Process Dispatch Framework with Salesforce.com

Integration Guide

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Contents

Introduction

This guide discusses the steps necessary to configure Salesforce.com to be able to use the Blue Prism Process Dispatch Framework. This will expose the ability to launch Blue Prism processes from within Salesforce.com (ex. from Lightning Web Components, etc).

For details about the Process Dispatch Framework and how to configure it within your Blue Prism environment check the *Blue Prism Digital Exchange*.

Prerequisites

The following prerequisites must be met before you will be able to successfully deploy and test the Process Dispatch Framework from within Salesforce.com:

- **Process Dispatch Framework** – The framework must be deployed and configured within your Blue Prism environment.
- **Utililty Process Disptcher VBO** – This VBO (included with the Process Dispatch Framework) must be exposed within the Blue Prism environment as a SOAP web service. This is the main channel through which Salesforce.com will make requests to the Blue Prism environment to execute specific processes.
- **SSL Certificate** – Salesforce.com requires any 3rd party platforms it communicates with to support SSL connections. Salesforce.com does not support connecting over HTTP, only HTTPS. The Process Dispatch Framework uses a configurable Resource Pool within the Blue Prism environment. Due to the security requirements of Salesforce.com, you must configure the Runtime Resources within this Resource Pool to support HTTPS connections. Details about how to configure your Blue Prism environment to support HTTPS can be found in the *Securing Network Connectivity* data sheet on the Blue Prism Portal.
- **(Optional) Process Information VBO** – This is a optional VBO, available from the Digital Exchange, that can be deployed within your Blue Prism environment. You can then query this VBO, as a SOAP service, to collect information about available processes within the Blue Prism environment. Without this VBO, you will need to work with your Blue Prism administrator to understand what processes are available that could be invoked from Salesforce.com.

Configuring Salesforce.com

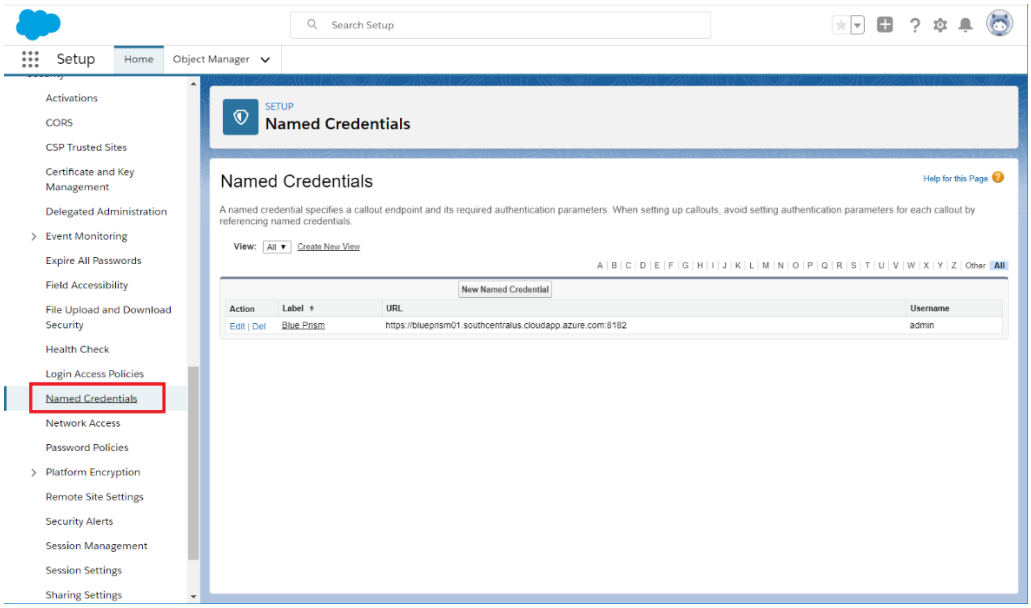
This chapter discusses the various configuration steps, within your Salesforce.com environment, to enable communication with your Blue Prism environment.

Create a Named Credential

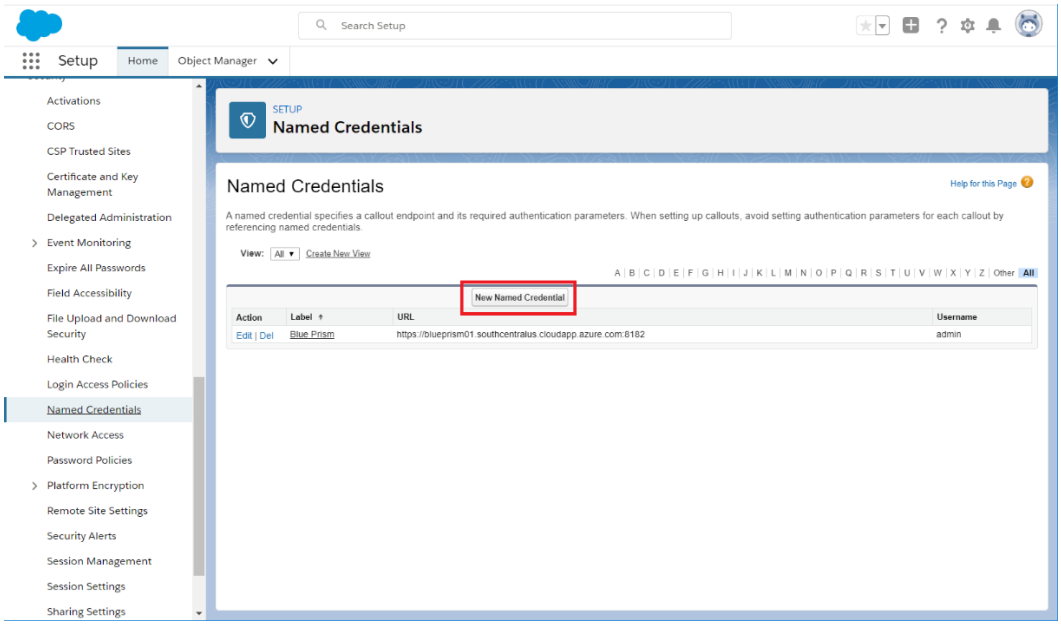
To invoke a Blue Prism SOAP endpoint you will need to provide a username and password for HTTP Basic Authentication.

NOTE: Because of the use of SSL certificates, this username and password will be encrypted in the communication between Salesforce.com and Blue Prism.

1. Log in to your Salesforce.com instance using an account with sufficient permissions to be able to admister the environments setup.
2. From the Setup menu, navigate to ***Settings → Security → Named Credentials***. Alternatively, you can enter “Named Credentials” in the ***Quick Find*** search box.

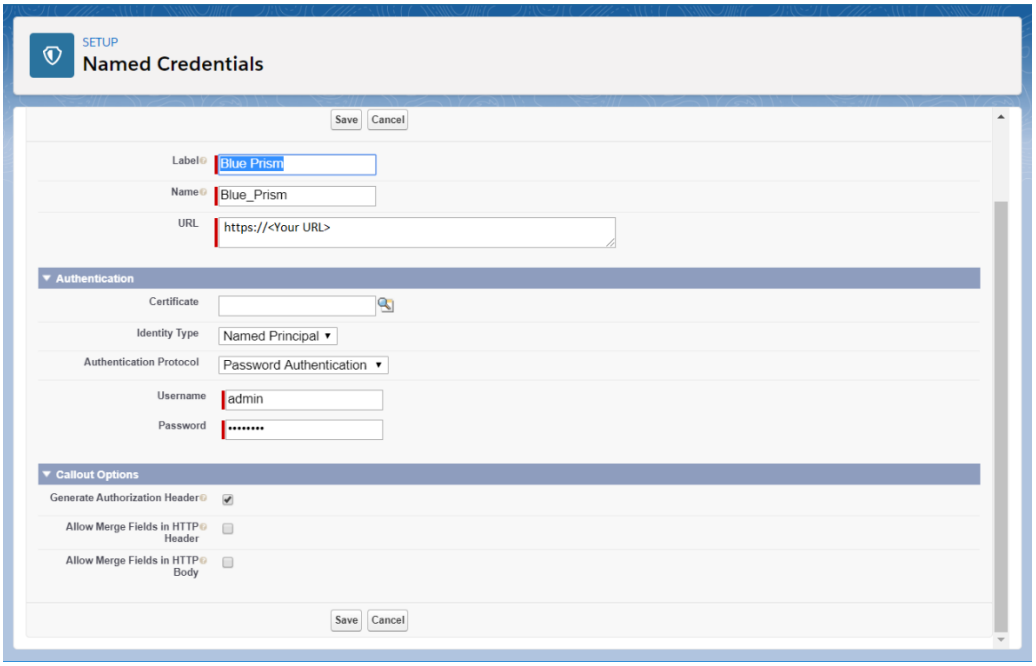


3. Select ***New Named Credential***.



4. Enter the following details:
    a. **Label** – A unique name to be used to reference this credential in lists and reports.
    b. **Name** – A unique name that is used to reference this credential from within APIs.
    c. **URL** – This will be the fully qualified uniform resource identifier for the Blue Prism environment. This information should be supplied by your Blue Prism administrator.
    d. **Identity Type** – Should be set to ***Named Principal***.
    e. **Authentication Protocol** – Set to ***Password Authentication***.
    f. **Username** – Set to the username provided by your Blue Prism administrator.
    g. **Password** – The password for the specified Blue Prism username.
    h. **Generate Authorization Header** – Ensure this box is checked.
5. Select ***Save*** to save the new credential definition.

Your new credential should look similar to the following:



Import Process Dispatcher WSDL

Next, we will import the WSDL of the Process Dispatcher VBO into your Salesforce.com environment. This will cause new APEX classes to be automatically generated based on the contents of the WSDL.

Salesforce.com does not allow you to import a WSDL directly from a URL endpoint. You must navigate to the WSDL in a separate browser window and save it to a local file. If possible, your Blue Prism administrator should provide this file to you directly. If that is not the case, you can collect the file yourself.

1. Open a new browser window.
2. In the navgation window enter the base URL you used for the Named Credential, but append the following information to the end of the URL ***/ws/UtilityProcessDispatcher?wsdl***. The resulting URL will look simliar to this:

   Ex. https://123.abc.com:8181/ws/UtilityProcessDispatcher?wsdl

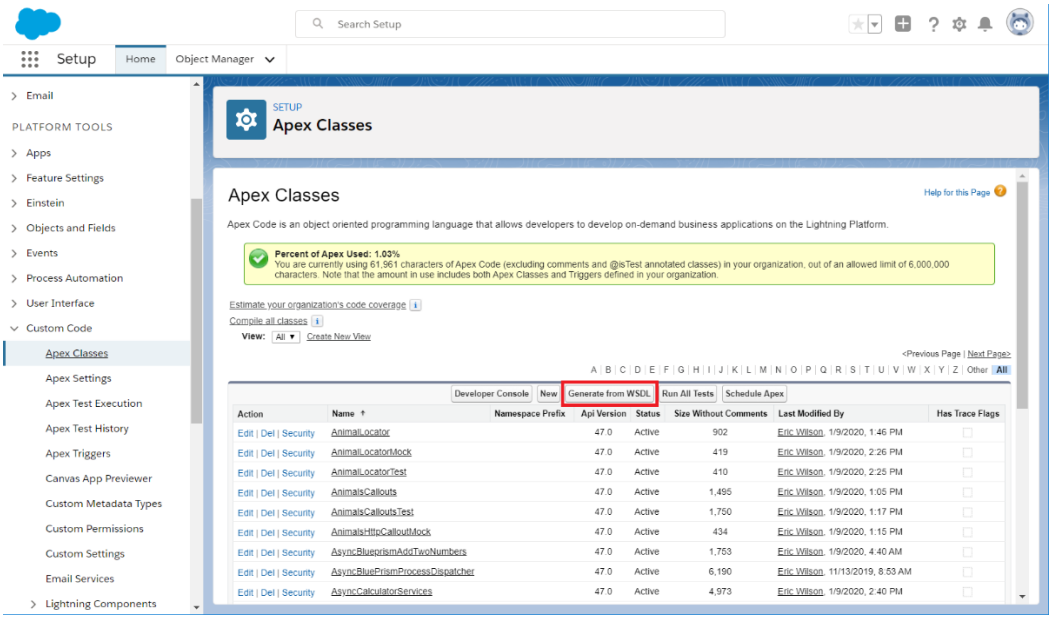
NOTE: Your Blue Prism administrator may have created a custom name when they published the Process Dispatcher VBO as a SOAP service. In that case you will either need to request the published name from them, or you can try to find the name by browsing to https://[BP_URL]:[PortNumber]/ws/. This is the default base URL for Blue Prism to publish web service information. You may be able to find the name on the resulting web page.

3. The resulting WSDL page will look similar to the following:

4. Right-click on the page and select ***View Page Source***.
5. Right-click again and select ***Save as…***
6. You should notice that the Save As dialog has set the file type to XML. Enter a name for the file and select ***Save***. Make sure, the file extension is ***.wsdl***

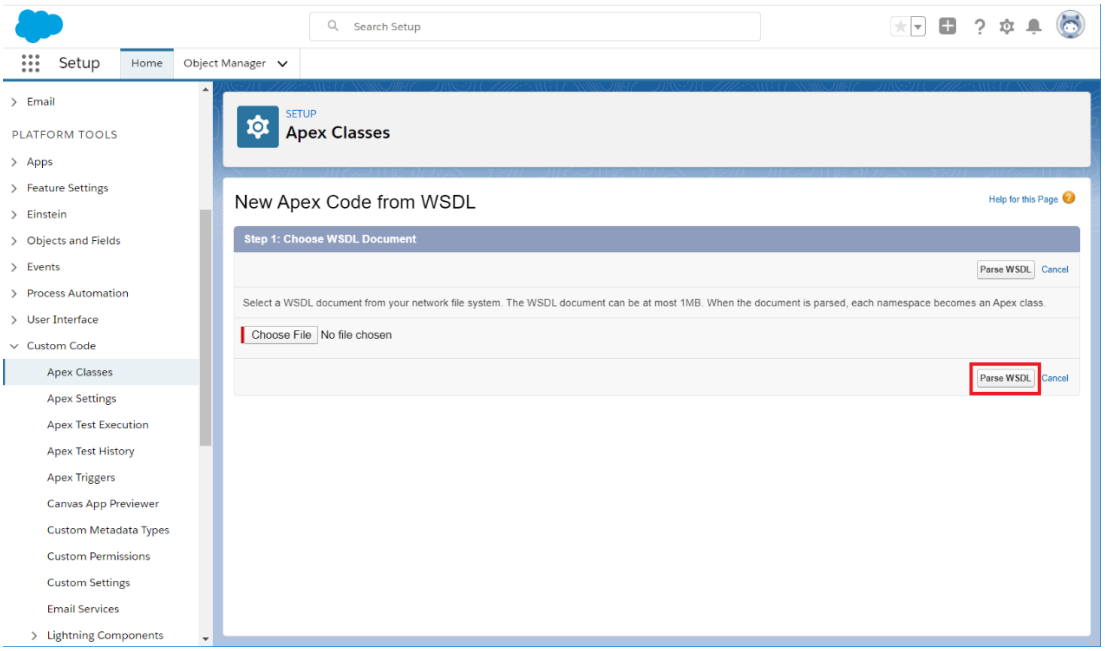
Now that you have a local copy of the actual WSDL file we can import it into your Salesforce.com environment. To do that:

1. If not already logged into Salesforce.com, login with sufficient permissions to administer the environment.
2. In the Setup menu, navigate to ***Setup → Platform Tools → Custom Code → Apex Classes***. Alternatively, you can enter "Apex Classes" in the ***Quick Find*** box.
3. Within the "Apex Classes" display, select ***Generate from WSDL***.



4. In the "New Apex Code from WSDL" display, select ***Choose File***. An ***Open File*** dialog should be presented. In this dialog, navigate to and select the WSDL file you just downloaded from Blue Prism.

5. After selecting the WSDL file, select ***Parse WSDL*** in the "New Apex Code from WSDL" display.

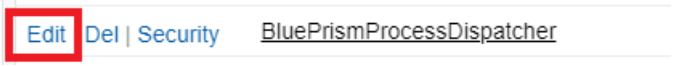


6. At this point, Salesforce.com will use a tool called Wsdl2Apex to generate Apex classes for you based on the WSDL definition. Salesforce.com will generate Synchronous and Asynchronous implementations of the Blue Prism VBO. You should **ONLY** use the synchronous class definition. You can differentiate the two classes because Wsdl2Apex will prepend the string "Async" to the front of the class name for the asynchrnous version.

Edit Process Dispatcher Apex Class

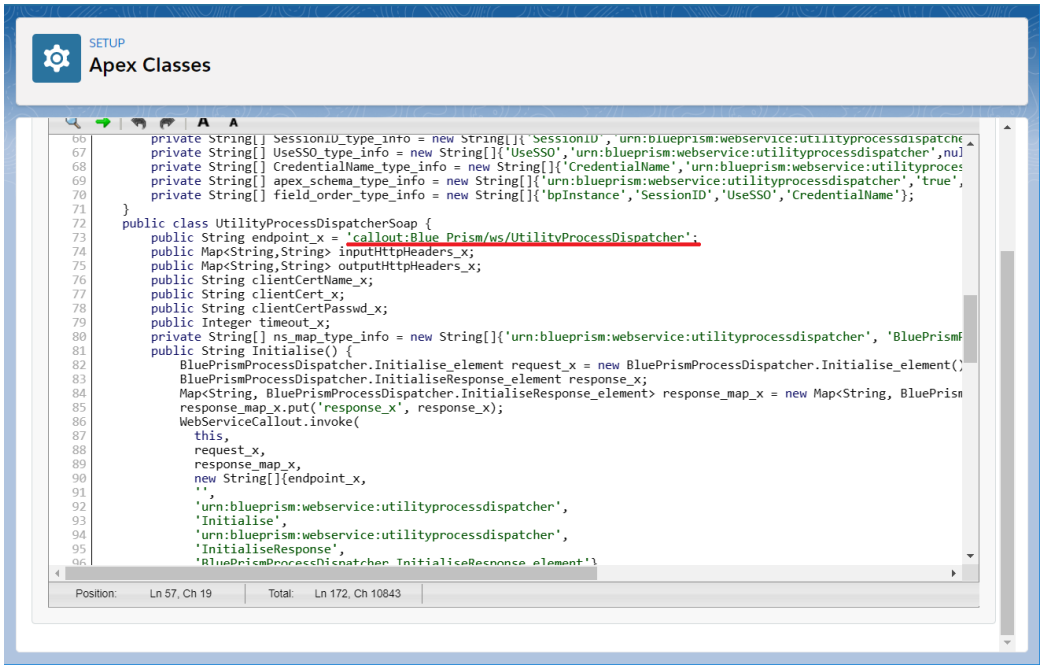
Now that you have imported the WSDL and generated the custom Apex class, we need to make a small edit to the class definition to leverage the Named Credential you created previously.

1. In the "Apex Classes" display, locate the synchronous version of the Process Dispatcher Apex class.
2. Click the ***Edit*** link for the class.



3. Within the Apex code editor, locate the definition of the class ***UtilityProcessDispatcherSoap*** and the reference to variable named ***endpoint_x***. As you can see, this variable to set to the value of the Blue Prism runtim resource URL. We want to change this value to reference the Named Credential previously created within Salesforce.com.
4. Edit the code and change the string value to the following:

   *'callout:**[YOUR NAMED CREDENTIAL NAME]**/ws/UtilityProcessDispatcher'*
5. Your code should look something like the following:



6. Click ***Save*** within the Apex Class Editor to apply your changes.

Congratulations! You are now ready to leverage this class to initiate communication from Salesforce.com to your Blue Prism environment.