

# **NIST Cybersecurity Framework Module**

**Baseline Configuration Guide** 

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# **About Rsam Baseline Configuration Guides**

Rsam Baseline Configuration Guides provide you the information needed to understand the predefined configurations for each module. These guides should be referenced to gain a better understanding of how the module is configured and can be used out-of-the-box.

# **NCSF Baseline Configuration Overview**

This document describes the baseline configuration and structure for the Rsam NIST Cybersecurity Framework (NCSF) Assessment module. The NCSF Assessment module helps customers create and defines scopes for Cybersecurity profiles, assess current and target implementation tiers for each Subcategory in the framework, and manage and report on actions taken to reach target tiers. Knowing the baseline configurations used in the NCSF Assessment module will be helpful when you want to customize or update the NCSF Assessment module to cater to your specific business requirements.

The following is a list of elements that have been configured in the NCSF Assessment module:

- Structures & Elements
  - Object Types
  - Record Types and Categories
  - Attributes
- Home Page Tabs
- NCSF Workflows
  - Workflow Roles
  - Workflow States
  - Workflow Buttons
- Import Maps

Having information on the preceding elements will provide a baseline understanding before you use the *NIST Cybersecurity Framework Step-by-Step Tutorial* or begin to configure the module to meet your unique requirements.

# **NCSF Assessment Structure**

The NCSF Profile Assessment Object defines the subjects (for example, lines of business, departments, etc.) and scope (for example, related assets, related subcategories of the Cybersecurity core to be assessed, etc.) of an NCSF assessment. Depending on the assessment scoping, the assessment will include the required number of Control Requirements records, each representing a particular subcategory in the framework core. Control Requirements records are where most of the assessment work is performed as Assessors analyse information to determine current and target implementation tiers for each subcategory.

The primary Object Type in the NCSF module is *IAF: Assessment Framework (NCSF)*. This object defines the overall scope and tracks the overall workflow for an NCSF Profile Assessment. It also acts as a container for the individual Control Requirements that will be assessed, as well as any Action Plans, Attestations, or other supporting records types that might be generated during the assessment.



The following image shows the structure of the NCSF Assessment module.

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**Note:** Individual Control Requirement records depicted in the preceding image are generated by copying information from Rsam control library data structure. The **Library Control** record structure is a core Rsam configuration. While it is referenced in this document, it is not explicitly covered here.

## **Object Types**

The following table describes the Object types that are configured for the NCSF Assessment module.

Object Type	Description		
IAF: Assessment Framework (NCSF)	The Object type for all NCSF Profile Assessment Objects and the standard object for all NCSF Record Categories and Types.		
Library for Assessment Questions	Standard library object under which all Assessment Questions are stored.		
Library for Definitions	Standard library object under which all NCSF Library Controls and Library Control Tests are stored.		
	<b>Note:</b> Though the Continuous Controls Testing module is seamlessly integrated with the NCSF Assessments module, it is licensed separately.		
Library for Global Records	Standard Rsam library object under which all the Indicators are stored. <b>Note:</b> Though the Indicators module is seamlessly integrated with the NCSF Assessments module, it is licensed separately.		

## **Record Types**

All Record Types configured for the NCSF Assessment module are mapped to the **IAF: Control Requirements** Record Category.

The following table describes the Record Types configured in the NCSF Assessment module.

Record Type	Description
IAF: Control Requirement	The root record containing all the NCSF subcategories or Control Requirements records to be assessed. This record type contains all the elements required for reviewing and assessing an NCSF Control Requirement.
IAF: Control Requirement - Questionnaire Assessment Results	Shows the Questionnaire summary results from the assessments conducted for the associated assets. Responses to questionnaires associated with NCSF control requirements are shown corresponding to each asset. Only those questions that are associated with the control requirements for related assets are shown. These results help to assess the tier assignments for the related control requirements.



Record Type	Description	
IAF: Control Requirement - Questionnaire Assessment Schedule	Shows the schedule details of assessments for the related objects. The results of Assessments are summarized each time the <b>Recalculate Questionnaire Result Summary</b> button is clicked, and a new Assessment Schedule record is created to contain these results. The most current count is labelled as the <b>Latest</b> <b>Assessment</b> and all prior assessment schedules are labelled as <b>Historical Assessments</b> .	
IAF: Control Requirement - Questionnaire Assets	Holds the count of the number of findings where gaps exist, do not exist, or where the questions have not been answered.	
IAF: Continuous Control Test	Records containing details of the Control Tests associated with the ontrol requirement records. These provide details on the issociated test plans, testing results, remediation details, and test esults history.	
	<b>Note:</b> Though the Continuous Controls Testing module is seamlessly integrated with the NCSF Assessments module, it is licensed separately.	
IAF: Control Requirement - Indicator Results	These records provide a snapshot of the results generated when the indicator tests are run. These results can then be used in combination with other information, for assessing the tier levels for each control requirement. In NCSF, the indicator tests are run at the control requirement level.	
	<b>Note:</b> Though the Indicators module is seamlessly integrated with the NCSF Assessments module, it is licensed separately.	
IAF: Control Requirement - Indicator	This root record holds all the Indicator records.	
IAF: Attestation	Provides the final Tier assessment of the overall Profile Assessment. A GDPR Attester is assigned to perform the final attestation of the results. The record is created when all in-scope control requirements are in the <b>Finalized</b> state.	
IAF: Action Plan	Holds all the action plan records to address gaps found during assessment.	
IAF: Metric – Burndown Metric	Holds all the metric burndown records.	

# **Home Page Tabs**

The baseline configuration of the NCSF Assessments module contains Home Page tabs for various roles. All the home page tabs are organized under the **NIST Cybersecurity Framework** grouping tab. The following table describes the Home Page tabs available in the NCSF Assessment module.

Home Page Tab	Description			
NIST Cybersecurity Assessments	Provides access to all items related to NCSF Profile Assessments, such as Control Requirements, Action Plans, Attestations, Indicators, and Reports.			
Assessment/Profile Navigator	Provides access to all NCSF Profile Assessments applicable for the logged in user role in the system. Users can navigate to the Profile details and control requirement records from this page.			
Target Tier Progress Drill-Down	Provides an interactive graphical representation of the status of profile assessments in the system. User can choose any combination of profiles and the level of detail to be summarized.			
Action Planning	Provides access to all Action Plans defined in the system. Also displays a graphical representation of the plans based on the workflow state.			
Navigator - Libraries	Displays all the control requirements, assessment questionnaires, control tests, and indicators from the libraries in the system.			
Navigator Assessments (Attester)	Provides a list of all Attestation records in the system for the NCSF Attester login.			
Navigator - Assessments (Manager/Owner)	Provides a list of all NCSF Profile Assessments for the NCSF Manager / Owner login.			
Navigator - Assessments (Assessor/Reviewer)	Provides a list of all NCSF Profile Assessments for the NCSF Assessor / Reviewer login.			
Dashboard - Tiers	Displays the dashboard widgets / charts for the NCSF Profile Assessments, based on the tiers and functions. Users can navigate to the results by clicking the required areas.			
Dashboard - Gaps	Displays the dashboard widgets / charts for the gaps calculated for the NCSF control requirements.			
Dashboards - Findings	Displays the dashboard widgets / charts for the gaps calculated from the Questionnaire Results.			
Create an Action Plan	Displays the action plan creation form to create new plans in the system.			

# **NCSF Assessment Workflows**

This section provides details on the following roles and baseline workflows for the NCSF Assessment module:

- Workflow Roles
- <u>NCSF Profile Assessment Workflow</u>
- Control Requirements Workflow
- Action Plan Workflow
- Tier Attestation Workflow

Before proceeding to the specific workflows, it is recommended that you familiarize yourself with the following Rsam workflow diagram key.



### **Workflow Roles**

The following table provides high-level descriptions of the activities performed by each of the roles included in the NCSF Assessments module workflows.

**Note:** Sample users for each of these roles are optionally provided with the baseline module installation package.

Account ID	Workflow Role	Role Description
r_ncsf_manager	NCSF Manager	Has overall administrative access to all NCSF Profile Assessments and Control Requirements in the system. User with this role is responsible for creating NCSF Profile Assessments and assigning the primary NCSF Owner and NCSF Assessor roles for assessments.
r_ncsf_owner	NCSF Owner	Responsible for defining the NCSF Profile Assessments to generate the required Control Requirements.
r_ncsf_reviewer	NCSF Reviewer	Responsible for reviewing the NCSF Profile Assessments and Control Requirements assigned.



Account ID	Workflow Role	Role Description
r_ncsf_assessor	NCSF Assessor	Responsible for assessing the Control Requirements assigned and generating the attestation record and to assign attesters, if required.
r_ncsf_attester	NCSF Attester	Responsible for finalizing an Attestation record with a final tier assignment for the overall NCSF Profile Assessment.

In addition to the above roles, the Rsam installation package includes an administrative role, **U: Object Administrator**, as well as a sample user for that role, **r\_admin**. This user has access to all record types, object types, workflow states, and workflow buttons across all Rsam baseline modules. Rsam Administrators should take necessary precautions to restrict standard users from accessing Rsam with this administrative role.

## **NCSF Profile Assessment Workflow**

This section covers the Workflow diagram, states, and associated buttons for the NCSF Profile Assessment.

#### **NCSF Profile Assessment Workflow Diagram**

The following image shows the workflow of the NCSF Profile Assessment.





#### **NCSF Profile Assessment Workflow States**

The following table describes workflow states associated with the NCSF Profile Assessment workflow.

Workflow State	Description
IAF: Profile - 1. Not Started (NCSF)	When an NCSF Manager creates an NCSF Profile Assessment Object, the assessment starts in this state automatically. In this state, the NCSF Manager can add basic details for the profile.
IAF: Profile - 2. Profile Scoping (NCSE)	After adding an NCSF Profile Assessment, when NCSF Manager clicks the <b>Start Assessment</b> button, it moves to the <b>Profile Scoping</b> state.
	In this state, the NCSF Owner must validate the details provided by the NCSF Manager and provide the scope details, tier assignments, and assets association.
IAF: Profile - 3. Profile Under Review (NCSF)	When NCSF Profile Assessment details are submitted, the profile moves to this state. In this state, the NCSF Reviewer must review the details and Approve or Reject them before moving to the next state.
IAF: Profile - 4. In Progress (NCSF)	When the NCSF Profile Assessment details are approved, it moves to this state. At this point in the process, Control Requirement records are automatically generated based on the list of NCSF library records specified in the Profile.
	In this state, the NCSF Owner / Assessor / Reviewer must complete the Control Requirements to move the Profile Assessment to the next state.
IAF: Profile - 5. Pending Attestation (NCSF)	In this state, an Attestation record is generated by the Assessor, Reviewer, or Owner. An Attester, assigned by the Owner or Assessor or at the profile level, provides a Final Tier assignment for the overall NCSF Profile Assessment in the record and completes the attestation. This updates the NCSF Profile Assessment with the current final tier assessment. Additional Attestation records can be added but the last added record will provide the Final Attestation value.
IAF: Profile - 6. Finalized (NCSF)	When the Attestation record moves to the <b>Finalized</b> state and an NCSF Attester clicks the <b>Finalize Attestation and Assessment</b> button in the attestation record, the profile moves to this state automatically. To finalize a profile assessment an attestation record must be created.

#### **NCSF Profile Assessment Workflow Buttons**

The following table lists the buttons available in various states of NCSF Profile Assessment workflow.

Button	Available to	Notification	Description
Start Assessment	NCSF Manager	Yes	To move the NCSF Profile Assessment to the <b>Profile</b> <b>Scoping</b> state to collect the scoping information.
Submit	NCSF Owner	Yes	To submit the NCSF Profile Assessment scoping details to the NCSF Reviewer for review and move it to the <b>Profile Under Review</b> state.
Reject	NCSF Reviewer	Yes	Moves the profile back to the <b>Profile Scoping</b> state for the NCSF Owner to add / validate the scoping information.
Approve	NCSF Reviewer	No	To approve the NCSF Profile Assessment and move it to the <b>In Progress</b> state.
Request	NCSF	Yes	To generate an Attestation record when all In-scope

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Button	Available to	Notification Description
Attestation	Assessor, Owner, or Reviewer	Control Requirement records are moved to the <b>Finalized</b> state. On clicking this button, the NCSF Profile Assessment moves to the <b>Pending Attestation</b> state.

## **Control Requirements Workflow**

This section covers the Workflow diagram, states, and associated buttons of the Control Requirements workflow in the NCSF Assessment module.

### **Control Requirements Workflow Diagram**

The following image shows the Control Requirements workflow.



### **Control Requirements Workflow States**

The following table describes the workflow states associated with the Control Requirements workflow.

Workflow State	Description
IAF: Control Requirement - In Progress	The Control Requirements records are auto-generated in this state and NCSF Assessors can create control tests, create and use indicators, use the Questionnaire Assessment results for the related Assets, review tier definitions, and assess Current and Target Tier levels.
IAF: Control Requirement - Under Review	When the Control Requirements details are reviewed and the Tier assessments are made, the Control Requirements can be submitted for review, and it moves to this state. In this state NCSF Reviewer must validate the details and Accept or Reject the Control Requirement details.
IAF: Control Requirement - Finalized	When the Control Requirements details are approved, it moves to this state.



### **Control Requirements Workflow Buttons**

The following table lists the buttons available in various states of the Control Requirements workflow.

Button	Available to	Notification	Description
Change Scope	NCSF Assessor	No	To change the scope of the Control Requirements to In Scope or Out of Scope.
Submit	NCSF Assessor	Yes	To move the Control Requirements to the <b>Under</b> <b>Review</b> state for the NCSF Reviewer to review the information.
Accept	NCSF Reviewer	No	To accept the Control Requirements details and move it to the <b>Finalized</b> state.
Reject	NCSF Reviewer	Yes	To reject the Control Requirements details and move it to the <b>In Progress</b> state.
Recalculate Questionnaire Result Summary	NCSF Assessor	No	To recalculate the Questionnaire Results to show the results after taking into consideration the latest questionnaire responses submitted. This adds a new child record, <b>Questionnaire</b> <b>Assessment Schedule</b> , and adds the gap results into the child record.
Refresh Indicator from Library	NCSF Owner NCSF Assessor	No	To refresh the indicator information from the library record.
Refresh Control Test from Library	NCSF Owner NCSF Assessor	No	To refresh the control test information from the library record.
Refresh Control Requirement from Library	NCSF Owner NCSF Assessor	No	To refresh the Control Requirements record details from the related library record.



## **Action Plan Workflow**

This section covers the Workflow diagram, states, and associated buttons of the Action Plans workflow in the NCSF Assessment module.

### **Action Plan Workflow Diagram**

The following image shows the Action Plan workflow.



### **Action Plan Workflow Buttons**

The following table lists the buttons that are available in the various states of the Action Plan workflow.

Button	Available to	Notification	Description
Submit	NCSF Assessor	No	To submit an Action Plan for review to NCSF Reviewer. The Action Plan record moves to the <b>Submitted</b> state.
Accept	NCSF Reviewer	Yes	To review and accept a submitted Action Plan. The record moves to the <b>Completed</b> state.
Reject	NCSF Reviewer	Yes	To reject an Action Plan back to the <b>Draft</b> state. NCSF Assessor may need to rework on the plan and submit it again for review.
Action Plan Validated	NCSF Assessor	No	To mark an Action Plan as validated. The record moves to the <b>Validated</b> state.



#### **Action Plan Workflow States**

The following table describes the workflow states associated with Action Plans.

Workflow State	Description
IAF: Action Plan - Action Plan Draft	The Action Plan record is created in this state. In this state, NCSF Assessor can create the plan and add details.
IAF: Action Plan - Action Plan Submitted	The Action Plan is submitted for review to the NCSF Reviewer. The reviewer must review the plan and Accept or Reject it to move it to the next state.
IAF: Action Plan - Completed	The Action Plan is accepted by the NCSF Reviewer and moves to this state. No further details are required for the plan.
IAF: Action Plan - Validated	The Action Plan details are validated by the NCSF Assessor in this state.

### **Tier Attestation Workflow**

This section covers the Workflow diagram, states, and associated buttons of the Tier Attestations workflow in the NCSF Assessment module.

### **Tier Attestation Workflow Diagram**

The following image shows the Tier Attestation workflow.



#### **Tier Attestation Workflow Buttons**

The following table lists the buttons that are available in the various states of the Tier Attestation workflow.

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Button	Available to	Notification	Description
Attest and Finalize	NCSF Attester	Yes	On clicking this button, system validates if a Final Tier assessment has been provided and then places the Attestation record in the <b>Finalized</b> workflow state. The NCSF Profile Assessment is updated with the Final Assessment value and it moves to the <b>Finalized</b> state automatically. A notification is sent to Attester, Assessor, and Owner.
Attest	NCSF Attester	Yes	On clicking this button, system validates if a Final Tier assessment has been provided and then places the Attestation record in the <b>Finalized</b> workflow state. However, the NCSF Profile Assessment remains in the <b>Pending Attestation</b> state. A notification is sent to Attester, Assessor, and Owner.

#### **Tier Attestation Workflow States**

The following table describes the workflow states associated with Tier Attestation workflow.

Workflow State	Description
IAF: Attestation - 1. Review & Attest	The Attestation record is generated in this state and NCSF Attester can provide the final tier assessment value.
IAF: Attestation - 2. Finalized	The Attestation record is placed in this state when the NCSF Attester provides the Final (Attestation) Tier value and clicks the <b>Attest and Finalize</b> or <b>Attest</b> button.
IAF: Attestation - 3. Archived	All Attestation records in the <b>Finalized</b> state are moved to the <b>Archived</b> state when a new Attestation record is finalized.

## **NIST Cybersecurity Framework Tutorial**

For a detailed walk-through of the NIST Cybersecurity Framework user experience, refer the *NIST Cybersecurity Framework Step-by-Step Tutorial*. You should have received the *NIST Cybersecurity Framework Step-by-Step Tutorial* along with the NIST Cybersecurity Framework instance. If not, contact your Rsam Customer Representative to obtain an electronic copy of the *NIST Cybersecurity Framework Step-by-Step Tutorial*.

## **Online Help**

This document provides an overview of the NIST Cybersecurity Framework configuration. To get familiar with the specific Rsam features used in this configuration, refer the *Rsam End-User Help*, *Rsam Administrator Help*, or both. The Online help you can access depends on your user permissions.

To access the Online Help, perform the following steps:

- 1. Sign in to your Rsam instance. For example, sign in as *Example Administrator* user. Provide the **Username** as *r\_admin* and **Password** as *password*.
- 2. Hover the cursor over **Help** and select an Online help from the menu that appears. Depending on your user permissions, you will be able to access the *Rsam End-User Help*, *Rsam Administrator Help*, *Step-by-Step Tutorials*, or all.

The following image shows the *Rsam Administrator Help*, opened from the *Example Administrator* user account.



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