

ServiceNow Project Documentation

Project: Prevent User Deletion if Assigned to an Incident

Team Details

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Project Overview

This project implements a safeguard in ServiceNow to prevent deletion of a user record when the user is assigned to one or more Incident records. The solution is implemented using a Business Rule on the **User [sys_user]** table, triggered **Before Delete**. If an assignment exists, the delete operation is aborted and an error message is displayed.

Objectives

- Prevent accidental deletion of users who are still working on active incidents.
- Maintain ITSM process continuity and assignment integrity.
- Provide clear feedback to administrators via an error message.

1. Configuration & Setup

The project uses a server-side Business Rule in the Global application scope. The rule is created on the User table and configured to run on delete.

1.1 Business Rule: When to run

Table: User [sys_user]

When: Before

Delete: True

Order: 100

A business rule is a server-side script that runs when a record is displayed, inserted, deleted, or when a table is queried. Use business rules to automatically change values in form fields when the specified conditions are met. [More Info](#)

Name: Prevent User Deletion Application: Global

Table: User [sys_user] Active:

Advanced:

When to run Actions Advanced

Specify whether the business rule should run on Insert or Update. Use Filter Conditions to specify under which conditions the business rule should run.

When: before Order: 100

Insert: Update: Delete: Query:

Filter Conditions Add Filter Condition Add OR Clause

1.2 Business Rule: Script (Advanced tab)

The Business Rule checks the Incident table for any record where **Assigned to** equals the user being deleted. If at least one record exists, the script shows an error message and aborts the delete action.

Condition:

Script: Turn on ECMAScript 2021 (ES12) mode

```
(function executeRule(current, previous /*null when async*/){
    var incGr = new GlideRecord('incident');
    incGr.addQuery('assigned_to', current.sys_id);
    incGr.setLimit(1);
    incGr.query();

    if (incGr.next()) {
        gs.addErrorMessage('This user cannot be deleted because they are assigned to one or
        more incidents.');
        current.setAbortAction(true);
    }
})(current, previous);
```

Update Delete

Related Links Run Point Scan

2. Test Data Creation

Two users were created to validate the functionality: one user that is assigned to an incident (deletion must be blocked), and one unused user (deletion should succeed).

2.1 User 1 Created

The screenshot shows the ServiceNow User creation interface. The user is named 'Rudraraju Jogi Subrahmanyam Raju' with User ID 'raju'. The form includes fields for First name, Last name, Title, Department, Email, Language, Calendar integration, Time zone, Date format, Business phone, Mobile phone, and Photo. The 'Active' checkbox is checked. The 'Identity type' is set to 'Human'. There are buttons for 'Update', 'Set Password', and 'Delete'. Below the form, there are related links for 'View linked accounts', 'View Subscriptions', and 'Reset a password'. A navigation bar at the bottom shows tabs for 'Entitled Custom Tables', 'Roles (43)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates'.

2.2 Roles Assigned to User 1

Roles are visible in the Roles related list on the user record. (Roles are not required for the Business Rule logic, but are part of standard user setup.)

The screenshot shows the 'Roles' related list for the user. It displays 43 roles assigned to the user, including 'sn_request_read', 'sn_itam_recomm.recommendations_read', 'sn_sow.it_agent_dashboard_user', 'sn_incident_read', 'sn_gd_guidance.guidance_user', 'viz_creator', 'data_manager_user', 'interaction_agent', 'cmdb_ms_user', 'sn_request_approver_read', 'certification', 'sn_sow.sow_list', and 'sn_change_read'. The table includes columns for Role name, State (Active), Inherited (true), and Inheritance Count (ranging from 1 to 7). There are buttons for 'Actions on selected rows...' and 'Edit...' at the top right of the table.

Role	State	Inherited	Inheritance Count
sn_request_read	Active	true	1
sn_itam_recomm.recommendations_read	Active	true	1
sn_sow.it_agent_dashboard_user	Active	true	1
sn_incident_read	Active	true	1
sn_gd_guidance.guidance_user	Active	true	7
viz_creator	Active	true	1
data_manager_user	Active	true	1
interaction_agent	Active	true	6
cmdb_ms_user	Active	true	1
sn_request_approver_read	Active	true	1
certification	Active	true	1
sn_sow.sow_list	Active	true	5
sn_change_read	Active	true	1

3. Incident Assignment Validation

An incident was created and assigned to User 1. The incident was set to **In Progress** to represent an active assignment scenario.

3.1 Incident Assigned to User 1

Expected fields shown:

- Assigned to = User 1
- State = In Progress

The screenshot shows the ServiceNow interface for an incident record. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Admin', and a search bar labeled 'Search'. Below the header, the incident number 'INC0010003' is displayed. The main form contains the following fields and their values:

Number	INC0010003	Channel	-- None --
* Caller	Rudraraju Jogi Subrahmanyam Raji	State	In Progress
Category	Inquiry / Help	Impact	3 - Low
Subcategory	-- None --	Urgency	3 - Low
Service		Priority	5 - Planning
Service offering		Assignment group	
Configuration item		Assigned to	Rudraraju Jogi Subrahmanyam Raji
* Short description	Test incident for user deletion validation		
Description			

Below the form, there are tabs for 'Notes' (selected), 'Related Records', and 'Resolution Information'. At the bottom, there are buttons for 'Watch list' and 'Work notes list'.

4. Testing & Results

The deletion behavior was tested for both users to confirm correct Business Rule functionality.

4.1 Attempt to Delete Assigned User (User 1)

When trying to delete User 1 (who is assigned to an incident), ServiceNow blocks the deletion and shows an error message.

This screenshot shows the ServiceNow user search interface. The search bar at the top contains 'Users for text' and 'Search'. The results table has columns: User ID, Name, Email, Active, Created, and Updated. One result is listed:

User ID	Name	Email	Active	Created	Updated
raju2003	Rudraraju Jogi Subrahmanyam Raju	rudrarajujogisubrahmanyamraju@gmail.com	true	2026-02-03 05:02:02	2026-02-03 06:50:55

A red error message box at the top states: "This user cannot be deleted because they are assigned to one or more incidents." The status bar at the bottom indicates "1 to 1 of 1".

4.2 Delete Unused User (User 2)

When trying to delete User 2 (not assigned to any incident), the deletion succeeds normally. This confirms that the Business Rule only blocks deletion when assignment exists.

This screenshot shows the ServiceNow user search interface. The search bar at the top contains 'Users for text' and 'Search'. The results table has columns: User ID, Name, Email, Active, Created, and Updated. One result is listed:

User ID	Name	Email	Active	Created	Updated
rajuuser2	Raju User2	rajuuser2@gmail.com	true	2026-02-03 06:30:08	2026-02-03 06:30:08

The status bar at the bottom indicates "1 to 1 of 1".

5. Business Rule Logic (Explanation)

The Business Rule executes on the User table before delete. It performs a query on the Incident table using the sys_id of the user being deleted.

```
var incGr = new GlideRecord('incident');
incGr.addQuery('assigned_to', current.sys_id);
incGr.setLimit(1);
incGr.query();

if (incGr.next()) {
    gs.addErrorMessage('This user cannot be deleted because they are assigned to one or more
incidents.');
    current.setAbortAction(true);
}
```

Why this works

- The query checks if at least one incident exists for the user.
- If found, deletion is blocked using **current.setAbortAction(true)**.
- The administrator receives a clear error note using **gs.addErrorMessage()**.

6. Conclusion

This project successfully prevents deletion of users who are still assigned to incidents. It improves data integrity, reduces operational risk, and ensures incident ownership is preserved in ServiceNow.