFLOW REFERENCE GUIDE

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Workflows

Create a Workflow

1. Click on **Administration > Item Templates**.
2. Select the item type or sub-type you wish to modify. Sub-types are indented to the right of the **Item Types** list.
3. Click on the **Workflow** tab. Any existing workflows for this item type will be displayed as either **Published** or **Draft**.

When an item main type is selected, workflows that are attached to both the main type and all sub-types are displayed under the **Workflows** tab. However, if viewing an item sub-type, only the workflows relating to that sub-type and the main type are displayed. Workflows relating to other sub-types are not available.

4. Click **Add New**.
5. Enter a name for the workflow and a description (optional). Select the box next to the sub-types the workflow will be attached to. A workflow can operate on an item main type, a single sub-type or multiple sub-types, but it **cannot** be attached to a combination of main type and sub-type(s).
6. Click **Save**. The main workflow editing screen is displayed.

States

States are the stages of a workflow that an item can progress through.

*Note: All workflows begin with a **Start state**. Details can be edited, but this state is **always** the starting point for any workflow design and it cannot be deleted.*

Create a State

1. Click **Add State**.
2. Enter a name for the state.
3. **Optional:** Enter instructions. Instructions appear when the user clicks into the workflow state column then clicks **[?]** in a report
4. Select the following options as needed:
 - **Read Only State for Administrators:** Ensures that administrators can view, but not interact with an item in this workflow state.
 - **Block Item Updates from Framework Library:** Ensures that any changes made to the framework versions of an item in this state can't be made to the item (or any instance of it) while it's in that state.
5. Select a color for the state by launching the color picker. The color is used in the user interface for reporting and pie charts.
6. Click **Save**.

To add additional states, repeat the steps above. To edit an existing state, click the pencil icon next to the state name.

Add Triggers

Triggers are the actions that execute an item's transition from the current state to another state. Triggers typically appear as buttons, although dates and changes to a framework and transitions from other workflows (events) can also be triggers. For more details on framework or workflow event triggers, contact [Resolver Support](#) or refer to the Help file.

Button Triggers

1. From the **Overview** tab, click the **[+]** icon next to the state.
2. Enter the name of the trigger. This will be the text that appears on the button.
3. Ensure that **Button** is the selected trigger type.
4. **Optional:** Enter instructions. These instructions will appear when a user hovers his or her cursor over the button.
5. Enter the name of the transition this button will initiate. See the **Transitions** section for more information on transitions.
6. Select the next state from the dropdown menu.
7. If required, enter **Confirmation Statement** details. See **Confirmation Statements** for more information.
8. Click **Save**.

Confirmation Statements

Confirmation statements are an optional component of a transition and are displayed as a pop-up window that appears before a transition, requiring a user to explicitly confirm information or to express an intention to continue with the workflow.

1. In the **Add Trigger** or **Edit Trigger** dialog, select the **Should Show Confirmation** statement box.
2. Enter the text of the confirmation statement. This text should be written as something that is either confirmed or rejected. The text field supports simple text formatting using the buttons at the top of the text editing window.
3. If required, edit the default text for the confirmation button (**OK**) and the rejection button (**Cancel**).
4. Click **Save**.

Conditional Date Triggers

Note: Conditional date triggers are executed on a daily frequency.

1. From the **Overview** tab, click the add icon next to the state.

2. Enter the name of the trigger. This will be the text that appears on the button.
3. Ensure **Conditional Date** is the selected trigger type.
4. Enter the name of the transition that this button will initiate. See [Transitions](#) for more information.
5. Select the **Next State** from the dropdown menu.
6. Click **Save**.
7. If needed, conditions can be added to the trigger. These conditions act as a primary check to see if the trigger should execute, if they pass then it will continue to transition. If it fails, the trigger is not executed. In order to create these conditions on the trigger, the trigger must first be saved and reopened. See the [Add Conditions to a Transition](#) section for more details.
8. Add a date condition to the trigger. Types of date conditions that will be checked against today's date:
 - A list of dates.
 - Criteria to be checked for completeness.
 - Criteria to be checked for certain values or ranges of values.
 - Whether a file is attached.
9. Click **Save**.

Each state can have only **one** conditional date trigger attached to it to avoid contradictory logic being placed on a state.

Any transition and state change caused by a date trigger will be recorded in the **Audit Trail** and **Change Log**. The user name attached to the change will be displayed as "Automated."

Edit an Existing Trigger

To edit a trigger that has already been created, click on the pencil edit icon next to its name in the top panel in the **Workflow Builder**. Then follow the steps outlined in the [Add Triggers](#) section. Not all fields are editable once a trigger has been created. Once the trigger is created, all the transition information (**Transition Name**, **Next State**, and **Confirmation Statement**) is moved to the transition and can be edited via the edit transition pop-up. (See [Edit an Existing Transition](#) section.)

Transitions

Although a transition is often just the simple passing of an item from one state to another, GRC Cloud can create more sophisticated transitions that follow business rules and update an item with specific information at the time of the transition.

The transition is created when defining a trigger and consists of a name (which, although not seen by users, is important for the administrator building the workflow), a next state and, optionally, a transition statement. It's possible to edit the transition created with the trigger and add alternative transitions to a trigger.

While adding and editing transitions you can:

- Route workflows, depending on values of fields in the items or other factors, by setting up multiple possible transitions, each with different business rules called conditions.
- Ensure that specific fields have been filled or other requirements have been met before allowing an item to transition from one state to another.
- Set values of criteria within an item at the time of a transition to record useful information, such as the name of the user working on the item and the date of the transition.

Edit an Existing Transition

Transitions are automatically created when triggers are created. Some pertinent information entered when creating a trigger is populated into the transition dialog box when editing the transition.

1. On the **Transition** screen, click the pencil icon in the top-right corner. The name of the transition and the next state, which were defined when the trigger was created, are displayed in the dialog box and may be edited.
2. Click **Save**.

Add Additional Transitions to a Trigger

1. On the **State Editor** screen, click the green plus icon next to the outgoing trigger.
2. Enter a name for the transition.
3. Identify the **Next State** that the transition will route to.

4. **Optional:** Add a confirmation statement if needed. See [Confirmation Statements](#) for more information.
5. Click **Save**.

Manage the Order of Transitions

1. On the **State Editor** screen, transitions are not displayed, but the **Outgoing States** of a transition are displayed.
2. Use the dropdown number box to adjust the order of transitions.

Conditions

Add Conditions to a Transition

The workflow engine uses two different types of conditions:

Check Value options

Check Value compares the value of a criteria or of a function result with the condition and compares today's date with a list of predefined dates. If the value meets the condition, the transition will be allowed.

Check values can be run only on the following criteria types:

- **Radio buttons and dropdown lists:**

The value in the criteria can be:

- The same as a specified value
 - Different from a specified value
 - Greater than a specified value
 - Greater than or equal to specified value
 - Less than a specified value
 - Less than or equal to a specified value
- **Date fields:** Compares the date the transition is occurring (i.e. today's date) with a date criteria on the item.

The condition can be set so that the transition date is:

- The same as the date in the criteria
- Different from the date in the criteria
- Greater than a fixed number of days before the date in the criteria
- Greater than or equal to a fixed number of days before the date in the criteria
- Less than a fixed number of days before the date in the criteria
- Less than or equal to a fixed number of days before the date in the criteria
- Greater than a fixed number of days after the date in the criteria
- Greater than or equal to a fixed number of days after the date in the criteria
- Less than a fixed number of days after the date in the criteria
- Less than or equal to a fixed number of days after the date in the criteria

- **Scheduled dates:** When a trigger executes, instead of comparing today's date with a criteria, it compares today's date with a predefined list of dates. If today's date matches one of the listed dates for the transition, the transition will proceed (assuming other conditions are met and validations are passed).
- **Functions:** Check values can also be run on function results. The condition can be set so that the value of the function result can be:
 - The same as a specified value
 - Different from a specified value
 - Greater than a specified value
 - Greater than or equal to specified value
 - Less than a specified value
 - Less than or equal to a specified value

Note: Invalid or not calculated functions fail the condition.

- **Child Items (Self):** Check to determine whether a certain item type exists below the item being transitioned:
 - At least one item exists below the item being transitioned that matches the defined item type selected.
 - If it does have that item type, the condition/validation passes and the item continues down the transition.
 - If it does not have that item type, the condition is not met and continues to the next condition.
 - If validation fails, the transition is canceled and user is notified the item could not be transitioned.
- **Child Items (Ancestor):** Check the ancestor(s) of an item on a transition of the workflow to determine whether a certain item type exists below the specified ancestor:
 - Cascades the tree above while searching for the first item found that matches the defined item type.

- Once it finds that item type, it will check to see if at least one item exists below it that matches the defined item type selected.
 - Checks that there is at least one item of that type below.
 - If it does, the condition/validation passes and the item continues down the transition
 - If it does not, the condition is not met and continues to the next condition.
 - If validation fails, the transition is canceled and user notified item could not be transitioned.
- **Workflow States for Item Type**
 - On transition of an item, it can cascade in either direction of the tree and check for an item type that is in a specific workflow state. Example: Prior to signing-off on a process, audit or other item, verify that all descendants are in their signed-off state.
 - It applies to siblings, parent, children, descendants, and ancestors
 - If the item defined in the condition does not exist in the tree, it will pass the condition. To identify if an item exists in the tree, a child item condition/validation can be set up to accommodate this (see above).

Has Value Options

This checks to ensure that:

- Any value exists for one or more specified criteria (any criteria type).
- Any value exists for a one or more function results (i.e. it is neither invalid nor not calculated).
- The item is a specific item sub-type.
- A user in one or more specific roles is attached to the item.
- At least one file is attached to the item.

Add or Edit Conditions

1. To edit a transition, click the name of the transition highlighted in blue.
2. Click the **Conditions** tab.

3. Click the green [+] icon labeled **Condition** and select either a **Check Value** condition or **Has Value** condition.
4. For a **Check Value** condition, enter the name of the condition (this is not displayed to users, but is an identifier for the administrator designing the workflow) and select the condition type (criteria, function, or scheduled date).
5. Select the specific criteria or function result to be compared to the condition. This will include the condition type (greater than, less than, equal to etc.) and the value the criteria or function result will be compared to. For date criteria, there is a field to enter a number of days and a **Before/After** field. For scheduled date, enter one or more dates to be compared with today's date.
6. For a **Has Value** condition, enter the name of the condition (this is not displayed to users, but is an identifier for the administrator designing the workflow).
7. For each condition type, except file (i.e. criteria, function, sub-type, file or role), select the condition type from the dropdown menu, then click the radio buttons for the appropriate fields. For the file condition, there are no checkboxes as the condition simply checks that there is a file attached to the item. All choices are combined into the one condition.
8. Click **Save**.

More than one condition can be attached to a transition. In order for the transition to occur, **all conditions must be passed**. To add further conditions, repeat steps 3-8 as needed.

To edit a condition, click the pencil icon next to a condition. Note that there are limitations as to what can be changed while editing, so it may be necessary to delete a condition then create a new one.

Set Up a Child Item Condition

1. Click the name of the transition.
2. Click the **Conditions** tab.
3. Click the green [+] icon labeled **Condition** and select either a **Check Value** condition or **Has Value** condition.
4. For a **Check Value** condition, enter the name of the condition (this is not displayed to users, but is an identifier for the administrator designing the workflow) and select the condition type (criteria, function, or scheduled date).

5. Select an item type from **Define Type of Check**:
 - **Self**: Checks items directly below the item being transitioned.
 - **Ancestor**: Cascades up and checks below the item defined.
 - **For Self**: Select the item to exist from the **Define Item Type to Confirm Existence** dropdown.
 - **For Ancestor**: Select an item type to cascade up the tree from the **Define Ancestor to Check Below** dropdown.
 - **For Ancestor**: Select the item type to exist from the **Define Item Type to Confirm Existence** dropdown.
6. Click **Save**.

Set Up Workflow States for an Item Type Condition

1. Click the name of the transition.
2. Click the **Conditions** tab.
3. Click the green [+] icon labeled **Condition** and select either a **Check Value** condition or **Has Value** condition.
4. For a **Check Value** condition, enter the name of the condition (this is not displayed to users, but is an identifier for the administrator designing the workflow) and select the condition type (criteria, function, or scheduled date).
5. Select an item type from **Define Type of Check** (Ancestors/Parent/Siblings/Children/Descendants).
6. Select either **Define Item Type to Check** (this condition will look for and determine its state) or **Define the State Name** (must come from the list of states associated with the workflow attached to the item type above).
7. Click **Save**.

Validations & Validation Options

When adding validations to a transition, the workflow engine uses two different types of validations:

- **Check Value Options:** Compares the value of a criteria or of a function result with the validation. If the value passes the validation, the transition will be allowed.
- **Has Value Options:** Checks to ensure that:
 - Any value exists for one or more specified criteria (any criteria type).
 - Any value exists for one or more function results (i.e. it's neither invalid nor not calculated).
 - The item is a specific item sub-type.
 - A user in one or more specific roles is attached to the item.
 - At least one file is attached to the item.

Add or Edit Validations

1. To edit a transition, click the name of the transition highlighted in blue.
2. Click the **Validations** tab.
3. Click the green plus icon labeled **Validation** and select either a **Check Value** validation or **Has Value** condition.
4. For a **Check Value** validation, enter the name of the validation (this is not displayed to users, but is an identifier for the administrator designing the workflow) and select the validation type (criteria, function, or scheduled date).
5. Select the specific criteria or function result to be compared to the validation, the validation type (greater than, less than, equal to etc.) and the value the criteria or function result will be compared to. For date criteria, there is a field to enter a number of days and a **Before/After** field. For scheduled date, enter one or more dates to be compared with today's date. For a **Has Value** validation, enter the name of the validation (this is not displayed to users, but is an identifier for the administrator designing the workflow).
6. For each validation type, except file (i.e. criteria, function, subtype, file or role), select the validation type from the dropdown menu, then click the radio buttons for the appropriate fields. For the file validation, there are no checkboxes as the validation simply checks that there is a file attached to the item. All choices are combined into the one validation.
7. Click **Save**.

More than one validation can be attached to a transition. In order for the transition to occur, all validations must be passed. To add further validations, repeat steps 3-8 as needed.

To edit a validation, click the pencil icon next to the validation name. There are limitations as to what can be changed while editing, so it may be necessary to delete the validation, then create a new one.

Actions

The **Actions** feature is a powerful element of transitions, enabling a change to be made automatically to an item at the time of the transition.

An action can be used to:

- **Set a criteria value** for the following types:
 - Dropdown
 - Radio button
 - Date
 - User picker
- **Add a new sub-type** to the item. Note that sub-types may be added, but not removed.
- **Calculating functions** to update function values after transition of the item.
- **Creating a child item** to create defined child item after the transition of an item.

Actions are useful for:

- Setting a specific value within an item that has not been set by a user.
- Recording either the date an item was transitioned or a related date for a follow-up.
- Recording the name of the user who worked on an item in this state.
- Changing the nature of an item by changing its sub-type. This change may expose different fields for completion, commence a workflow dedicated to that sub-type, and enable the item to be categorized differently in reports filtered by sub-type.
- Calculating the functions of an item to ensure the values are up-to-date in the system for reporting and users interacting with the item in the next state.
- Create a child item on successful transition of an item. The action will create a child item based off the assessments (or routing) of the item. Administrators will create the action for a specific transition and define which non-framework item type will be created.

Add Actions to a Transition

1. To edit a transition, click the name of the transition highlighted in blue.
2. Click the **Actions** tab.
3. Click the green plus **Action** icon.
4. Enter the name of the action (this is not displayed to users, but is an identifier for the administrator designing the workflow) and select the action type:
 - **Criteria:** Select the specific criteria to be set:
 - For dropdown menus and radio buttons, select the value to be set.
 - For date fields, select either today's date or a date before or after today's date to be set, entering the number of days before or after.
 - For the user picker, the user who caused the transition will be entered into the item. This option is not configurable.
 - For functions, select the function(s) you would like calculate after the transition.
 - **Child item:** Select the type of child item to be created and define the naming convention.
*Note: If selecting **Name** and **Tag**, it will be truncated if it exceeds 80 characters when the item is next saved.*
 - **Set a sub-type:** Select one subtype to be added to the item. Only subtypes that the workflow is attached to are available in this feature.
 - **Remove a sub-type.**
 - **Clear criteria value:** Select as many criteria applicable to be cleared. (The **Change Log** will be updated with "Automated Workflow" as the user that cleared the criteria.)
5. Click **Save**.

Workflow States: Combining Conditions, Validations, and Actions

Where multiple transitions are attached to a trigger, they are handled in a prescribed order. The elements within a transition are processed in the following order:

1. Condition (including confirmation statement where appropriate)
2. Validation
3. Action

Any combination of single or multiple conditions, validations, and actions can be combined in a transition, but all must pass. Only after the completion of these is the item successfully transitioned to the next state.

Conditions

After the trigger has been executed, the workflow checks the conditions attached to the first transition. If the conditions are met, the workflow checks all the validations. If the conditions are not met, the workflow will attempt the next transition. If there are no more transitions, the user will be informed that the item could not be transitioned.

Validations

The workflow checks all validations. If all validations pass, then actions occur. If not, the user is advised that the item is incomplete for transition to the next state. The user can add missing values or change existing values as appropriate and re-execute the trigger. The workflow will not attempt another transition due to a missing or failed validation.

Actions

Actions occur on a transition only after all conditions and validations have been passed.

Successful Transition

The successful transition occurs immediately after the actions are completed. Any email notifications are also sent at this time (see [Email Notifications](#)).

Default Permissions

Set Default Workflow Permissions

A workflow's default permissions define how users in one or more roles interact with an item that's in a running workflow. Workflow default permissions can be configured to be different from the standard permissions for items of the same type when they are not in a workflow (i.e. the permission set in the Role Builder).

Permissions are further customized on a state basis later in the workflow building process. There are two approaches to creating the default permissions: building the permissions within the Workflow Designer or importing the existing roles and permissions as designed in the Role Builder, then modifying them as needed.

Create New Default Roles & Permissions

1. Click the **Default Permissions** tab.
2. Click **Add Role**. A list of all roles in the system is displayed, including those that don't currently have any permissions or this item type.
3. Select all roles that should have permissions for items in a workflow.
4. Click **Save**.
5. From the column to the left, select a role to edit its permissions. Once a role is selected, the current permissions are displayed in the right-hand panel in the **Field Permissions** and **Advanced Permissions** tabs. By default, all permissions are set to **None**.
6. Under the **Field Permissions** tab, use the radio button, for each available permission, to determine whether the default permission for this role is **None**, **Read**, or **Edit**. The **Set All** option in the top-right corner can be used to set all permissions to one of these three settings, then each permission can be edited individually.
7. Click **Save**.
8. Under the **Advanced Permissions** tab, use the radio buttons for each available permission to determine whether the default permission for this role is **None** or **Execute**. **Execute** indicates that a member of this role has the ability to use this permission. The wording shown in **Role Builder** may be more specific depending on the nature of the advanced permission. The **Set All** option in

the top-right corner can be used to set all permissions to one of these three settings, then each permission can be edited individually.

9. Click **Save**.
10. To edit permissions, select the role from the left column, then repeat steps 5-9.

Import Existing Roles and Default Roles and Permissions

1. Click the **Default Permissions** tab.
2. Click **Import Roles and Permissions**.

When importing main and sub-type permissions together and there are conflicts, the most permissive will be applied. For example, if both Read and Edit were on a type or sub-type, Edit would be applied.

3. A list of all Roles in the system with permissions to this item type is displayed. Click **Save**.
4. Select the role you wish to edit. As the role is selected, the imported permissions (from the **Role Builder**) are displayed in the right-hand panel. Under the **Role Builder** column, it details the permission set imported from the Role Builder, and by default, all default permissions are set to the state to which they were imported into the workflow.

Changes made here apply only to items in this workflow and will not affect the permissions set up in the **Role Builder**. If the permissions were to change in the Role Builder, the Role Builder column in **Default Permissions** will automatically update to reflect that change; however, it will not modify the permissions set in the workflow. It is simple for reference.

5. Under the **Field Permissions** tab, use the radio button for each available permission to determine whether the default permission for this role should be edited using the **None**, **Read**, or **Edit** options. If the permissions set in the **Role Builder** are correct, no additional permissions are required. The **Set All** option in the top-right corner can be used to set all permissions to one of these three settings, then each permission can be edited individually.
6. Click **Save**.
7. Under the **Advanced Permissions** tab, use the radio button for each available permission to determine whether the default permission for this role should be edited using the **None** or **Execute** options. **Execute** indicates that a member of this role has the ability to use this permission. The wording shown in **Role Builder** may be more specific, depending in the nature of the advanced permission. The **Set All** option in the top-right corner can be used to set all permissions to one of these three settings, then each permission can be edited individually.

8. Click **Save**.
9. To edit permission for other roles, select the role from the left column, then repeat steps 4-7.

State Permissions

Define State Permissions

Although default permissions for items within a workflow are typically set up at the start of the workflow creation process, permissions can be further refined so that only users who are members of specific roles have adjusted **Read** or **Edit** permissions in a particular state. This ensures that only the correct users can work with items in a specific workflow state.

Note: At a minimum, state permissions need to be altered to assign the appropriate role permissions to allow users to see and hit the buttons to transition an item.

1. Click the state with the permissions that are to be edited in the **Workflow Overview** screen. The state editor screen will appear with the name of the state in the blue horizontal bar at the top of the screen. The name of the state being edited also appears in the **You Are Here** box.
2. Click the **Field Permissions** tab.
3. Click **Add Role**. A list of all roles in the system is displayed, including those that don't currently have any permissions for this item type.
4. Check all roles that are to have permissions for items in a workflow.
5. Click **Save**.
6. Select a role you wish to edit. As the role is selected, the current permissions are displayed in the right-hand panel and are separated into the **Field Permissions**, **Advanced Permissions**, and **Trigger Permissions** tabs.
7. Use the **Items Appear in My Tasks** dropdown menu to determine whether items in this state should appear in the **My Tasks** table on a user's home page. When set to **Yes**, any items in this state will be shown as requiring attention by a user with permission for this item when he or she logs in to GRC Cloud.
8. Under the **Field Permissions** tab, use the radio button for each available permission to determine whether the state permission for this role is **None**, **Read**, **Edit**, or **Default**. Unless edited, the setting for each field is **Default**, which means the permission level in the default permissions will apply in this state. The **Set All** option in the top-right corner can be used to set all permissions to one of these four settings, then each field permission can be edited individually.
9. Click **Save**.

10. Under the **Advanced Permissions**, tab use the radio button for each available permission to determine whether the state permission for this role is **None**, **Execute**, or **Default**. **Execute** indicates that a member of this role has the ability to use this permission. The wording shown in **Role Builder** may be more specific, depending in the nature of the advanced permission. Unless edited, the setting for each field is **Default**, which means the permission level in the default permissions will apply in this state. The **Set All** option in the top-right corner can be used to set all permissions to one of these three settings, then each permission can be edited individually.
11. Click **Save**.
12. Under the **Trigger Permissions**, tab use the radio button for each trigger button to determine whether users in this role can see and click the trigger buttons to transition the item. All the button triggers for the current state appear in the list. The available trigger permissions are **None** or **Execute**. **Execute** indicates that a member of this role has the ability to see and click the button. Unless edited, the setting for each field is **None**. The **Set All** option in the top-right corner can be used to set all trigger permissions to one of these settings, then each trigger permission can be edited individually.
13. To edit state permissions for roles, select the role from the left column, then repeat steps 6-12. Roles that have been assigned to a workflow state are viewable in the workflow overview screen.

Email Notifications

The process of creating email notification is typically broken down in two parts: building the workflow templates, then associating the templates to transitions.

Part A: Build Workflow Templates

Templates allow administrators to design a specific template for each transition in the workflow. An unlimited number of templates can be created.

1. From the workflow overview screen, click the **Email Templates** tab. By default, three templates will be listed (**Responsible**, **Informed**, or **Immediate**).
2. Click a template to modify the details or add a new template by clicking on the **Add Template** dropdown (three types can be added).
3. Name or rename the template.
4. Determine the frequency of the emails to be sent.
5. Modify the header name. The workflow name will be inserted by default. The header name acts as the introduction to that template.
6. Enter an email body, if required. This is a brief description explaining why the user is receiving the email and what tasks are associated with the items sent.
7. Define the **Columns to Display**. Select from the three dropdowns (**Workflow Attributes**, **Criteria**, or **Functions**) what information will be displayed in the email.
8. Click the arrows next to the criteria, functions, and workflow attributes, then drag and drop to rearrange them.
9. Click **Save**.

Part B: Associate Templates to Each Possible Transition

Now that the templates are created, they can be associated to the transition and complete the notifications for that transition.

1. From the workflow overview screen, click the **Email Notifications** tab. All the possible transitions within the workflow are automatically listed in the format:

“(Initial) State Name > Trigger (Button Text) > Transition Name > (New) State Name

2. To author the email transition templates for a specific transition, click the pencil icon for that transition change.
3. Select the relevant type of email (**Responsible**, **Informed**, or **Immediate**) from the tabs at the top.
4. Define the email template (the types of templates available will match type (tab) selected).
5. Select the role(s) that will receive the **Responsible Recipients**, **Informed Recipients**, or **Immediate** message from the role dropdown menu. Only roles associated with the workflow are shown.
6. Select a report to be sent to the user for the transition.

Note: If a user doesn't have access previously granted via the live report, it will automatically grant access to it when the user clicks the report and enters the system.

If an aggregate email has multiple transitions for the same item type, multiple links will be available in the email. Each transition that has a report link defined will be available to the user. When selecting reports to link, administrators will have access to all item overview and Hierarchical reports they have permission to.

Clicking in the link will load the report

7. Click **Save**.

The number of **Responsible**, **Informed**, and **Immediate** recipients will be updated on the **Email Notification** tab.

Important Information About Aggregated Email Notifications

In any GRC Cloud site, there may be workflows running on multiple item types, therefore a user may receive notifications about multiple workflows. The email message generated is aggregated across all workflows.

The frequency for notifications may be set differently for different workflows. In this case, email notifications will be sent at all times determined in each workflow's notifications schedule, but will contain information for all workflows. The information displayed for each workflow reflects what has occurred since the most recent email notification only.

Example:

There are three workflows configured with email notification frequencies of nightly, 8 hours, and 12 hours, with emails scheduled as follows:

- Workflow A: Assume the nightly email is generated at 12:01 am
- Workflow B: Assume the 8 hour emails are generated at 12:01 am, 8:01 am, and 4:01 pm
- Workflow C: Assume the 12 hour emails are generated at 12:01 am, and 12:01 pm.

Assume these are all new workflows that have been initiated sometime between midnight and 8am on the first day.

GRC Cloud will check every 4 hours to determine whether an email notification should be sent because 4 hours is the most frequent possible schedule for generating email notifications.

For each workflow, information is only displayed if there has been activity since the last scheduled email. If there has been no activity in any workflow since the last email, no notification is sent.

Note: Times used are for example purposes only and do not reflect the actual times emails will be sent.

Note: Function and criteria values in the email are based off the value in the database at the time the email is sent.

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