6.8 User Guide

Blue Prism and IBM Business Automation Workflow on Cloud Integration

Document Revision 1.0

Trademarks and copyrights

The information contained in this document is the proprietary and confidential information of Blue Prism Limited and should not be disclosed to a third party without the written consent of an authorised Blue Prism representative. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying without the written permission of Blue Prism Limited.

Contents

Introduction

This document outlines the integration and configuration of Blue Prism and the IBM Business Automation Workflow on Cloud platform; commonly referred to as IBM BPM on Cloud. It is also available on the Blue Works Live platform.

IBM Business Automation Workflow is widely used enterprise software suite that combines business process management and use-case management in a single integrated workflow solution. It combines information, processes, and users to provide a 360-degree view of work to help drive more successful business outcomes.

Business Automation Workflow on Cloud provides the same capabilities as the on-prem BPM offering, within a ready-to-use, cloud-based environment hosted and managed by IBM.

This document assumes a general understanding of Blue Prism Processes as well as the IBM BPM platform.

Details on the IBM Business Automation Workflow on Cloud Platform can be found here:
https://www.bpm.ibmcloud.com/auth/index.html

Requirements include:

- Blue Prism Software

- An IBM Cloud account and access to the IBM Business Automation Workflow on Cloud Platform. As of July, 2020, IBM offers a free 30-day trial.
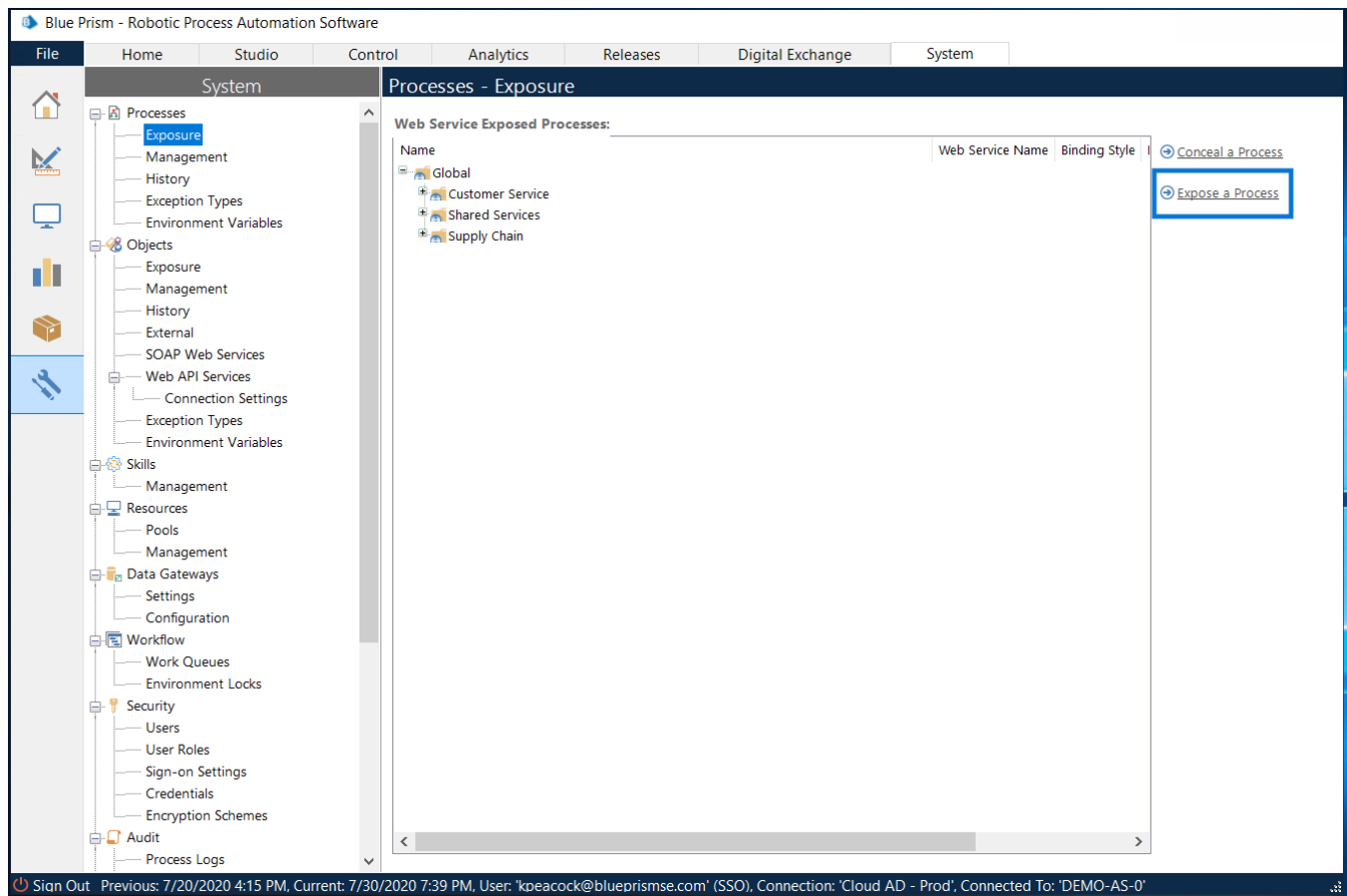
Flow to Blue Prism Integration

Components of the Solution

- Blue Prism process exposed as SOAP Web Service

- Configure IBM BPM on Cloud to invoke a Web Service

- Test Blue Prism Web Service from IBM BPM on Cloud
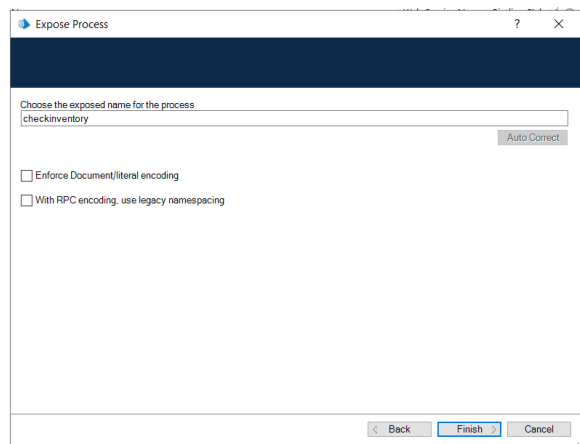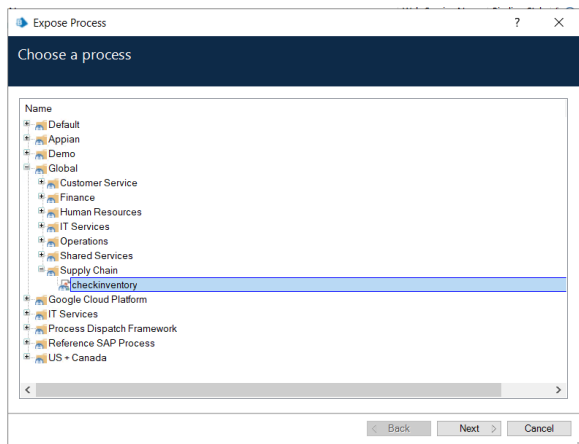
Blue Prism process exposed as SOAP Web Service

Expose the Blue Prism process as a SOAP Web Service.

It isn't necessary to specify Document/literal encoding or RPC encoding, unless your environment calls for it.
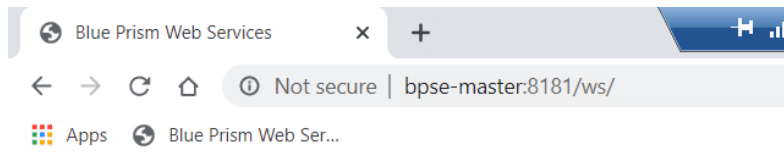
Once your process is exposed, it will appear in the Exposure tree.
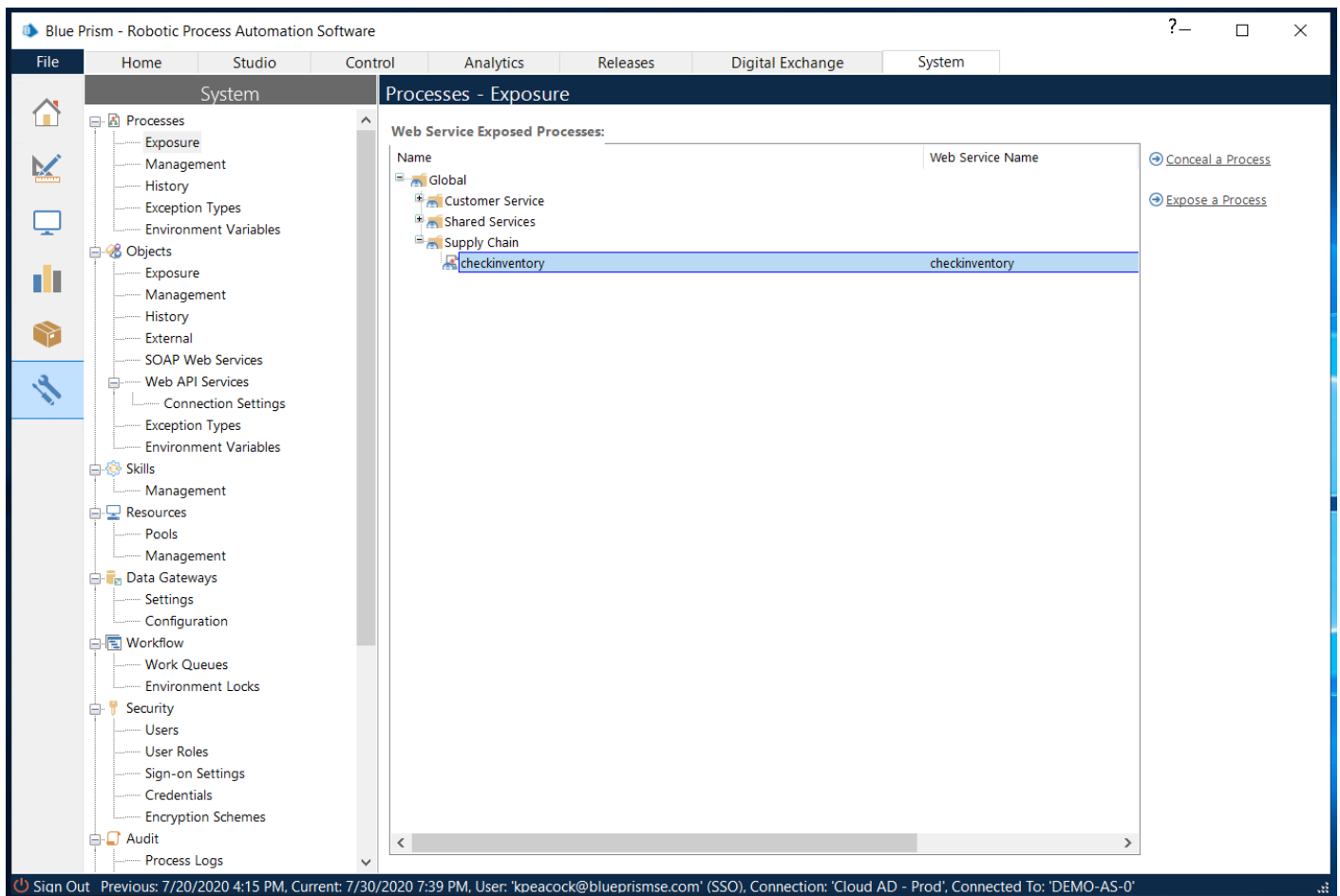
You can test to make sure the SOAP service is available by using the URL in a browser window:

http://<<machinename>>:<<resource agent port>>/ws/
(in this example, my hostname is **bpse-master** and the Web Service Port is **8181**)

IMPORTANT: you must add the trailing "/" for the URL to work.

If you click on the newly added Exposed Web Service, you'll get the XML definition:

Pay attention to the URL for the SOAP call inside the XML: (it's below the fold in this screenshot.)

```
        <soap:body use="literal" namespace="urn:blueprism:webservice:checkinventory" encodingSt
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  ▼<wsdl:service name="checkinventoryService">
    ▼<wsdl:port name="checkinventorySoap" binding="tns:checkinventorySoapBinding">
        <soap:address location="http://bpse-master:8181/ws/checkinventory"/>
      </wsdl:port>
  </wsdl:service>
</wsdl:definitions>
```

This is the URL another application will use to communicate with our Blue Prism Web Service. Unfortunately, this URL is the short hostname for our Web Service. Blue Prism assumes we're working on the same network. When communicating between clouds (IBM BPM on Cloud to our Blue Prism Azure Cloud instance) we need to change this URL to the fully qualified hostname. We'll do that in the next section.

Configure IBM BPM on Cloud to invoke a Web Service

Once inside the IBM Business Automation Workflow on Cloud Platform, we need to create a Service Flow. The Service Flow will make the Web Service call to Blue Prism. You should already be familiar with business flow diagrams inside of BPM on Cloud. The topic of business flows and how to create and manage business flows is beyond the scope of this document.
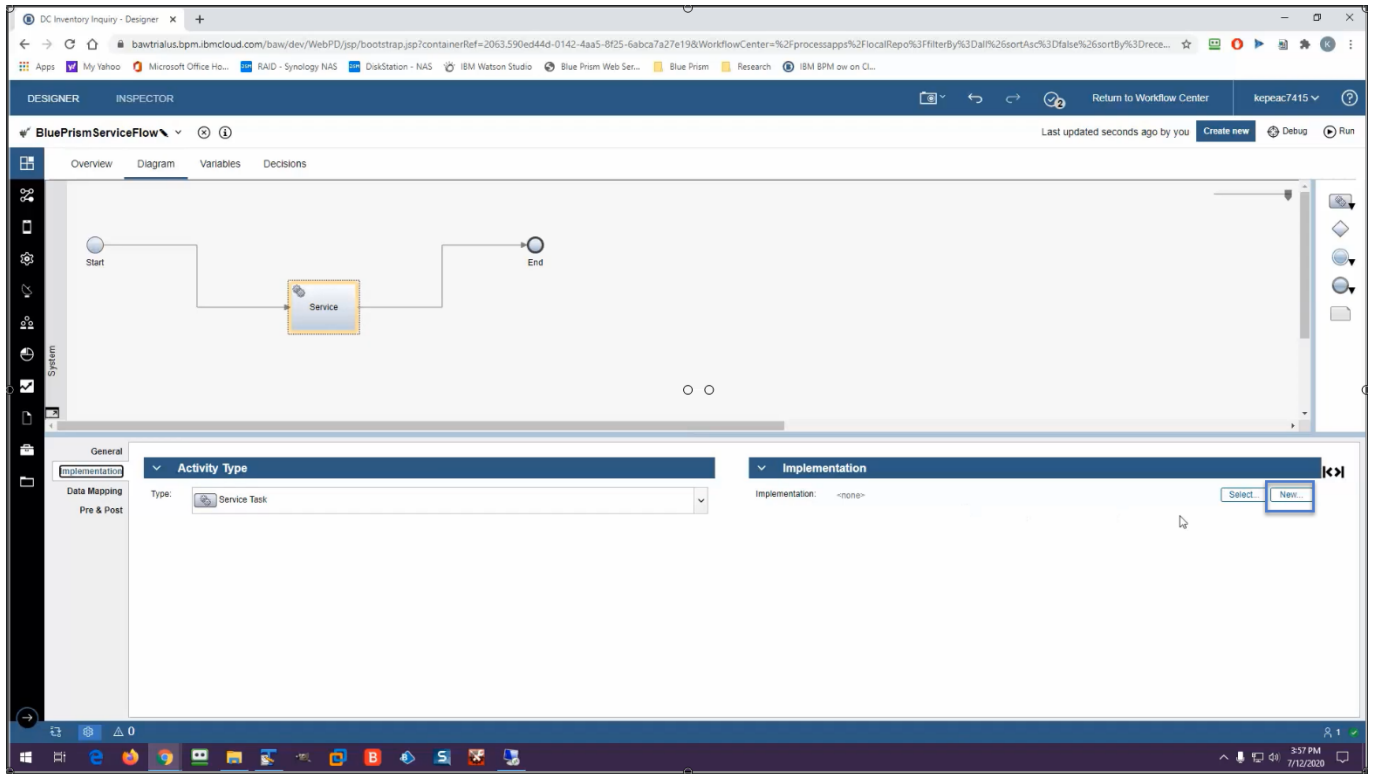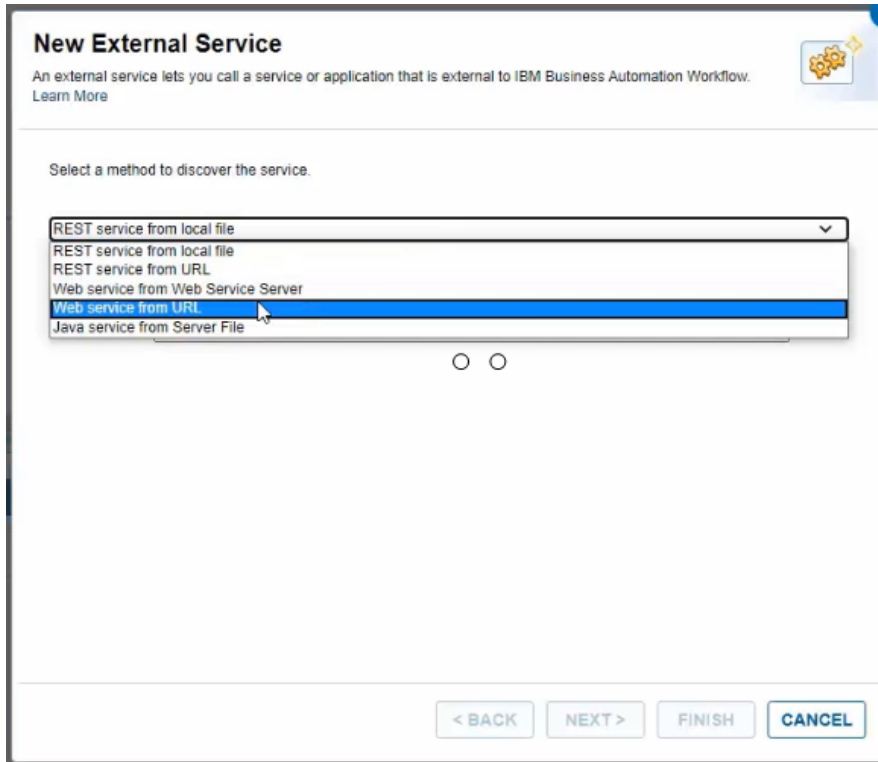
Here's our new Service Flow:
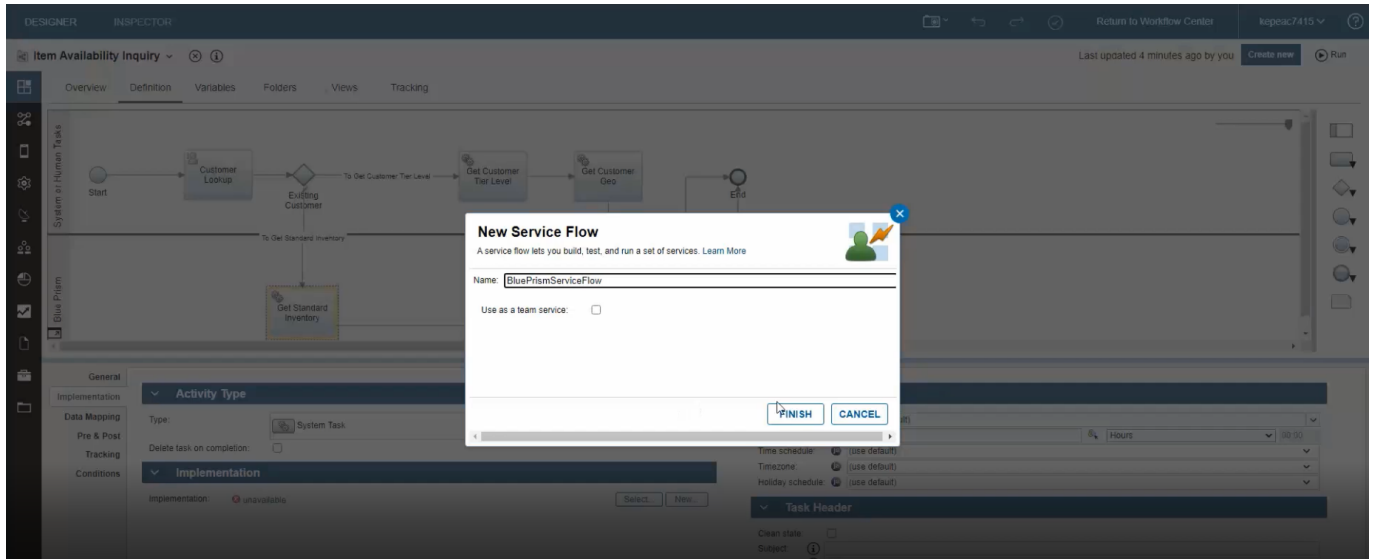
Create a service flow diagram and include a **Service Task** that looks like this:
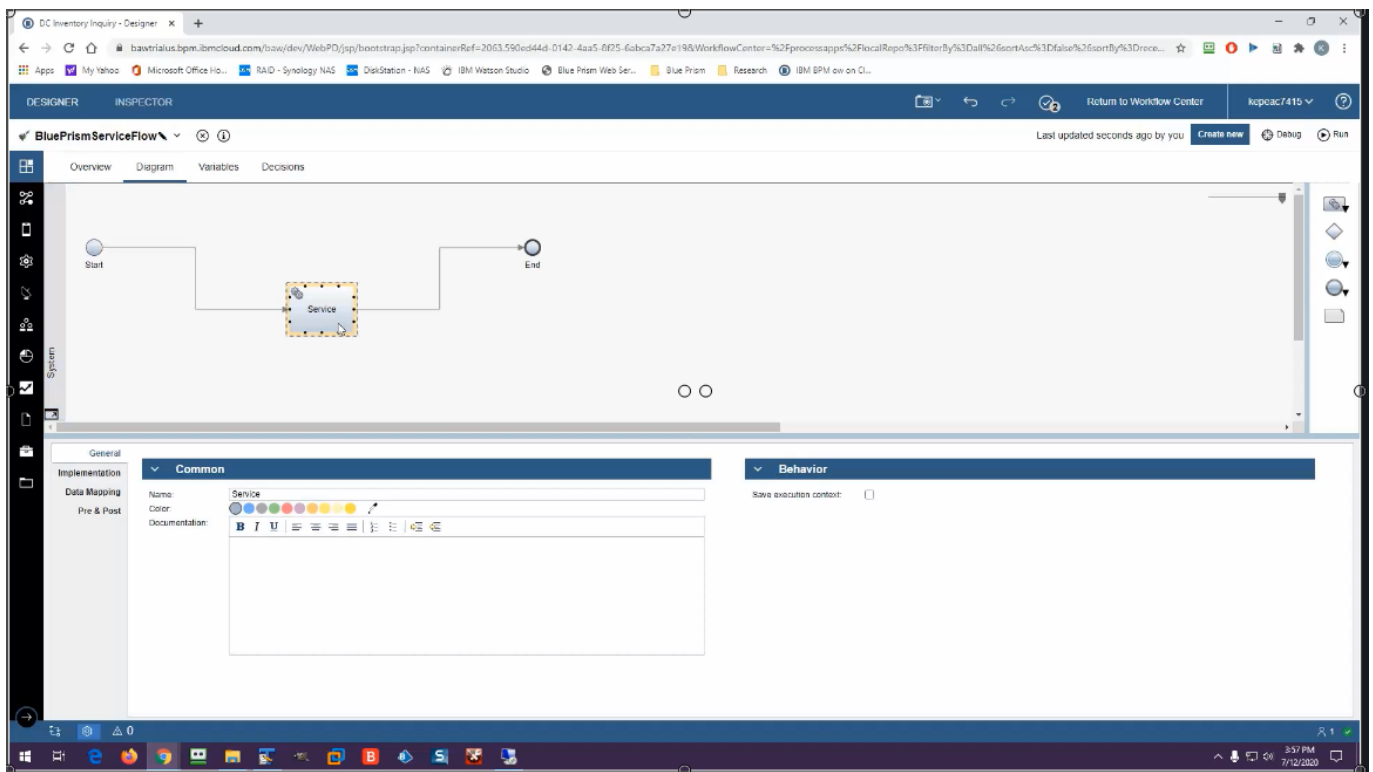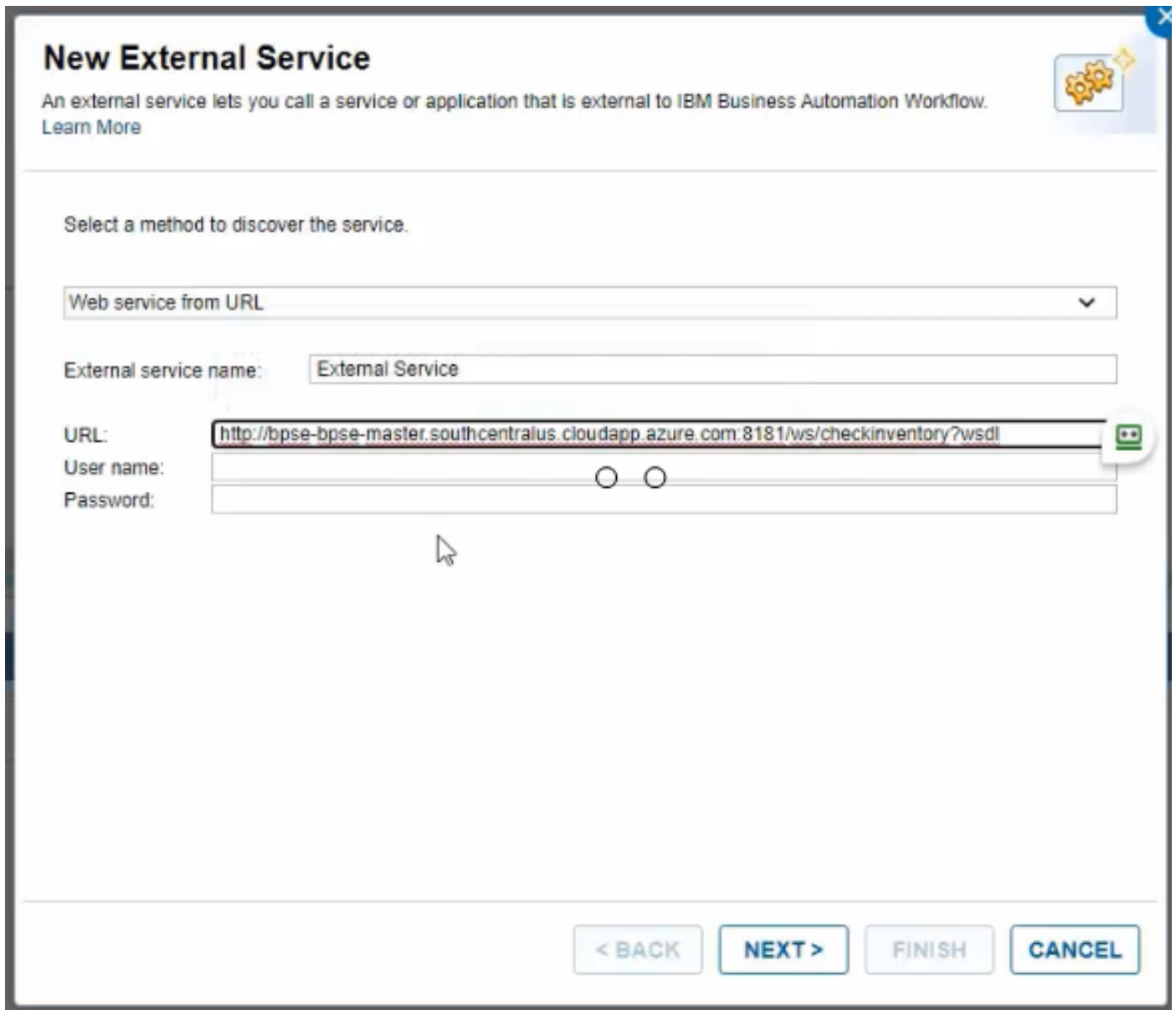
Click on the **Service Task**, and in the lower pane, click **Implementation** and **New**.

Now, select **Web service from URL**.

Here, we need to specify the full qualified hostname our of Blue Prism Web Service on the Azure Cloud. We'll give it the name **External Service**.
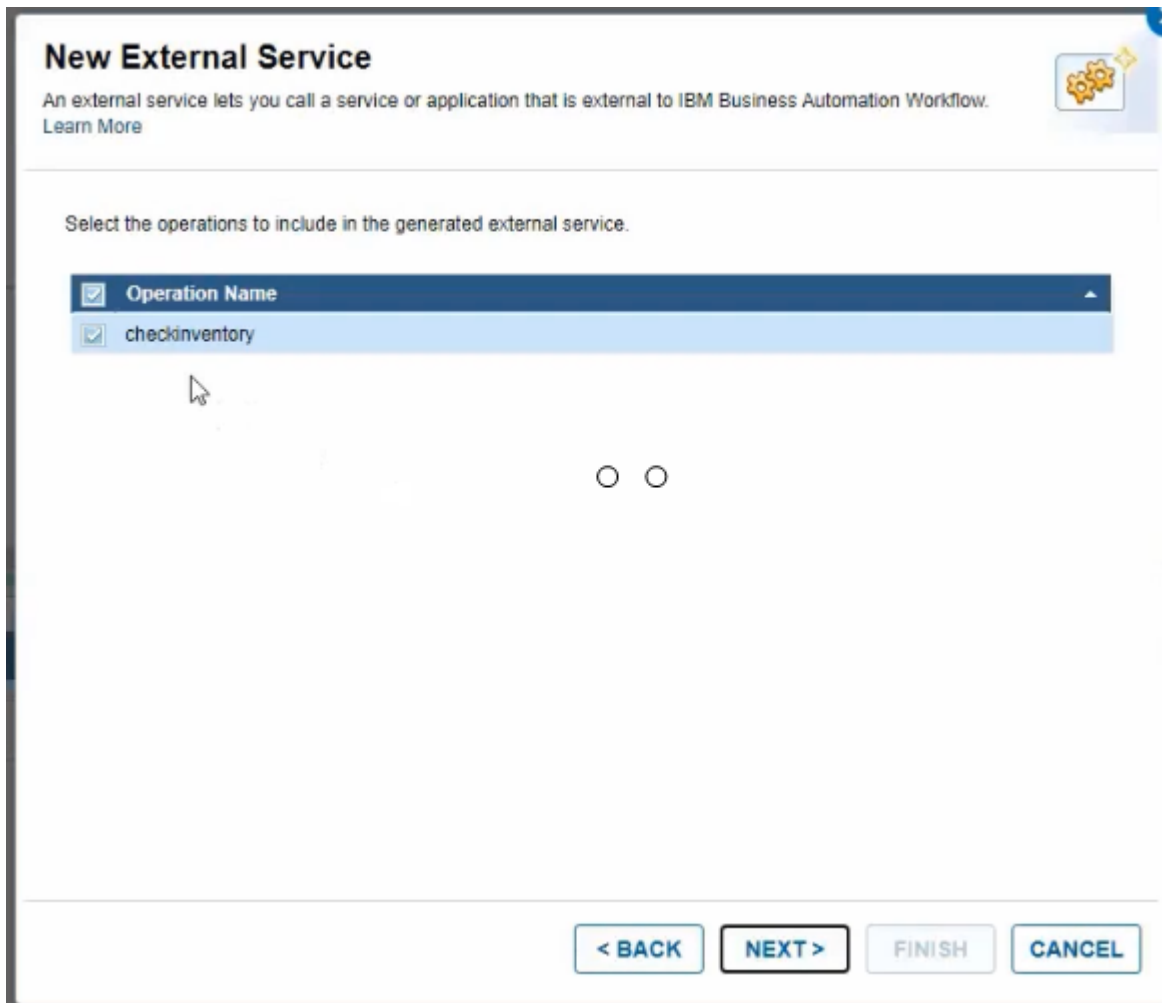
Click **Next.**

IBM BPM on Cloud will retreive the WSDL from Blue Prism and display the available Operations.

Select the **checkinventory** Operation and click **NEXT**.

You'll see the Inputs and Outputs from the Web Service Definition Language (WSDL) that Blue Prism has exposed.
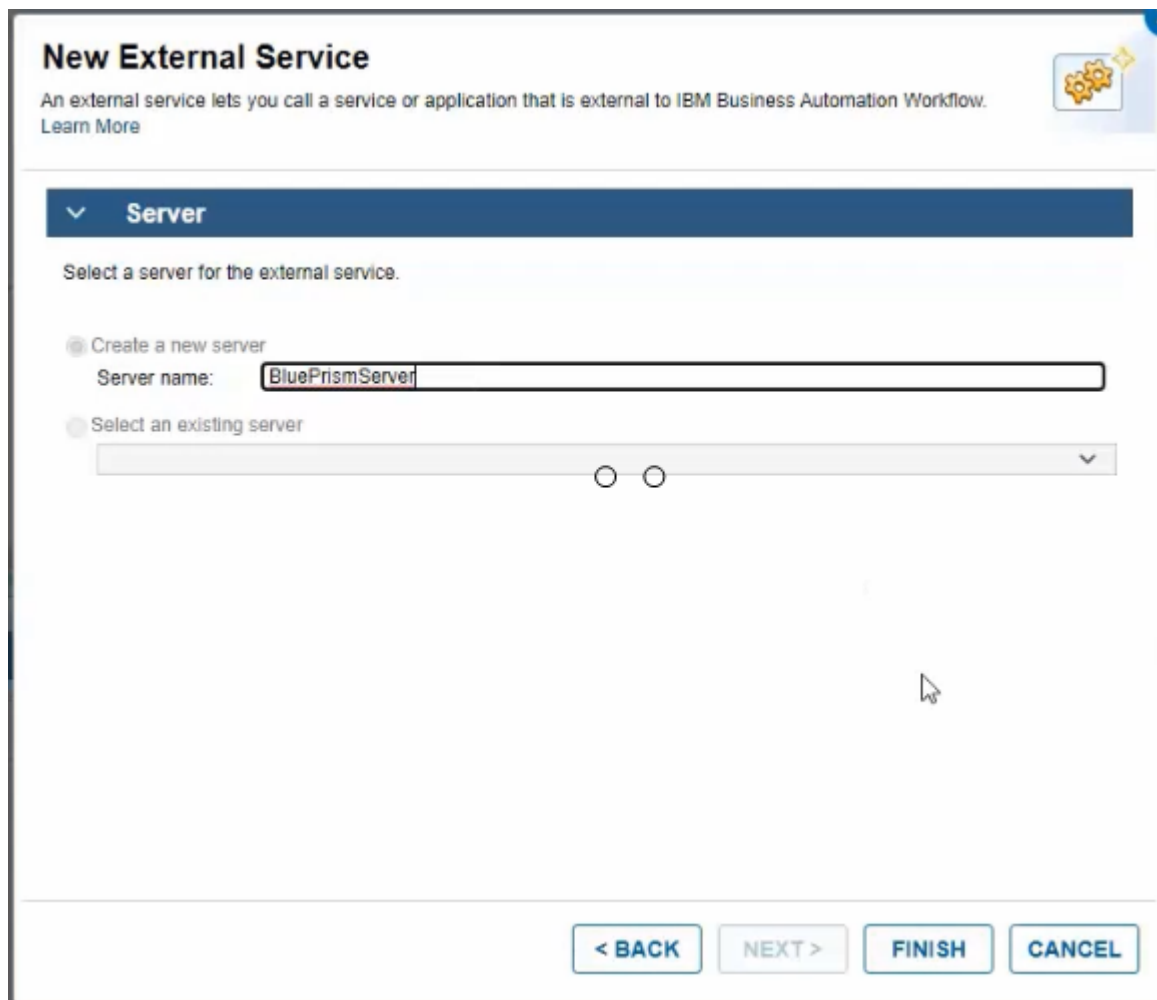
Click **NEXT**.

The new external service needs to rely on a server to communicate. Let's set up the **New External Service.** Give the Server a name:


Click **FINISH.**

You'll see the Blue Prism Web Service as exposed in IBM BPM on Cloud; including the Inputs and Outputs as defined in the WSDL.
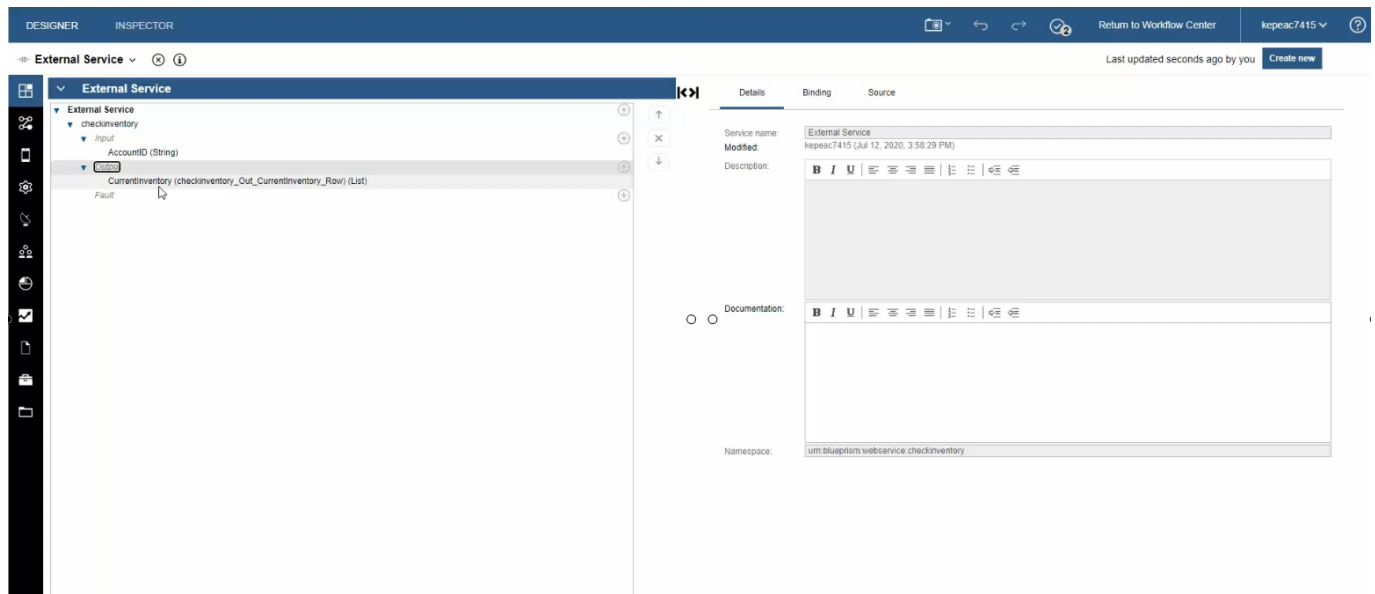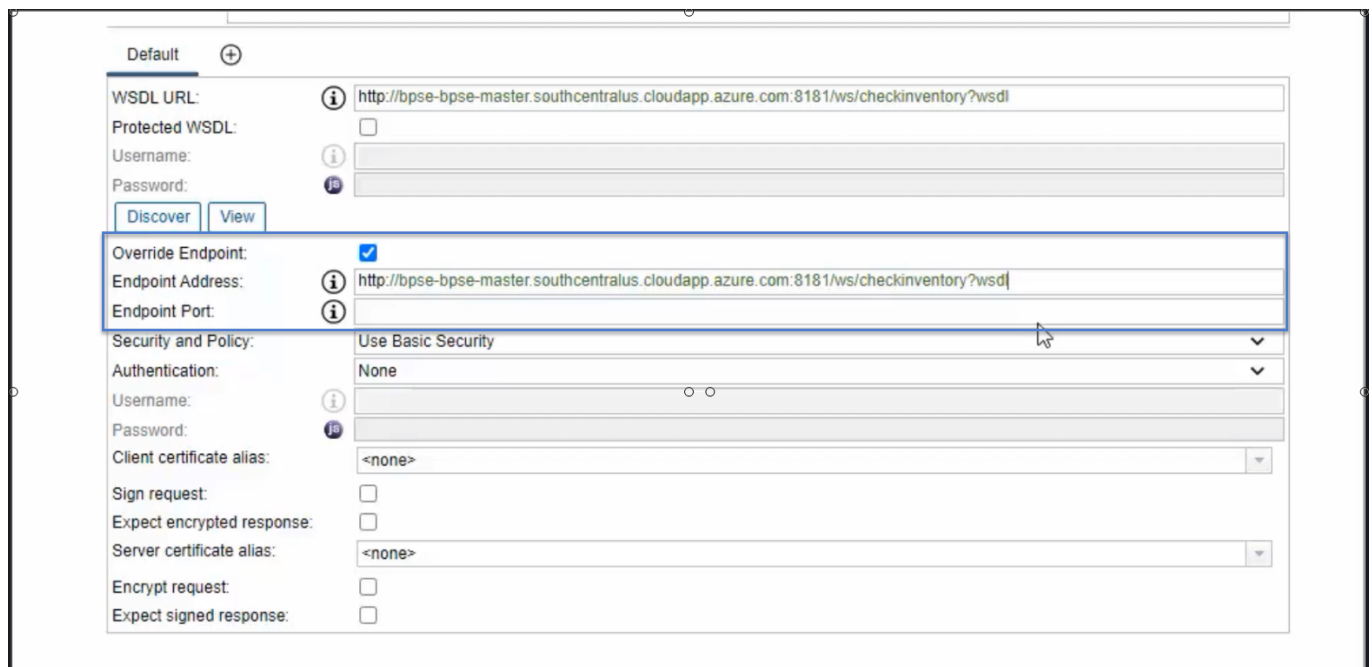

Now, let's update the Server definition to include a fully qualified hostname. Go back to Servers tab, which is on the DESIGNER page for your IBM BPM on Cloud process.
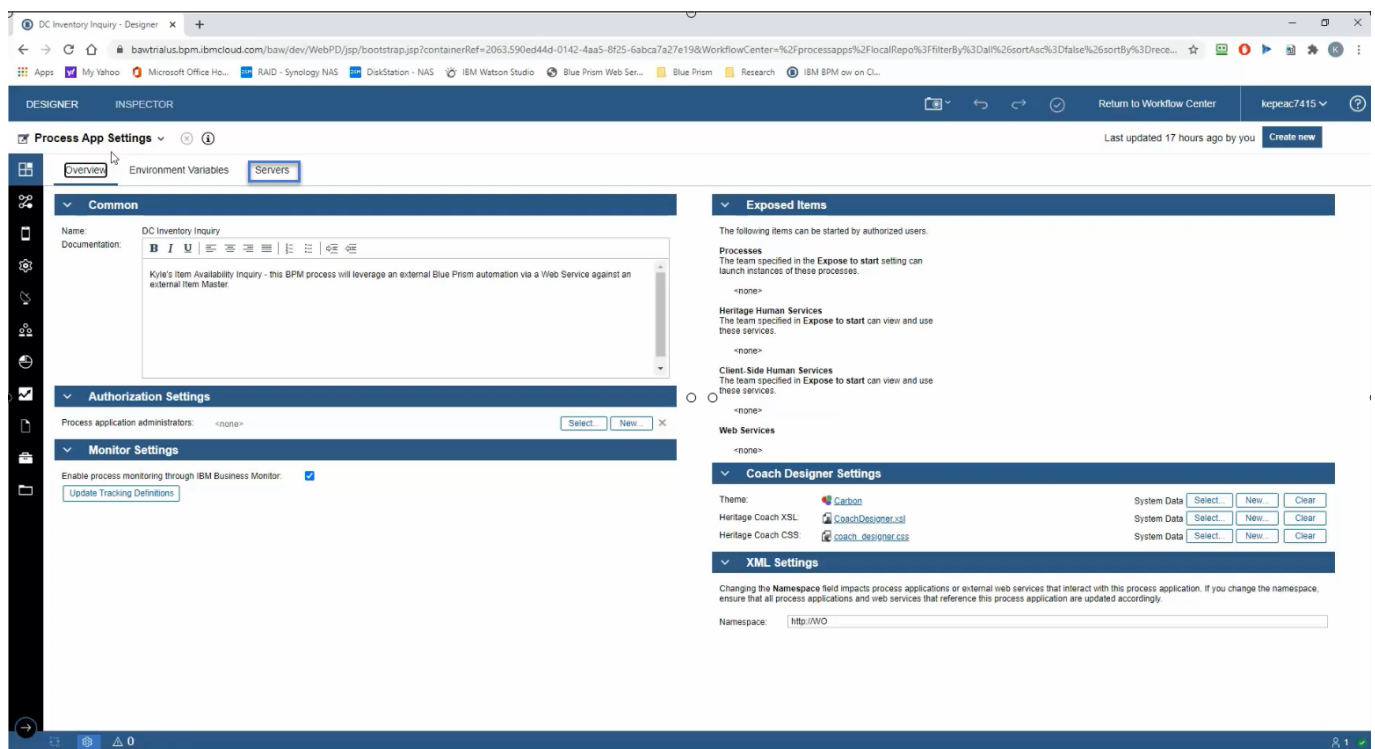
For our **BluePrismServer** Server, we'll see the details for the Web Service call on that server.
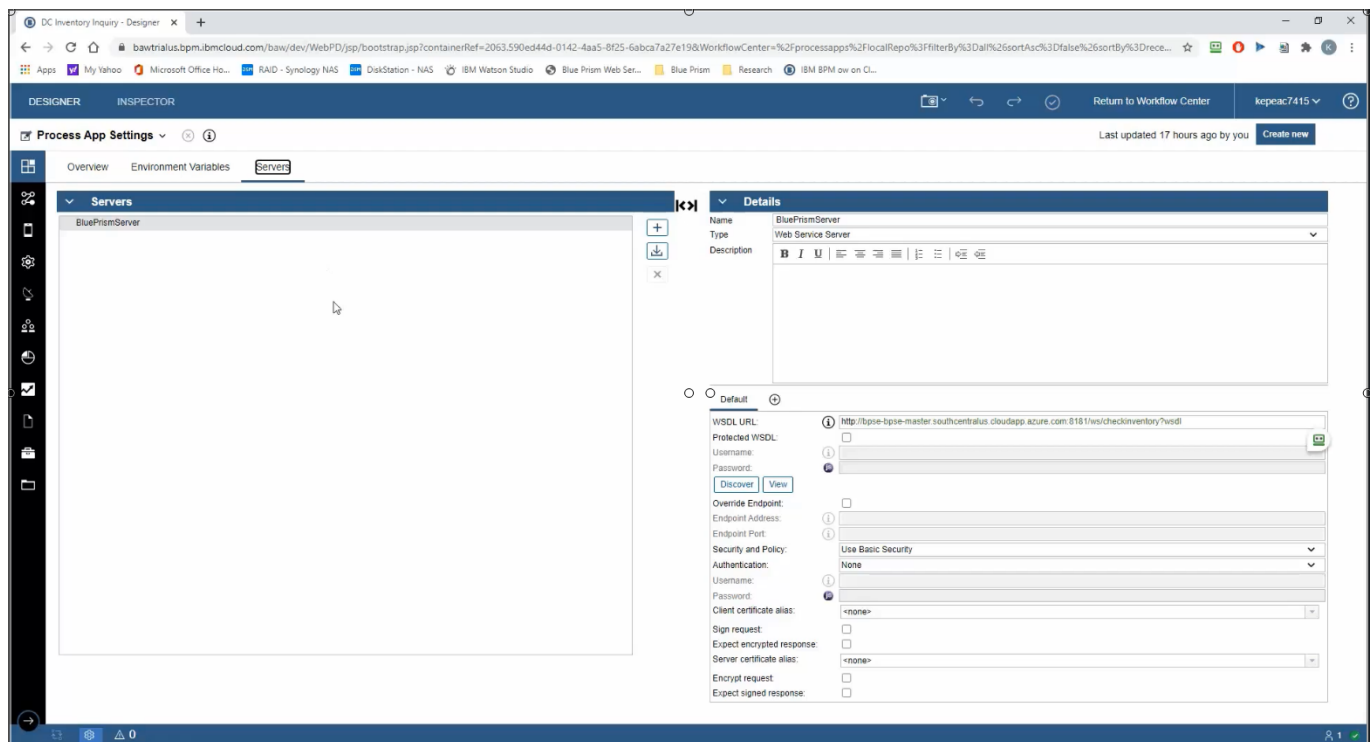
Here, we need to override the local hostname that's part of the Blue Prism Web Service WSDL.

In the **Override Endpoint** section, specify the fully qualified hostname, or the IP address of the Blue Prism Server in the **Endpoint Address**. Make sure to leave the **Endpoint Port** empty. If necessary, also specify any Authentication information required for your Web Service. Save your work by clicking this icon.

Let's finish the configuration by going back to the **Service Flow** definition. Here we'll complete the implementation and define how Blue Prism variables are converted to BPM on Cloud data objects.

In the Service Flow diagram, on the **Service** task, click on **Implementation**, and click **Select**.

Now, select the **External Service** we just created above. IBM BPM on Cloud will use the WSDL to allow you to select the Operation to perform.

Now, let's map our Blue Prism data to BPM on Cloud internal data objects. On the **Data Mapping** tab, click the **Auto-map** icon for the **Input Mapping** and again for the **Output Mapping**.

When complete, it should look like this for the input:

And this for the output:
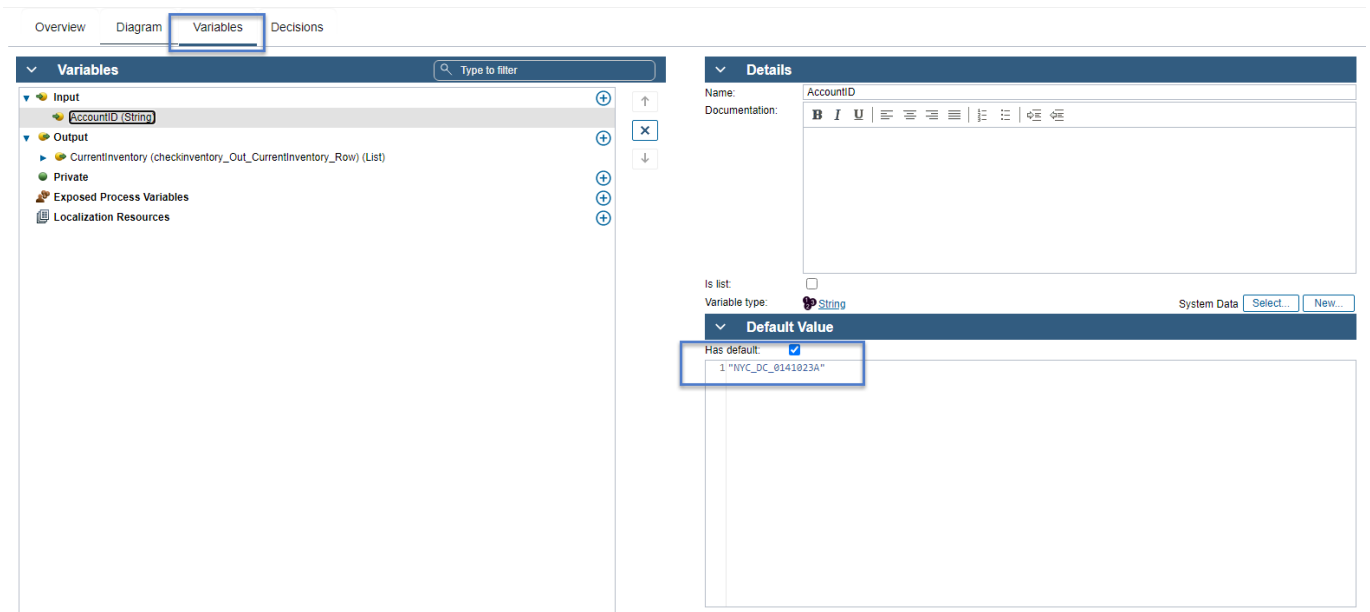
If desired, you can set a default value for the AccountID sent to the Blue Prism Web Service by clicking on the **Variables** tab.
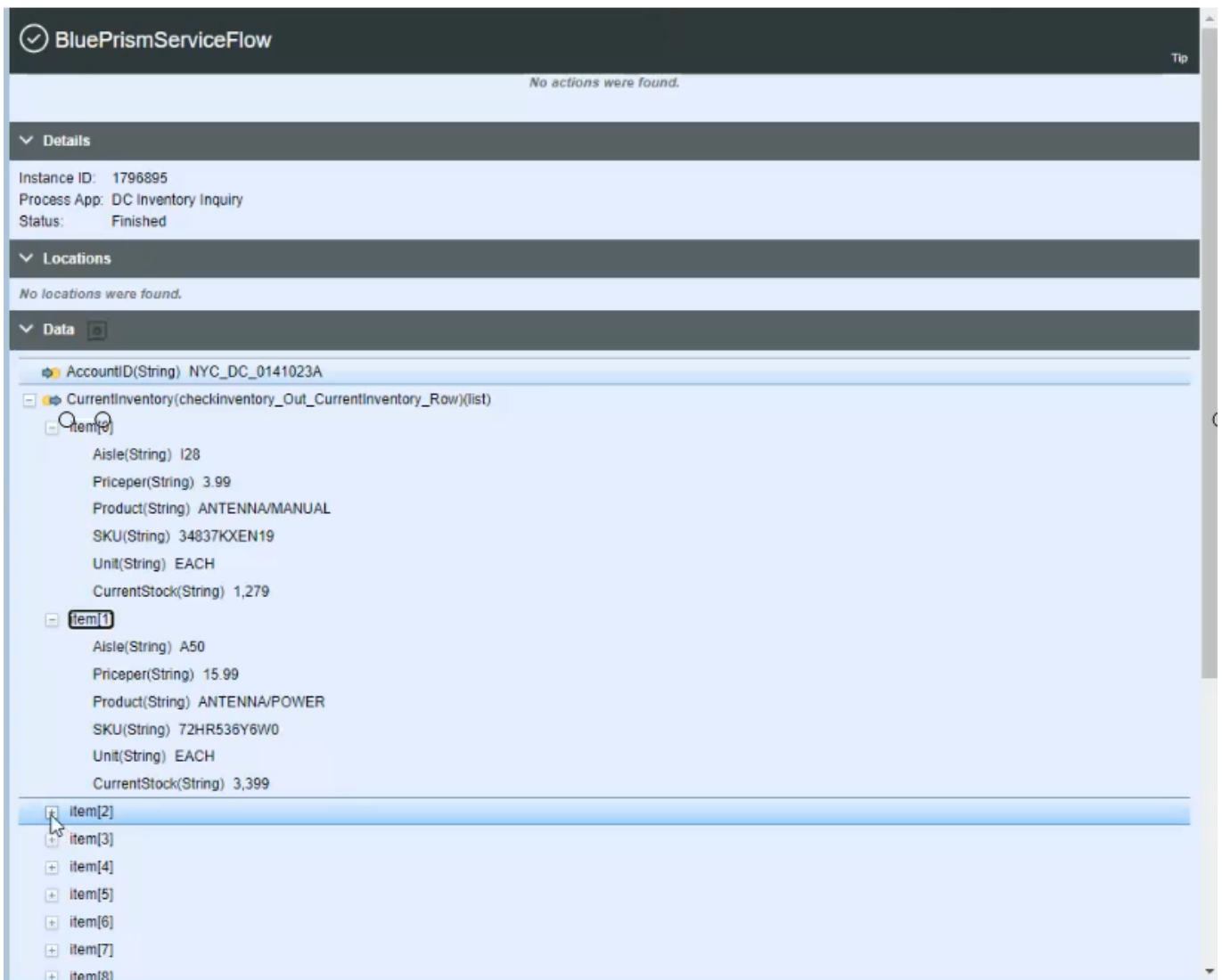

Once again, save all your work by clicking the **Finish Editng** Icon.

Test BPM on Cloud integration to Blue Prism

Now, let's test our Blue Prism Web Service. Click on **Debug**.

Step through the process by clicking on the **Run** Icon.

Once the Blue Prism Web Service runs, click on the **Data** tab.

We have successfully invoked a Blue Prism Web Service inside of IBM Business Automation Workflow on Cloud.

Congratulations!