



BeyondTrust

Privileged Remote Access Ping DaVinci Connector Installation and Configuration

Table of Contents

Integrate BeyondTrust Privileged Remote Access and Ping DaVinci Connector	3
Introduction	3
Possible Use Cases	3
Prerequisites	4
API Account	4
Configure the DaVinci Connector Service	5
Start the DaVinci Site	5
Start the Connector	6
Test the Ping DaVinci PRA Connector	8
Start a Workflow	8
Create a Form	10
Create an Output Form	21
Test the Workflow	29

Integrate BeyondTrust Privileged Remote Access and Ping DaVinci Connector

Introduction

BeyondTrust has partnered with Ping Identity to deliver a Privileged Remote Access (PRA) connector leveraging the PingOne DaVinci no-code orchestration service. An orchestration platform integrates multiple applications and services to automate a process or provide real-time data synchronization and flow.

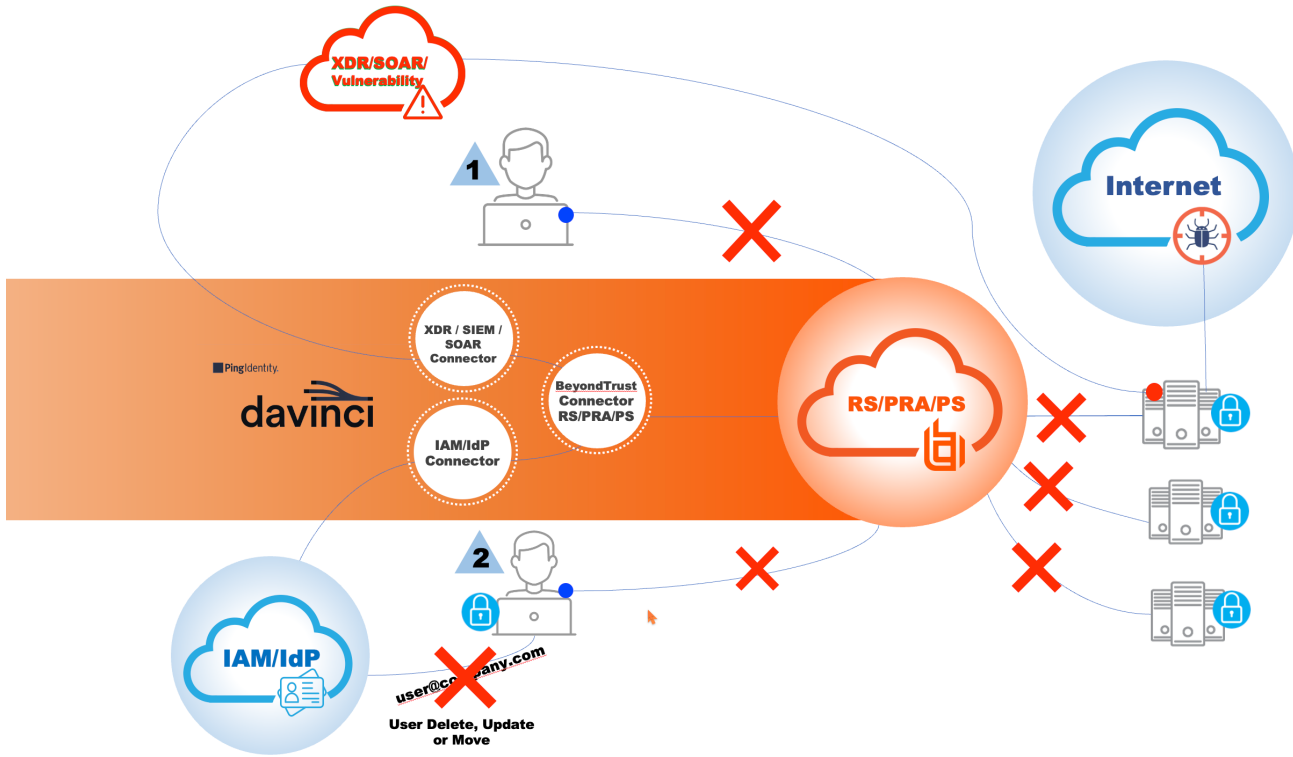
PingOne DaVinci is a cloud orchestration service for creating user journeys across various applications via a drag-and-drop interface. DaVinci is an open interface with integrations and connections across multiple applications and identity ecosystems. You can start by building and designing your own workflows or refine one of the existing workflow templates to customize your user journeys. Optimize your flows easily with A/B testing and deploy changes in quick succession.

Possible Use Cases

The BeyondTrust PRA/PingOne DaVinci connector gives an organization the ability to terminate all PRA sessions on a host (by hostname) and/or terminate all PRA sessions that a particular identity (by username) might have across the environment.

These use cases provide examples of how the BeyondTrust PRA connector can be used:

- A security incident has occurred on one or more host, requiring the termination of any PRA sessions by any user on those affected hosts. The security incident can be discovered by any XDR or SOAR system that also has a DaVinci connector capable of supplying the PRA connector with a hostname of the affected system.
- Regular IT tasks of user moves, changes, or deletions might require any open PRA sessions in use by an identity across the infrastructure to be terminated. A DaVinci connector from any iDP that can provide the PRA connector with an identity (username) can be used as part of the workflow to terminate any open PRA sessions. The hostname and/or identity can also be provided to the connector through a static HTML form.



- The PRA connector provides a result, error, or success, which can be sent to a ticketing system as part of the DaVinci workflow, using any available third-party ITSM connector.

Prerequisites

The following are required to use the Privileged Remote Access connector:

- A PingOne SaaS instance.
- PingOne DaVinci added as a service to the PingOne SaaS instance.
- A supported version of BeyondTrust Privileged Remote Access. To confirm your version is supported, contact support or refer to the [BeyondTrust End of Life Policy](https://www.beyondtrust.com/docs/eol/) at <https://www.beyondtrust.com/docs/eol/>.

API Account

Using the the PRA connector in PingOne DaVinci requires an API account in PRA, with the Command API permission set to full access. This must be created if it does not already exist.

The **OAuth Client ID** and the **OAuth Client Secret** for this API account are required to install the integration.



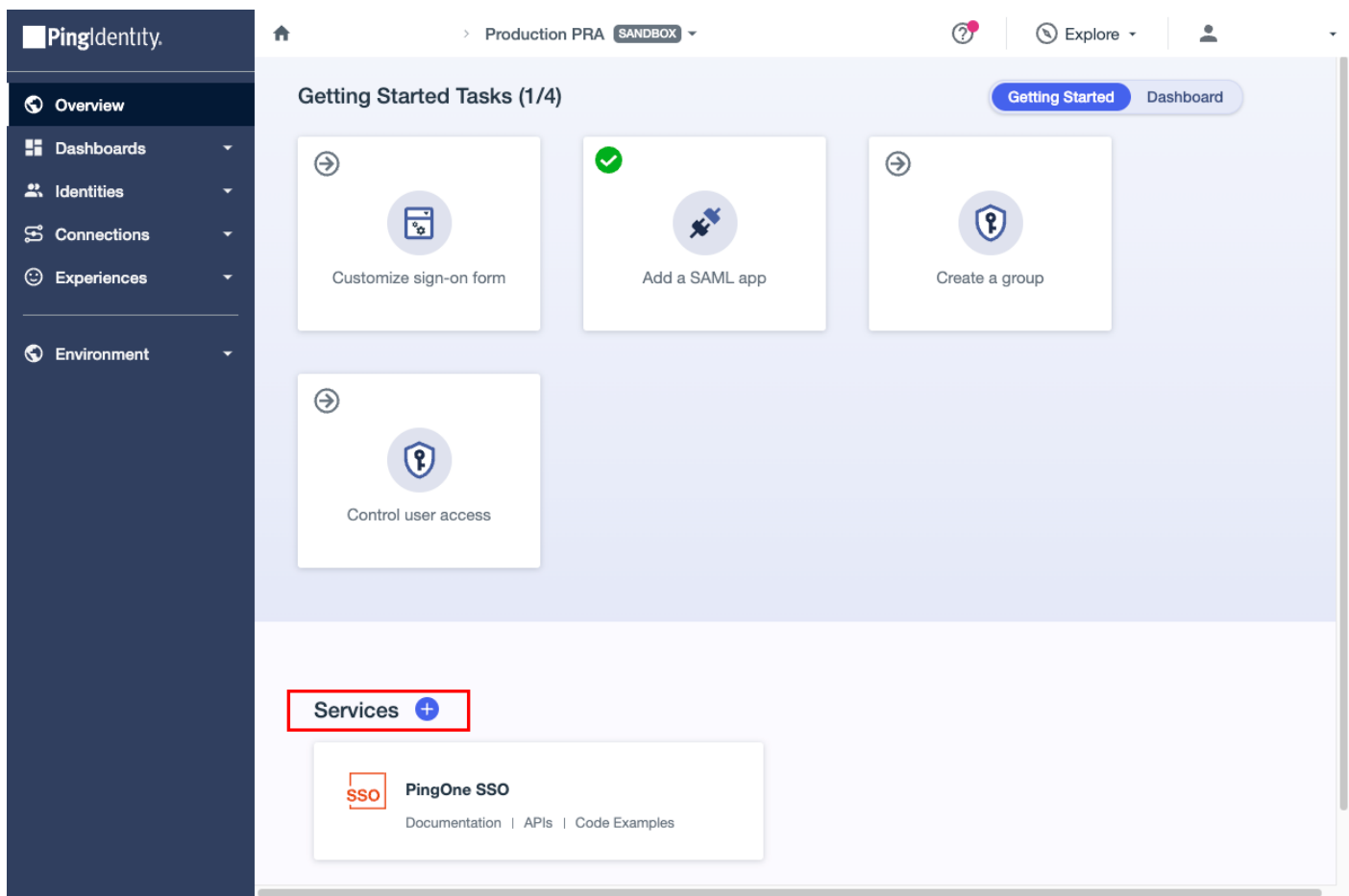
For more information, please see [Add or Edit an API Account](https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/admin/api-configuration.htm) at <https://www.beyondtrust.com/docs/privileged-remote-access/getting-started/admin/api-configuration.htm>.

Configure the DaVinci Connector Service

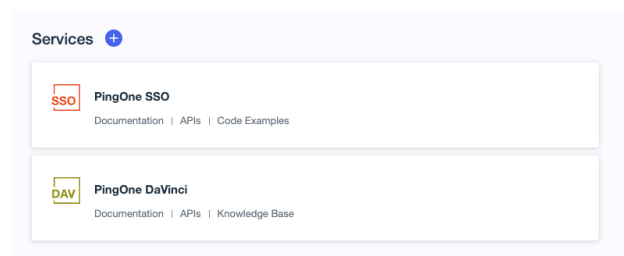
Start the DaVinci Site

Follow these steps to access and start the PingOne DaVinci site:

1. Sign into your PingOne SaaS instance.
2. Click **Services** on the **Overview** page.
3. Select PingOne from the list.



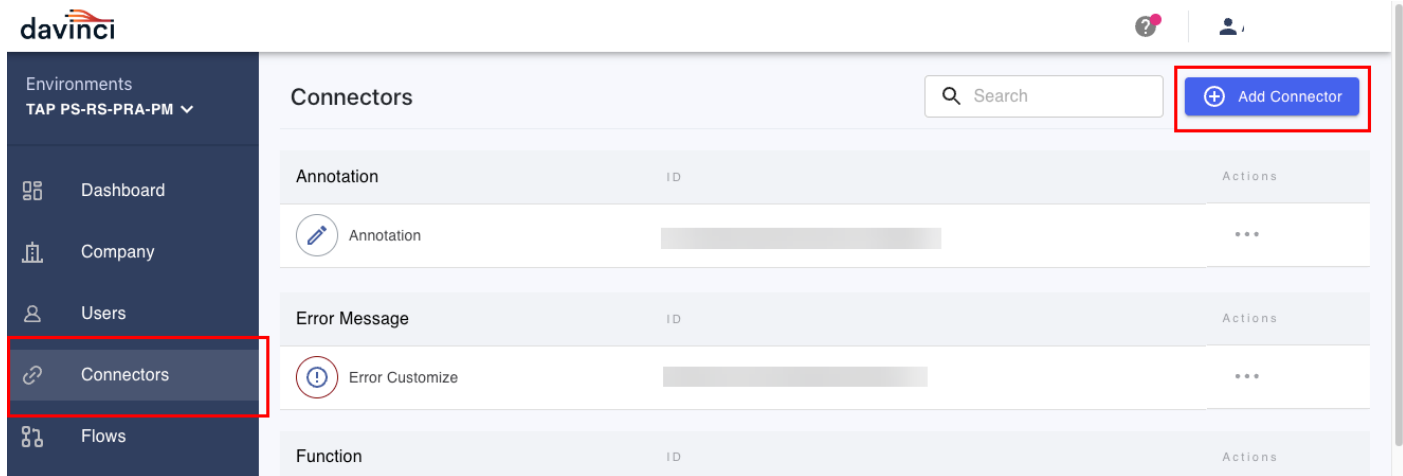
4. After a short delay, the DaVinci instance starts and there is a link to it in the list of active services.
5. Click PingOne under **Services**.
6. The DaVinci site opens.



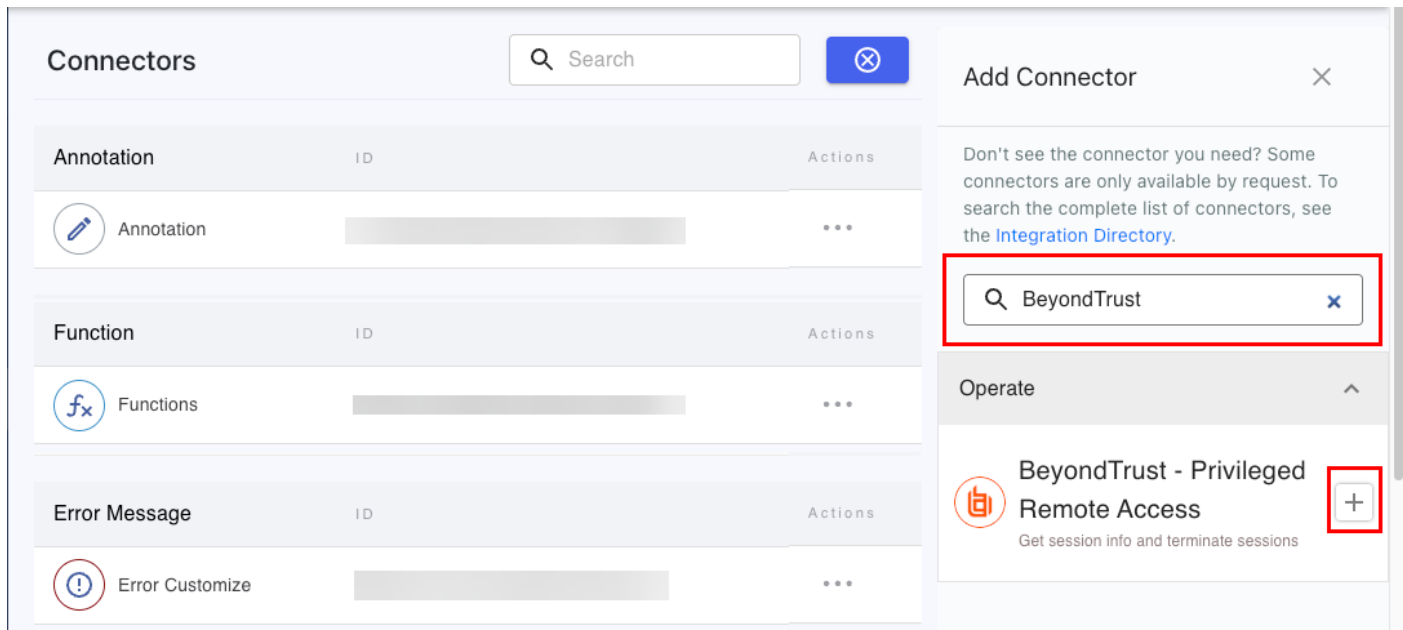
Start the Connector

Follow these steps to start the connector.

1. In the PingOne DaVinci site, click **Connectors** in the left menu, and then click **Add Connector** in the upper right.

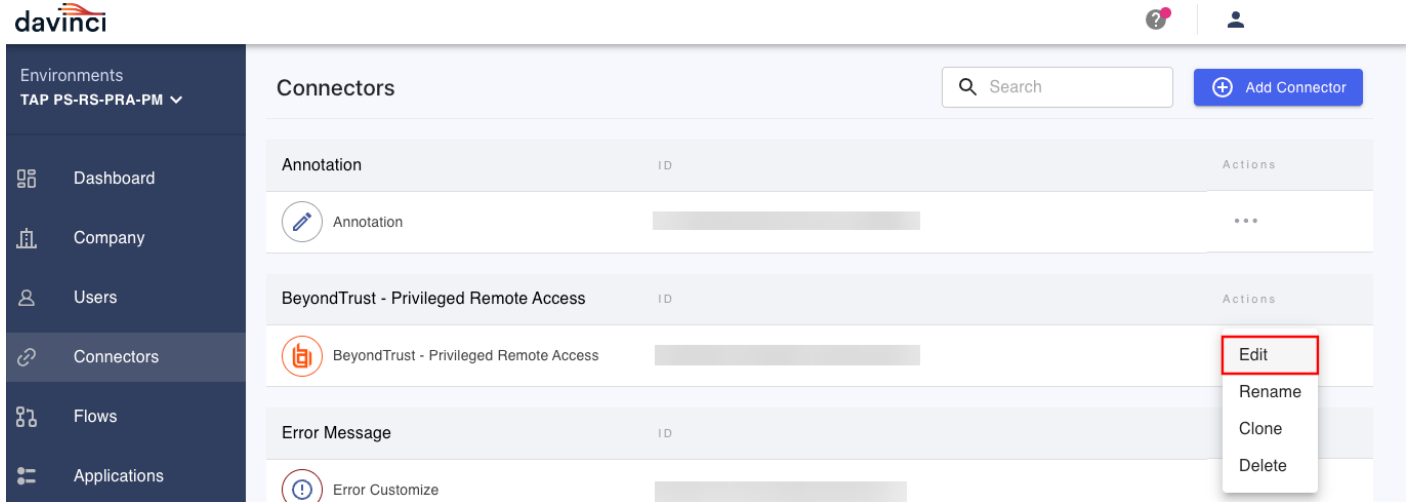


2. Search for *BeyondTrust* in the search bar.
3. Select the PRA connector by clicking the plus sign (+) next to it.

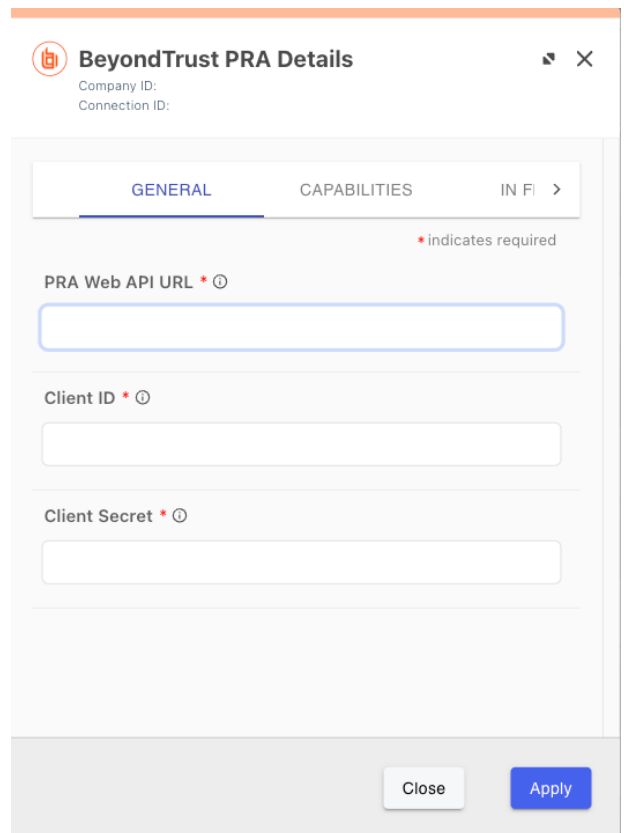


4. Enter the name of your choice for the connector.
5. Click **Create**.
6. The **Connectors** window refreshes with the BeyondTrust connector, displayed with the name entered above.

7. At the right end of the line with the BeyondTrust connector, click the ellipsis.
8. Select **Edit** from the menu.



9. In the connector details screen, enter:
 - The URL for your PRA instance, including the *https://* suffix. For example: *https://customername.beyondtrustcloud.com*.
 - The OAuth **Client ID** and the OAuth **Client Secret** for your API account in PRA.
10. Click **Apply** and then **Close**.



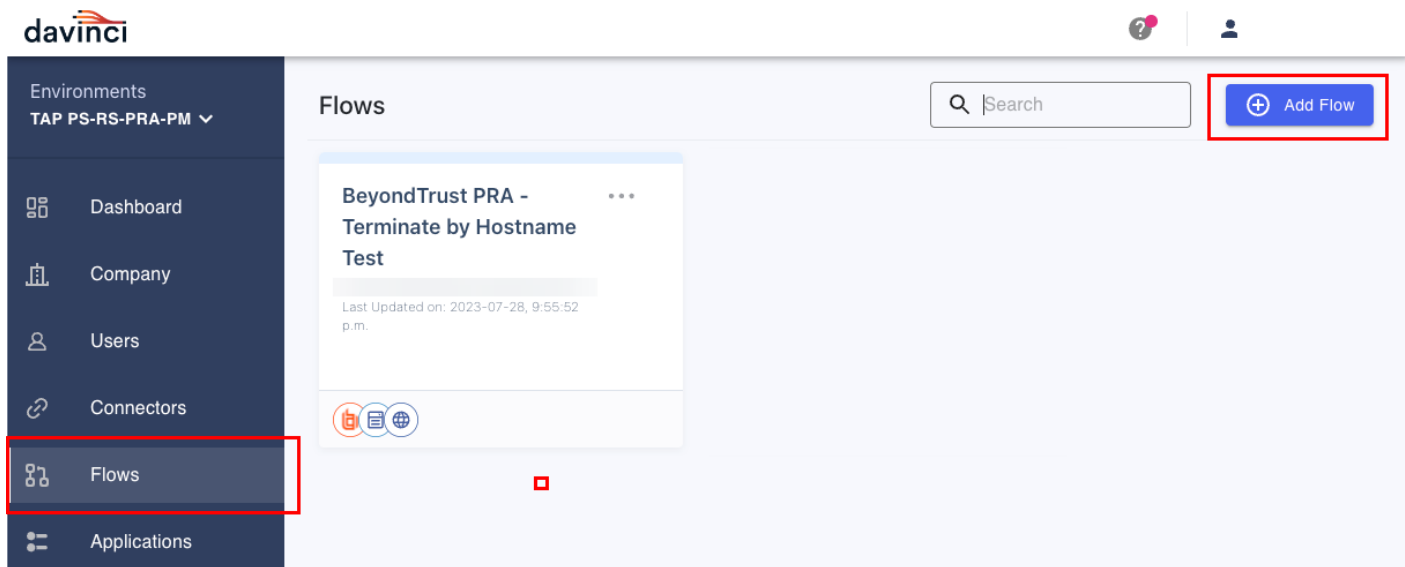
Test the Ping DaVinci PRA Connector

Before you add the PRA connector to a production Ping DaVinci flow, we recommend testing the integration.

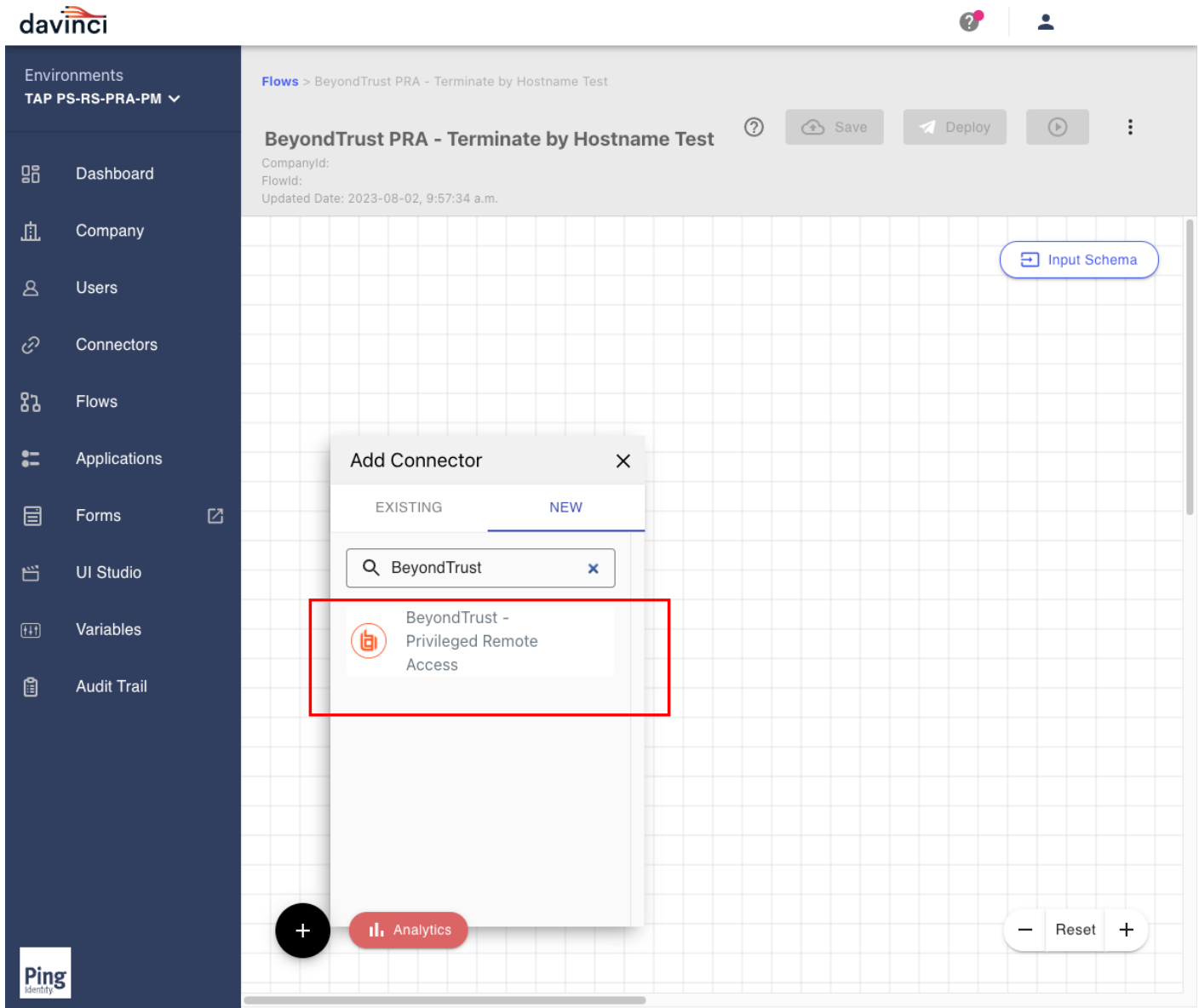
Follow these steps to test termination by hostname flow.

Start a Workflow

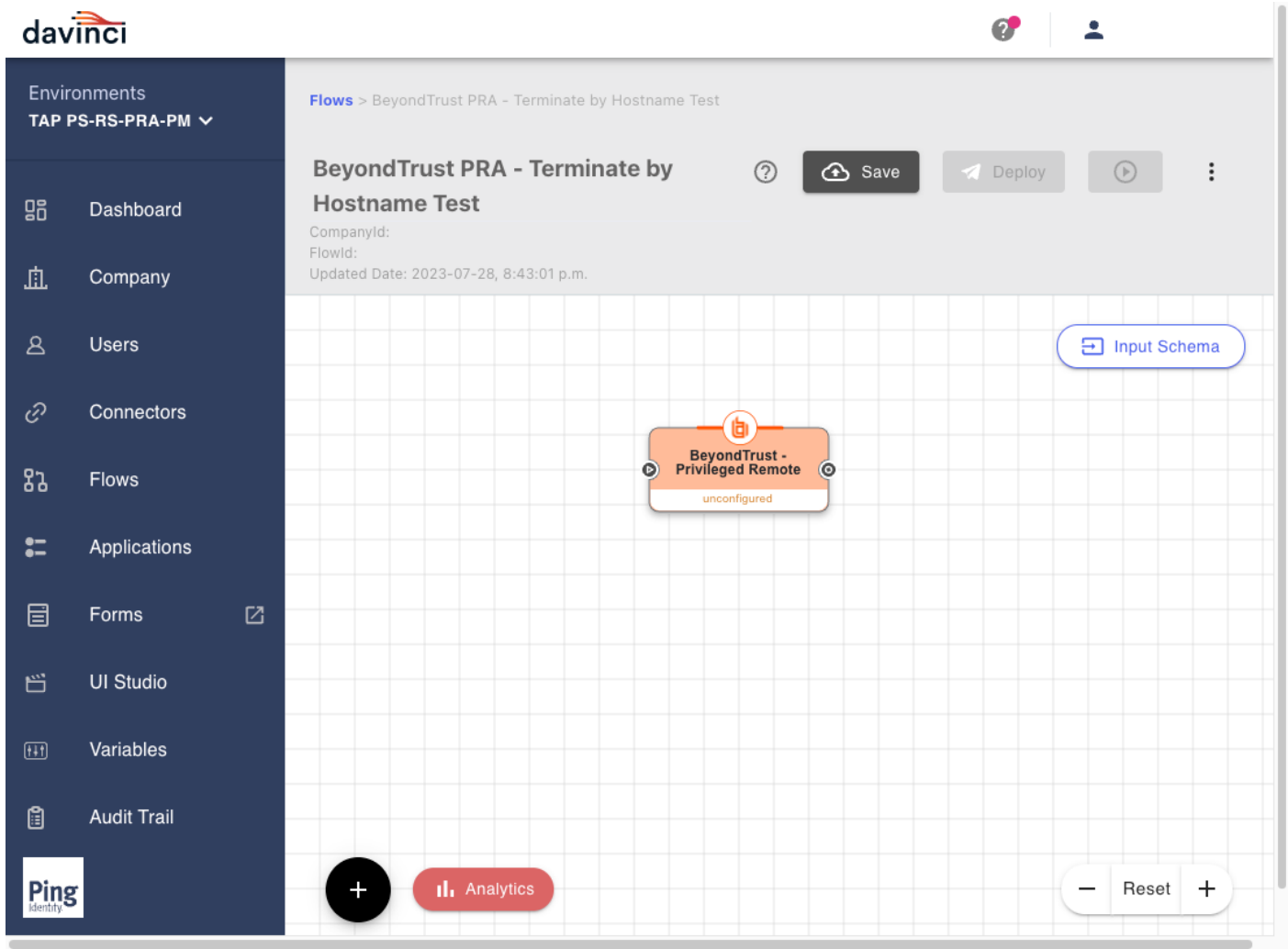
1. In the PingOne DaVinci site, click **Flows** in the left menu, and then click **Add Flow** in the upper right.



2. Select **Blank Flow** and provide a name and description of your choice.
3. Click **Create**.
4. In the blank flow page, click the plus sign (+) on the bottom right.
5. Search for *BeyondTrust* in the search bar under the **Existing List** tab.
6. Click **BeyondTrust Privileged Remote Access**.

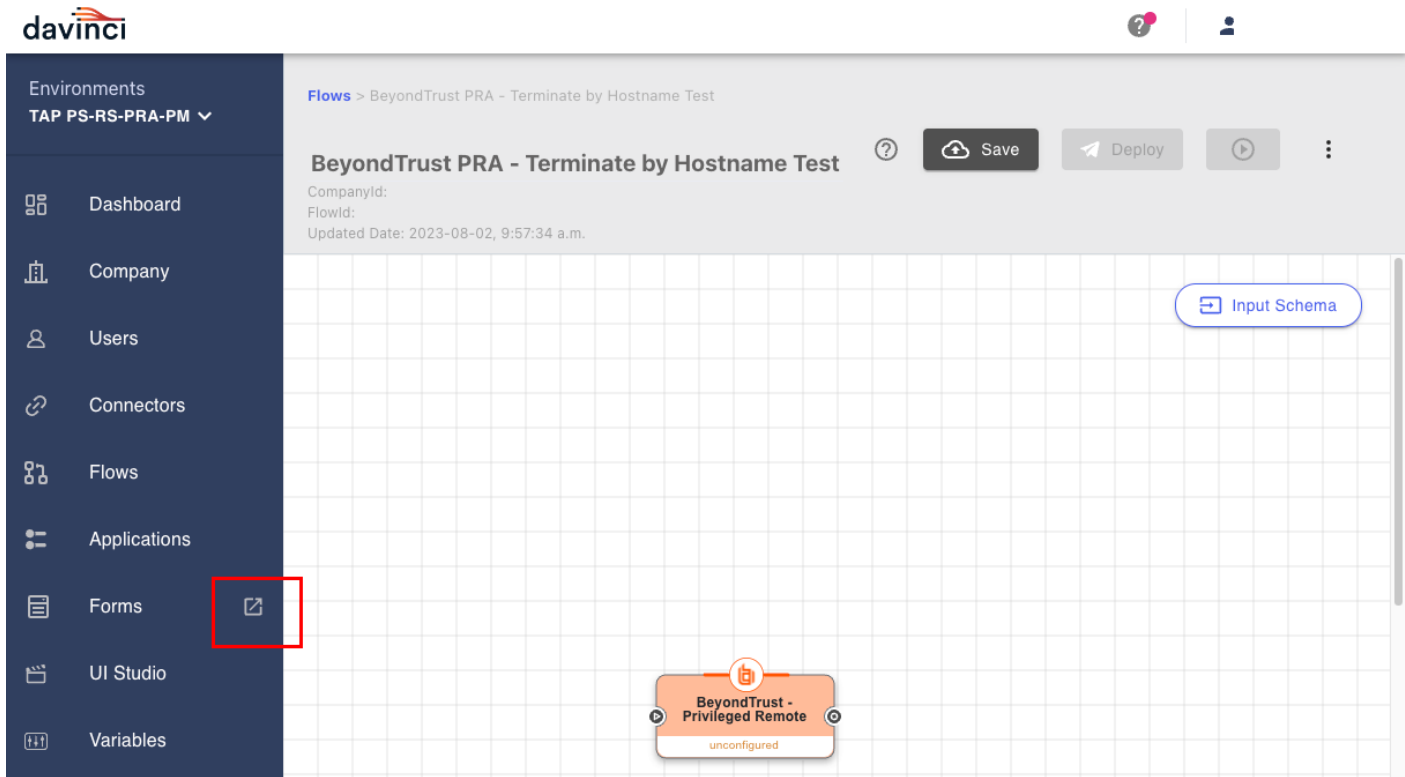


7. The BeyondTrust PRA connector appears on the flow screen.

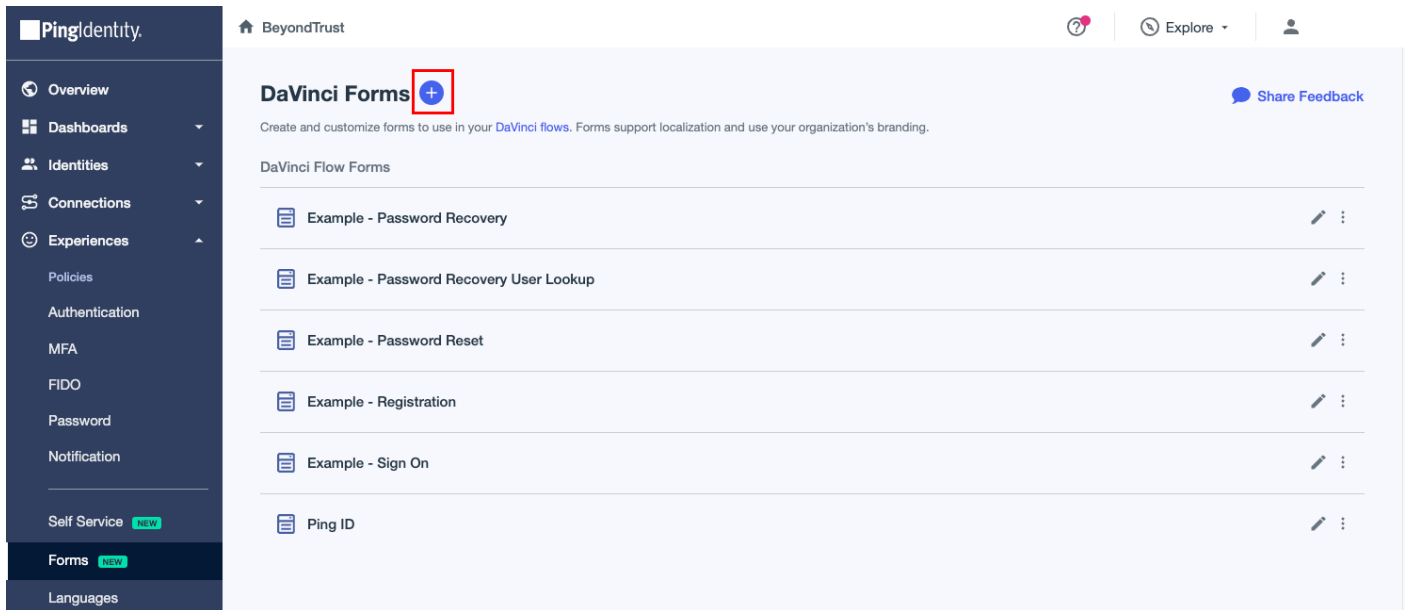


Create a Form

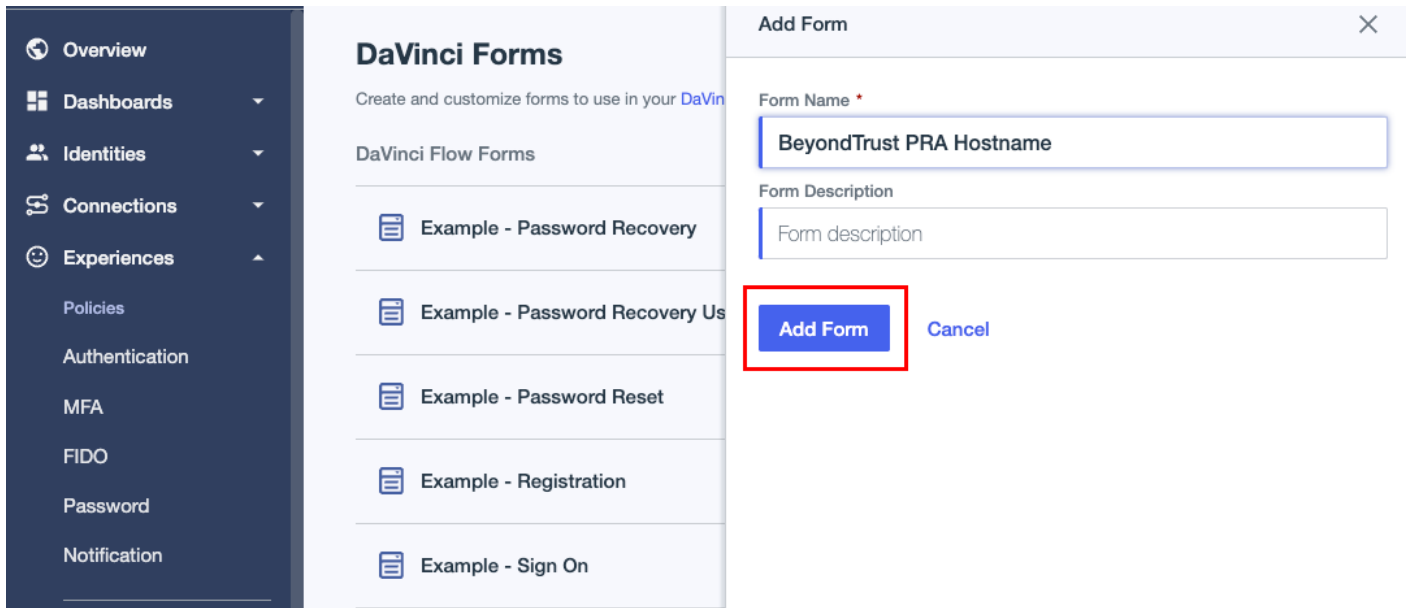
8. Next you must create a form for manually entering a hostname. Click the small square external link icon next to the right of **Forms** in the left menu.



9. A new window opens. Here you create the test form flow. Click the plus sign (+) next to **DaVinci Forms**.



10. Enter your desired **Form Name**. A **Form Description** is optional. Then click **Add Form**.




The screenshot displays the BeyondTrust user interface. On the left is a dark navigation sidebar with menu items: Overview, Dashboards, Identities, Connections, Experiences, Policies, Authentication, MFA, FIDO, Password, and Notification. The main content area is titled 'DaVinci Forms' and includes a sub-section 'DaVinci Flow Forms' with a list of example forms: 'Example - Password Recovery', 'Example - Password Recovery Us', 'Example - Password Reset', 'Example - Registration', and 'Example - Sign On'. An 'Add Form' modal dialog is open on the right, featuring a close button (X) in the top right corner. The dialog contains two input fields: 'Form Name' with the value 'BeyondTrust PRA Hostname' and 'Form Description' with the placeholder text 'Form description'. At the bottom of the dialog are two buttons: 'Add Form' (highlighted with a red box) and 'Cancel'.

11. Click **Blank Form**.

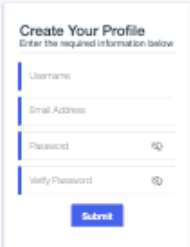
Add Form - BeyondTrust PRA Hostname




How would you like to start building your form?



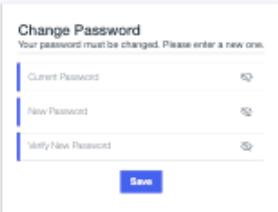
Blank Form
Used to create your own forms from nothing.



Registration
Used to create forms for new user accounts.

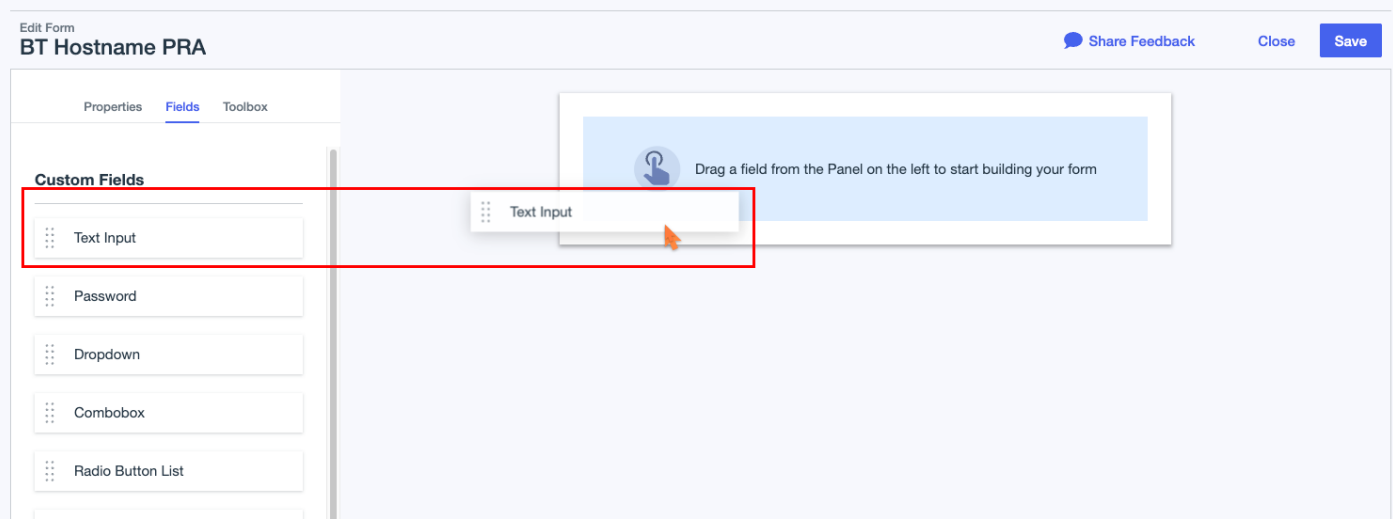


Sign On

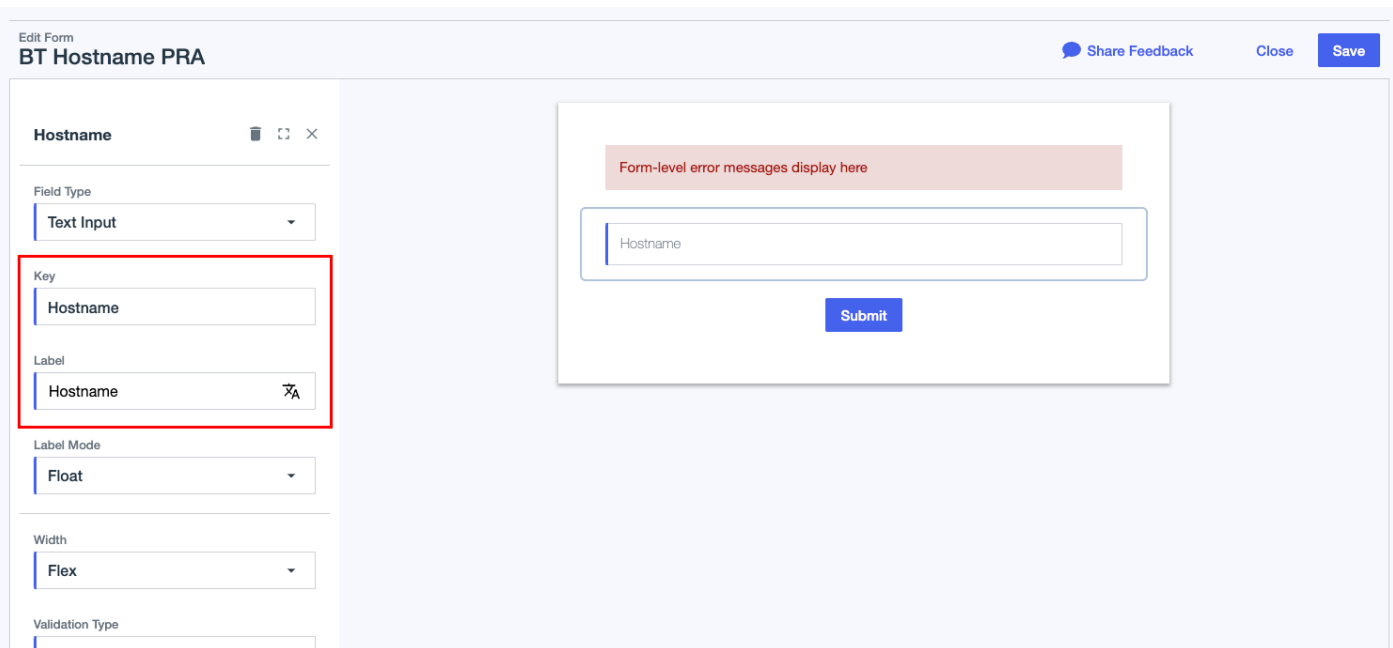


Change Password

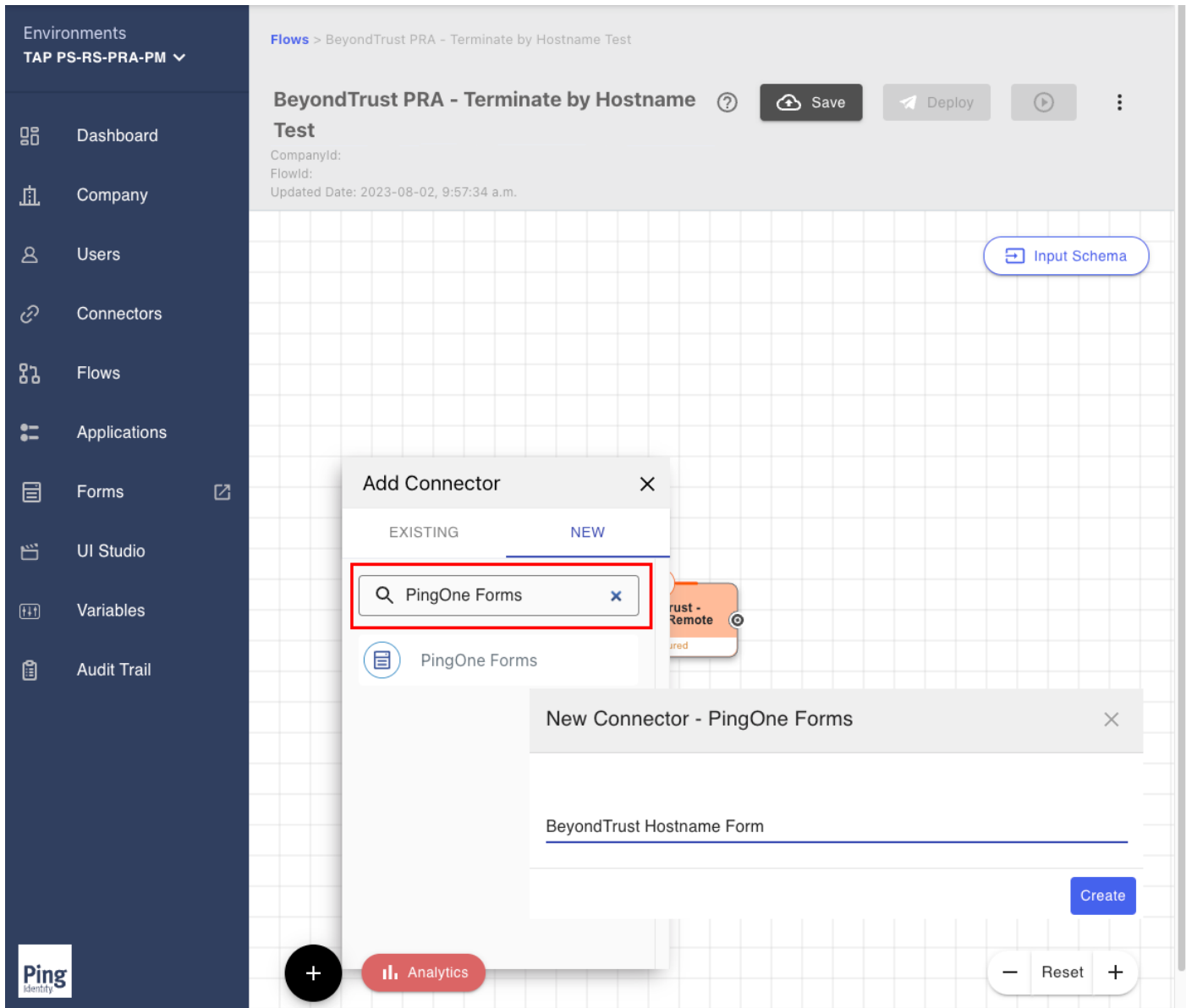
12. Drag the **Text Input** field from the list on the left to the new blank form.



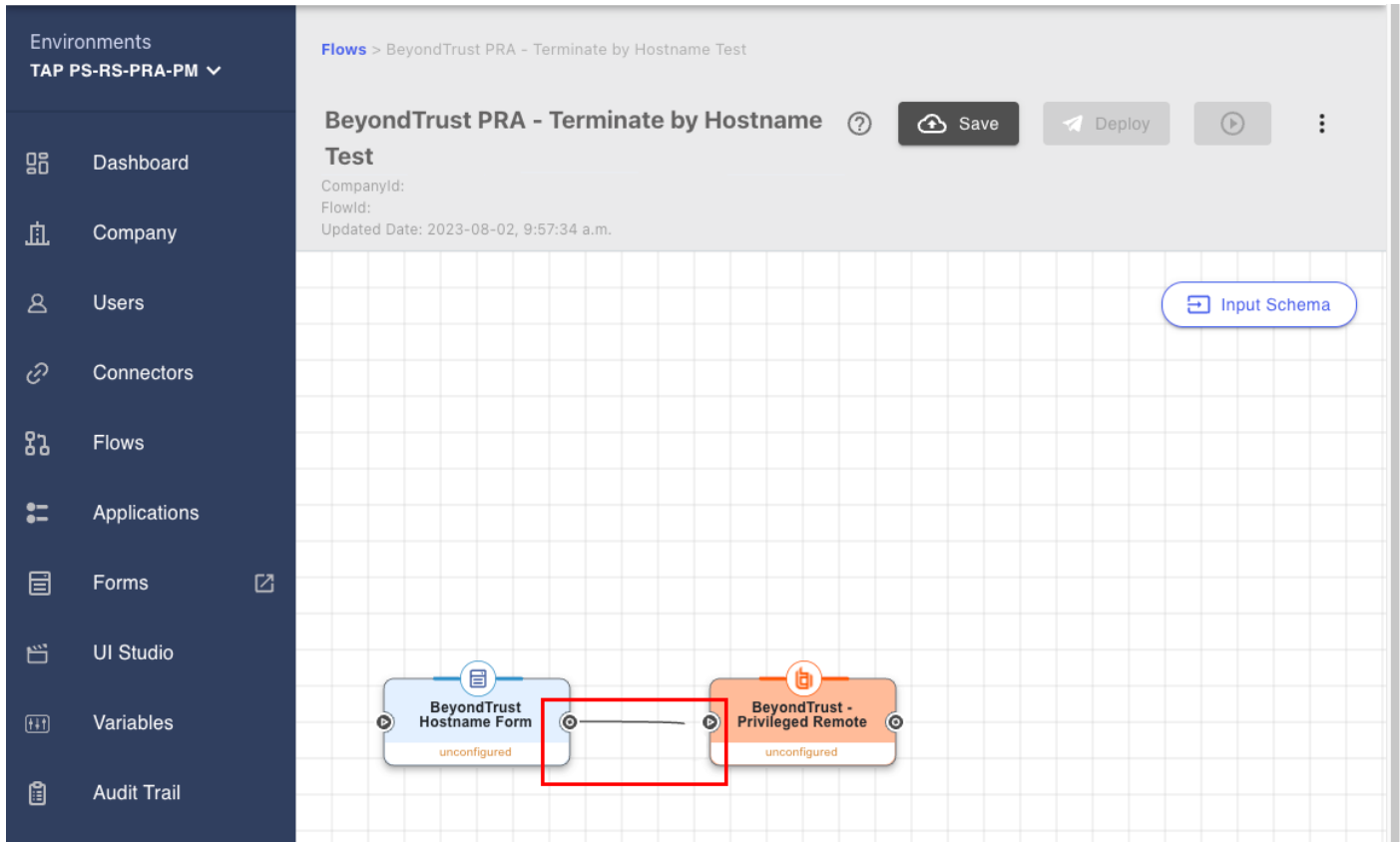
13. In the next page, provide names for the **Key** and **Label** fields.
14. Click **Save** in the top right, click **Save** again in the popup message, and then click **Close** in the top right.



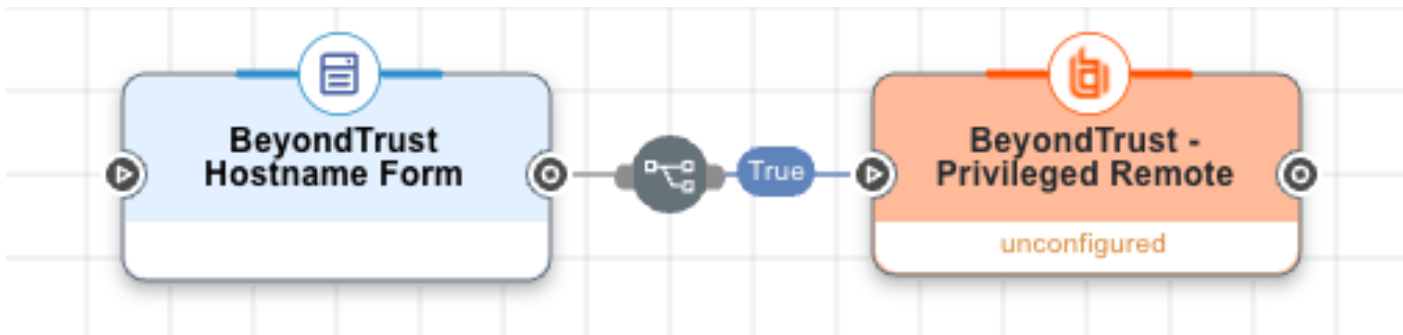
15. Navigate back to the DaVinci workflow page.
16. Click the plus sign (+), and then click the **New** tab.
17. Search for *PingOne Forms*, and then click that in the list of search results.
18. Give the new connection your desired name, and then click **Create**.



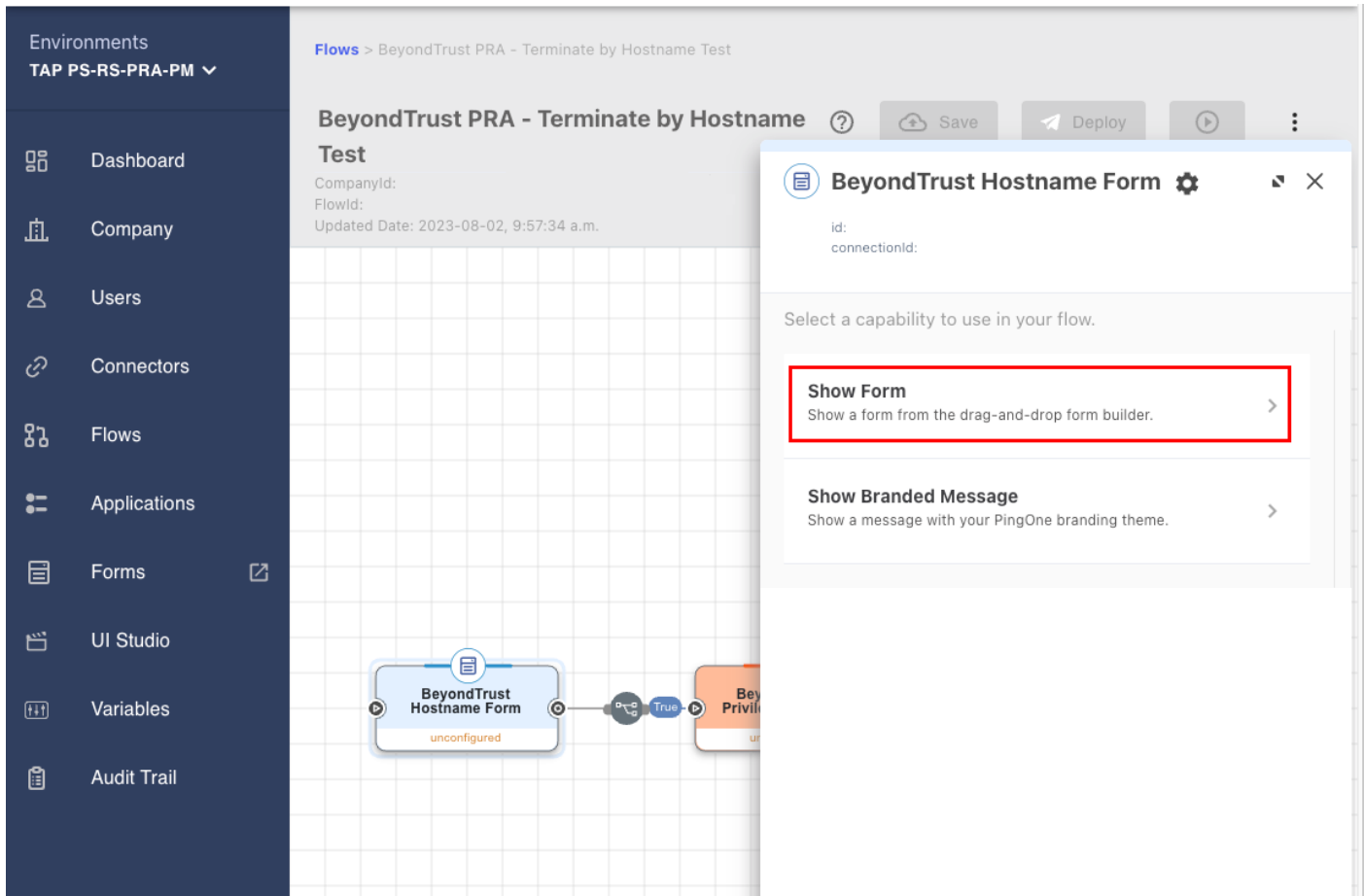
19. The form connector appears on the workflow screen.
20. Click the small connection point on the right of the form connector and, while keeping your mouse button pressed, drag the connection line from the form connector to the BeyondTrust PRA connector.



21. Confirm the result appears as follows:

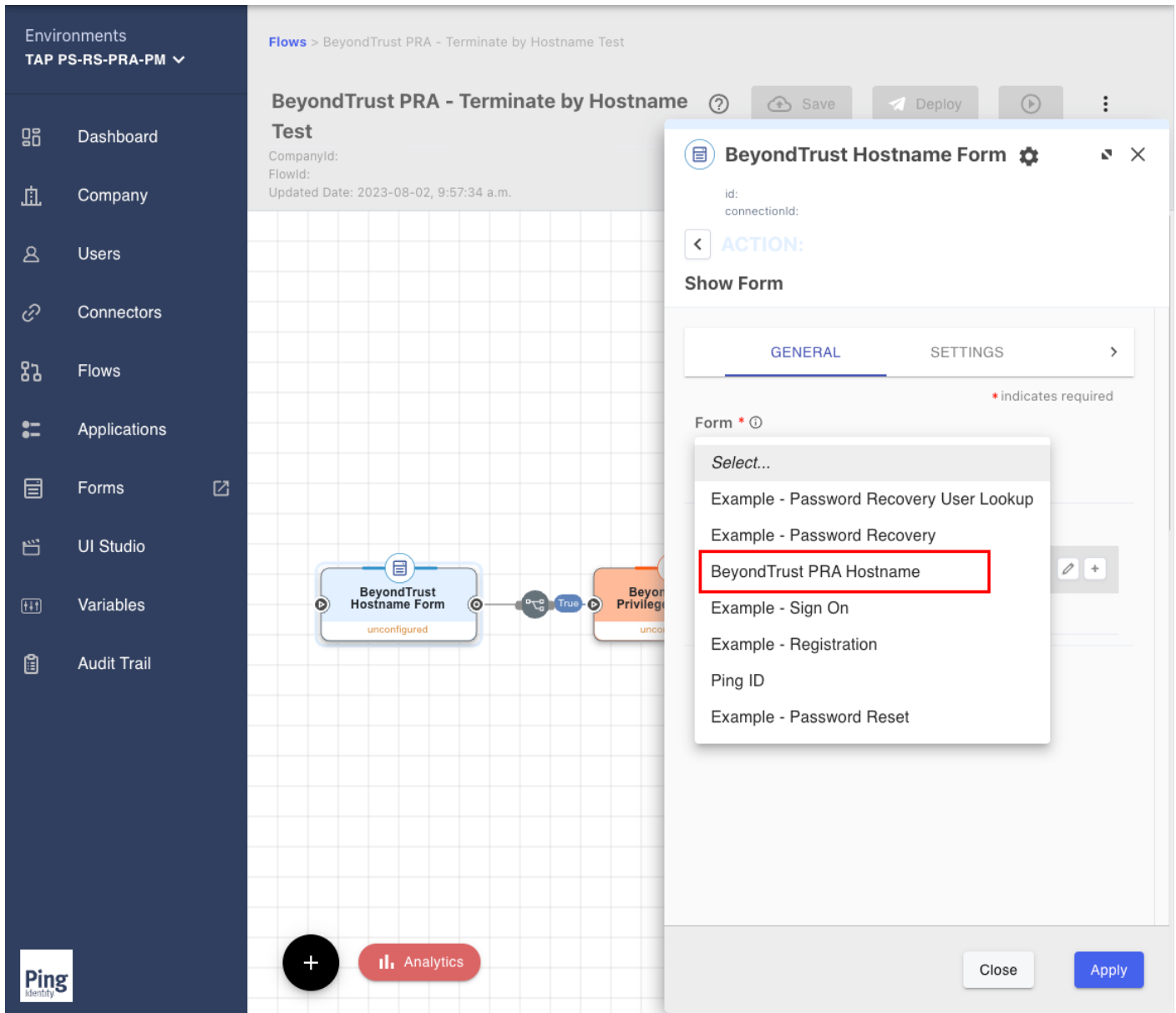


22. Double-click the form you created and click **Show Form**.

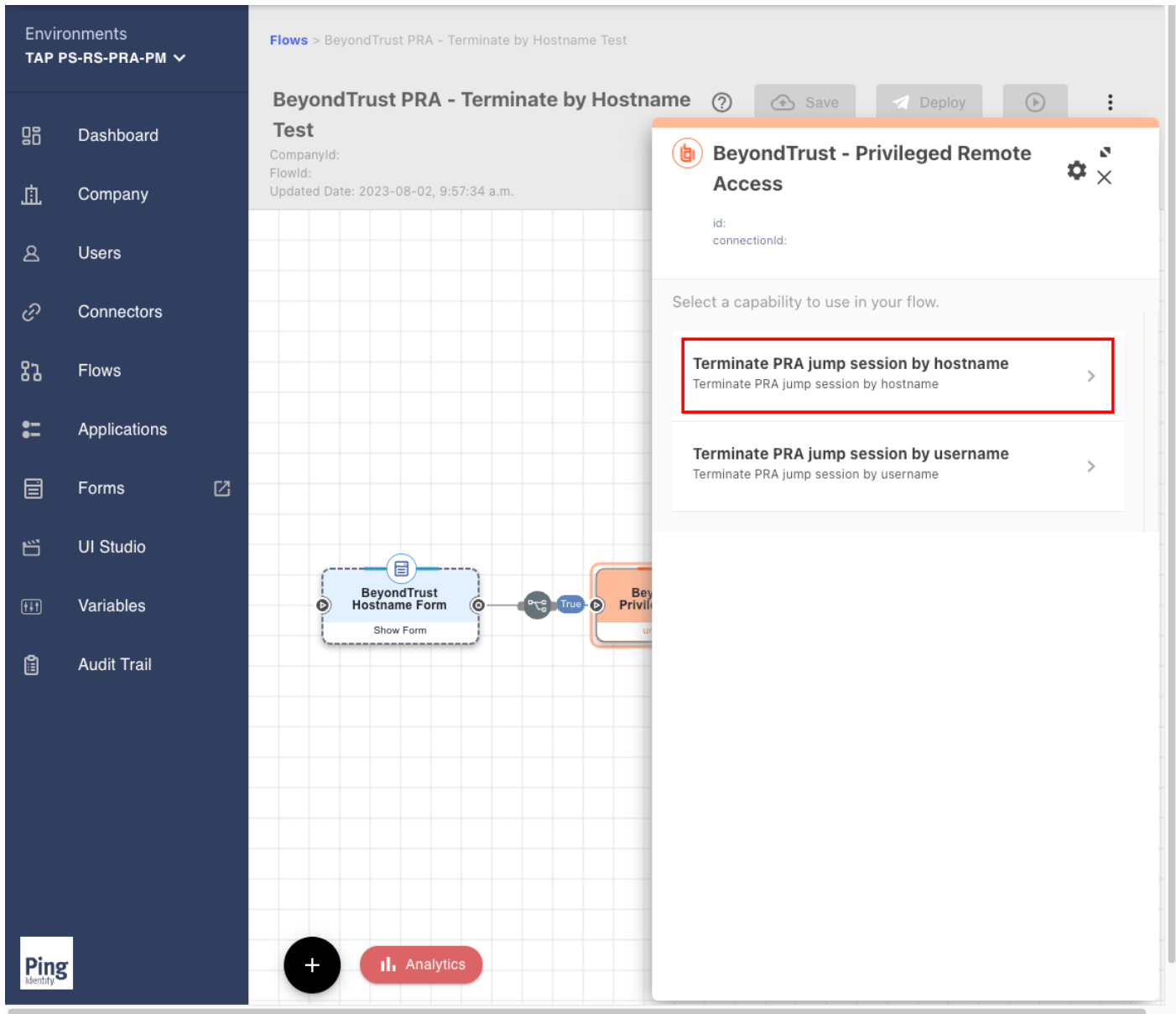


The screenshot displays the BeyondTrust PRA console interface. On the left is a dark blue sidebar with navigation options: Environments (TAP PS-RS-PRA-PM), Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area shows a flow titled 'BeyondTrust PRA - Terminate by Hostname Test' with a 'Test' step. A configuration panel for 'BeyondTrust Hostname Form' is open, showing fields for 'id' and 'connectionId'. Below these fields, a list of capabilities is shown, with 'Show Form' highlighted by a red box. The 'Show Form' option includes the description 'Show a form from the drag-and-drop form builder.' and a right-pointing arrow. Other options include 'Show Branded Message' with the description 'Show a message with your PingOne branding theme.' and a right-pointing arrow. The flow diagram in the background shows a sequence of steps: 'BeyondTrust Hostname Form' (unconfigured), a connector, a 'True' condition, and another 'BeyondTrust Hostname Form' step.

23. On the **Show Form** panel, click **Select** under the **General** tab.
24. Click the hostname form you created from the list.
25. Click **Apply** and then **Close**.



26. Double-click the **BeyondTrust - Privileged Remote Access** connector and select **Terminate PRA Jump Session by hostname**.



The screenshot displays the BeyondTrust PRA configuration interface. On the left is a dark blue sidebar with navigation options: Environments (TAP PS-RS-PRA-PM), Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area shows a flow titled "BeyondTrust PRA - Terminate by Hostname Test". The flow diagram includes a "BeyondTrust Hostname Form" block with a "Show Form" button, followed by a connector block labeled "True". A modal dialog titled "BeyondTrust - Privileged Remote Access" is open, showing options to "Terminate PRA jump session by hostname" (highlighted with a red box) and "Terminate PRA jump session by username". The dialog also includes fields for "id:" and "connectionId:" and a "Select a capability to use in your flow." section.

27. Click  in the **Hostname** field and click the form you created.

The screenshot shows the Davinci interface with a flow configuration and a configuration modal. The flow configuration includes a 'BeyondTrust Hostname Form' node connected to a 'True' connector and a 'BeyondTrust Privileged Remote Access' node. The configuration modal is titled 'BeyondTrust - Privileged Remote Access' and shows the 'ACTION' section with the title 'Terminate PRA jump session by hostname'. The 'GENERAL' tab is active, and the 'Hostname' field is highlighted with a red box. A dropdown menu is open, showing a list of connections: 'Global', 'SK-Component', and 'BeyondTrust Hostname Form', with the latter selected and highlighted by a red box. The 'Apply' button is visible at the bottom right of the modal.

28. In the list that appears, click the output value you created for the hostname.

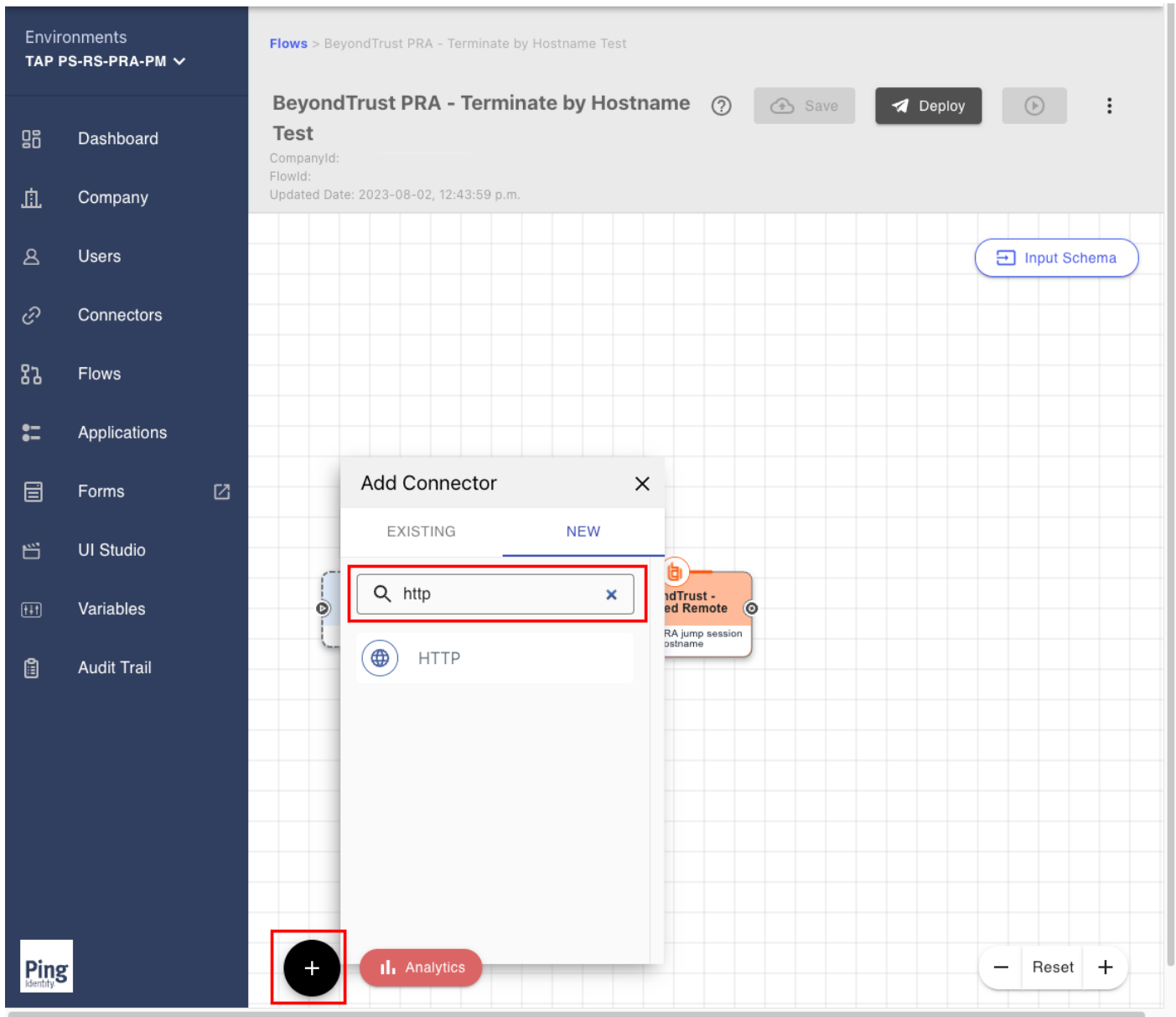
The screenshot shows the BeyondTrust PRA console interface. On the left is a navigation sidebar with options like Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area displays a flow titled 'BeyondTrust PRA - Terminate by Hostname Test'. A configuration modal is open over the flow, showing settings for the action 'Terminate PRA jump session by hostname'. The modal has tabs for 'GENERAL' and 'SETTINGS'. Under 'GENERAL', there is a 'Hostname' field marked as required. Below it, the 'output (object)' section is expanded, showing 'formData (object)' with a 'Hostname (string)' field highlighted in a red box. Other output fields include 'success (boolean)', 'event (object)', and 'type (string)'. At the bottom of the modal are 'Close' and 'Apply' buttons.

29. Click **Apply** and then **Close**.

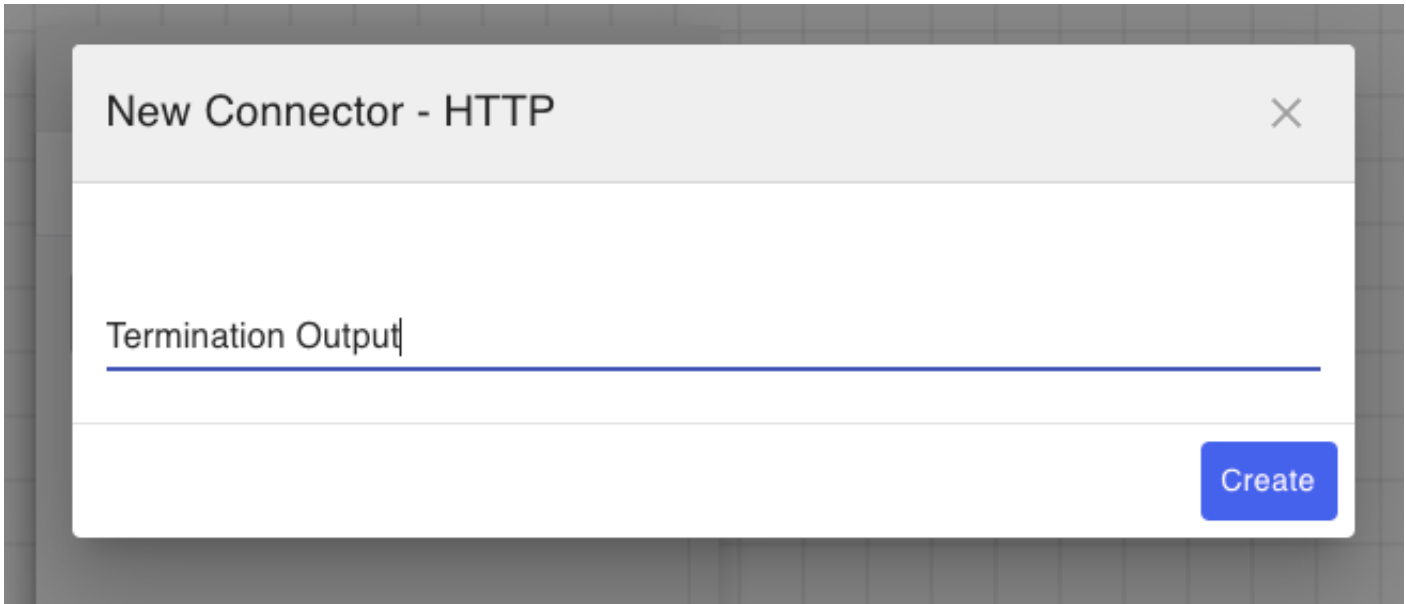
Create an Output Form

Now you create an HTTP form to show the output of a terminated session.

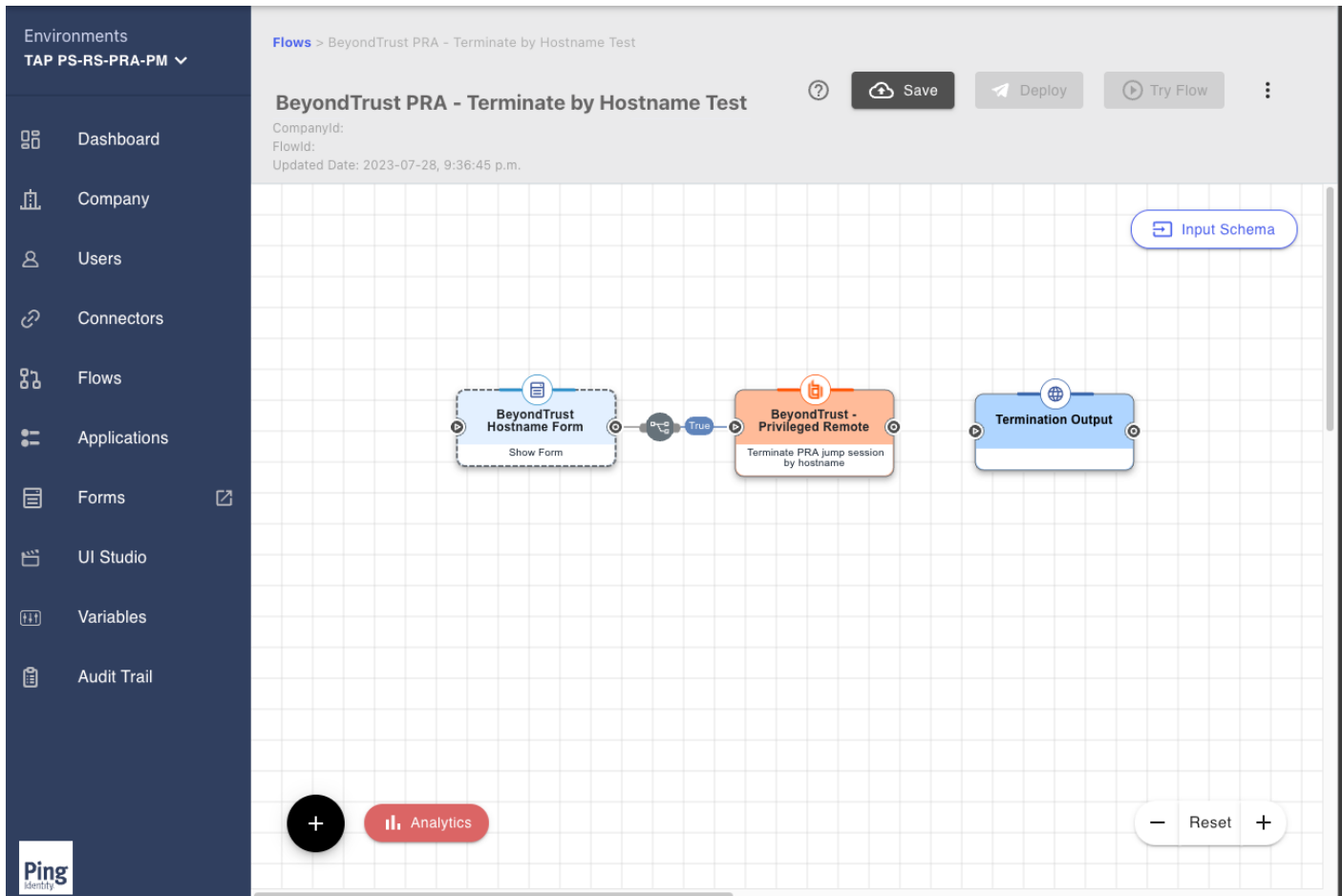
30. Click the plus sign **+**, and then click the **New** tab.
31. Search for *http*, and then click that in the list of search results.



32. Enter your desired name for the connector output form and click **Create**.



33. The HTTP output connector appears on the workflow screen.



The screenshot shows the 'BeyondTrust PRA - Terminate by Hostname Test' configuration page. The left sidebar contains navigation options: Environments (TAP PS-RS-PRA-PM), Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area displays a flow diagram with three steps: 'BeyondTrust Hostname Form' (Show Form), 'BeyondTrust - Privileged Remote' (Terminate PRA jump session by hostname), and 'Termination Output'. The flow is connected by a line with a small connector point on the right of the first step. The interface includes buttons for 'Save', 'Deploy', 'Try Flow', 'Input Schema', 'Analytics', and 'Reset'.

34. Click the small connection point on the right of the form connector and, while keeping your mouse button pressed, drag the connection line from the BeyondTrust PRA form connector to the new HTTP connector.

Environments
TAP PS-RS-PRA-PM

Flows > BeyondTrust PRA - Terminate by Hostname Test

BeyondTrust PRA - Terminate by Hostname Test [Save] [Deploy] [More]

CompanyId:
FlowId:
Updated Date: 2023-08-02, 12:43:59 p.m.

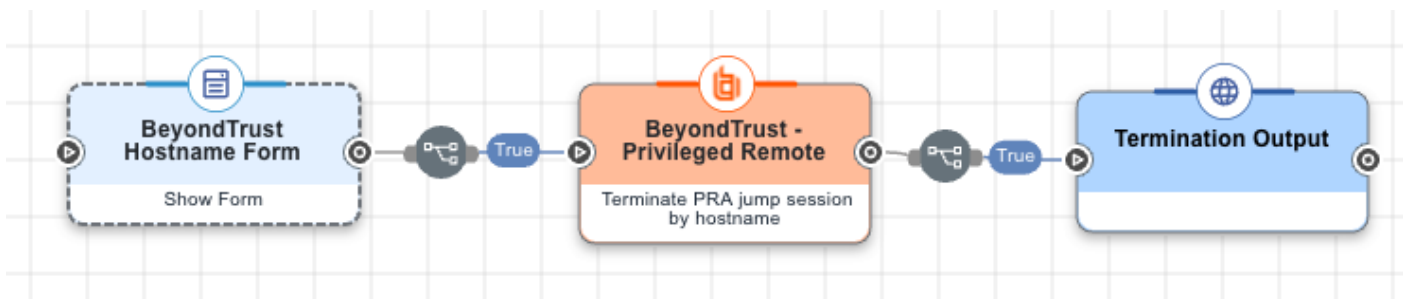
[Input Schema]

Flow diagram components:

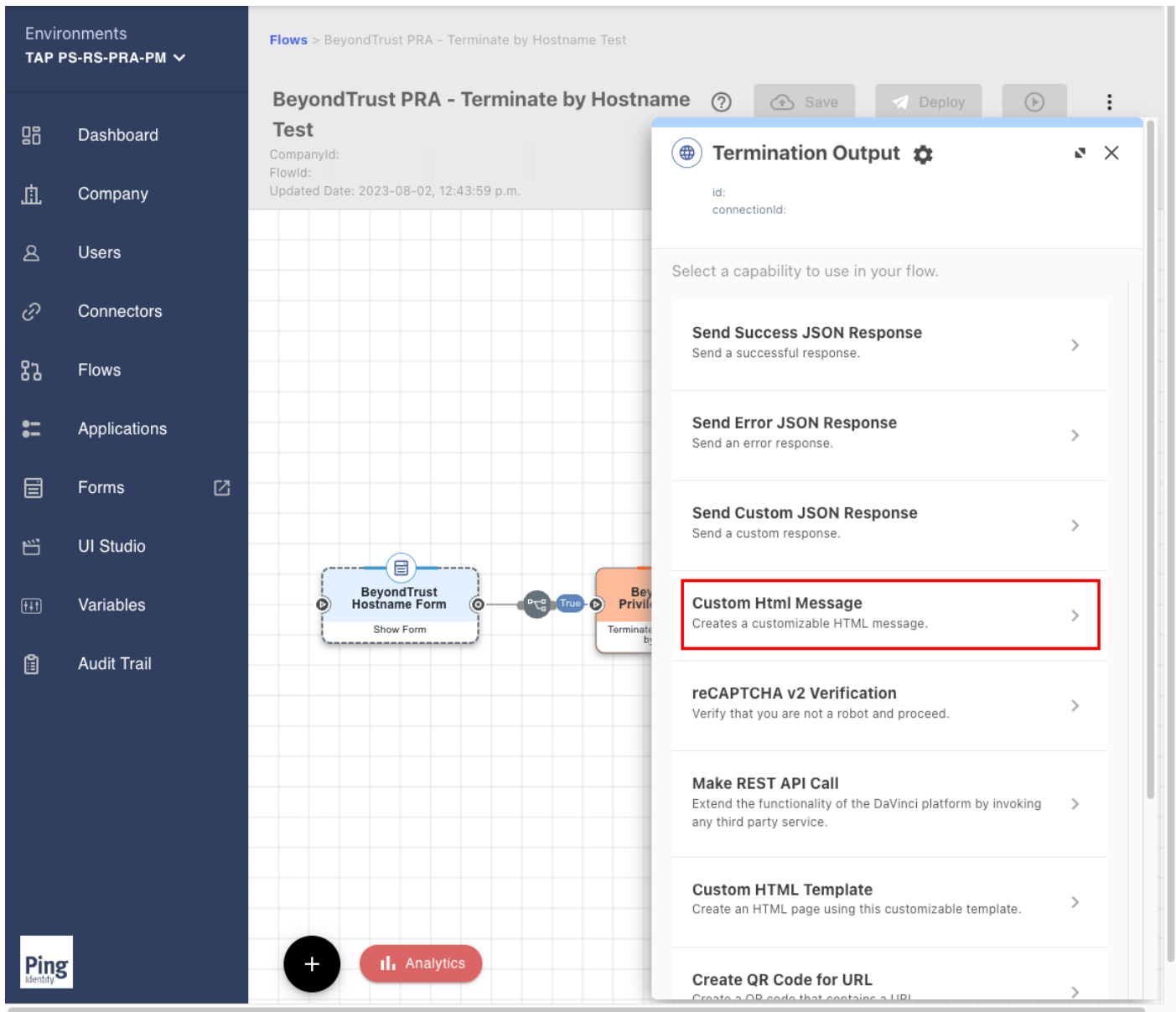
- BeyondTrust Hostname Form** (Show Form)
- BeyondTrust - Privileged Remote** (Terminate PRA jump session by hostname)
- Termination Output** (unconfigured)

[Ping Identity] [Analytics] [Reset]

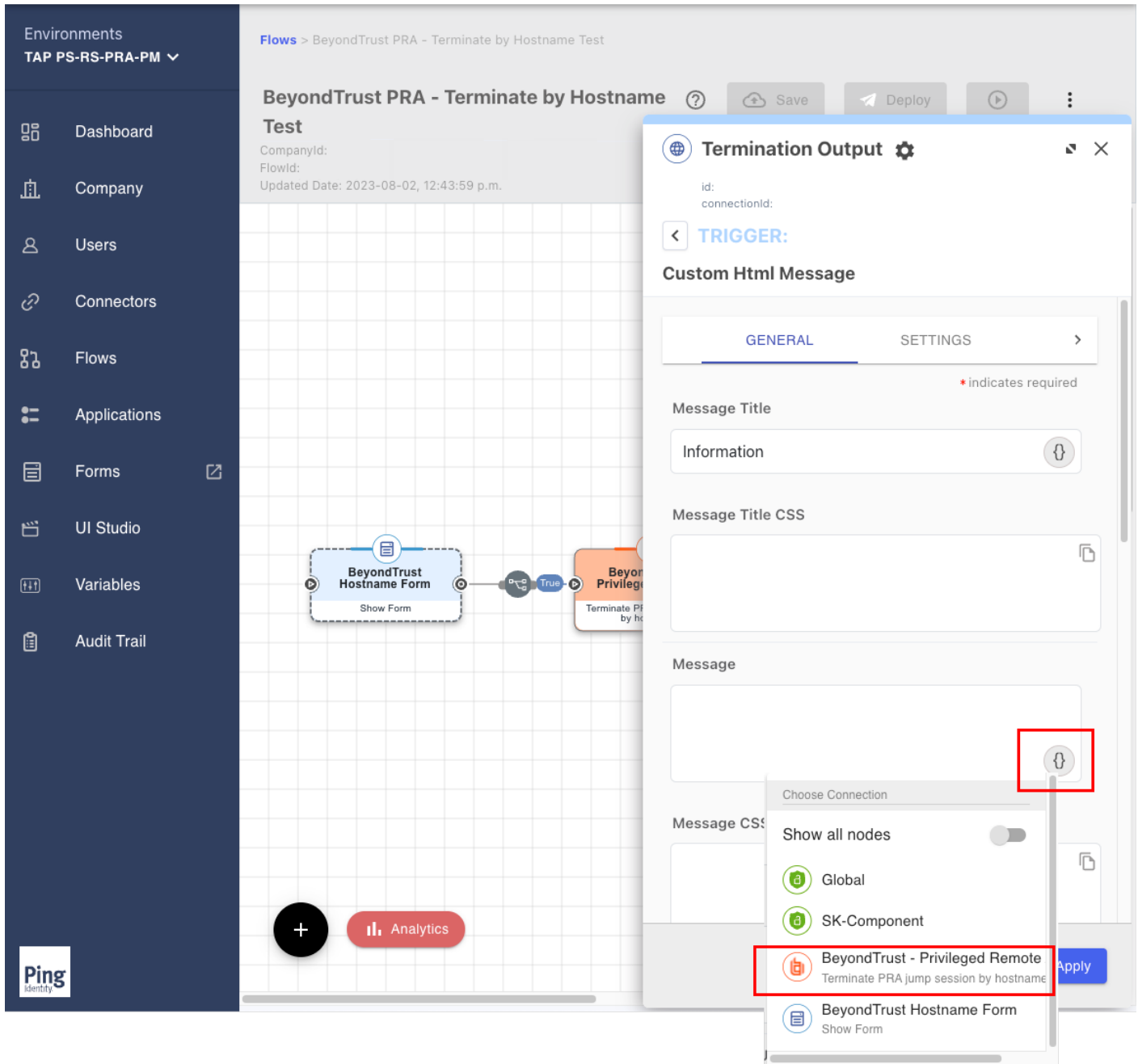
35. Confirm the result appears as follows:



36. Double-click the HTTP connector you created and click **Custom HTML Message**.



37. In the Message section, click the `{}` and click **BeyondTrust - Privileged Remote Access**.



38. From the menu that appears in the next screen, select the entire output object by clicking the plus sign (+) to the right of the object row.

The screenshot displays the BeyondTrust PRA configuration interface. On the left is a dark blue sidebar with navigation options: Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area shows a flow diagram for 'BeyondTrust PRA - Terminate by Hostname Test'. The flow starts with a 'BeyondTrust Hostname Form' (Show Form) block, followed by a connector block labeled 'True', and then a 'Beyond Privilege' block (Terminate PRA by hostname). A 'Termination Output' dialog box is open in the foreground, showing configuration options for a 'Custom Html Message'. The dialog has tabs for 'GENERAL' and 'SETTINGS'. Under 'GENERAL', there are fields for 'Message Title' (set to 'Information'), 'Message Title CSS', and 'Message'. The 'Message' field contains the text 'BeyondTrust - Privileged Remote Access'. Below these fields is a list of output fields: 'success (boolean)', 'output (object)', 'rawResponse (object)', 'statusCode (number)', 'headers (object)', and 'result (string)'. A red box highlights a plus sign icon next to the 'output (object)' field. At the bottom of the dialog are 'Close' and 'Apply' buttons.

39. Click **Apply** and then **Close**.

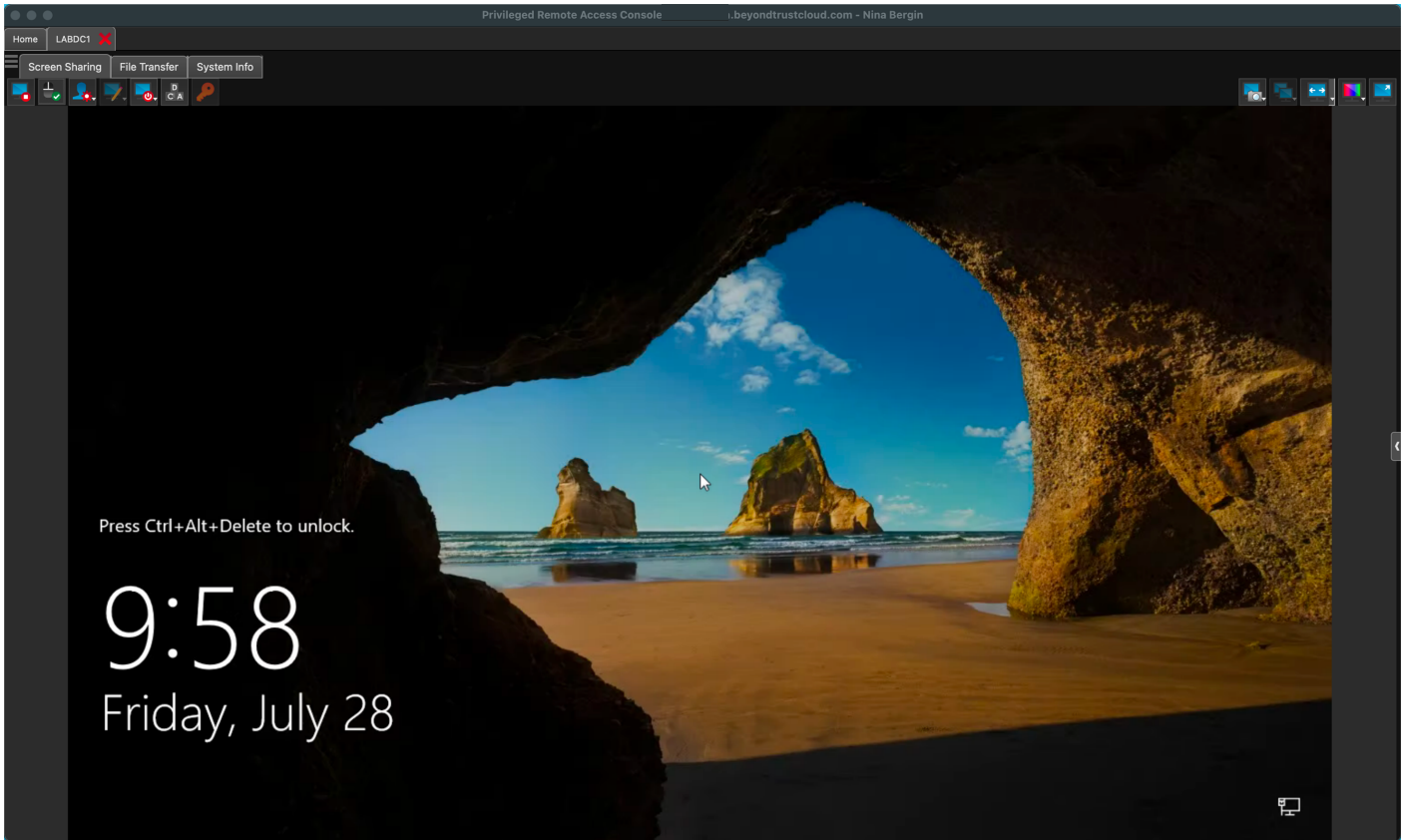
The screenshot displays the BeyondTrust PRA configuration interface. On the left is a navigation sidebar with options like Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area shows a workflow diagram with a 'BeyondTrust Hostname Form' block connected to a 'Beyond Privileged Remote Access' block. A 'Termination Output' configuration window is open, showing settings for a 'Custom Html Message'. The window has tabs for 'GENERAL' and 'SETTINGS'. Under 'GENERAL', there are fields for 'Message Title' (set to 'Information'), 'Message Title CSS', and 'Message'. The 'Message' field contains the text 'BeyondTrust - Privileged Remote Access'. Below these fields is a JSON-like structure for the output: 'success (boolean)', 'output (object)' containing 'rawResponse (object)', 'statusCode (number)', 'headers (object)', and 'result (string)'. At the bottom right of the window, 'Close' and 'Apply' buttons are visible, with 'Apply' highlighted in blue.

Test the Workflow

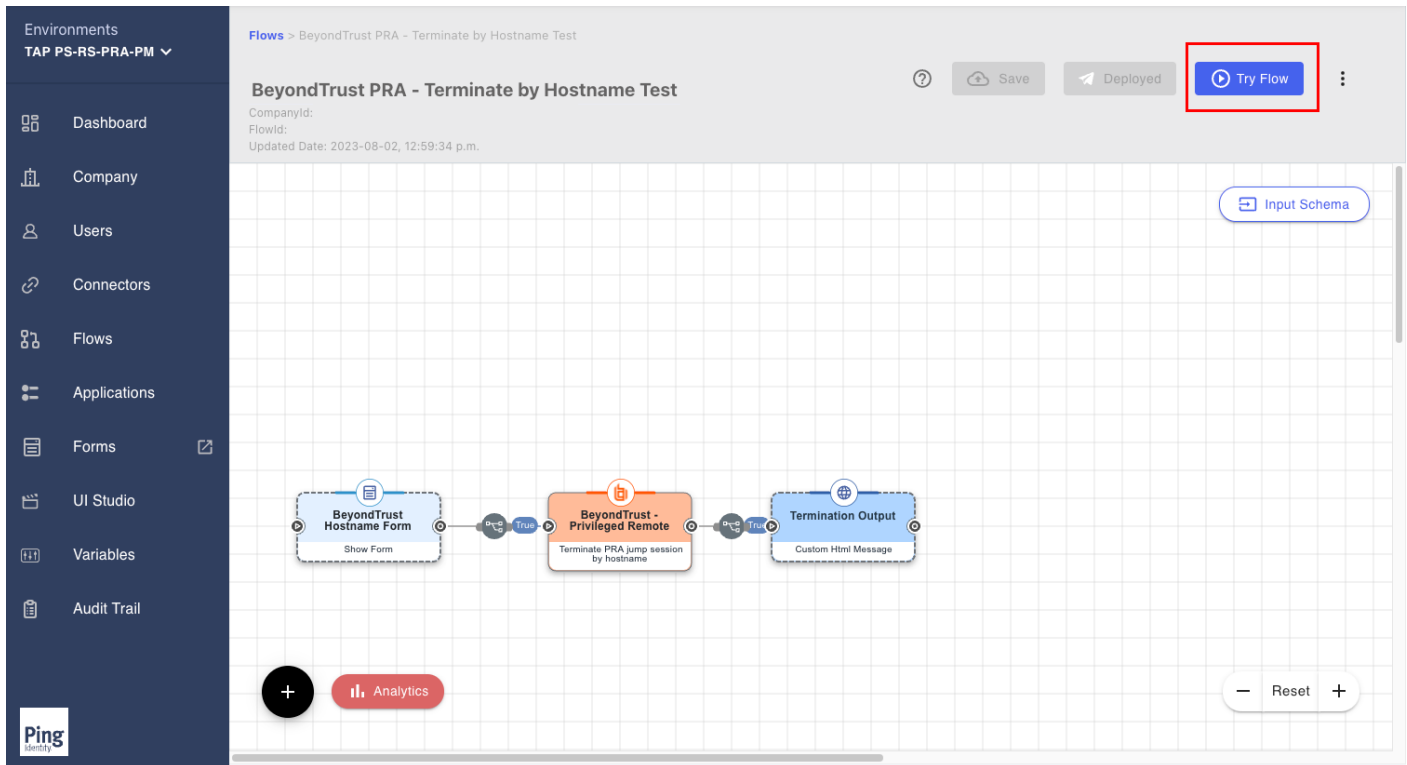
40. In the upper-right corner of the screen, click **Deploy**.
41. Wait for the *Successfully Deployed flow* message to appear in the lower-left corner of the screen.

The screenshot displays the BeyondTrust PRA console interface. On the left is a dark blue sidebar with navigation options: Environments (TAP PS-RS-PRA-PM), Dashboard, Company, Users, Connectors, Flows, Applications, Forms, UI Studio, Variables, and Audit Trail. The main area shows a flow configuration for 'BeyondTrust PRA - Terminate by Hostname Test'. The flow is composed of three steps connected by arrows: 1. 'BeyondTrust Hostname Form' (Show Form), 2. 'BeyondTrust - Privileged Remote' (Terminate PRA jump session by hostname), and 3. 'Termination Output' (Custom Html Message). Above the flow, there are buttons for 'Save', 'Deployed', and a play button. Below the flow, there are buttons for 'Analytics' and 'Reset'. A green notification box at the bottom left contains a checkmark and the text 'Successfully deployed flow'.

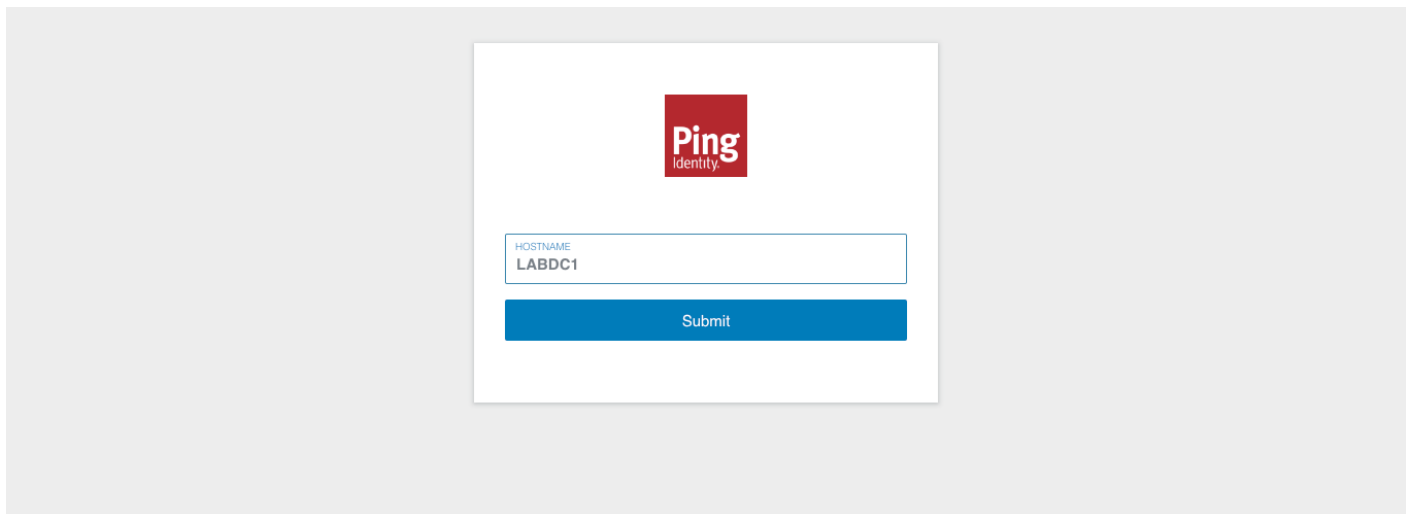
- 42. Log in to your PRA access console or web access console.
- 43. Initiate a session to any host you have access to.



44. Back on your DaVinci workflow page, click **Try Workflow** in the upper right.



45. A web browser page opens, with a field to enter a hostname.
46. Enter the hostname of the session you initiated in your PRA access console or web access console.
47. Click **Submit**.



48. The session terminates, and a status window provides details of the session, including the result **Successfully Terminated Session**.

49. If the session does not terminate as expected, review the configuration and test steps or contact Support.

Information


```
{
  "rawResponse": "<?xml version='1.0' encoding='UTF-8'>\n\n<success
xmlns='http://www.beyondtrust.com/sra/namespaces/API/co
mmand'\n\nSuccessfully terminated
session.\n\n</success>\n",
  "statusCode": 200,
  "headers": {
    "date": "Sat, 29 Jul 2023 02:04:01 GMT",
    "server": "Apache",
    "content-type": "text/xml; charset=UTF-8"
  },
  "result": "success",
  "resultMessage": "Successfully terminated session."
}
```

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