ServiceNow Application Developer

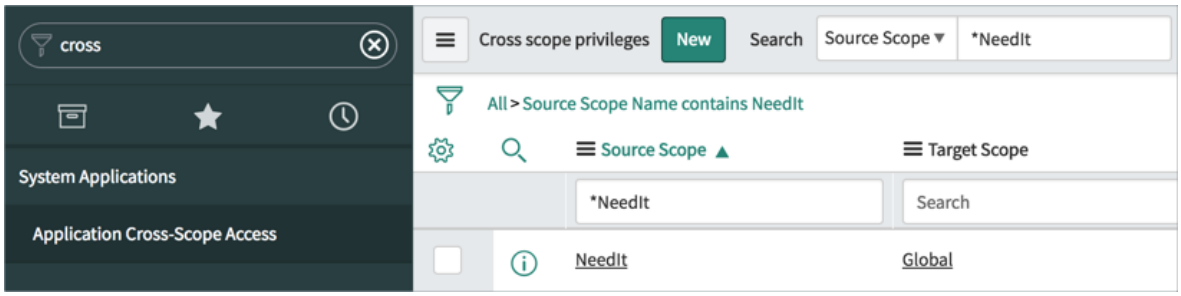
Securing Applications Against Access from Other Applications > Exercise: Runtime Access Tracking

In this module, you will set *Runtime Access Tracking* to Enforcing to examine the impact of the setting on the runtime environment.

Check Existing Cross-Scope Access Privileges for the NeedIt Application

1. In the main ServiceNow browser window (not Studio), use the Application Navigator to open **System Applications > Application Cross-Scope Access**.

2. Set the *Search* field to **Source Scope** and Search for ***NeedIt**.



3. You may or may not have existing cross-scope access privilege records for the *NeedIt* application depending on what you have been doing on the instance with the *NeedIt* application. If you do have cross-scope privilege records, look through them to see what privileges have been granted.

Enable Runtime Access Tracking Enforcement

1. If the *NeedIt* application is not open in Studio from the last exercise, open it now.
   a. In the main ServiceNow browser window use the Application Navigator to open **System Applications > Studio**.
   b. In the *Select Application* dialog, click the **NeedIt** application.
2. Open the **File** menu and select the **Settings** menu item.
3. Note the default value for the *Runtime Access Tracking* field.
4. Change the *Runtime Access Tracking* value to **Enforcing**.
5. Click the **Update** button.

Create a Scheduled Script Execution to Count Problem Records

If you have never created a Scheduled Script Execution (also known as a Scheduled Job) before, what you need to know for purposes of this exercise is that Scheduled Script Executions execute server-side JavaScript. Scheduled Script Execution script logic can be executed on demand.

1. In the main ServiceNow browser window (not Studio), use the Application Navigator to open **Problem > All**.
2. Note the number of records in the *Problems* list.

3. Create a Scheduled Script Execution.

   a. In Studio, click the **Create Application File** link.

   b. In the *Filter...* field enter the text **Scheduled** OR select **Server Development** from the categories in the left hand pane.

   c. Select **Scheduled Script Execution** in the middle pane as the file type then click the **Create** button.

4. Configure the Scheduled Script Execution:

   Name: **NeedIt Count Problem Records**

   Active: **Selected (checked)**

   Run: **On Demand**

5. Copy and paste this script into the *Run this Script* field:

```
// Create a GlideRecord object for the Problem table
var gr = new GlideRecord('problem');
// Query the problem table and return all records in the GlideRecord object
gr.query();
// Log the number of records in the Problem table
gs.info("Total records in Problem table = " + gr.getRowCount());
```

6. Examine the script to see what it does.

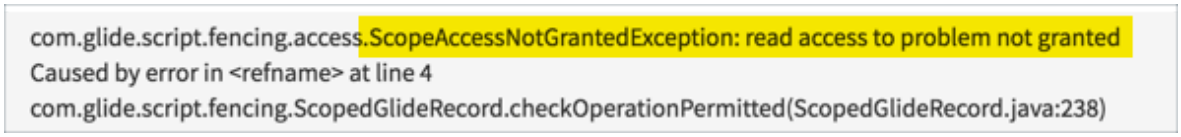
7. Click the **Submit** button.

Testing Cross-Scope Privileges

1. Click the **Execute Now** button in the Scheduled Script Execution to execute the script logic.

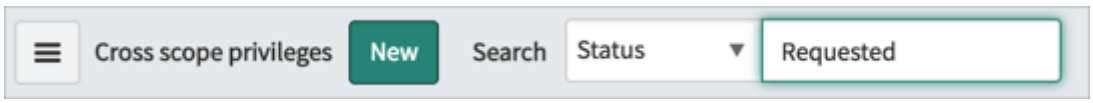
2. In the main ServiceNow browser window, use the Application Navigator to open **System Logs > System Log > All**.

3. In the *System Log*, look for a **ScopeAccessNotGrantedException** warning. If you do not see the error right away, you may need to refresh the page a few times while the Scheduled Script Execution completes execution.

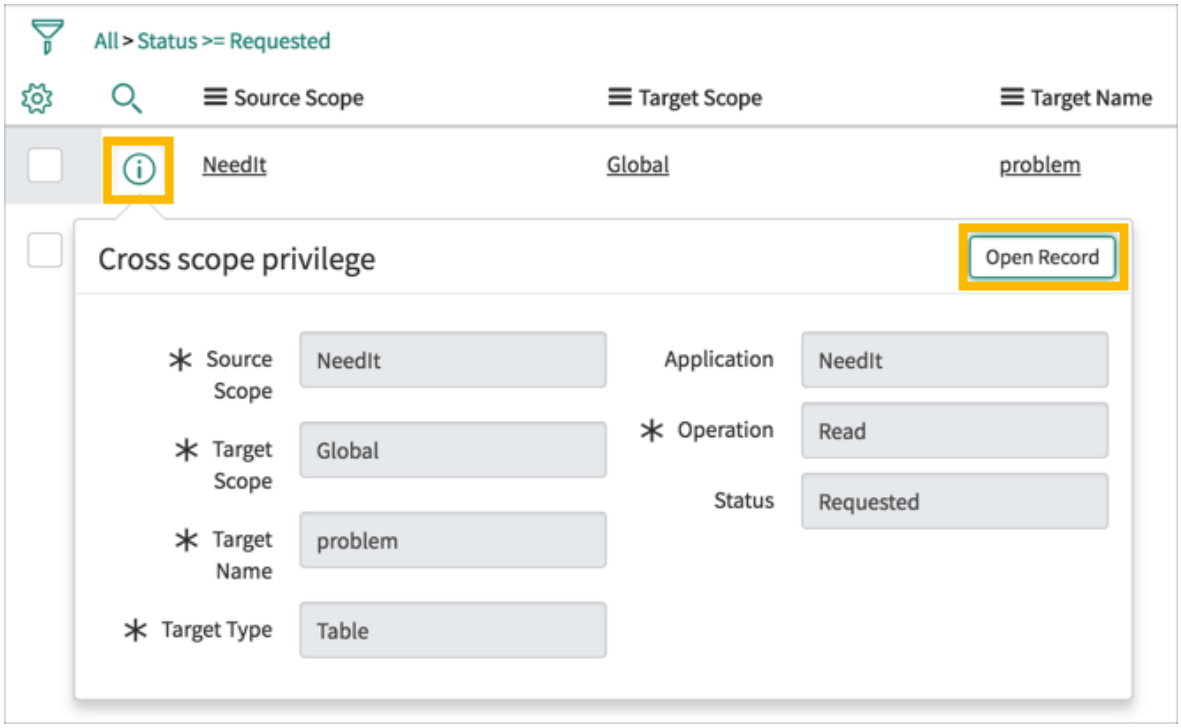


4. In the Application Navigator, open **System Applications > Application Cross-Scope Access**.

5. Use the *Search* field to search for Status **Requested**.



6. Click the **Preview** icon for the record requesting access to the *Problem* table for the *NeedIt* application and then click the **Open Record** button in the *Cross scope privilege* flyout.



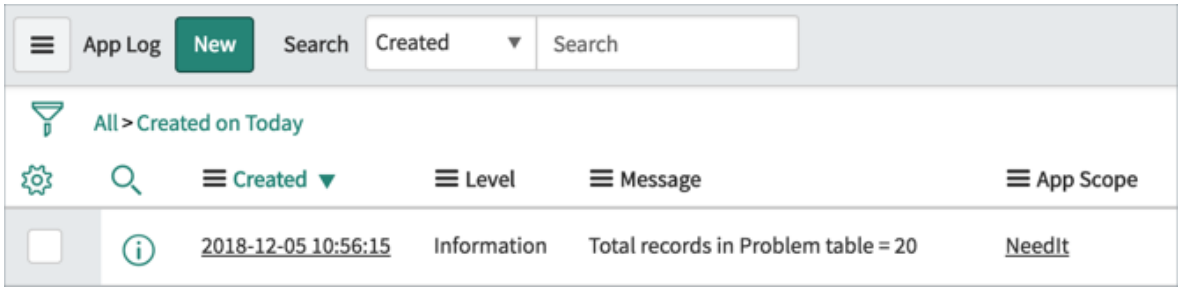
7. Change the *Status* to **Allowed**.

8. Click the **Update** button.

9. Return to Studio and execute the *NeedIt Count Problem Records* Scheduled Script Execution again.

10. In the main ServiceNow browser window, use the Application Navigator to open **System Logs > System Log > Application Logs**.

11. You should see an information message from the script. You may have a different number of *Problem* records.



Change the Runtime Access Tracking Value Back to Tracking

1. In Studio, if the *Settings* tab was closed, re-open it. Open the **File** menu and select the **Settings** menu item.

2. Change the *Runtime Access Tracking* value to **Tracking**.

3. Click the **Update** button.