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Lab Guide

Configuration Management:

Get the Most Value from your CMDB

Georg Maureder & Niall Kritzinger

Default Login / Password:

admin / Knowledge15

itil / Knowledge15

employee / Knowledge15

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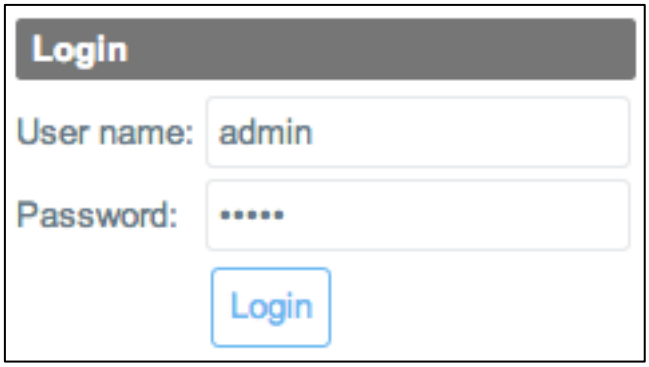
Lab Goal

The goal for this lab is to identify if you have a firewall class available within the CMDB to capture your Firewalls and their required attributes. You will also learn how to identify inherited properties within the CMDB, edit existing fields, and add new required fields

Lab 1.1 Modify Existing Firewall Class

Log on to Your Training Instance

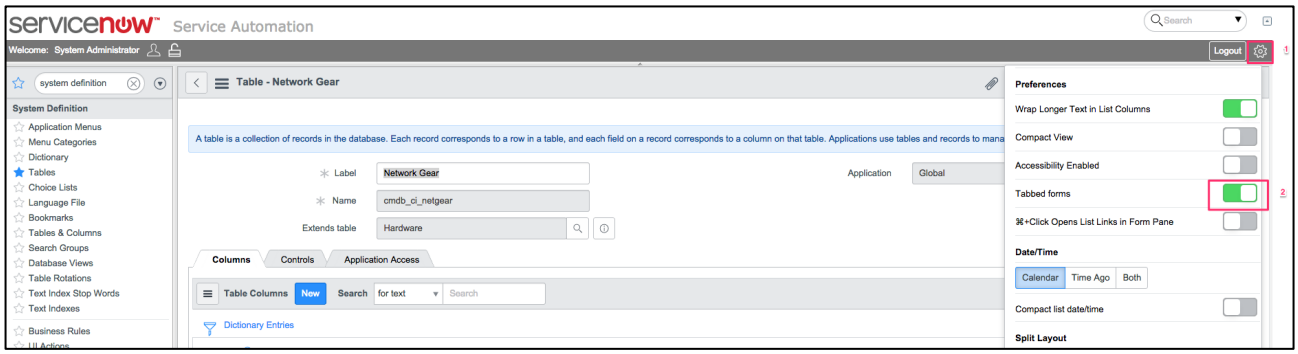
1. Your instance URL is on the cover page.
2. Log in using the **admin** credentials provided on the cover.



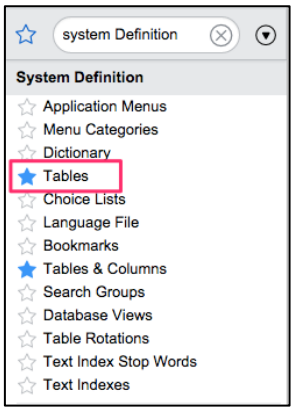
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Find a CI Class for Firewalls

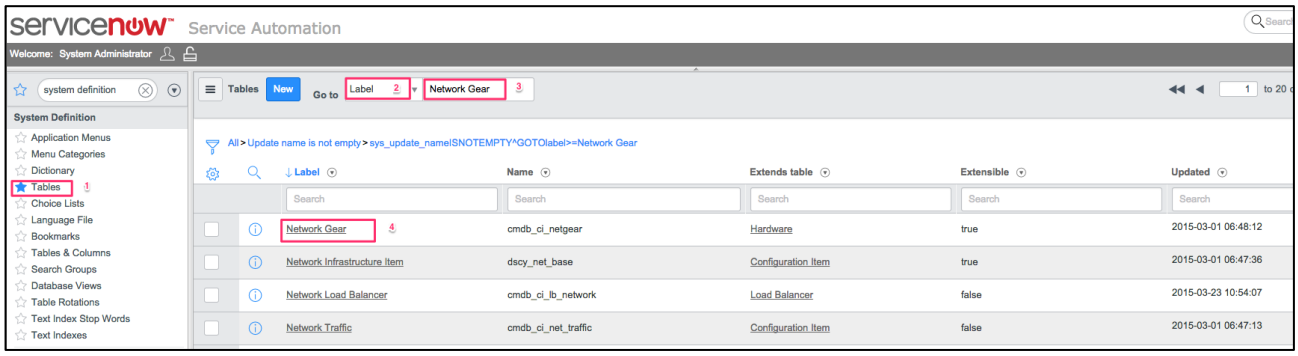
1. Click the **gear icon** next to the Logout button and toggle **Tabbed forms** to on.



2. Navigate to **System Definition > Tables.**

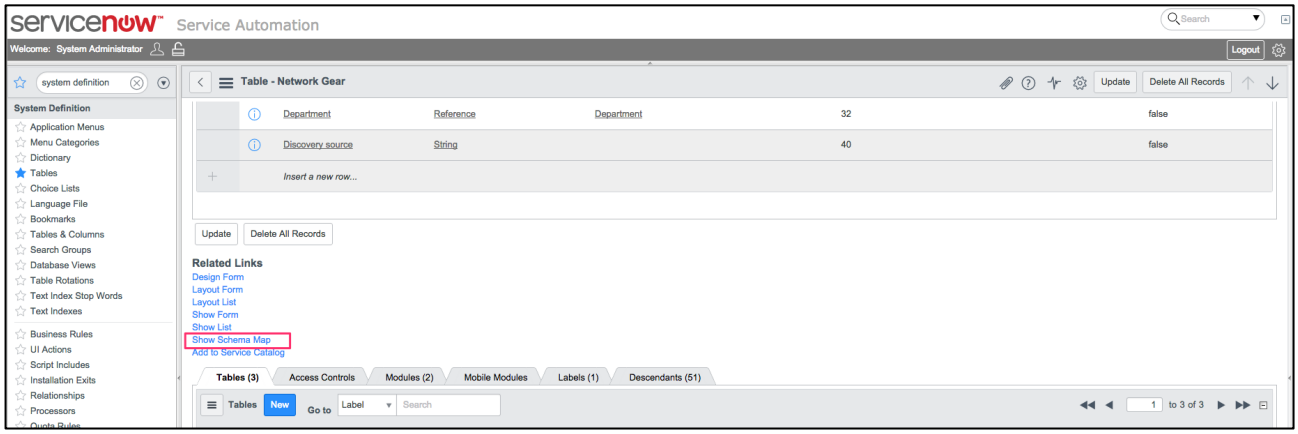


3. Select **Label** and search for **Network Gear**. Select **Network Gear** table.

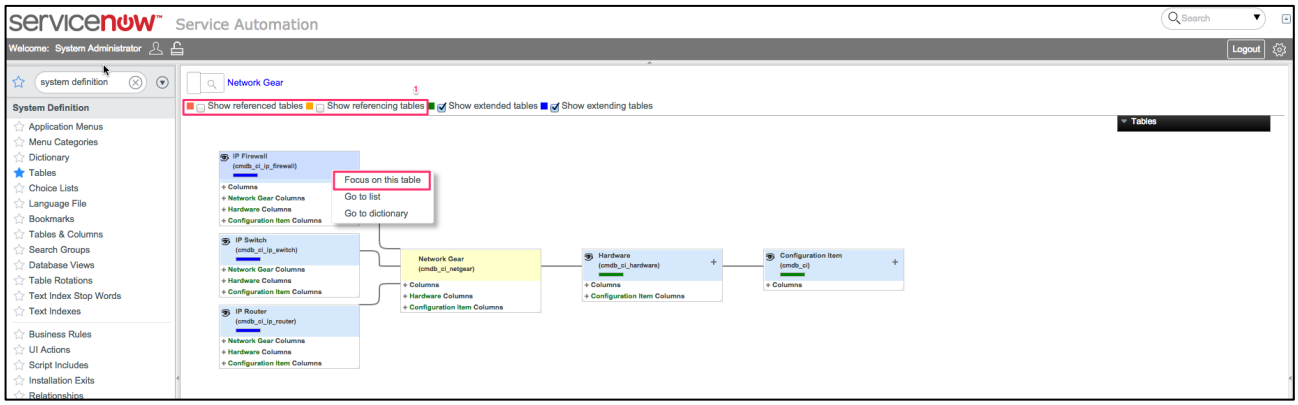


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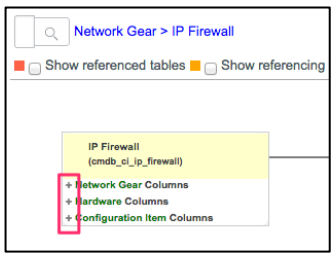
4. Scroll to **Related Links** and select **Show Schema Map**.



5. Uncheck **Show referenced tables** and **Show referencing tables**. Right-click the **IP Firewall** table and select **Focus on this table**.



6. Expand the **Network Gear**, **Hardware** and **Configuration Item** Columns on the **IP Firewall** table by clicking on the **+** signs as shown below and check for an **Owned By** field and **Version** field.

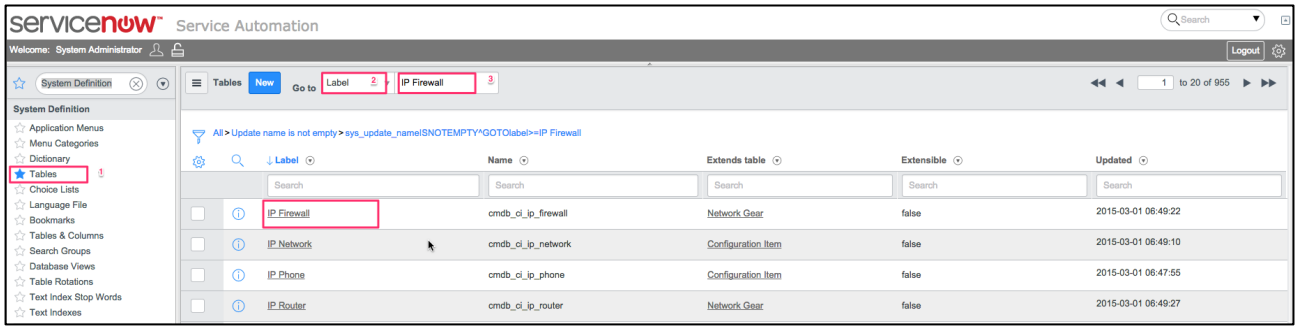


7. Notice there is an **Owned by** field within the **Configuration Item** column; however, there is no **Version** field. You will create the **Version** field in the next lab.

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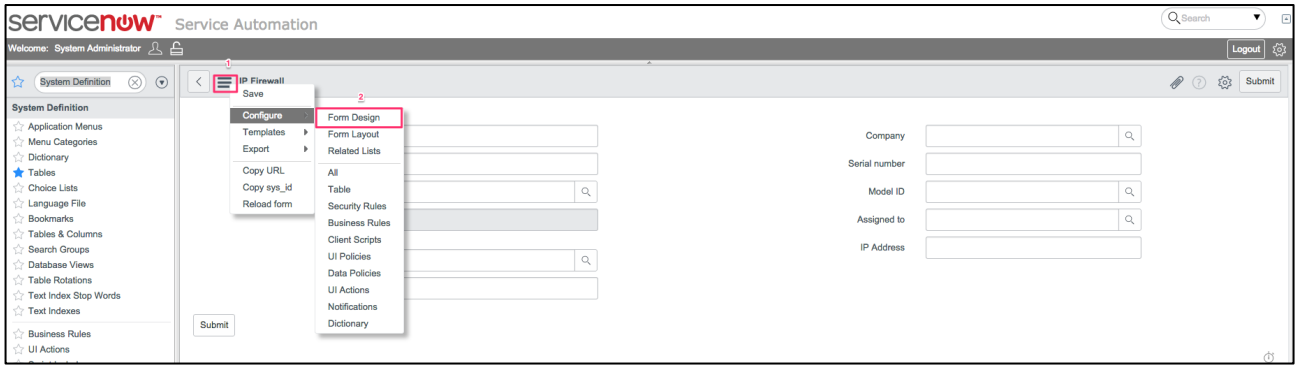
Add Existing and New Fields to the Firewalls Form

1. Navigate to **System Definition > Tables.** Select **Label** and search for **IP Firewall**. Select the **IP Firewall** table.

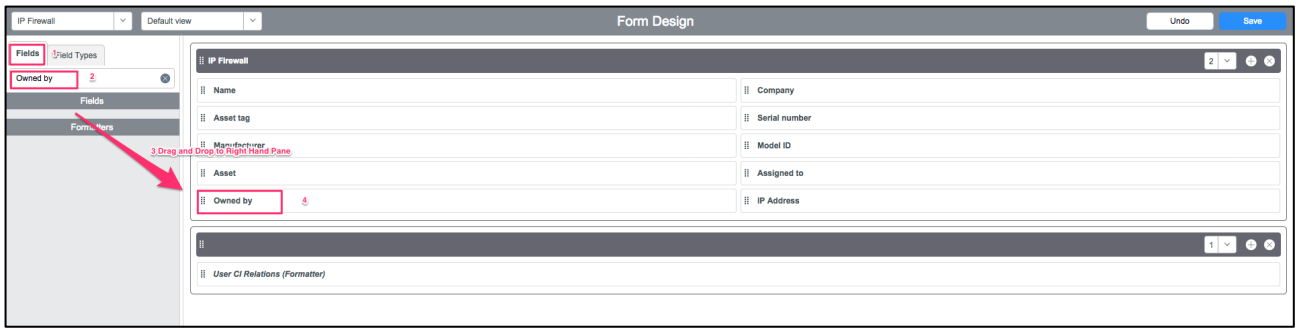


2. Scroll to the **Related Links** and select **Show Form**.

3. Select **Additional Actions > Configure > Form Design**.

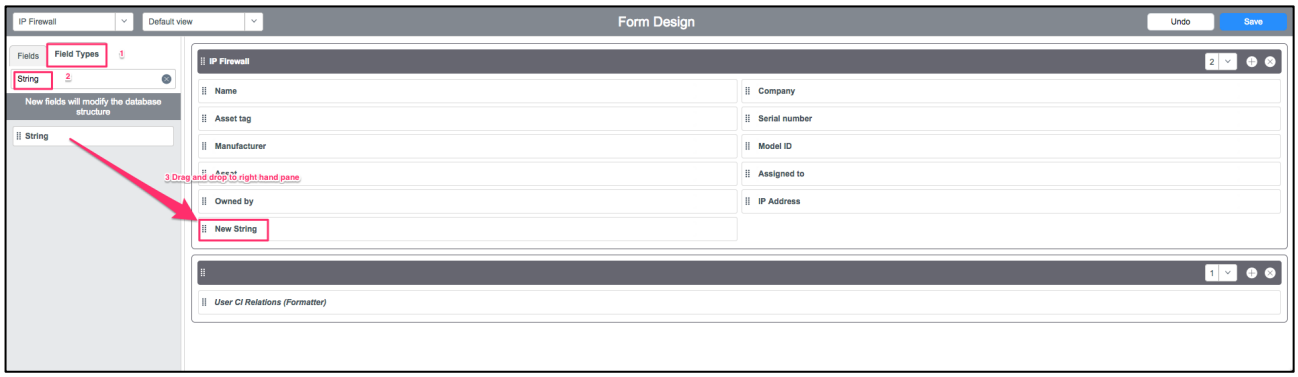


4. In the left navigation pane, select the **Fields** tab and search for the **Owned by** field. Select the **Owned by** field in the left pane and drag it under the **Asset** field in the right pane.

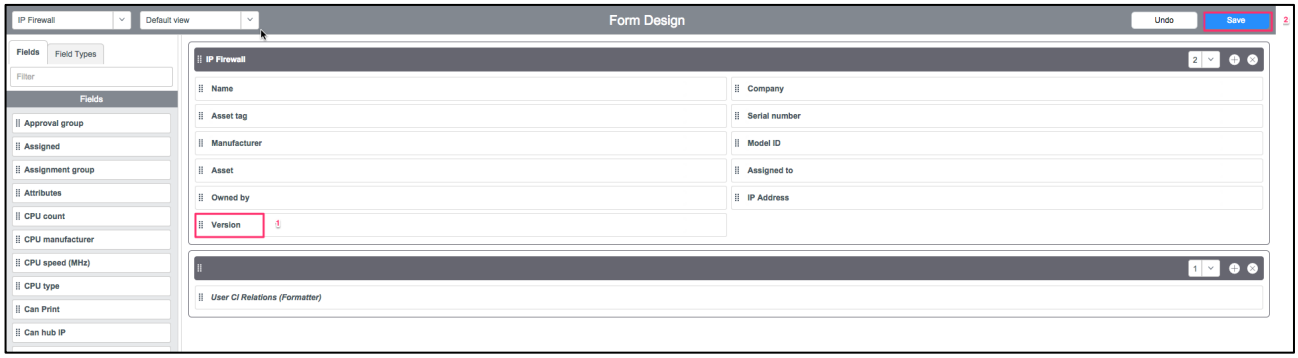


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5. Select the **Field Types** tab in the left pane and search for **String** field. Select **String** field in the left pane and drag it under the **Owned by** field in the right pane.

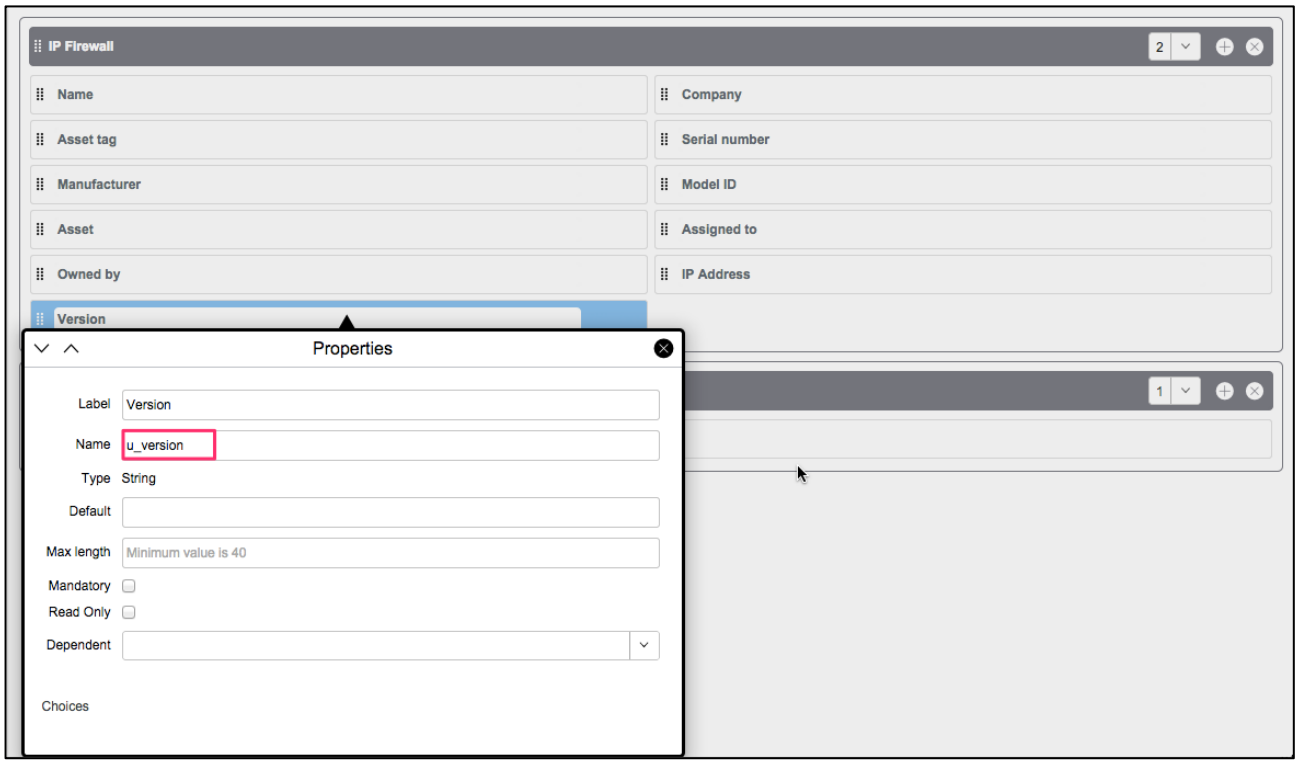


6. Click the **New String** field and rename it to **Version**.

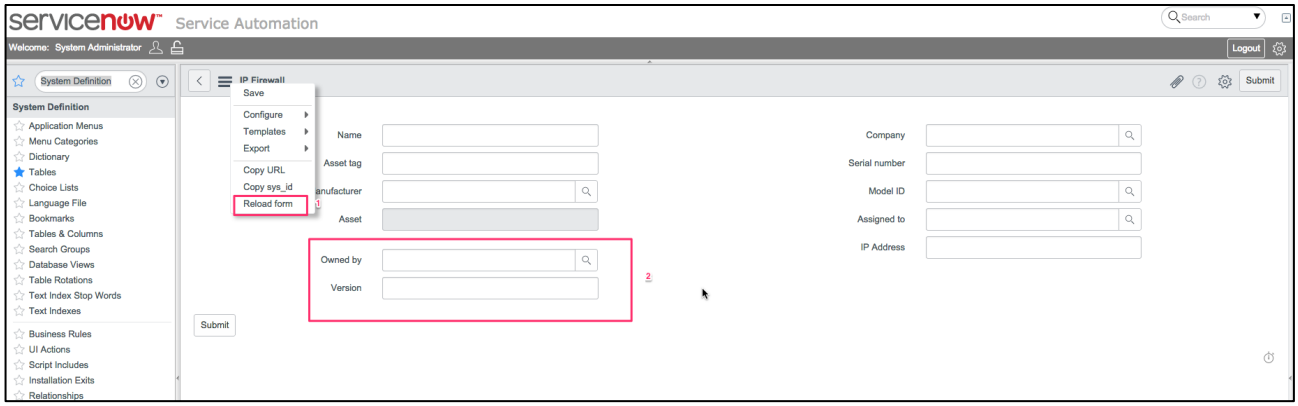


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7. Select the **Version** field. Click on the **edit** wheel and change the field name to **u_version**. Click **Save** on the top right of the forms designer and the close browser tab.



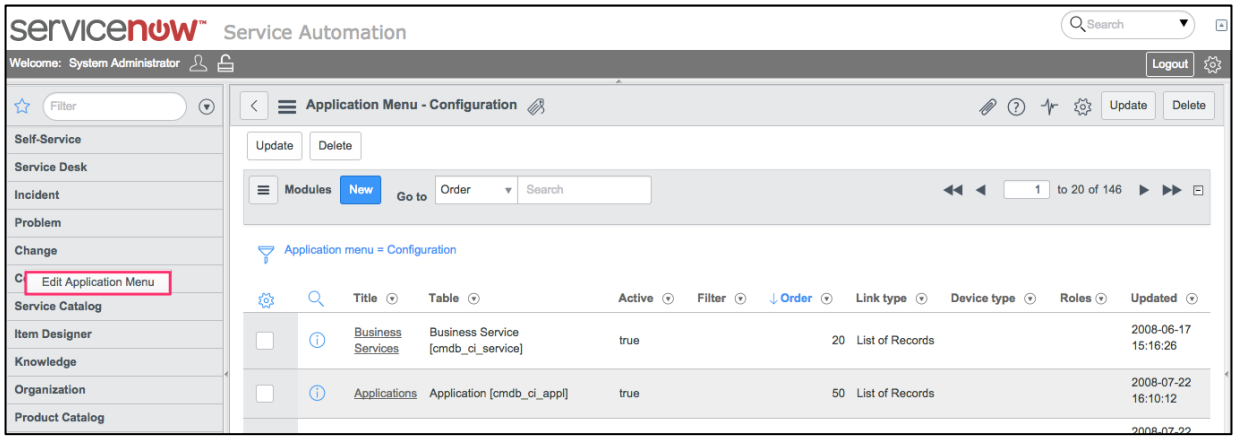
8. Select **Additional Actions** on the **IP Firewall** form and select **Reload form.** Both the **Owned by** and **Version** fields should be visible.



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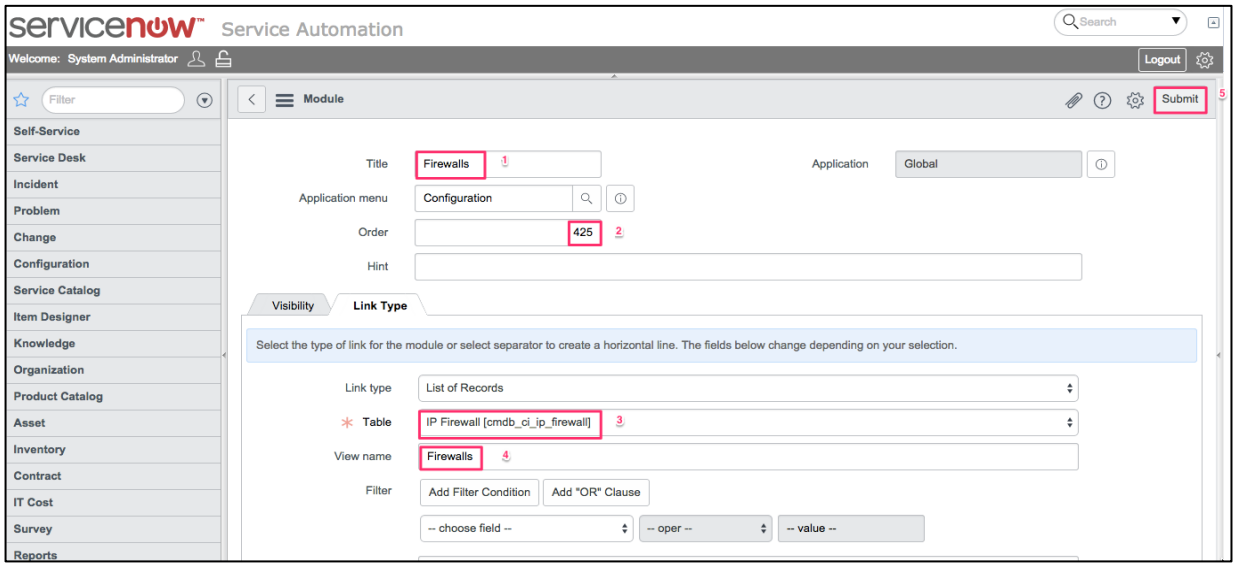
Add Firewalls to the Configuration Application

1. Right-click the **Configuration** application in the left navigation pane and select **Edit Application Menu**.



2. Select **New Module** button and complete the form as follows:

(1) Title: **Firewalls**
(2) Order: **425**
(3) Table: **IP Firewall [cmdb_ci_ip_firewall]**
(4) View name: **Firewalls**



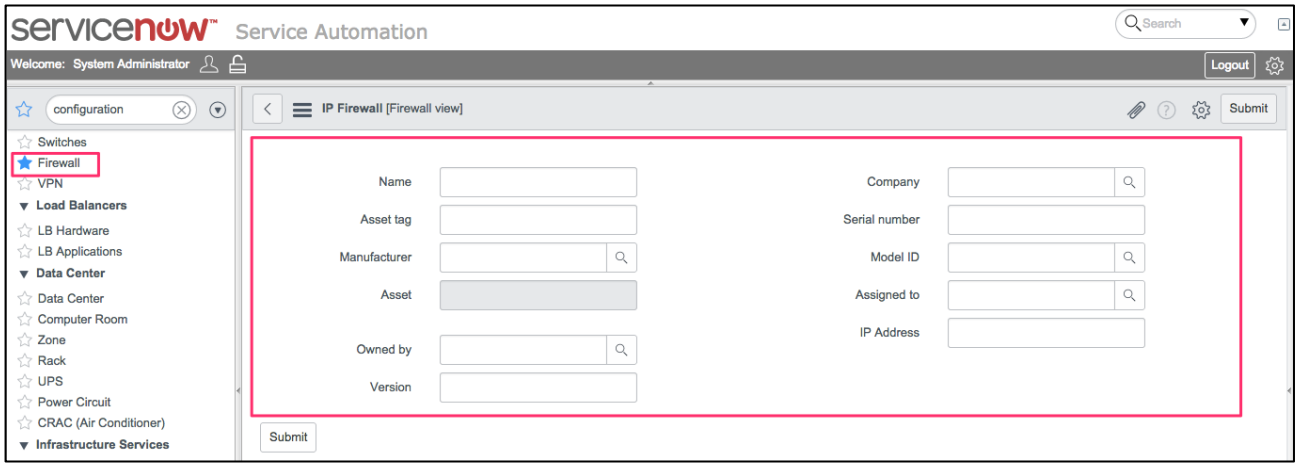
(5) Click **Submit**.

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Lab Success Verification.

1. Navigate to **Configuration > Firewall**.

2. Select **New** and the **IP** firewall form should look like the example.



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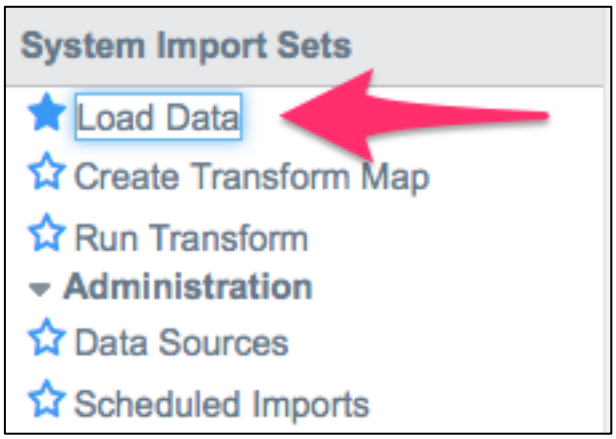
Lab Goal

The goal for this lab is to import data into the new Firewall class just created. Download the spreadsheets from the Knowledge Base.

Lab 1.2 Import Firewall Data

Create a New Import Set

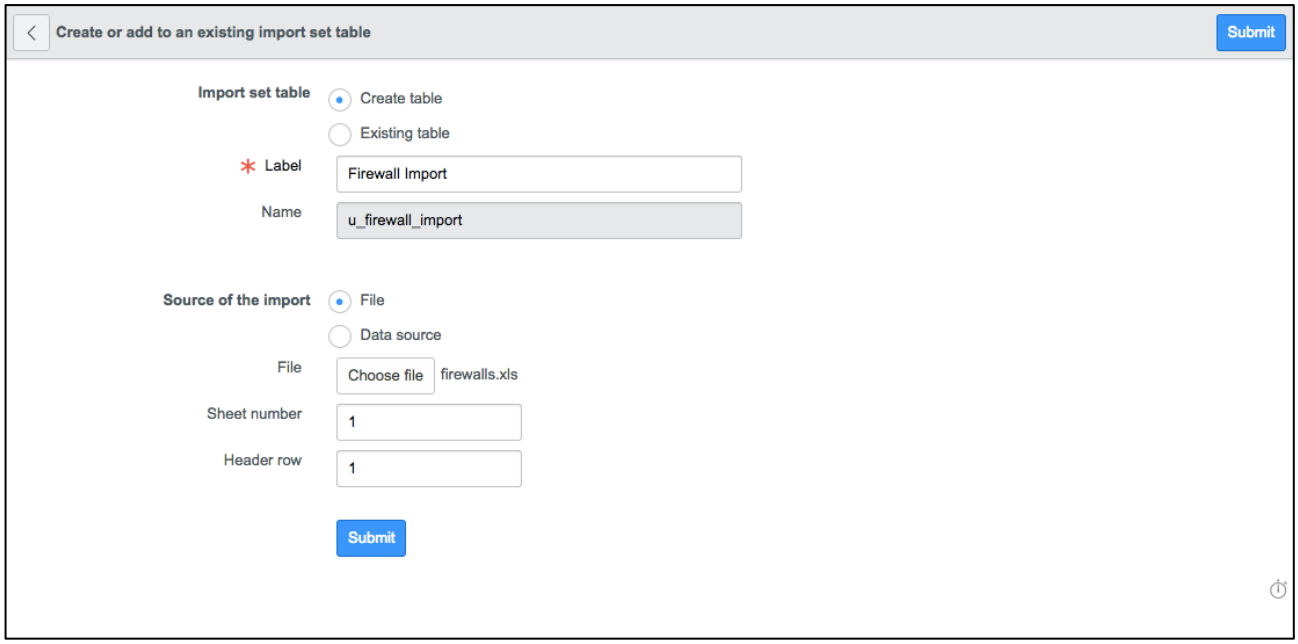
1. Navigate to **System Import Sets > Load Data**.



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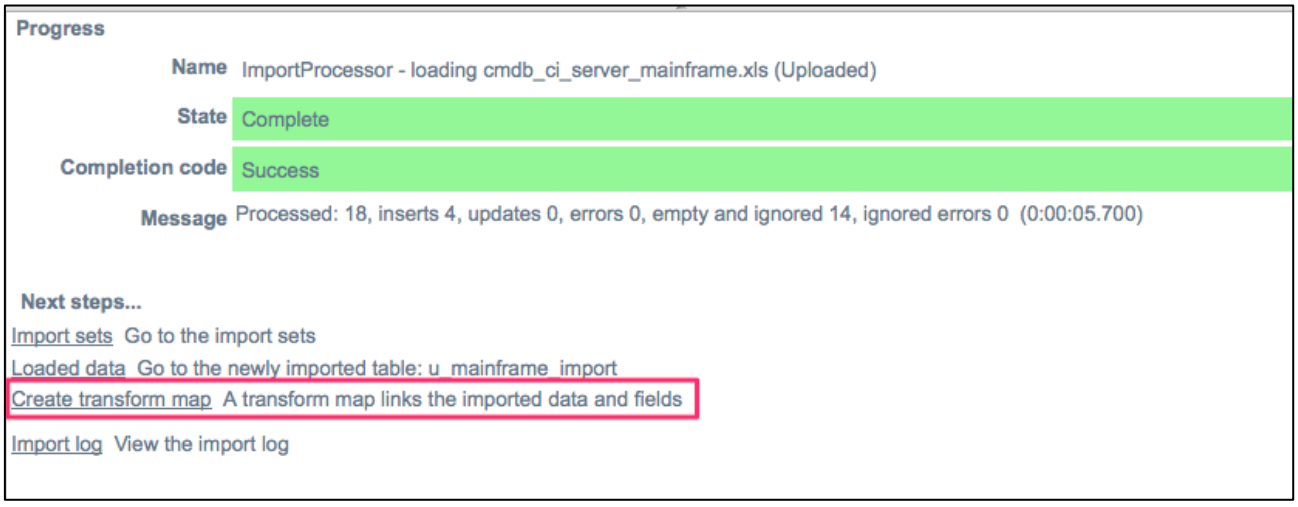
2. Create a **New** import set.

   Label: **Firewall Import**
   Table name: auto-fills with **u_firewall_import**
   Choose File: **firewalls.xls**



   Click **Submit**.

3. The screen should look like the example. Click **Create transform map**.



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4. Complete the form as follows.

   (Preselected) Source table: **Firewall_import [u_firewall_import]**

   (1) Name: **Firewall Import**

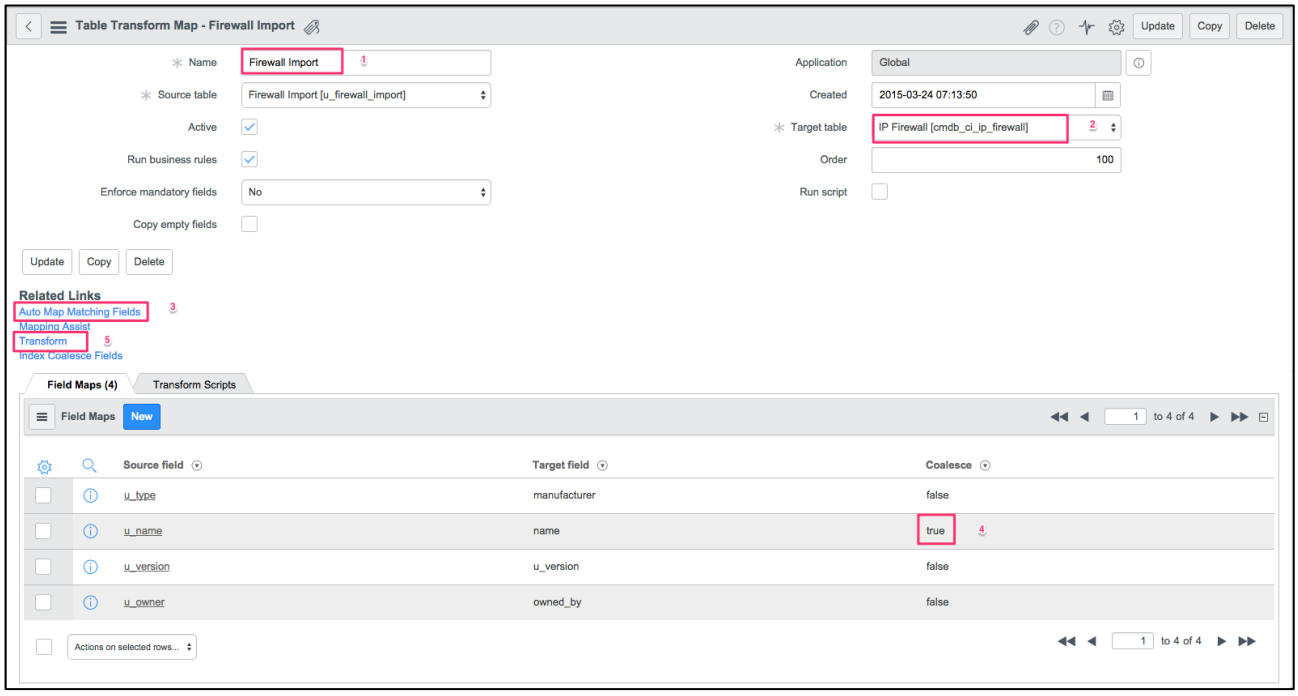
   (2) Target table: **IP Firewall [cmdb_ci_ip_firewall]**

   (3) Select **Auto Map Matching Fields**.

   - Coalesce fields identified in Step 4 tell the system which field to use as the unique. You can have multiple coalesce fields, but for this exercise:
     - Since the fields in the spreadsheet match the fields in the CMDB, the **Auto map matching fields** link is available.
     - If the fields did not match, you would need to use **Mapping Assist**. Click the **Mapping Assist** link to see the drag and drop UI for mapping fields. Click **Cancel** when you are done.

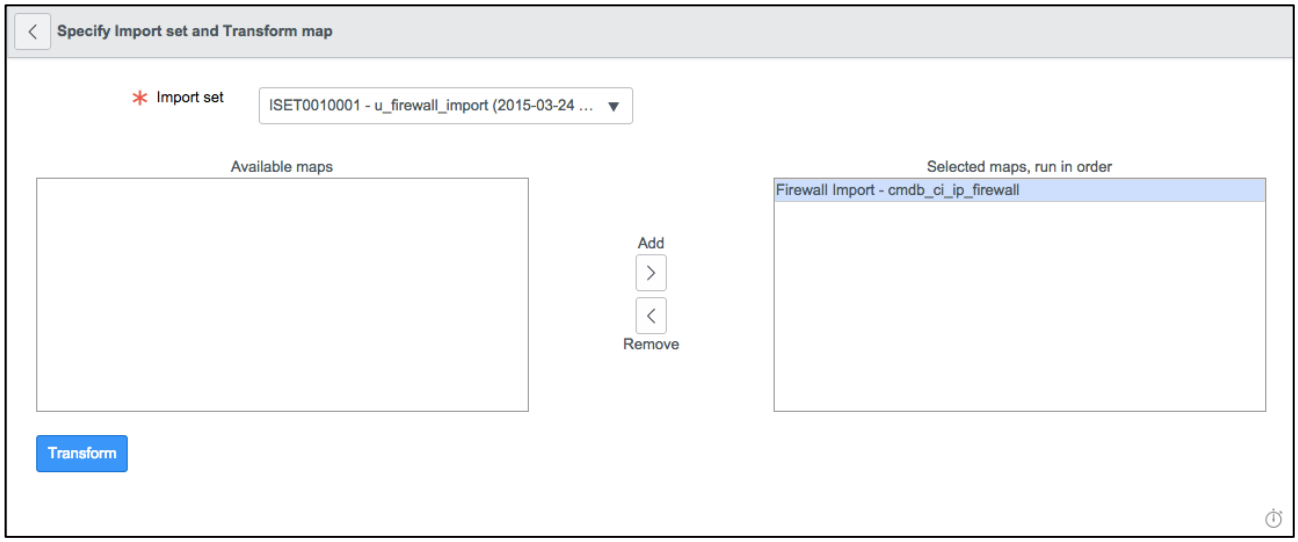
   (4) Coalesce: **name = true**

   (5) Click **Transform.**



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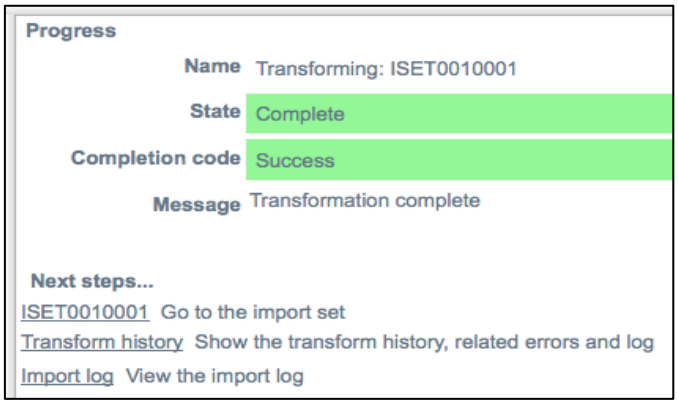
5. Be sure **Firewall Import – cmdb_ci_ip_firewall** is preselected then click **Transform**.



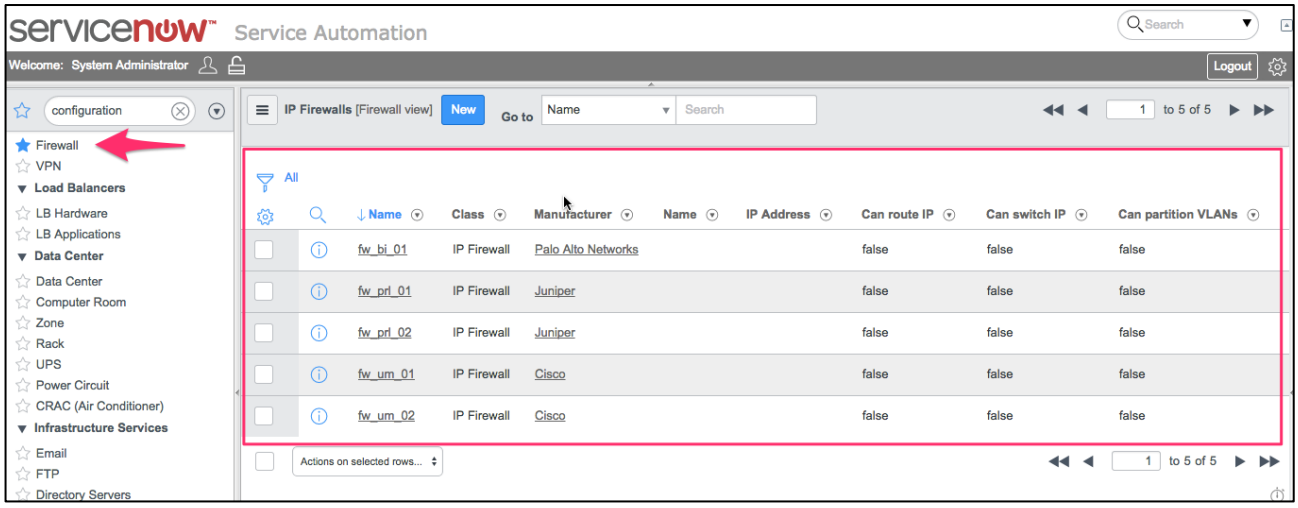
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Lab Success Verification

1. Your screen should look like the example.



2. Navigate to **Configuration > Firewall** to see the imported data.



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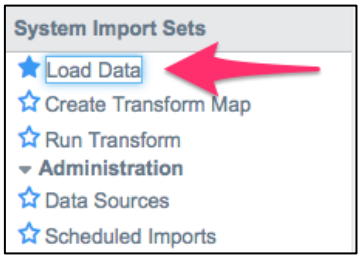
Lab Goal

The goal for this lab is to import Relationship data into CMDB. Download the spreadsheets from the Knowledge Base.

Lab 1.3 Import Firewall Relationships

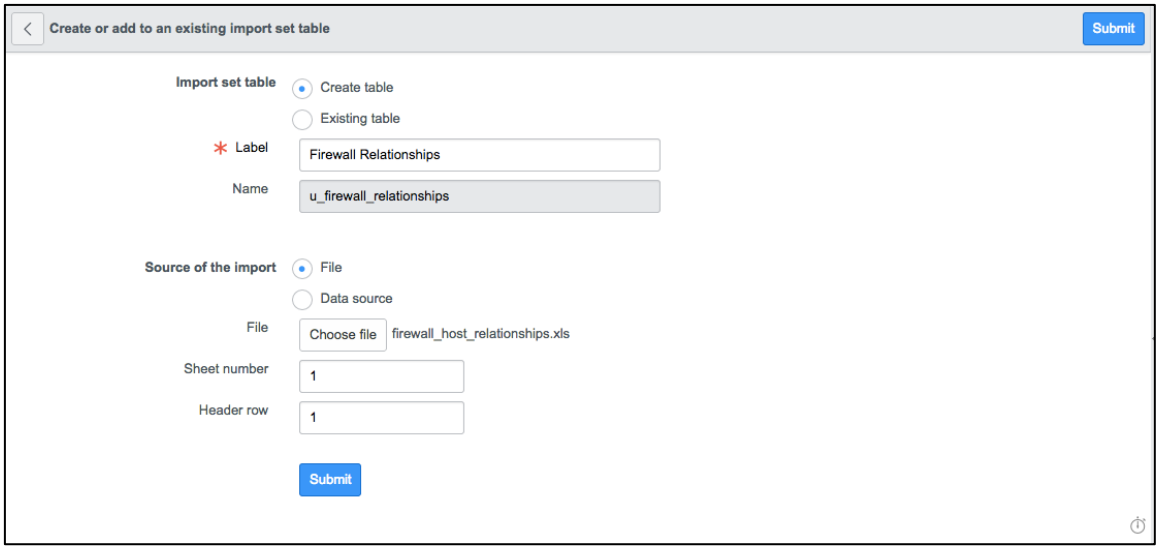
Create a New Import Set

1. Navigate to **System Import Sets > Load Data**.



2. Create a **New** import set table.

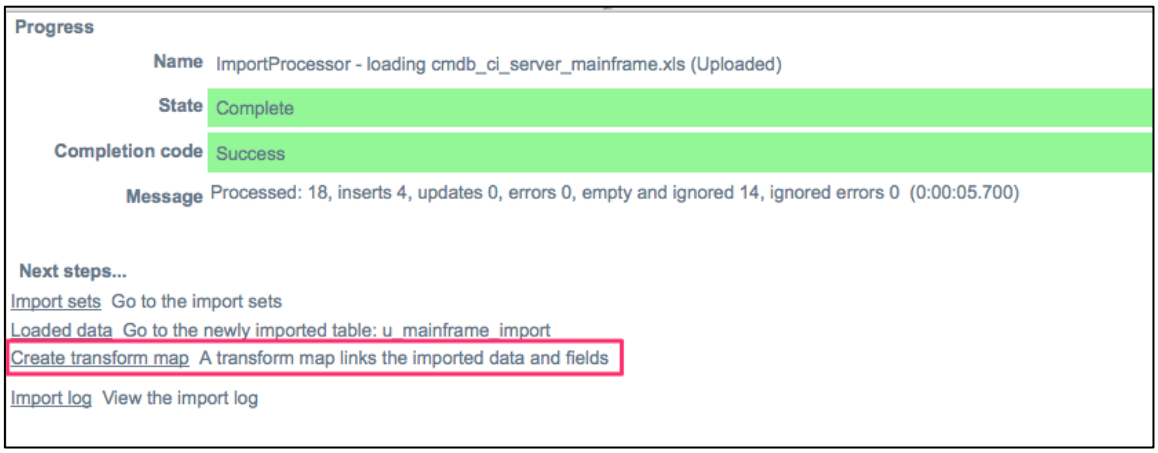
   Label: **Firewall Relationships**
   Table name: auto-fills with **u_firewall_relationships**
   Choose File: **firewall_host_relationships.xls**



   Click **Submit**.

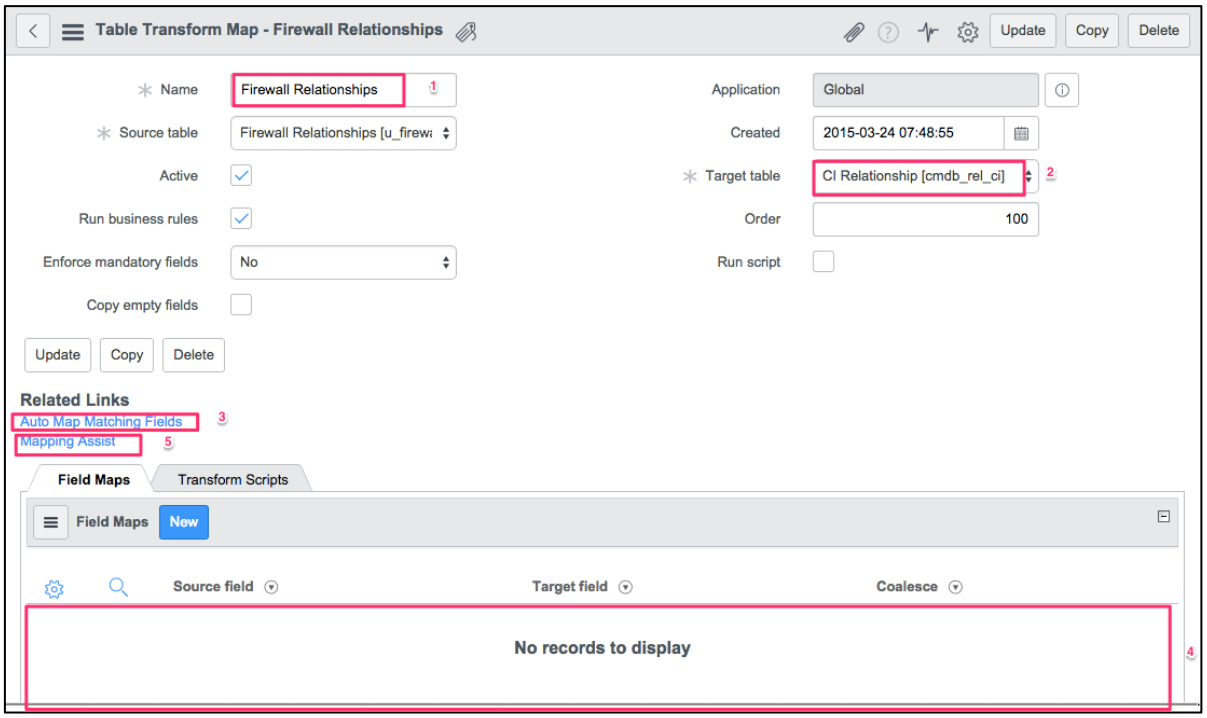
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3. The screen should look like the example. Click **Create transform map.**



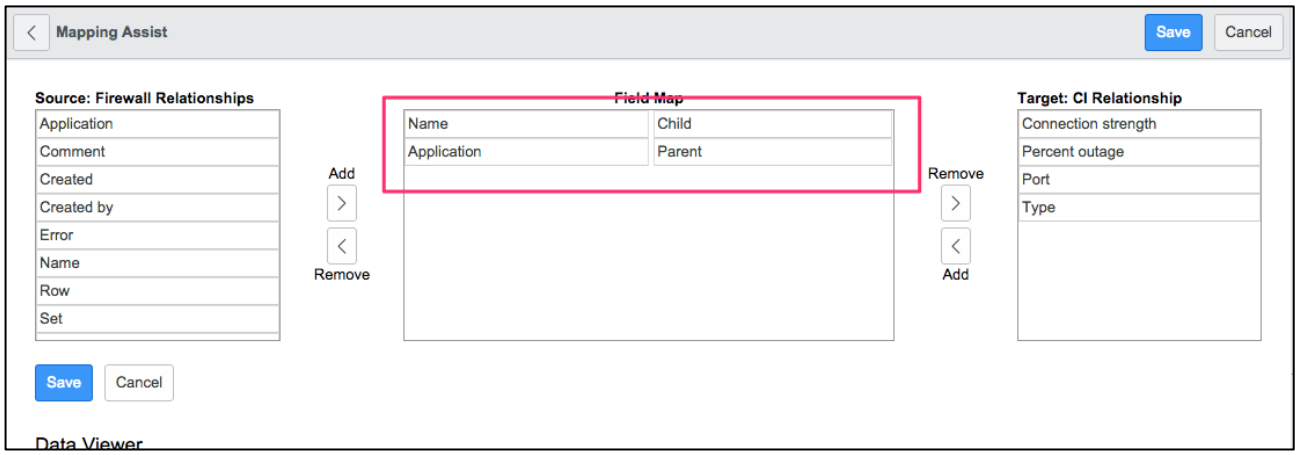
4. Complete the form as follows.

   (Preselected) Source table: **[u_firewall_relationships]**
   (1) Name: **Firewall Relationships**
   (2) Target table: **CI Relationship [cmdb_rel_ci]**
   (3) Select **Auto map matching fields**.
   (4 +5) Since there are no **Auto Matching Fields**, you must select **Mapping Assist**.



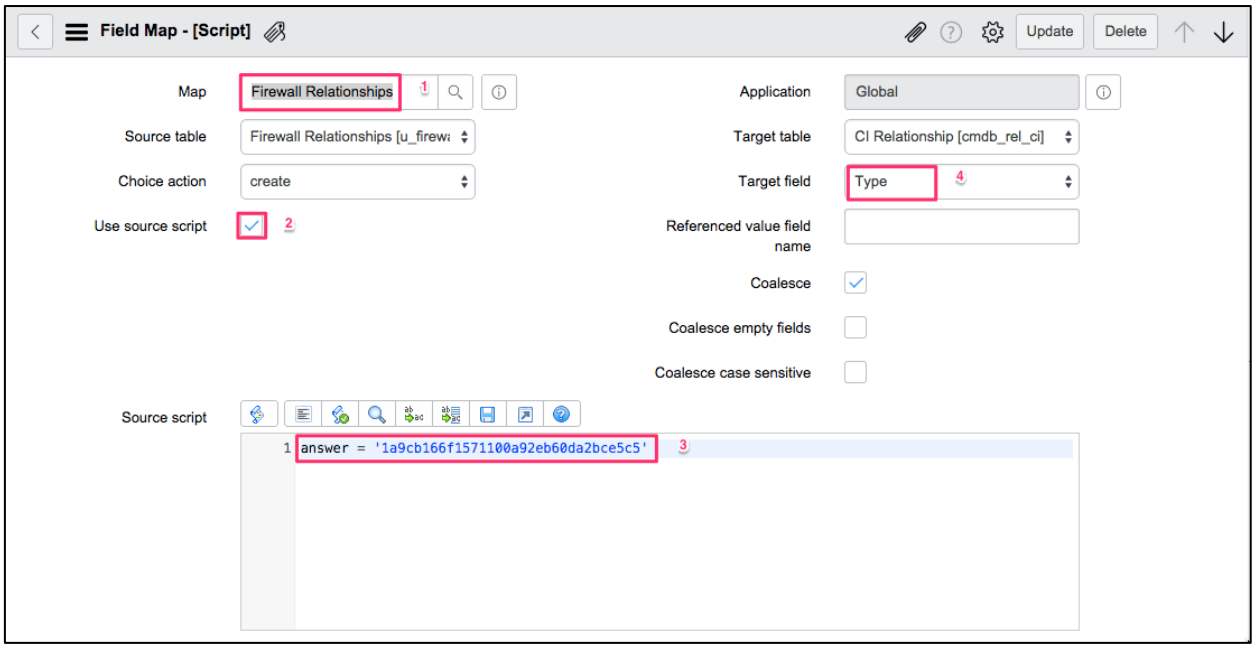
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5. Use the Drag and Drop **Mapping Assist** editor to complete the correct **Field Map** following the example. Click **Save** when finished mapping.



6. On the **Field Map** related list, select **New** and complete the form as follows.

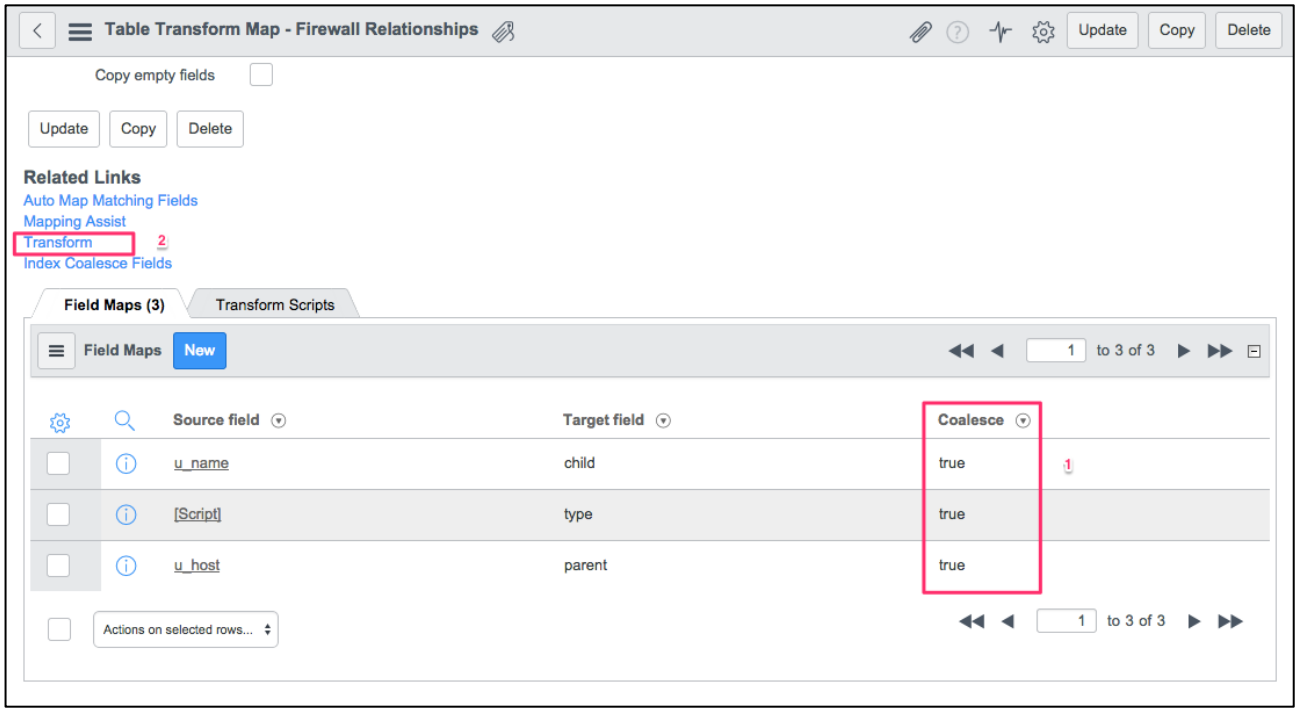
   (1) Map: **Firewall Relationships**
   (2) Use source script: **Checked**
   (3) Source script: **answer = '1a9cb166f1571100a92eb60da2bce5c5'**
   (4) Target field: **Type**



Click **Update**.

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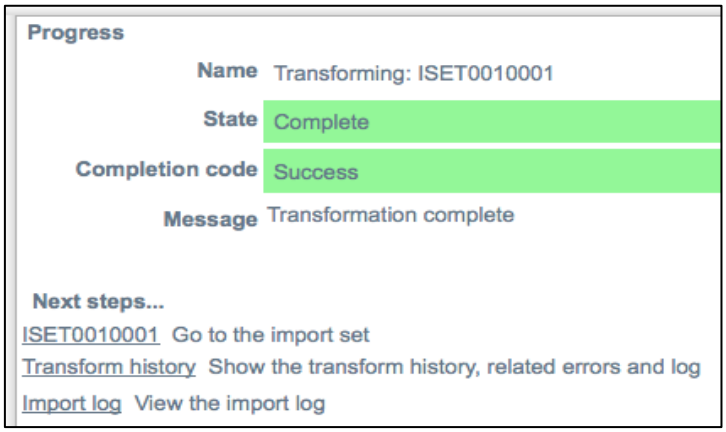
7. Set Coalesce to **True** for all **Target fields**, then click **Transform**.



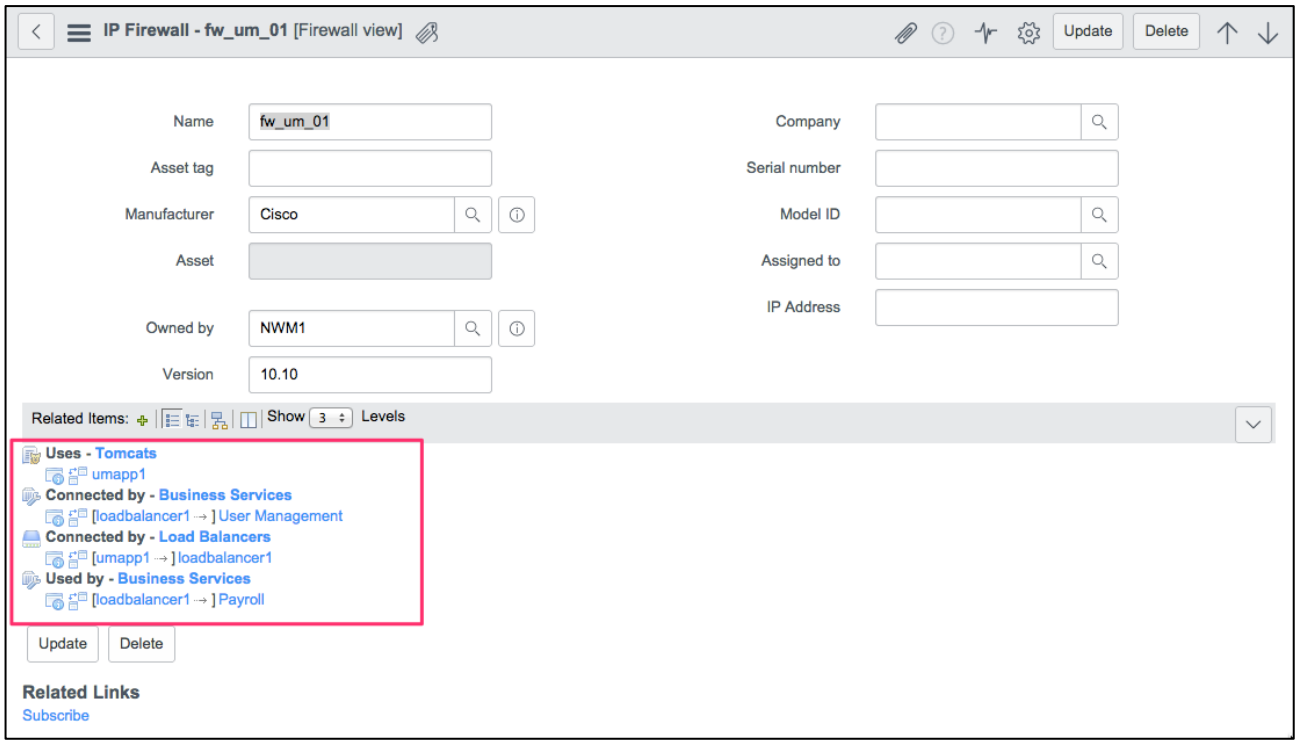
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Lab Success Verification.

1. The screen should look like the example.



2. Navigate to **Configuration > Firewalls**. Select and open **fw_um_01** firewall. The screen should look like the example.



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Lab Goal

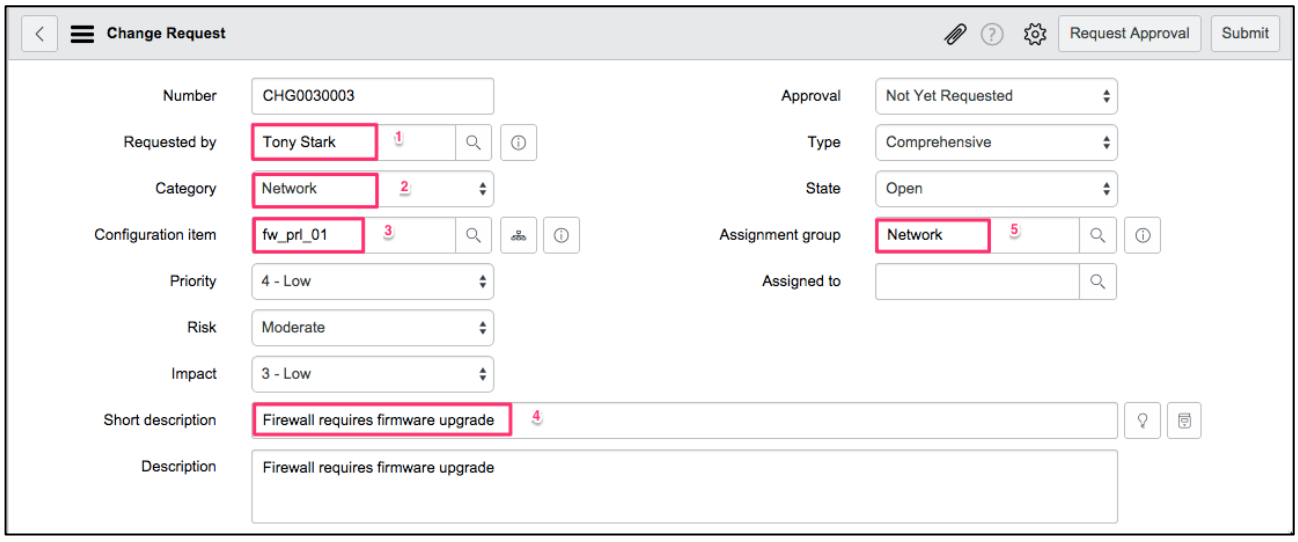
The goal for this part of this lab is to create a Change and View the Business Service Impact based on the relationships created in Lab 1.3.

Lab 2.1
Create a Change and View Business Impact

1. Navigate to **Change > New Change Request**.

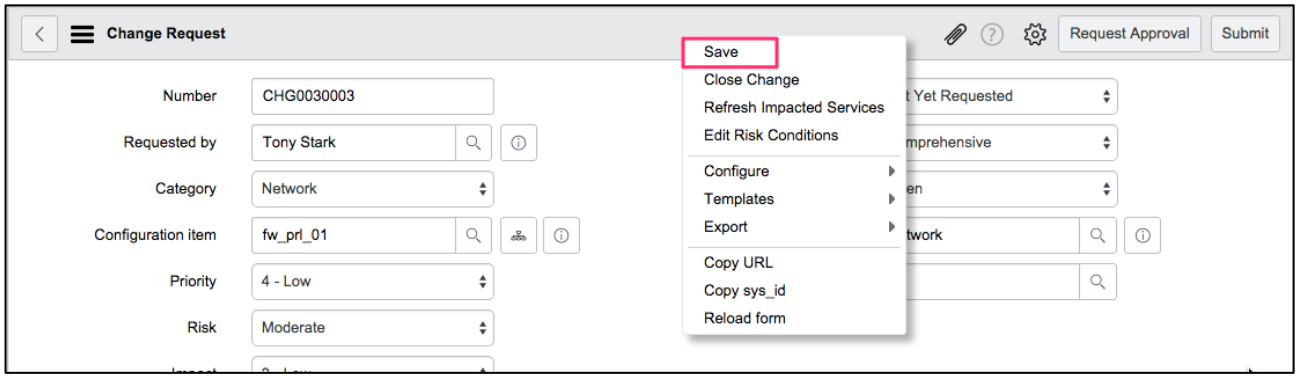
2. Complete the **Change Request** Form with the following:

   (1) Requested by: **Tony Stark**
   (2) Category: **Network**
   (3) Configuration Item: **fw_prl_01**
   (4) Short description and Description: **Firewall requires firmware upgrade**.
   (5) Assignment group: **Network**

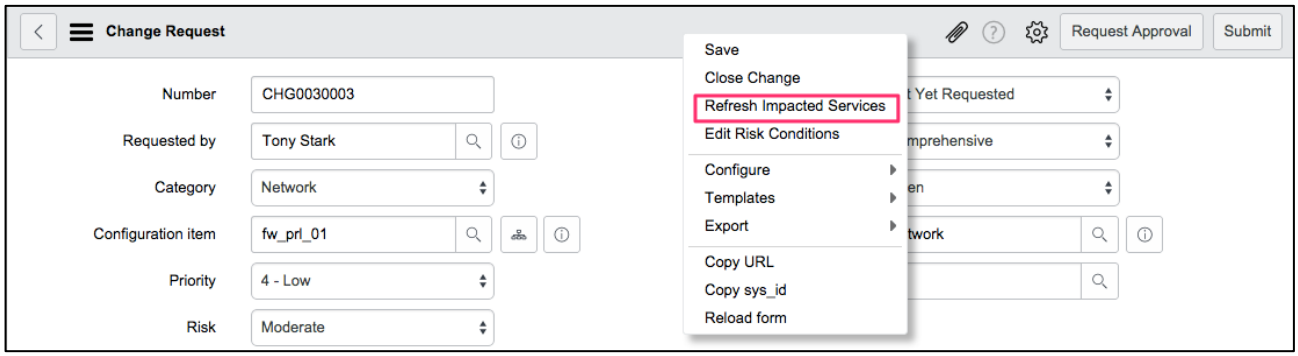


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3. Right-click the form header and select **Save**.

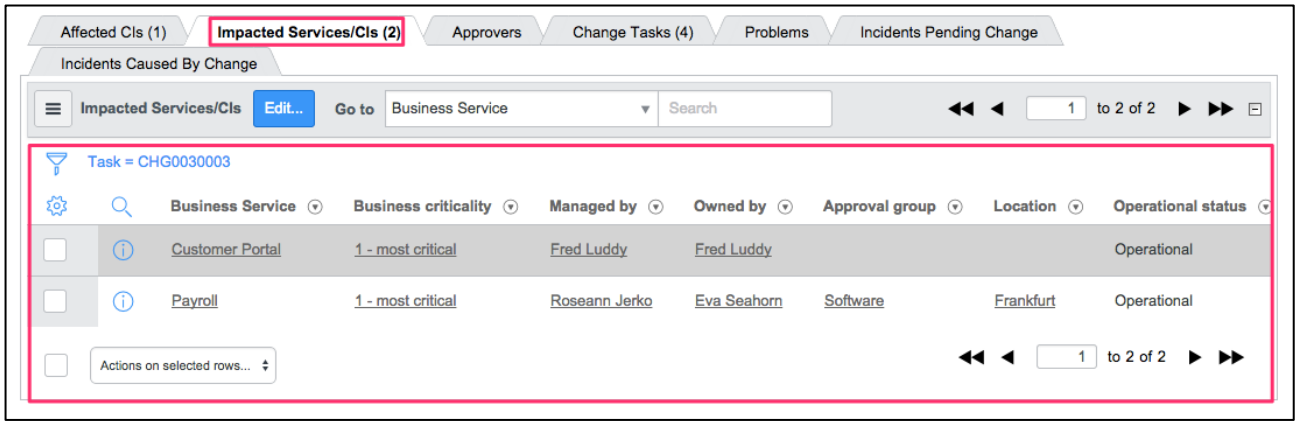


4. Right-click the form header again and select **Refresh Impacted Services**.



Lab Success Verification.

1. The **Impacted Services/CIs** related list should look like the example.



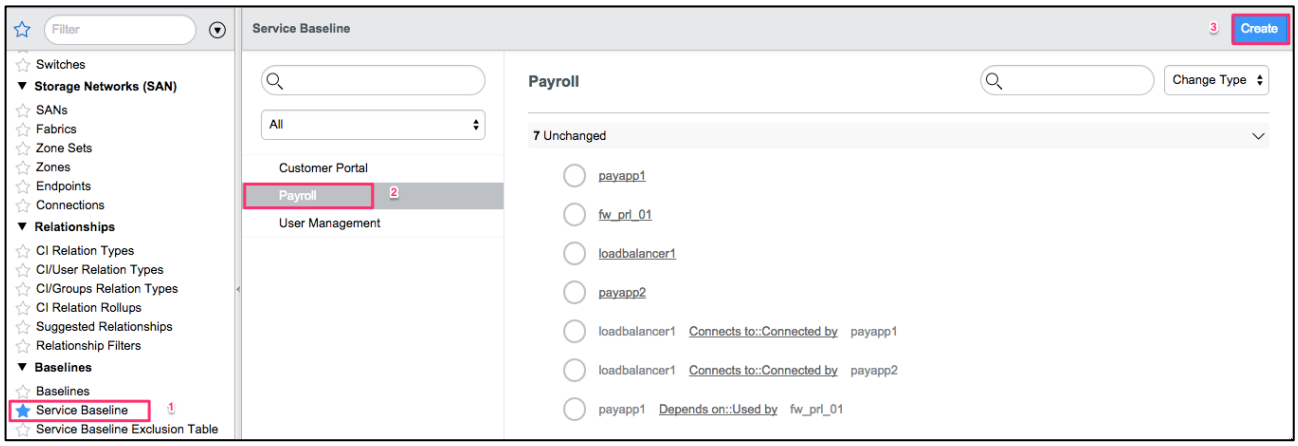
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Lab Goal

The Goal of this Lab is create a Service Baseline against one of the Services created within the pervious Labs.

Lab 2.2 Create a Service Baseline

1. Navigate to **Configuration > Baseline > Service Baseline**.
2. Select the **Payroll Service** and click **Create**.



Lab Success Verification.

1. The **Service Baseline** screen should look like the example.



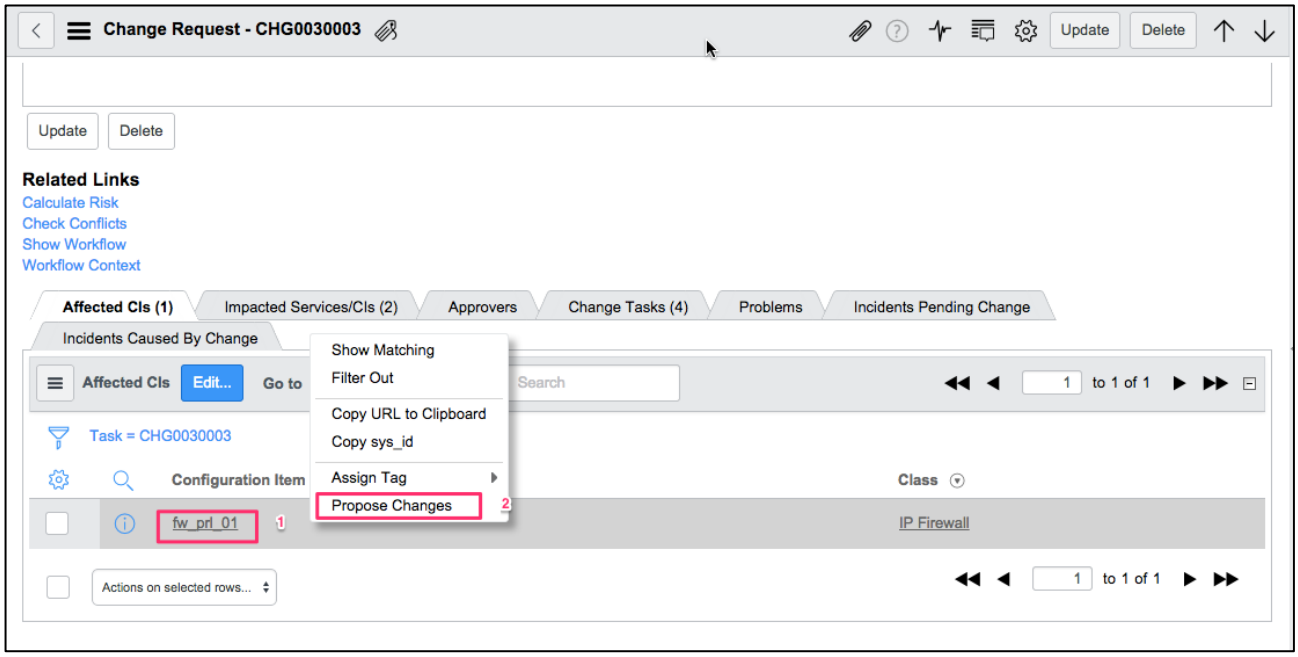
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Lab Goal

The Goal of this Lab is to propose a change to a configuration item, apply that change in the Change Form, and the approve change on the Service Baseline.

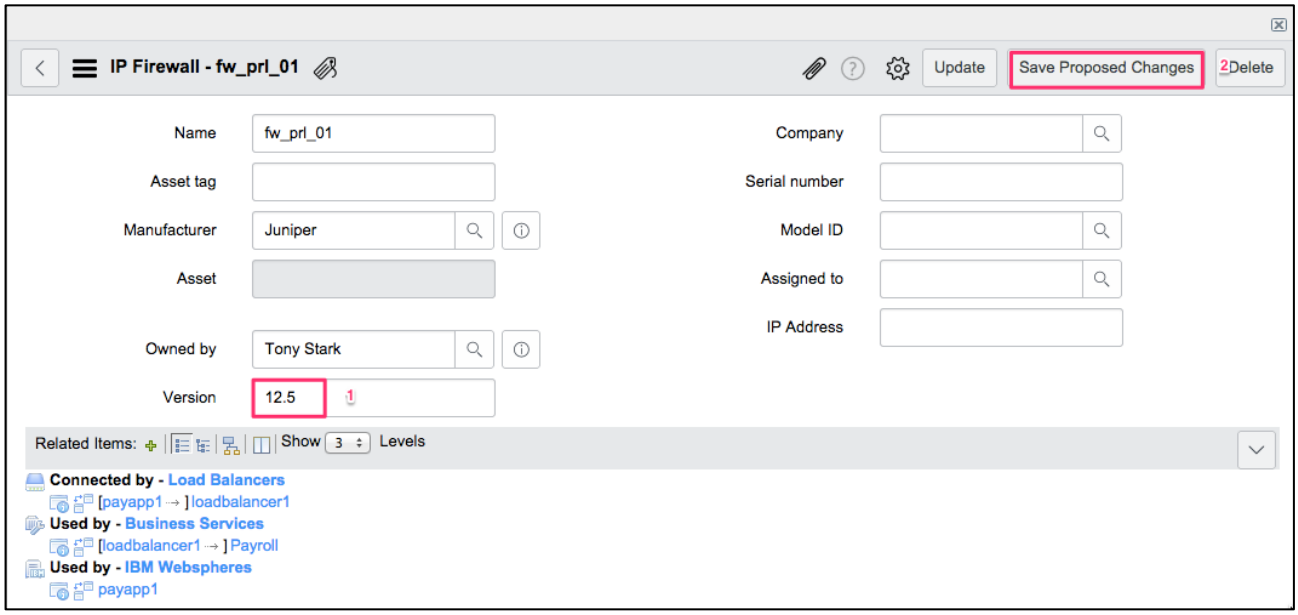
Lab 2.3 Approving a Change to a Service Baseline

1. Navigate to **Change > Open** and select the **Change Request** created in Lab 2.1.
2. Scroll to the **Affected CIs** related list. Right-click **fw_prl_01** and select **Propose Changes**.

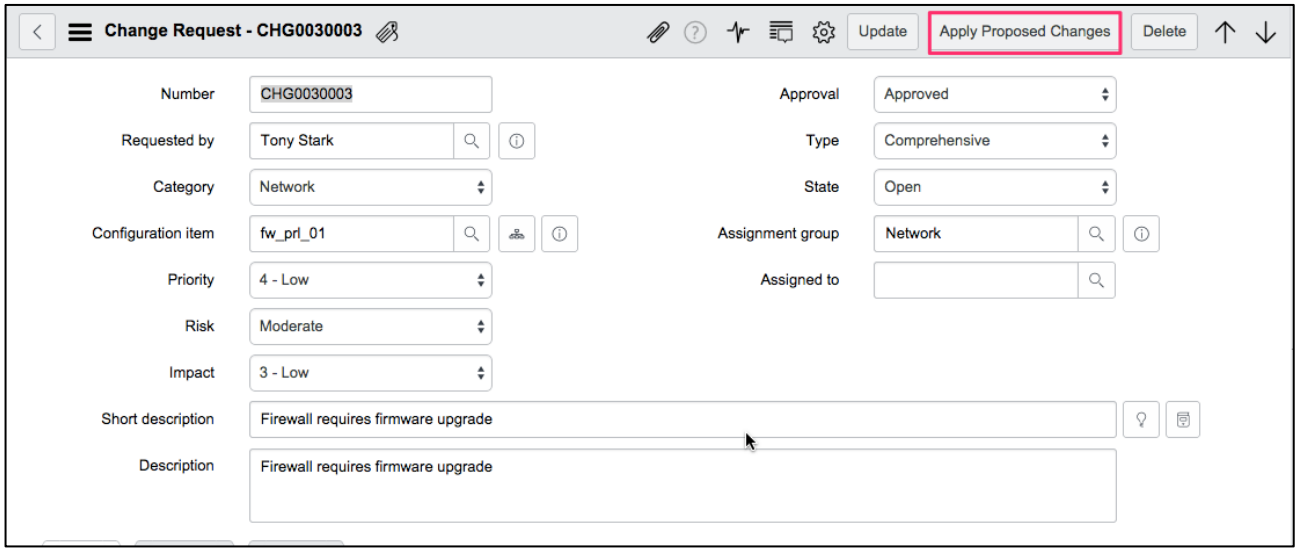


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3. Set the **Version** field value to **12.5**. Click **Save Proposed Changes**.



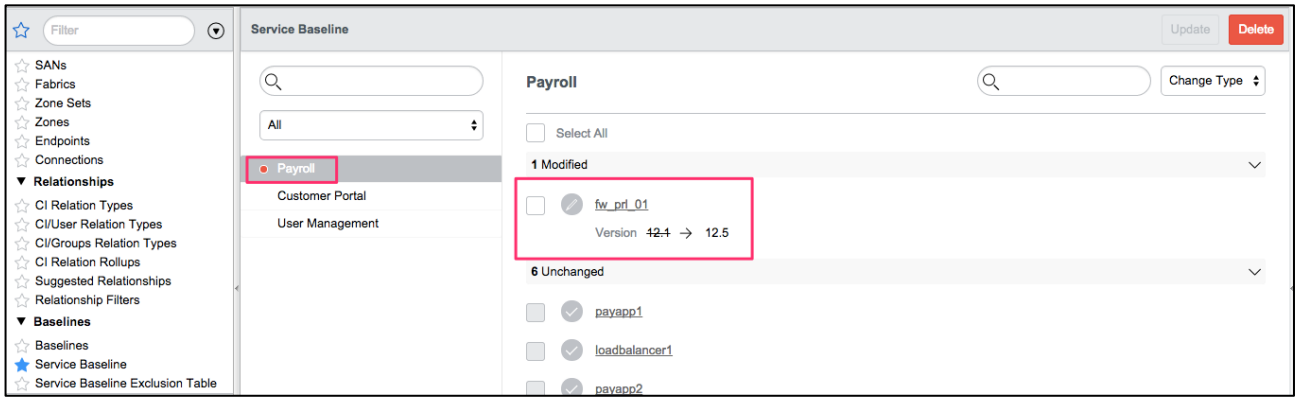
4. Select **Apply Proposed Changes** at the top of the **Change Request** that created in Lab 2.1.



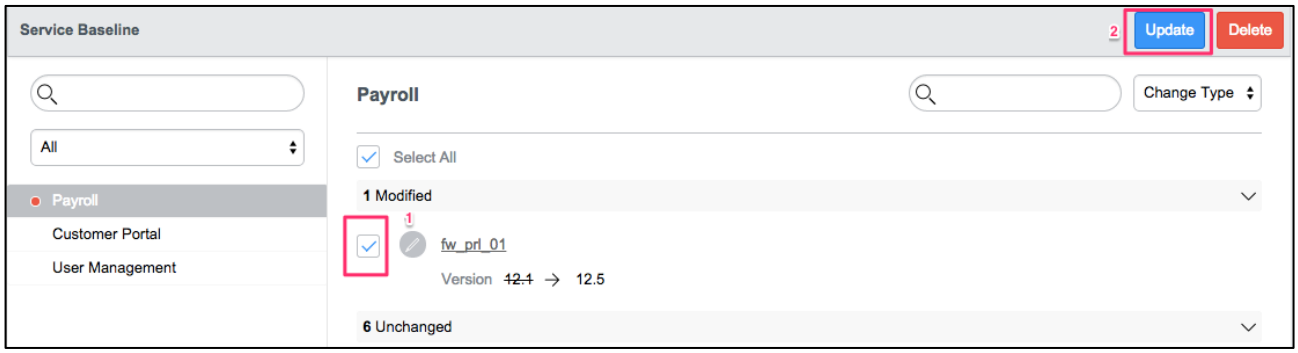
5. Navigate to **Configuration > Baseline > Service Baseline**.

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6. Notice that the **Payroll** Baseline is in a **Red** state. The Version change to **12.5** is displayed.

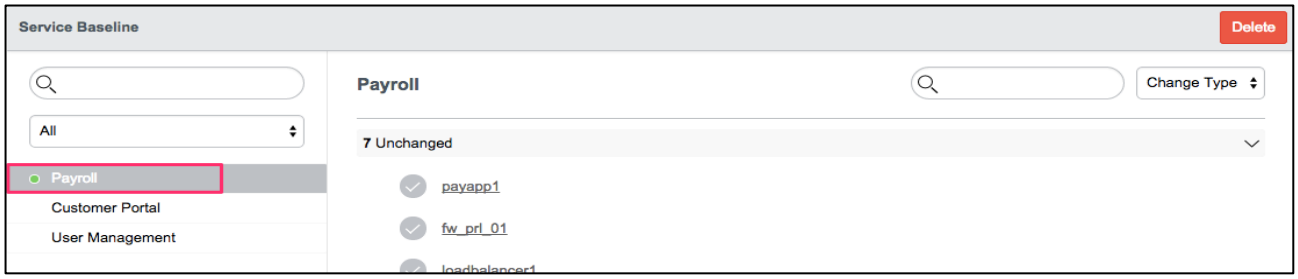


7. Check the box next to **fw_prl_01** under Modified and select **Update**.



Lab Success Verification

1. The **Service Baseline** screen should look like the example.



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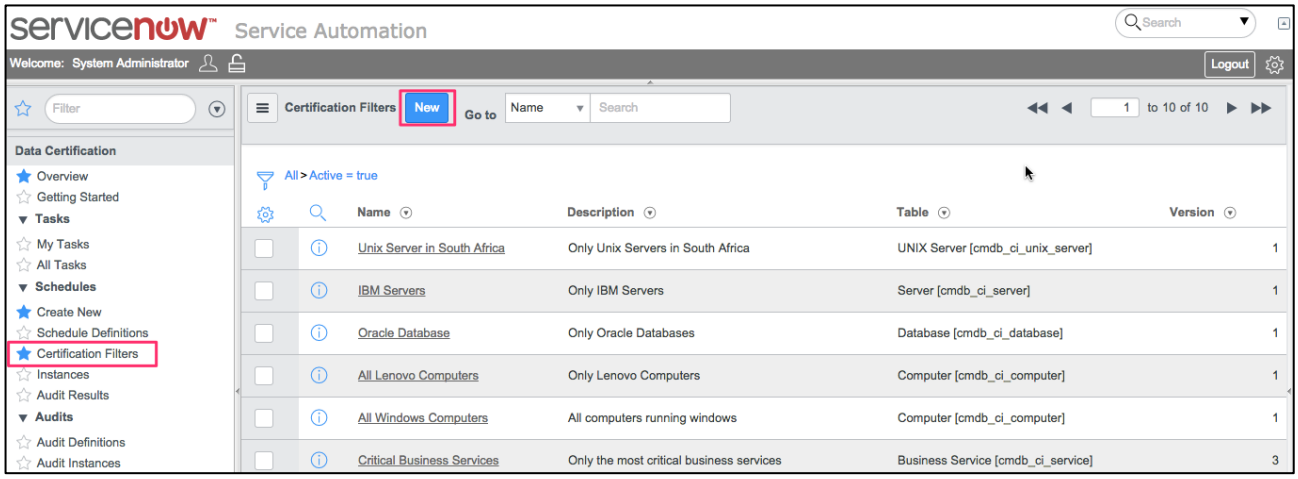
Lab Goal 3.1

This exercise explains the first of two basic types of Audits, **Data Certification**.

Lab 3.1
Data
Certification

Create Certification Filter and Schedule

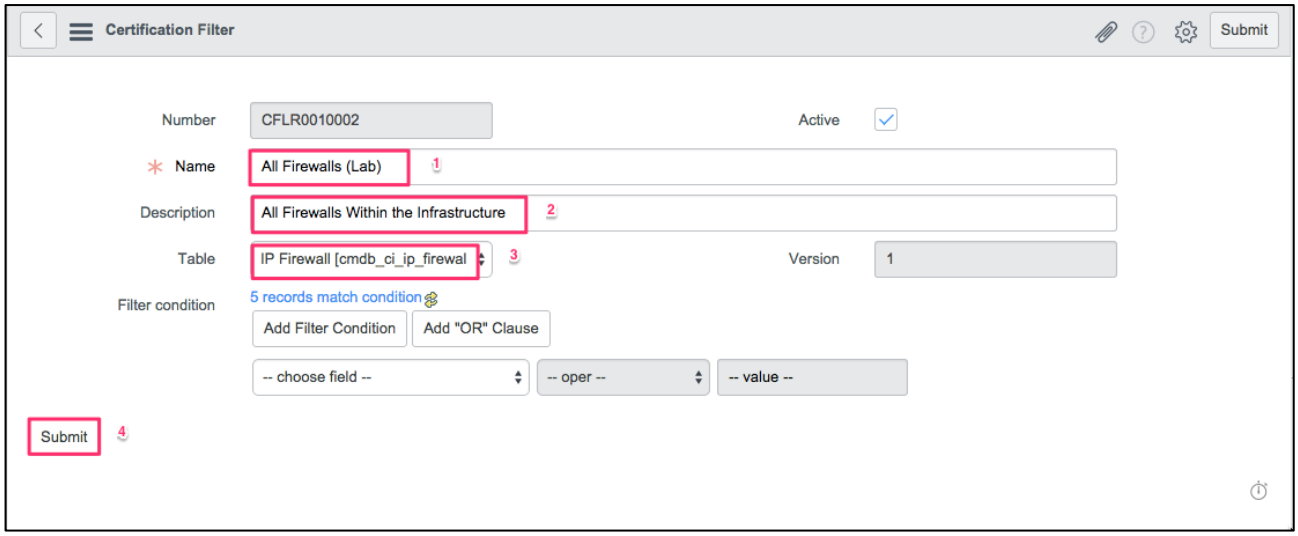
1. Navigate to **Data Certification > Certification Filters**. Click **New.**



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2. Fill out the form as follows.

(1) Name: **All Firewalls (Lab)**
(2) Description: **All Firewalls Within the Infrastructure**
(3) Table: **IP Firewall [cmdb_ci_ip_firewall]**

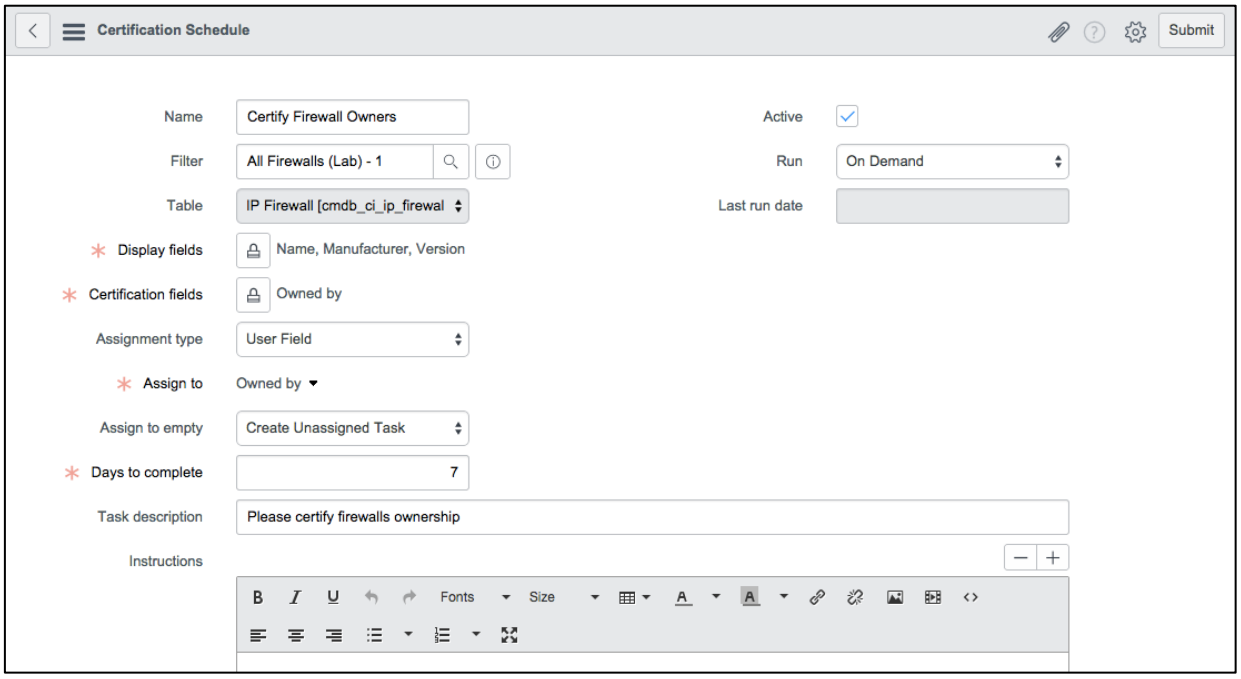


(4) Click **Submit**.

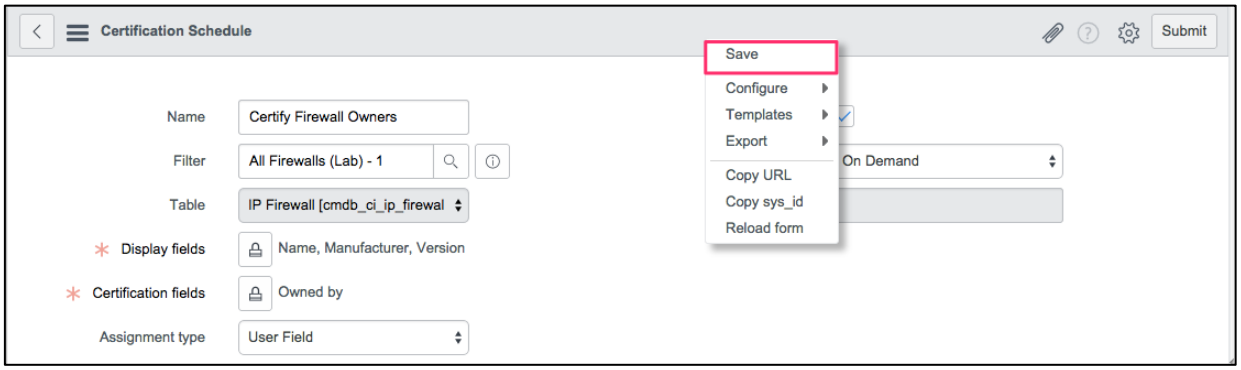
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3. Navigate to **Data Certification > Create New** and complete the form as follows.

   Name: **Certify Firewalls Owners**
   Display fields: **Name, Manufacturer, Version**
   Certification Fields: **Owned by**
   Assignment Type: **User Field**
   Assign to: **Owned By**
   Assign to Empty: **Create Unassigned Task**
   Days to complete: **7**
   Task Description: **Please certify firewalls ownership**



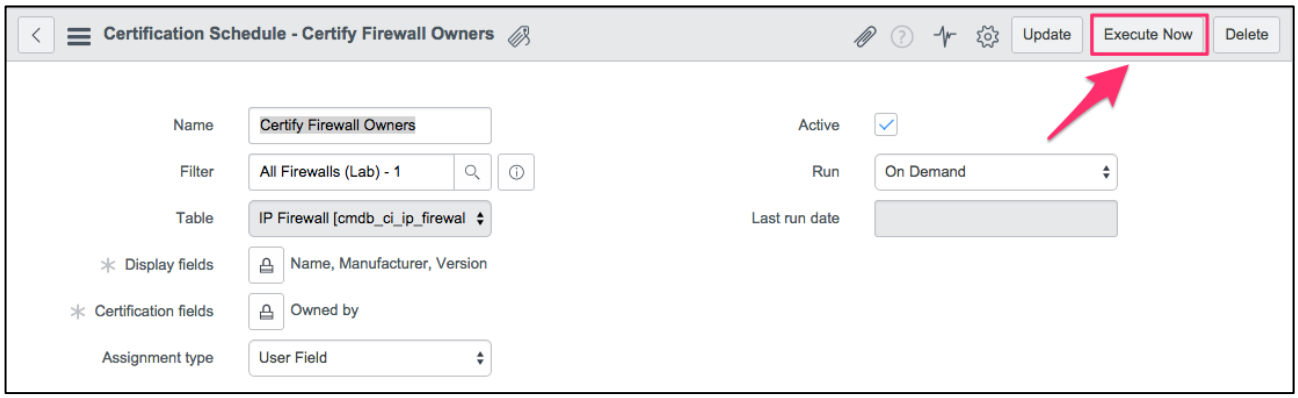
4. Right-click the **Form Header** and click **Save**.



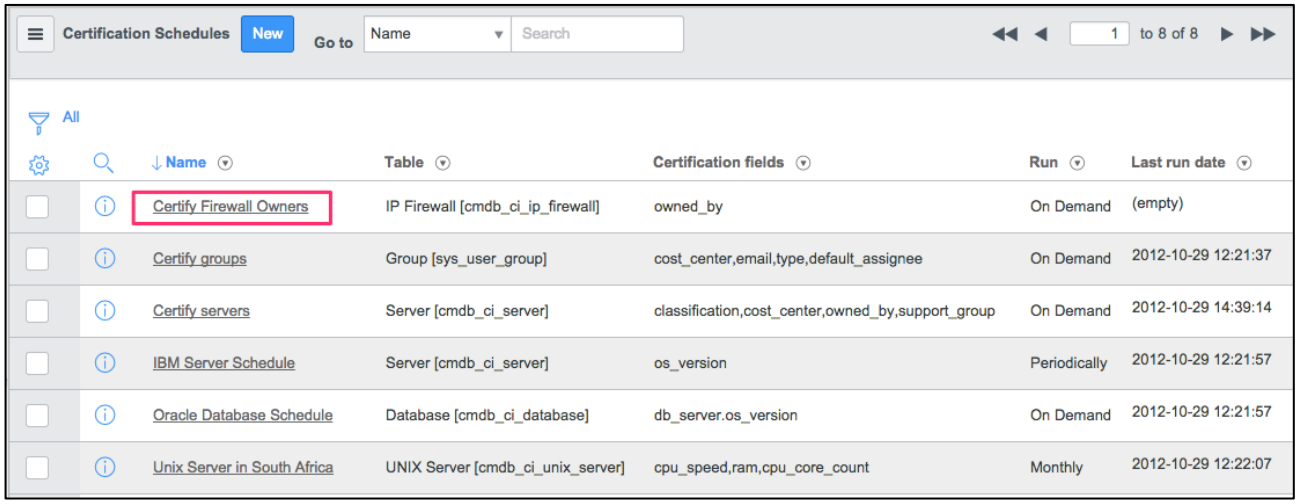
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Run a Data Certification Audit

1. Click **Execute Now**.



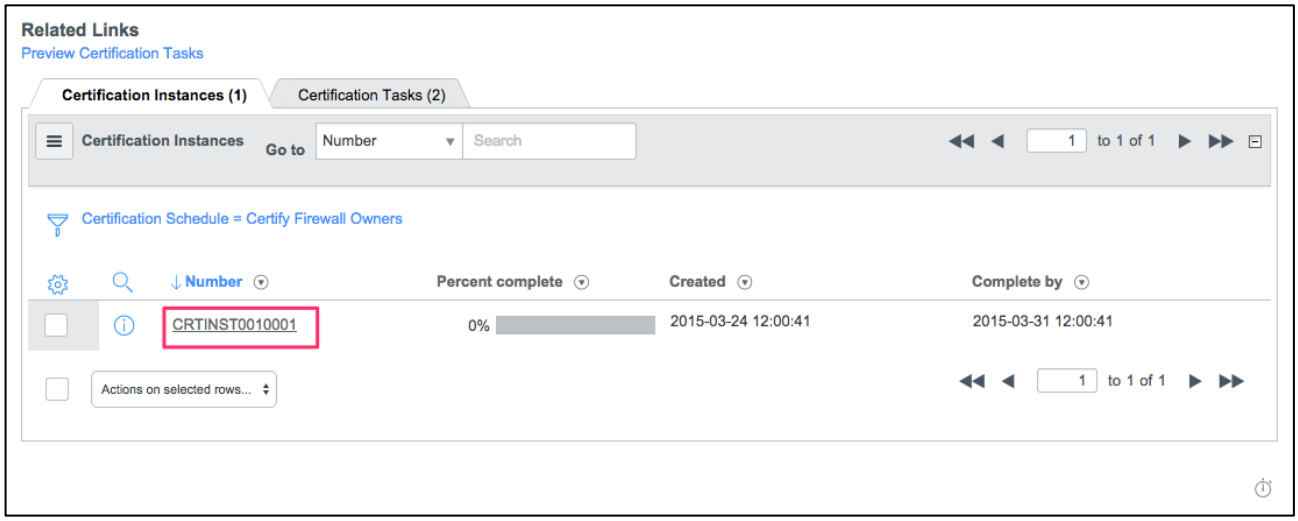
2. Open **Certify Firewalls Owners** in the **Certification Schedules**.



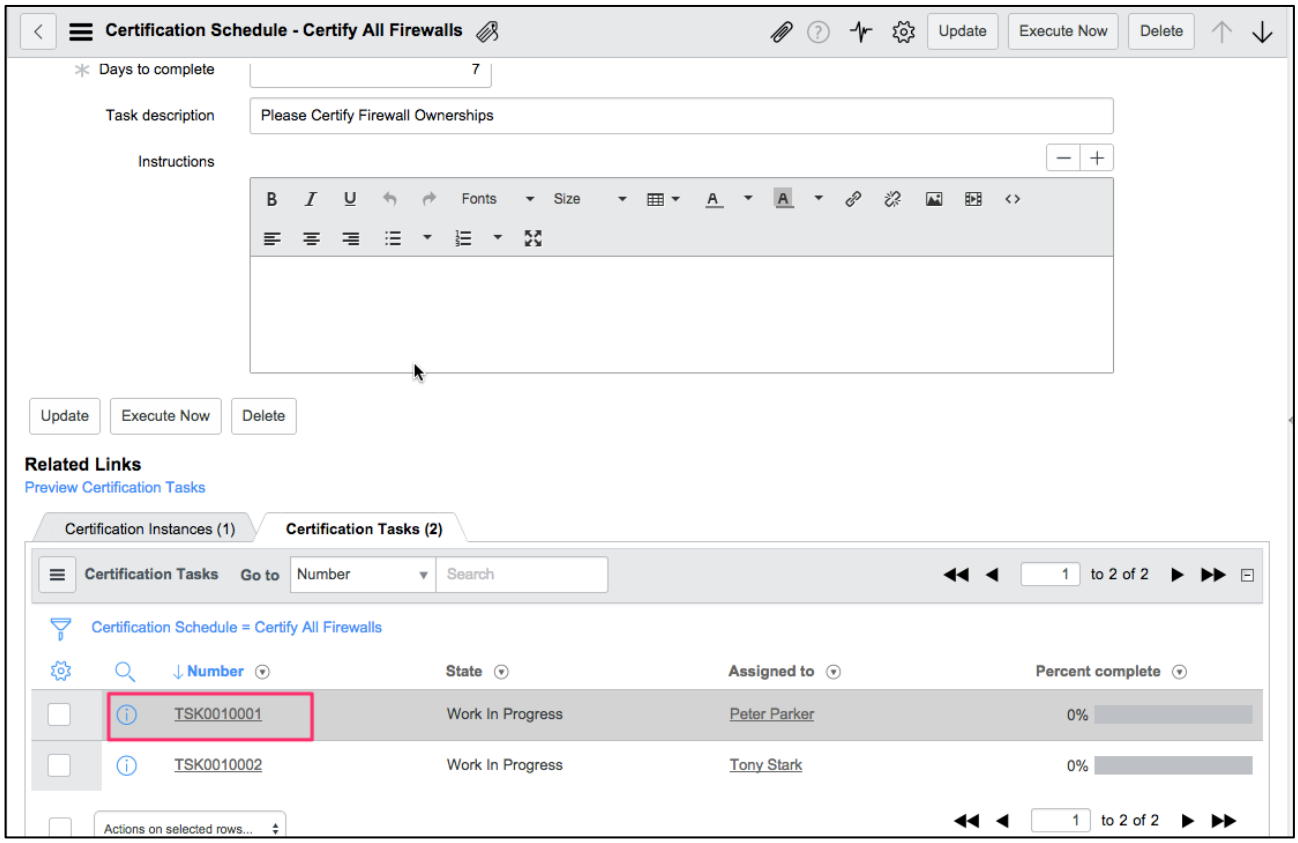
Name	Table	Certification fields	Run	Last run date
Certify Firewall Owners	IP Firewall [cmdb_ci_ip_firewall]	owned_by	On Demand	(empty)
Certify groups	Group [sys_user_group]	cost_center,email,type,default_assignee	On Demand	2012-10-29 12:21:37
Certify servers	Server [cmdb_ci_server]	classification,cost_center,owned_by,support_group	On Demand	2012-10-29 14:39:14
IBM Server Schedule	Server [cmdb_ci_server]	os_version	Periodically	2012-10-29 12:21:57
Oracle Database Schedule	Database [cmdb_ci_database]	db_server.os_version	On Demand	2012-10-29 12:21:57
Unix Server in South Africa	UNIX Server [cmdb_ci_unix_server]	cpu_speed,ram,cpu_core_count	Monthly	2012-10-29 12:22:07

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3. Click the record link in the **Certification Instances** related list.

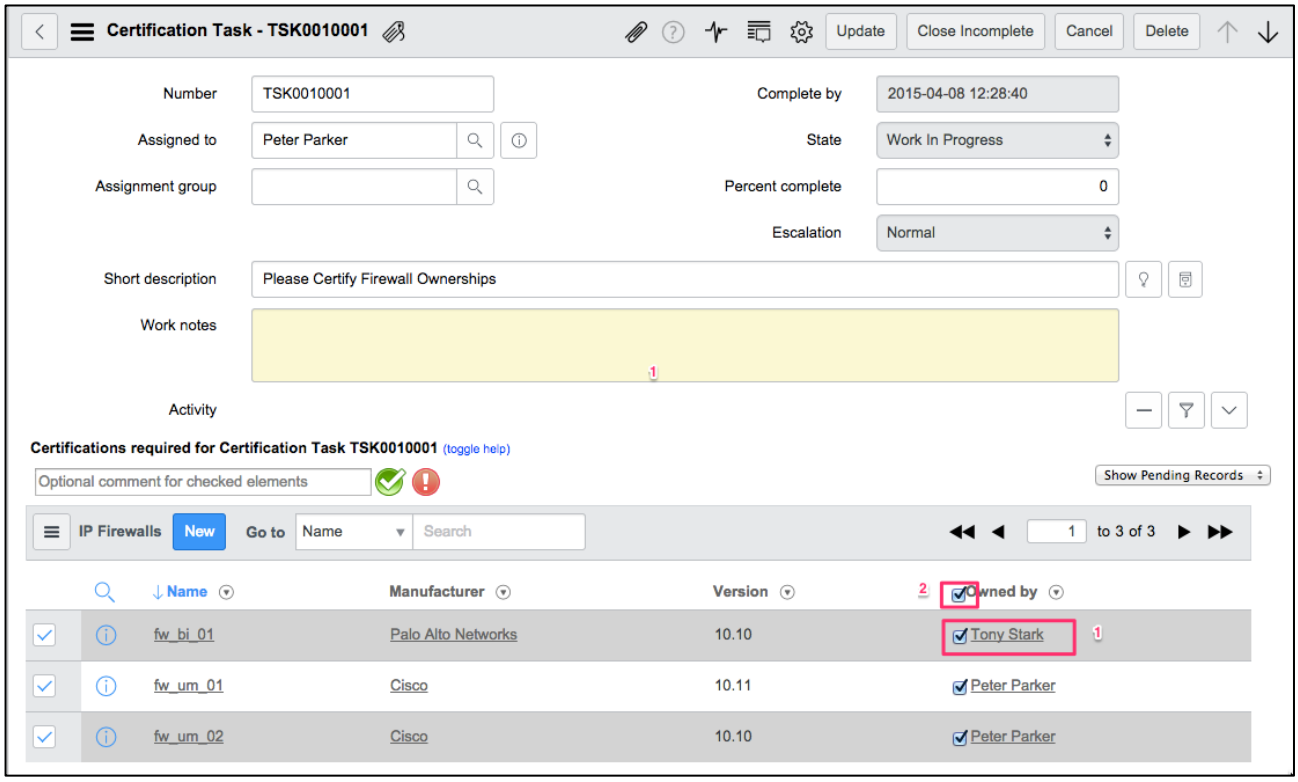


4. Click the **Certification Tasks** tab at the bottom of the form and open the first task.

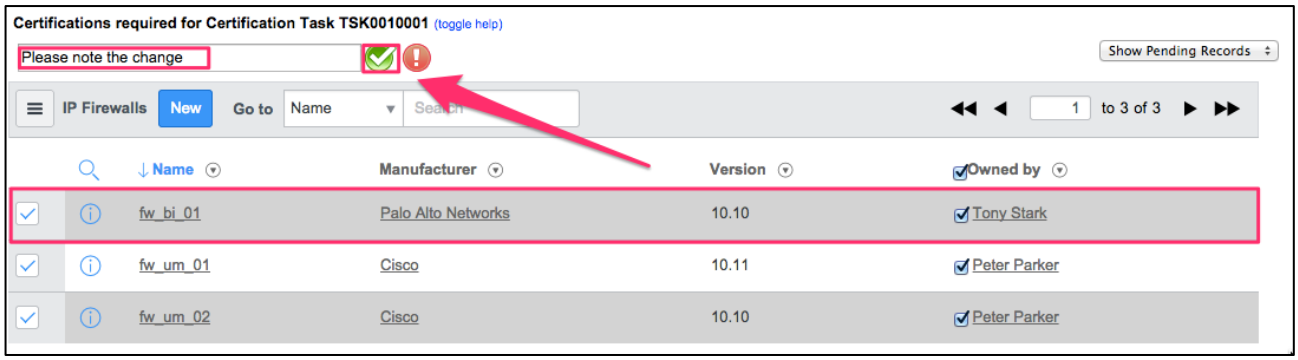


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5. For this exercise use the Tasks assigned to **Peter Parker**. After you select the task, scroll to the **IP Firewalls** list. In the **fw_bi_01** row, double-click **Peter Parker** under **Owned by** and change the owner to **Tony Stark**. Select **Update**, and then check the **Owned by** box.



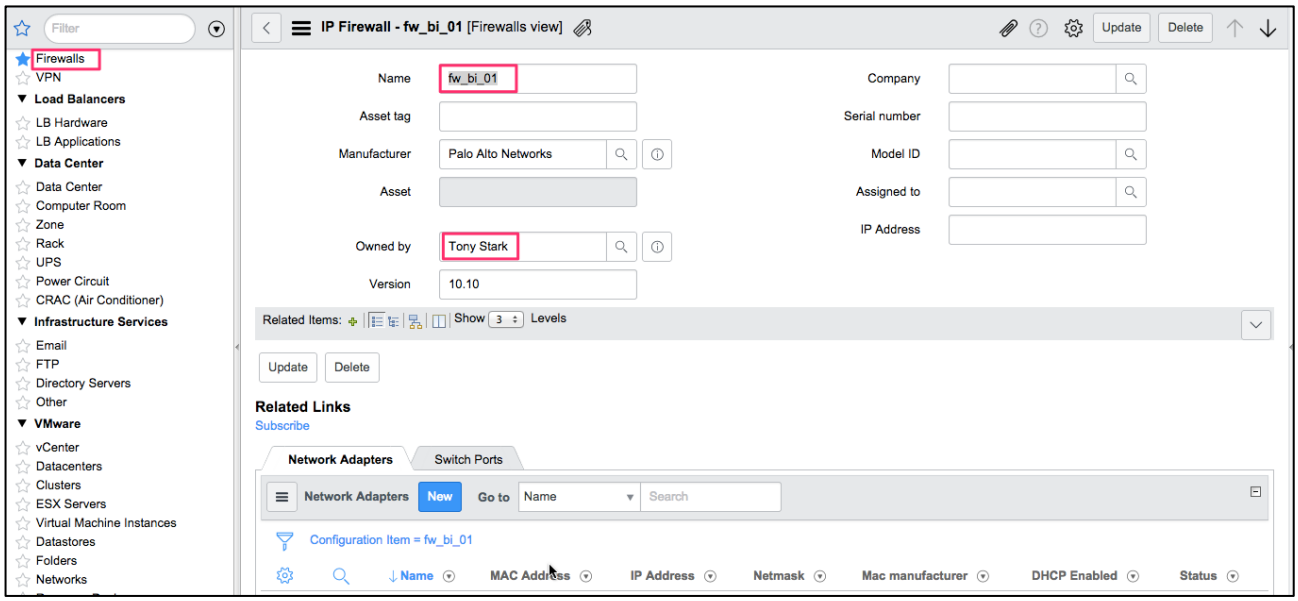
6. After changing the owner, click the **green** check mark indicating that you certified the data.



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Lab Success Verification

1. Navigate to **Configuration > Firewalls > fw_bi_01** to see **Owned by** is **Tony Stark**.



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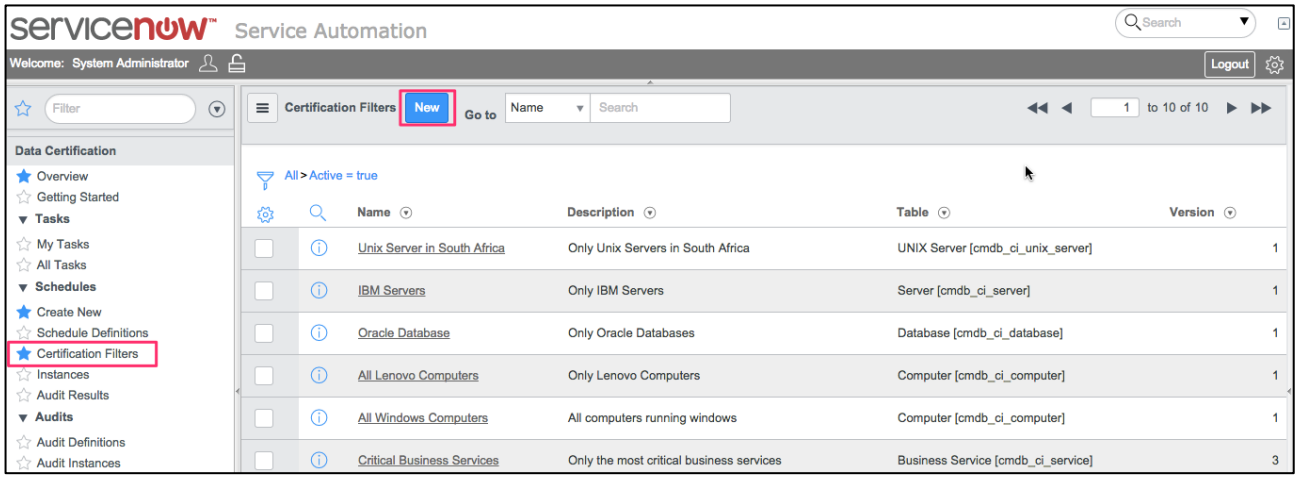
Lab Goal 3.2

This exercise explains the second of the two basic types of Audits, **Desired State**.

Lab 3.2
Desired State Compliance

Create another Certification Filter

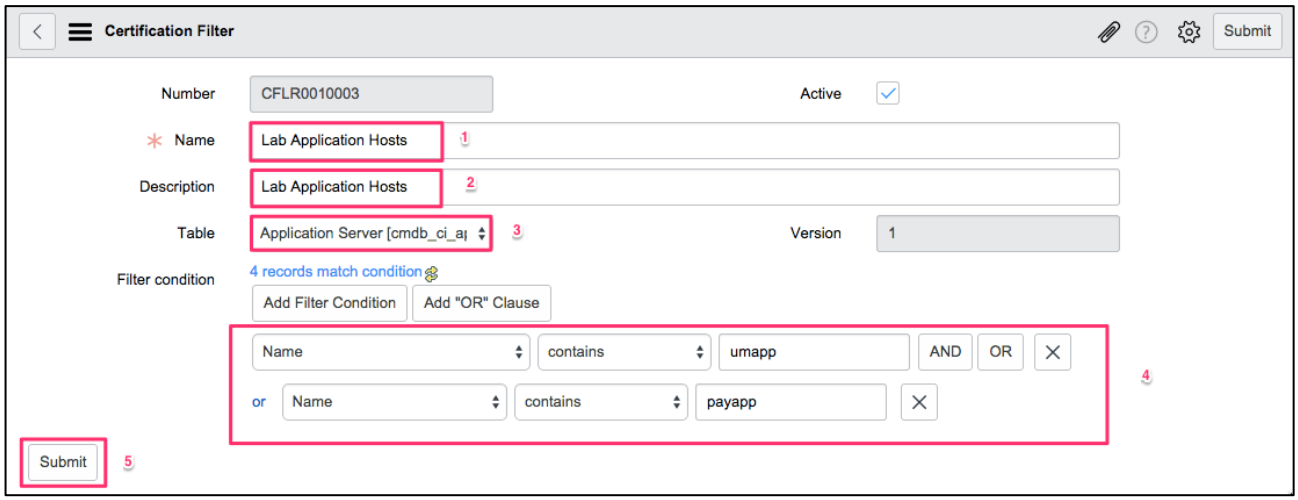
1. Navigate to **Data Certification > Certification Filters**. Click **New**.



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2. Fill out the form as follows.

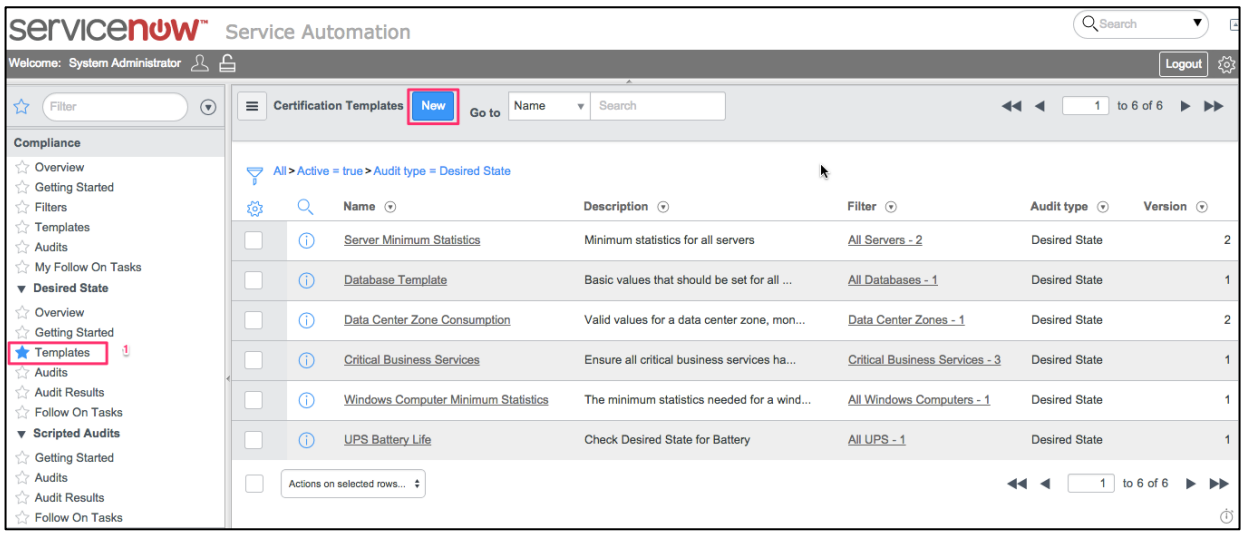
   (1) Name: **Lab Application Hosts**
   (2) Description: **Lab Application Hosts**
   (3) Table: **Application Server [cmdb_ci_app_server]**
   (4) Add Filter Condition: **Name contains umapp OR Name contains payapp**



   (5) Click **Submit**.

Create Desired State Template

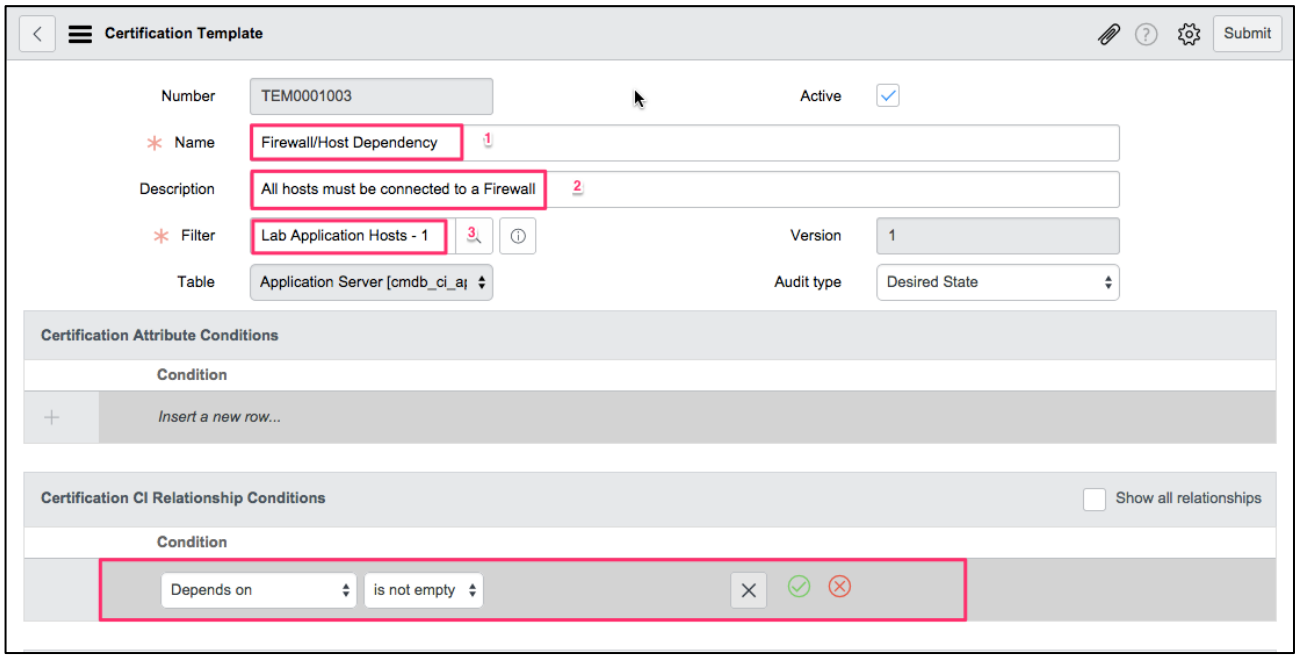
1. Navigate to **Compliance > Desired State > Templates**. Click **New**.



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2. Complete the form as follows.

   (1) Name: **Firewall/Host Dependency**
   (2) Description: **All host must be connected to a Firewall**
   (3) Filter: **Lab Application Hosts - 1**
   (4) Certification CI Relationship Conditions: **Depends on is not empty**



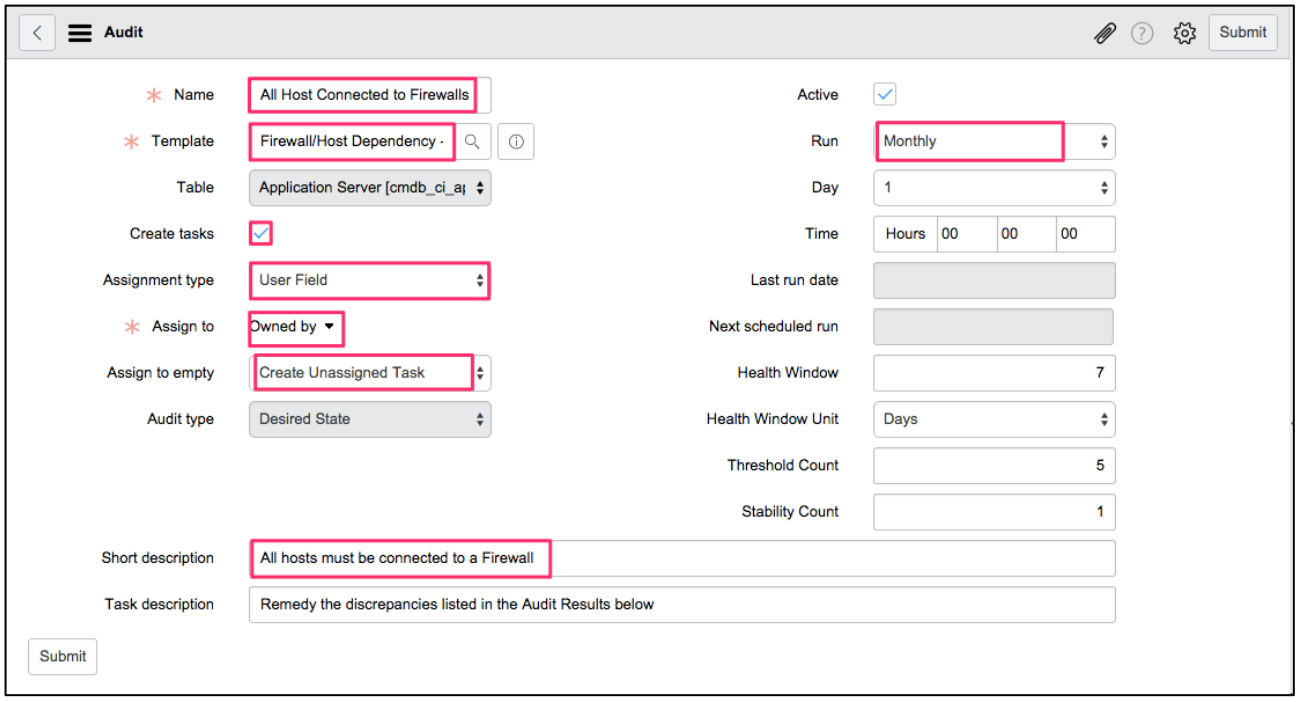
Click **Submit**.

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Create and Run an Audit

1. Navigate to **Compliance > Desired State > Audits.** Click **New**.
2. Complete the form as follows.

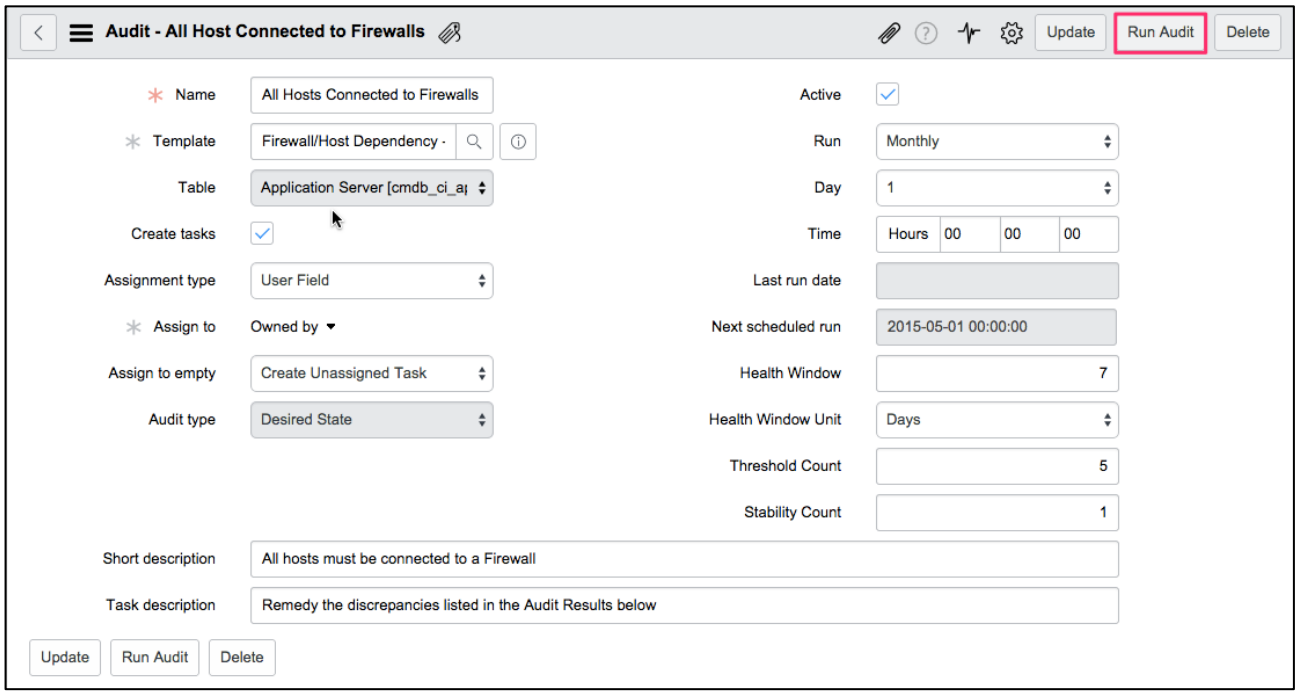
   Name: **All Hosts Connected to Firewalls**
   Template: **Firewall/Host Dependency**
   Run**: Monthly**
   Create tasks**: checked**
   Assignment Type: **User Field**
   Assign to: **Owned by**
   Assign to Empty**: Create Unassigned Task**
   Short description**: All hosts must be connected to a Firewall**
   Task Description: **Remedy the discrepancies listed in the Audit Results below**



Click **Submit**.

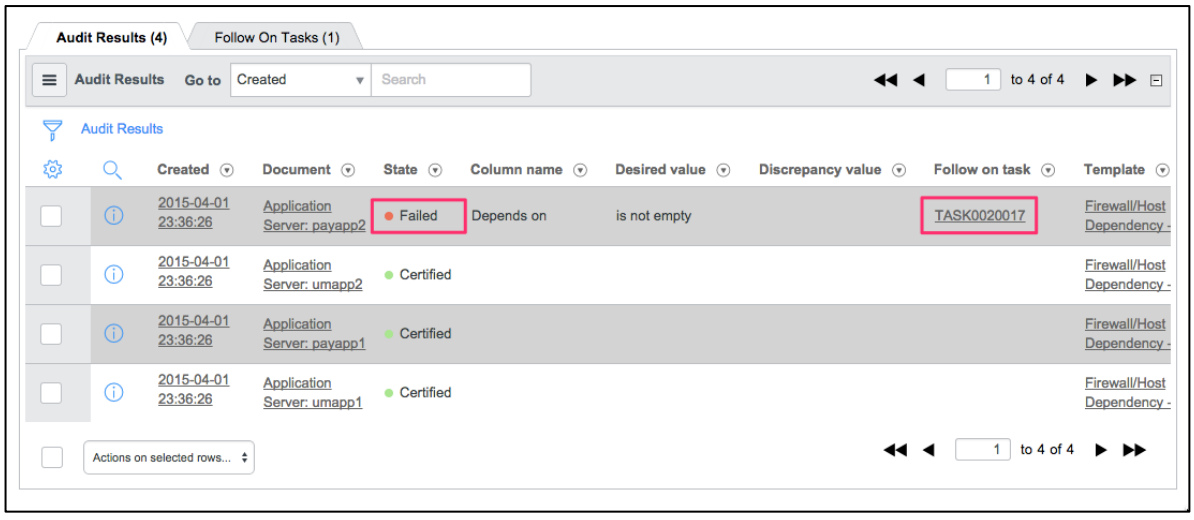
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3. Click back into the **All Hosts Connected to Firewalls** Audit. Click **Run Audit**.



Lab Success Verification

1. Open **All Hosts Connected to Firewalls Audit**, scroll to the **Audit Results** related list. Your results should look similar to the example.



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