

Automated Incident State Update on Problem Creation

Objective

To streamline incident management and improve operational efficiency by automatically updating the state of Incidents related to newly created or updated Problems in ServiceNow. The objective is to ensure that these Incidents are set to "On Hold" with the on-hold reason "Awaiting Problem," providing clear communication and status tracking for pending resolutions. This automation will reduce manual updates, ensure consistency, and enhance visibility into the incident resolution process.

User Story

As a ServiceNow user, I want the state of Incidents related to a newly created Problem to automatically change to "On Hold" with the on-hold reason set to "Awaiting Problem" so that incident management is streamlined, and it is clear that the resolution is pending a related Problem.

Pre-Requisites

- Knowledge of ServiceNow.
- Knowledge of Business Rules.

Skills Used

- Business Rules
- ServiceNow Administration

Implementation Steps

Step 1: Open ServiceNow Developer Instance

1. Click on **All** and type "Business Rule" in the filter navigator.
2. Open **Business Rules**.

Step 2: Create a New Business Rule

1. Enter the following details:
 - **Name:** problem after br

- **Table:** Select ProblemTable
- **Active:** Ensure the checkbox is **True**
- **Advanced:** Check the checkbox

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	<input type="text" value="problem after br"/>	Application	<input type="text" value="Global"/>	
Table	<input type="text" value="Problem [problem]"/>	Active	<input checked="" type="checkbox"/>	
		Advanced	<input checked="" type="checkbox"/>	

2. Scroll down to **When to run:**

- In **When**, select After
- In **Operations**, select Insert, Update
- **Filter Conditions:**
 - Problem statement → Starts with → Related


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	<input type="text" value="after"/>	Insert	<input checked="" type="checkbox"/>
Order	<input type="text" value="100"/>	Update	<input checked="" type="checkbox"/>
		Delete	<input type="checkbox"/>
		Query	<input type="checkbox"/>

Filter Conditions [Add Filter Condition](#) [Add "OR" Clause](#)

<input type="text" value="Problem statement"/>	<input type="text" value="starts with"/>	<input type="text" value="Related"/>	<input type="text" value="AND"/>	<input type="text" value="OR"/>	<input type="text" value="X"/>
------------------------------------------------	------------------------------------------	--------------------------------------	----------------------------------	---------------------------------	--------------------------------

Role conditions 

Step 3: Add the Advanced Script

1. Navigate to the **Advanced** section and insert the following script:

```
(function executeRule(current, previous /*null when async*/ ) {
  // Validate that the current problem record has a sys_id
```

```

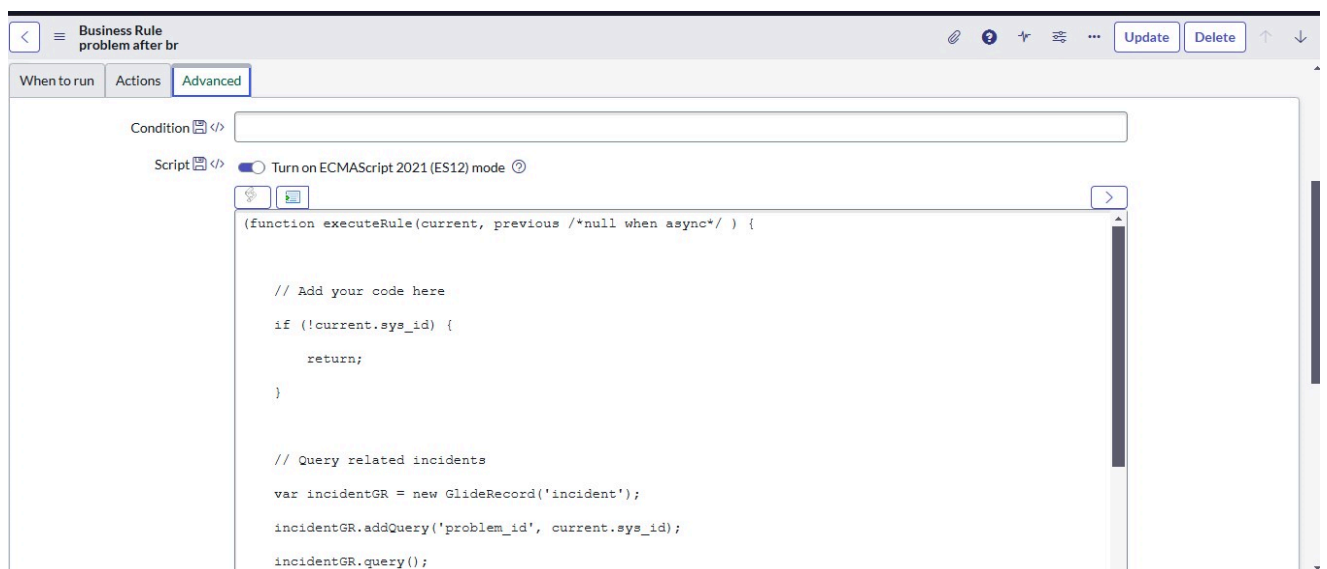
if (!current.sys_id) {
    return;
}

// Query related incidents
var incidentGR = new GlideRecord('incident');
incidentGR.addQuery('problem_id', current.sys_id);
incidentGR.query();

while (incidentGR.next()) {
    // Update state to On Hold and set On Hold Reason to Awaiting Problem
    incidentGR.state = 3; // 3 corresponds to "On Hold"
    incidentGR.u_on_hold_reason = 3; // Ensure 'u_on_hold_reason' is the correct field name
    incidentGR.update();
}

})(current, previous);

```



Step 4: Submit the Business Rule

1. Click on **Submit** to save the Business Rule.

Result:

1. Navigate to the Problem List:
 - In ServiceNow, go to Problem > All from the application navigator.

2. Open a Problem Record:

- Select any Problem record that has related incidents associated with it.
- Note: You can verify that the related incident state is not "OnHold" when you first open the record.

The screenshot shows the ServiceNow interface for a Problem record (PRB0000001). The top navigation bar includes 'All', 'Favorites', 'History', 'Admin', and a search bar. The record title is 'Problem - PRB0000001'. Below the title is a progress bar with stages: New, Assess, Root Cause Analysis, Fix in Progress (highlighted), Resolved, and Closed. The form fields are organized into two columns. The left column contains: Number (PRB0000001), Origin task (INC0000019), Category (Software), Subcategory (-- None --), Service, Service offering, Configuration item, * Problem statement (after testing), and Description (SP2 is causing several applications not to work anymore). The right column contains: State (Fix in Progress), Impact (3 - Low), Urgency (3 - Low), Priority (5 - Planning), Assignment group, and * Assigned to (Problem Coordinator B). At the bottom, there is a 'Related Search Results' button.

3. Review the Related Incidents:

- Ensure that the related incidents are visible within the Problem record.
- Check the State of the related incidents, which should not be "OnHold" initially.

The screenshot shows the 'Related Links' section of the Problem record (PRB0000001). It includes buttons for 'Resolve', 'Re-Analyze', 'Accept Risk', 'Update', and 'Delete'. Below these are links for 'Communicate Fix' and 'Create Known Error article'. The 'Incidents (1)' tab is selected, showing a table of related incidents. The table has columns: Number, Opened, Short description, Caller, Priority, State, Category, Assignment group, Assigned to, Updated, and Updated by. One incident is listed: INC0000019, opened on 2024-07-21 16:44:39, with the short description 'Can't launch 64-bit Windows 7 virtual machine', caller 'Fred Luddy', priority '2 - High', state 'In Progress', category 'Software', assignment group '(empty)', assigned to 'Bud Richman', updated on 2024-11-01 12:46:13, and updated by 'admin'. The table is paginated to show 1 to 1 of 1 records.

Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
INC0000019	2024-07-21 16:44:39	Can't launch 64-bit Windows 7 virtual machine	Fred Luddy	2 - High	In Progress	Software	(empty)	Bud Richman	2024-11-01 12:46:13	admin

4. Update the Problem Statement Field:

- Find the Problem Statement field in the selected Problem record.
- Change the label or value of this field to "Related incident records for problem".
- Save the change by clicking Update at the top of the record.

dev248196.service-now.com/now/nav/ui/classic/params/target/problem.do%3Fsys_id%3D46eaa7c9a9fe198100bbe282da0d4b7d%26sysparm_record_target%3Dpro...

servicenow All Favorites History Admin Problem - PRB0000001 Application scope: Global Update set: Default [Global]

Problem PRB0000001 Discuss Follow Resolve Re-Analyze Accept Risk Update Delete

New ✓ Assess ✓ Root Cause Analysis ✓ **Fix in Progress** Resolved Closed

Number PRB0000001 State Fix in Progress

Origin task INC0000019 Impact 3 - Low

Category Software Urgency 3 - Low

Subcategory -- None -- Priority 5 - Planning

Service Assignment group

Service offering * Assigned to Problem Coordinator B

Configuration item

* Problem statement **Related incident records for problem**

Description SP2 is causing several applications not to work anymore.

Related Search Results

5. Update the Related Incident State:

- After clicking Update, check the related incidents again.
- The State of the related incidents should now be automatically set to "OnHold".

Related Links

[Communicate Fix](#)

[Create Known Error article](#)

Incidents (1) Affected CIs Problem Tasks Change Requests (1) Outages Attached Knowledge

Number Search Actions on selected rows... Add New

Problem = PRB0000001

	Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
<input type="checkbox"/>	INC0000019	2024-07-21 16:44:39	Can't launch 64-bit Windows 7 virtual machine	Fred Luddy	2 - High	On Hold	Software	(empty)	Bud Richman	2025-01-31 06:24:15	admin

1 to 1 of 1

Expected Outcome:

- After the update, the Problem Statement field will be updated to "Related incident records for problem".
- Once implemented, this Business Rule will automatically update all related Incidents when a new Problem is created or updated, ensuring they are placed "On Hold" with the reason "Awaiting Problem." This reduces manual updates, ensures consistency, and enhances operational visibility