Citrix Automation

What is Citrix automation in RPA?

Ability of a RPA platform to comprehensively connect with Citrix environment to automate applications running in the secured Citrix environment

Citrix environment limitation and AssistEdge 17.6 approach?

- Due to high security, application controls/elements are not exposed for automation field configuration or recording

- We had to rely on Image or Surface automation

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Brief information on Image or Surface automation

- Image based clicks on the remote Citrix application(Image Control Activity)

- Mark the image where you need to perform the click

- Configure the fields and test run the process

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What is hybrid environment?

Some applications are present and accessible from **local (non-Citrix) environment** and some from **Citrix environment**.
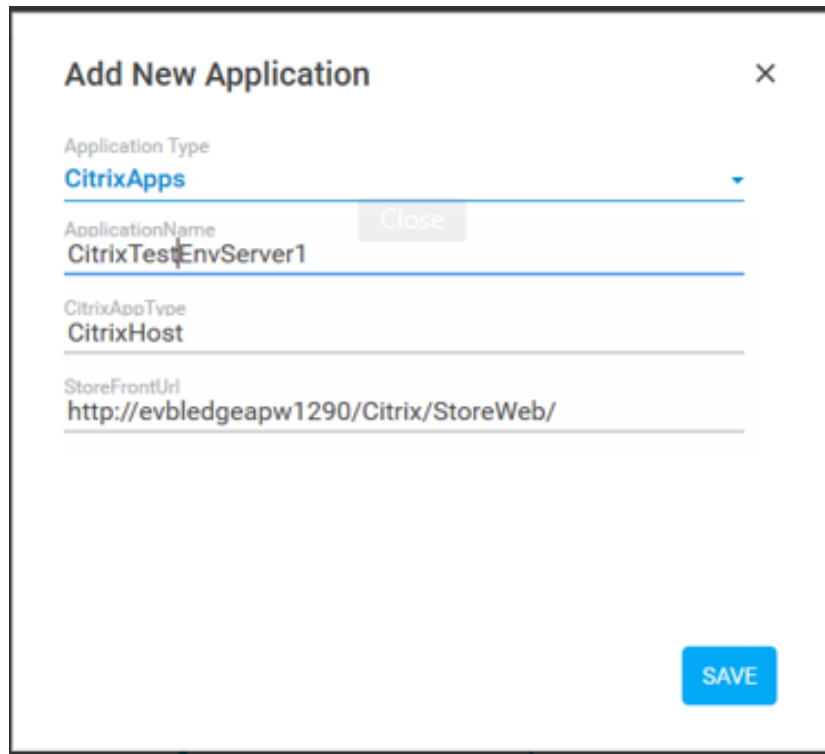
Citrix out-of-box adapter

AssistEdge RPA Studio supports automation of the Citrix based applications in a codeless manner through out-of-box adapter **CitrixApps**.

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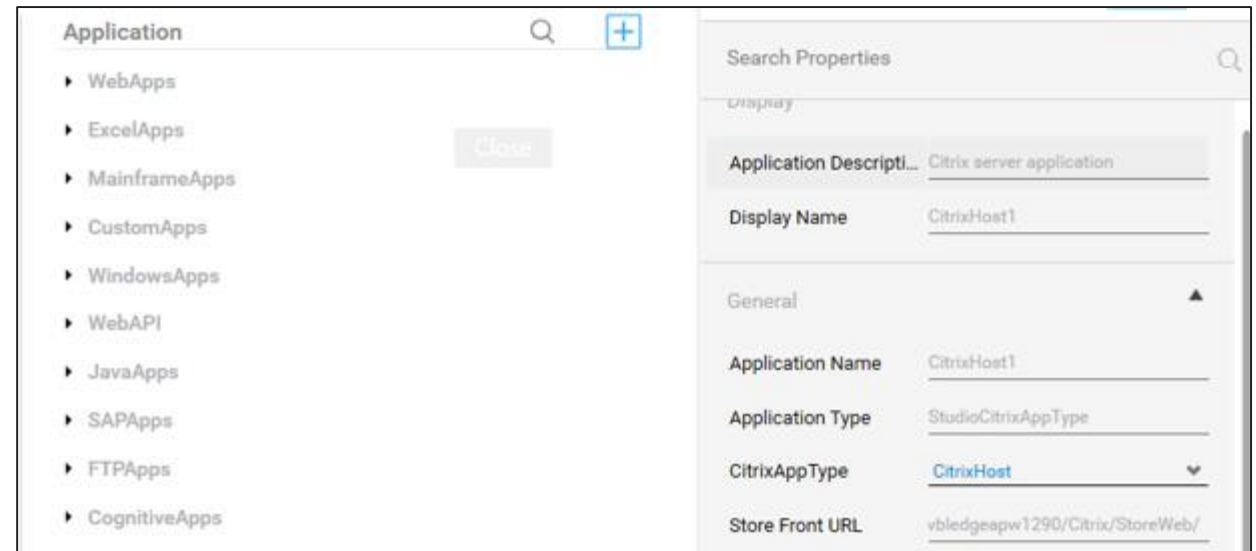# Two types of Citrix Application

CitrixHost

1. Citrix Host: A Citrix server on which the applications are hosted are added as 'CitrixHost' type of Citrix applications
2. CitrixHost can be added either from process canvas or admin module

Note: URL for the Citrix Server application is known in Citrix terminology as 'Store front URL'

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Two types of Citrix Application(cont.)

CitrixApp

1. CitrixApp: Citrix applications which are not hosts, but actual applications within Citrix environment, get added as type *'CitrixApp'*
2. Such applications would typically be added when a process configured in Automation Studio in **Citrix environment** is **imported** in the **local or non Citrix environment** into the Automation Studio
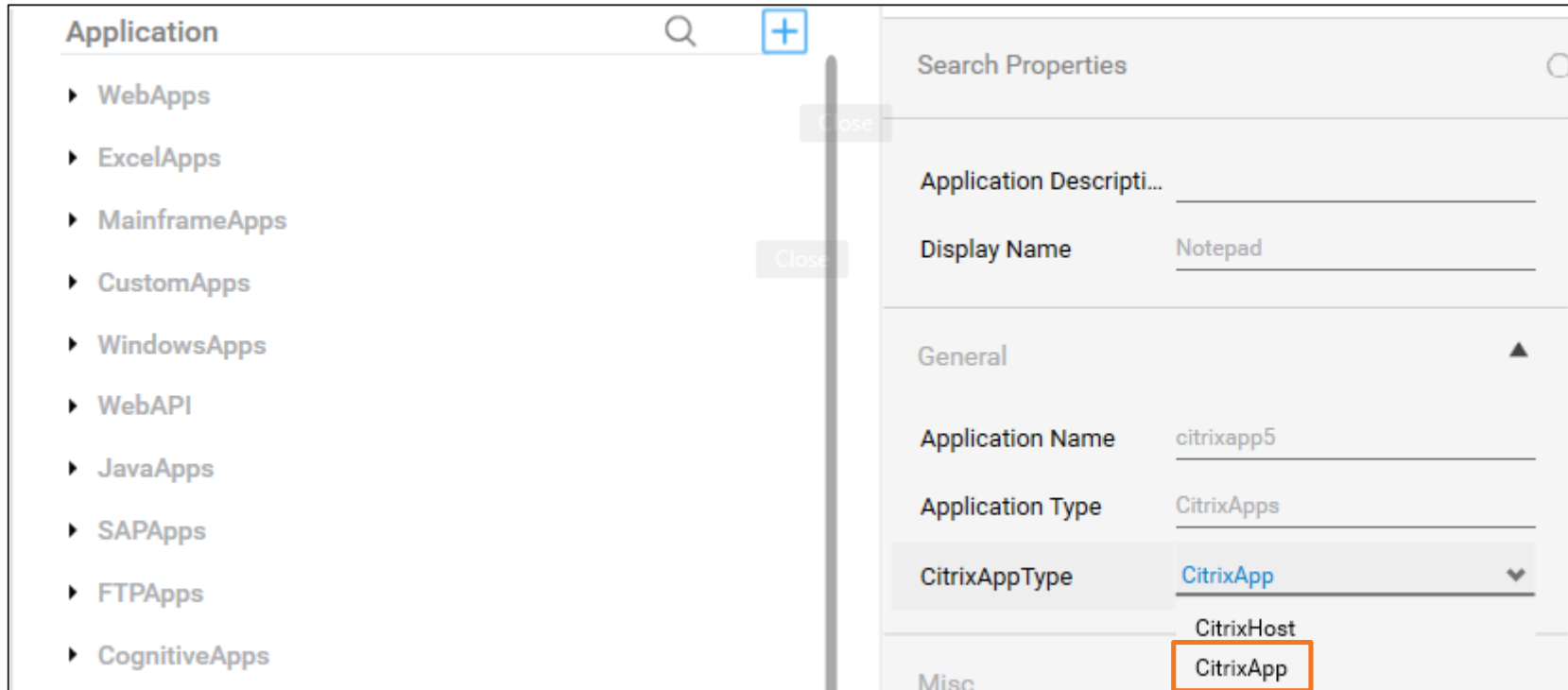
Note: If a Citrix server application is launched using a thick client interface, product provides extensibility to achieve this.

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Automation of Citrix based applications in a hybrid scenario

Automation of Citrix based applications in a process containing a mix of local application as well as Citrix based applications requires the following:

1. Installation of product on **local environment** and Automation Studio up and running

2. Automation Studio and an automation component needs to be deployed on the **Citrix server**

3. Automation of applications in Citrix environment in the Studio present in **Citrix environment**

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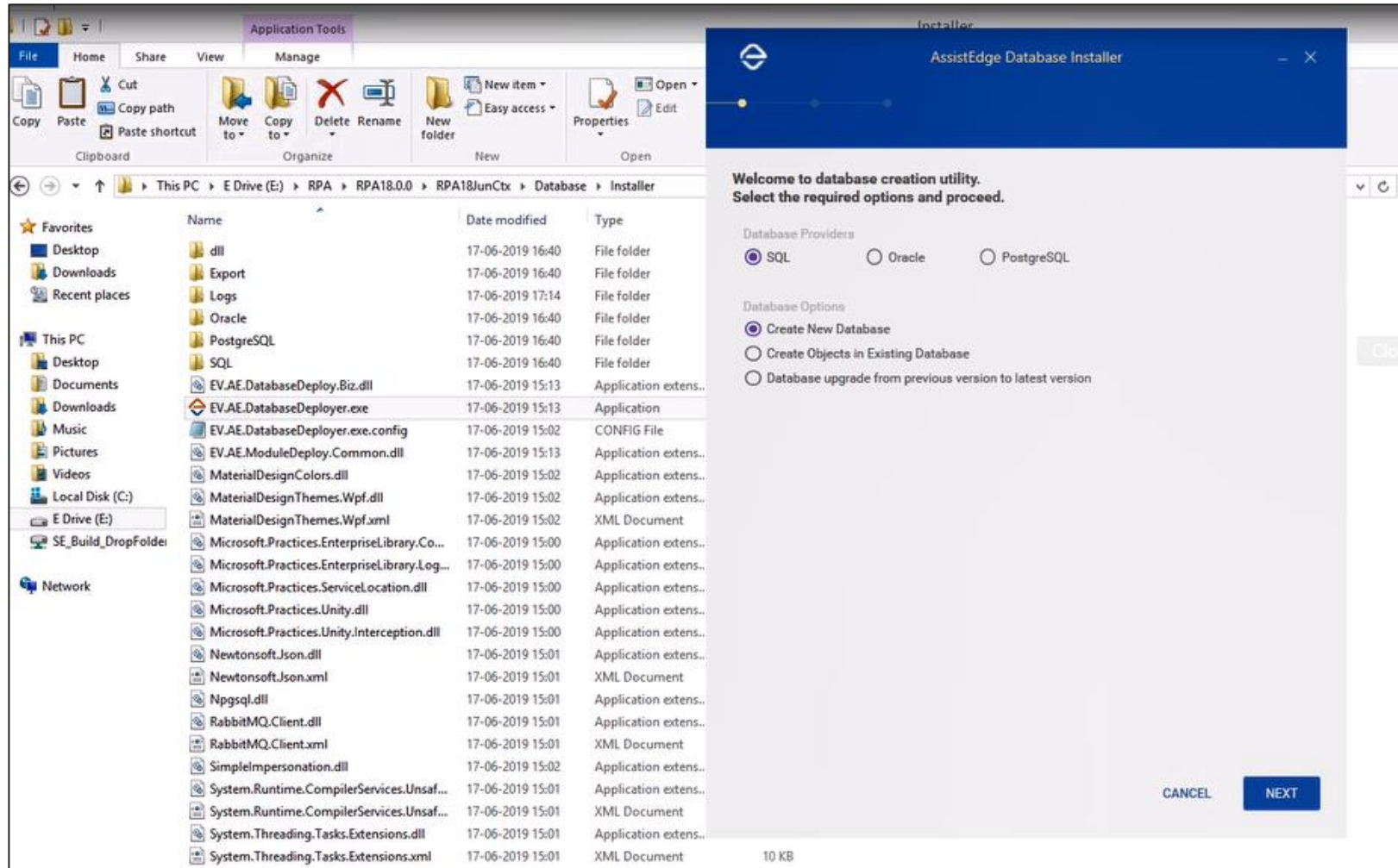
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Automation Studio and an automation component needs to be deployed on the Citrix server

1. Get Citrix package and database package from the AssistEdge build and extract Citrix Package
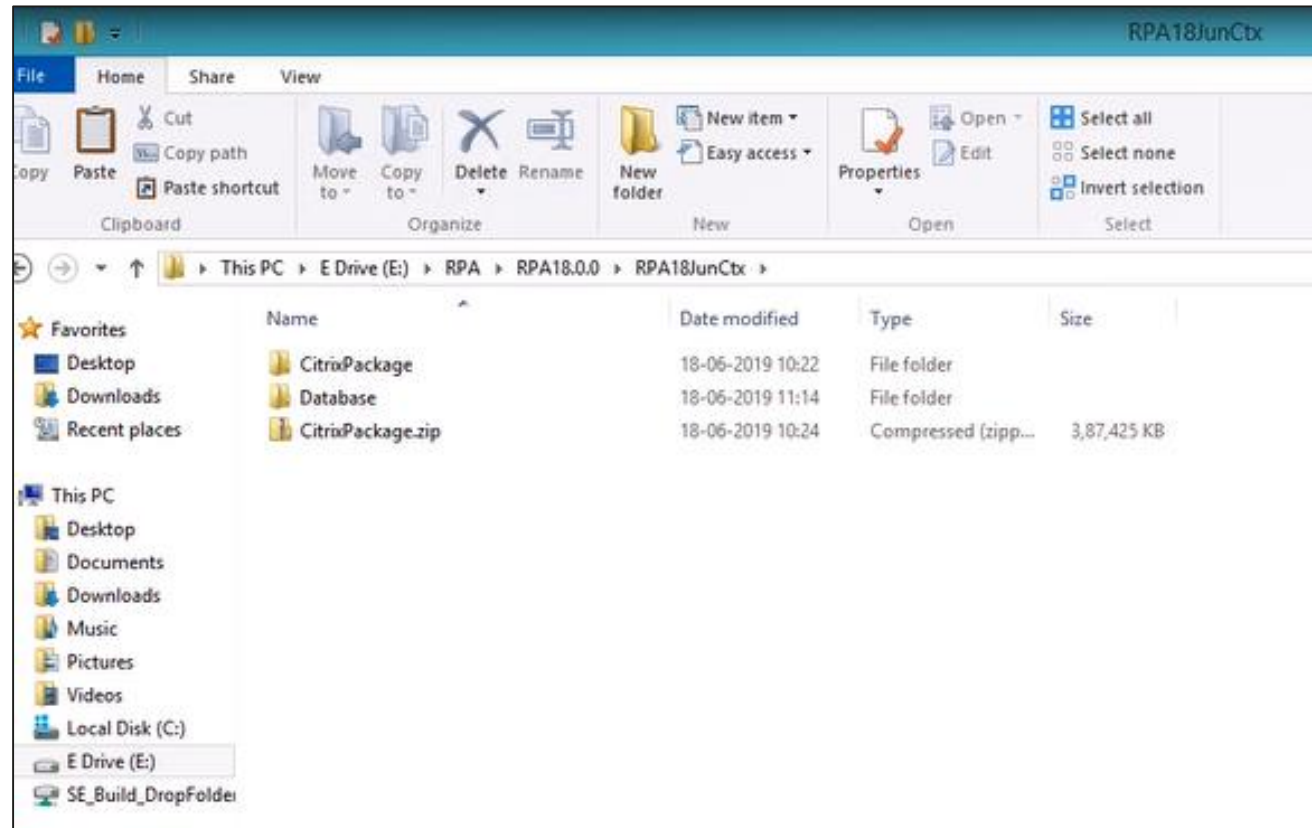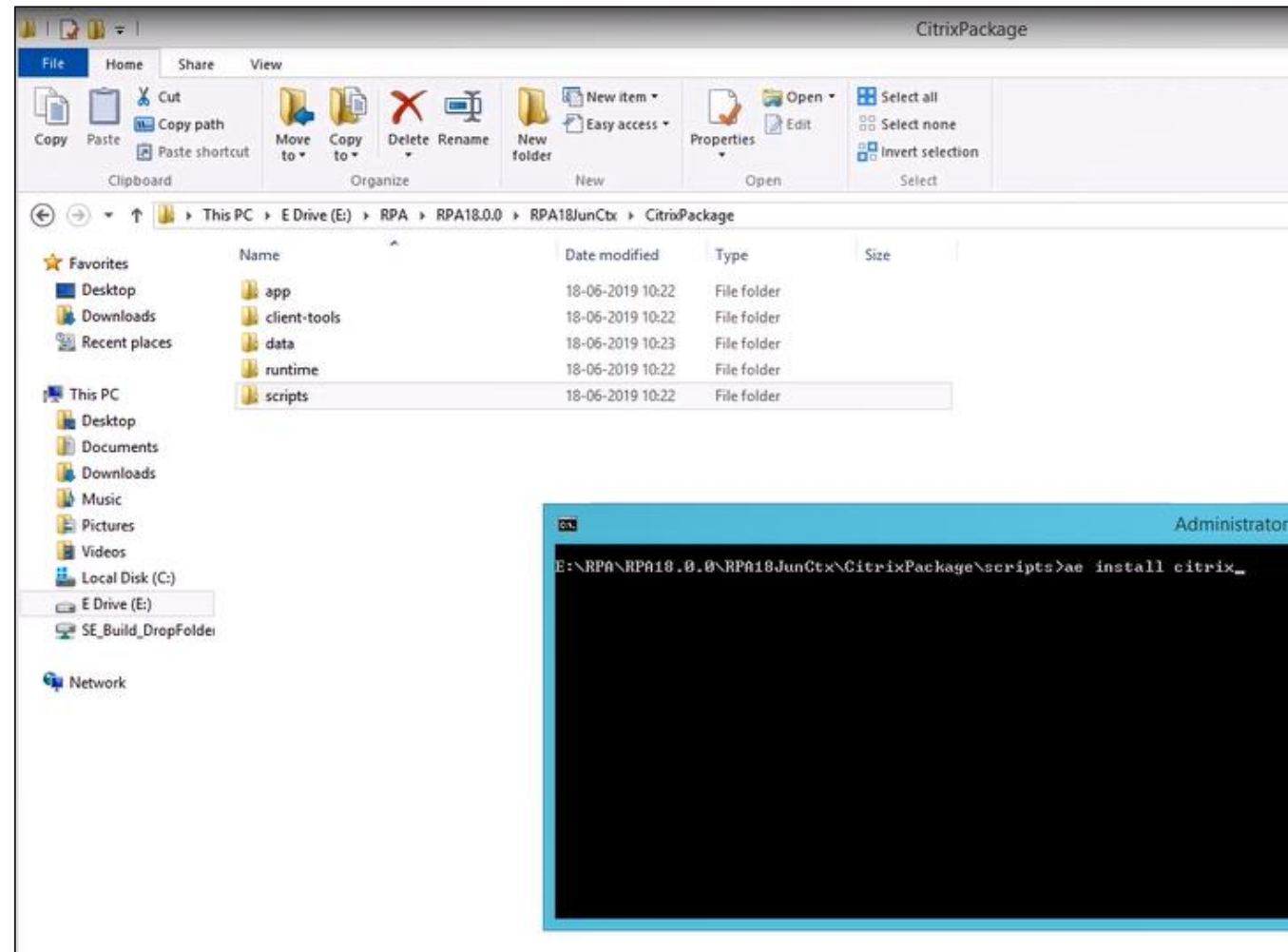

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Automation Studio and an automation component needs to be deployed on the Citrix server(cont.)
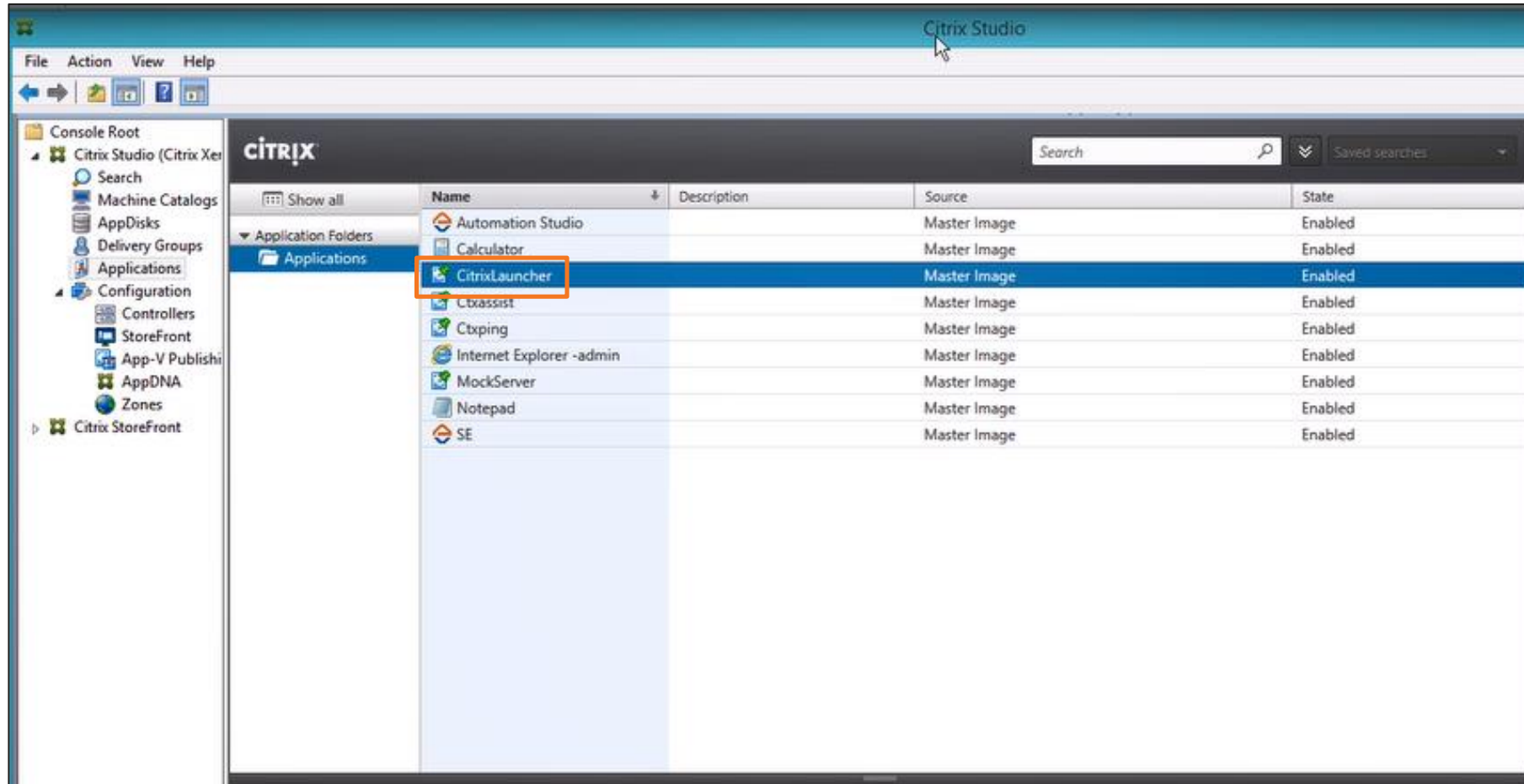
2. Install Database

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Automation Studio and an automation component needs to be deployed on the Citrix server(cont.)

3. Install Citrix Package

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Automation Studio and an automation component needs to be deployed on the Citrix server(cont.)
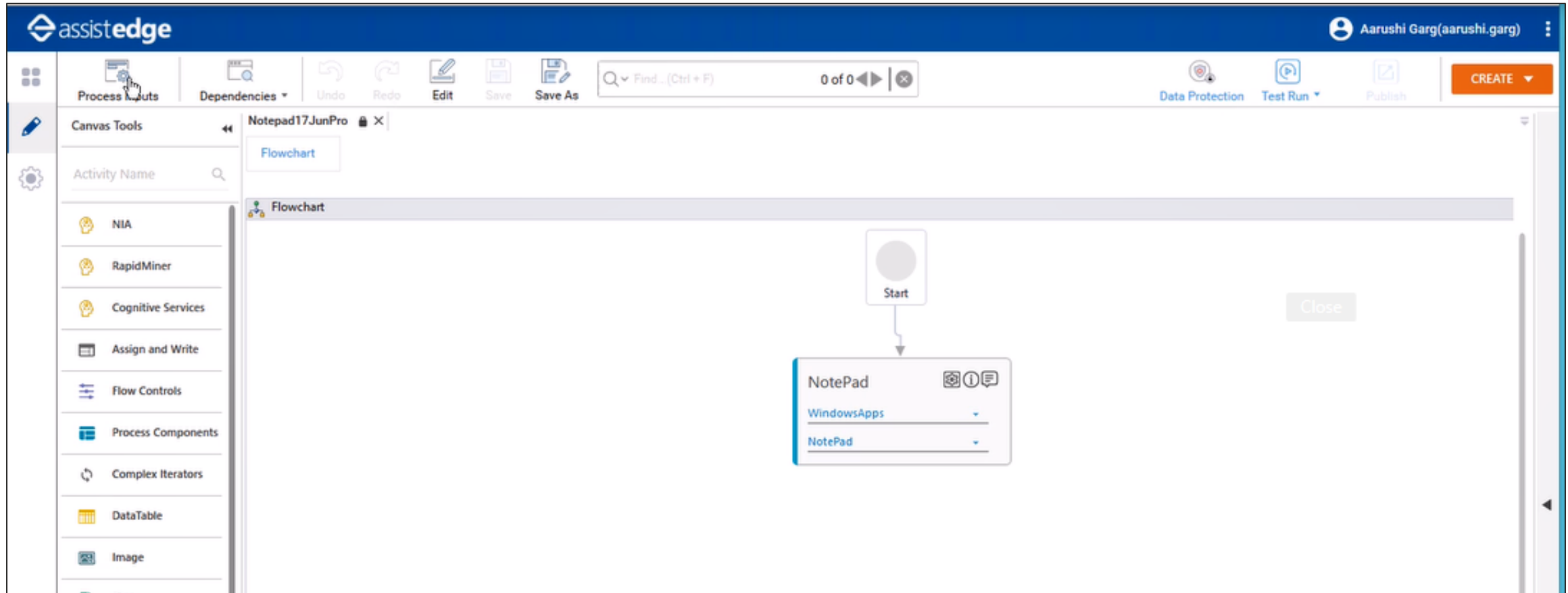
4. Publish Citrix runtime from Citrix studio

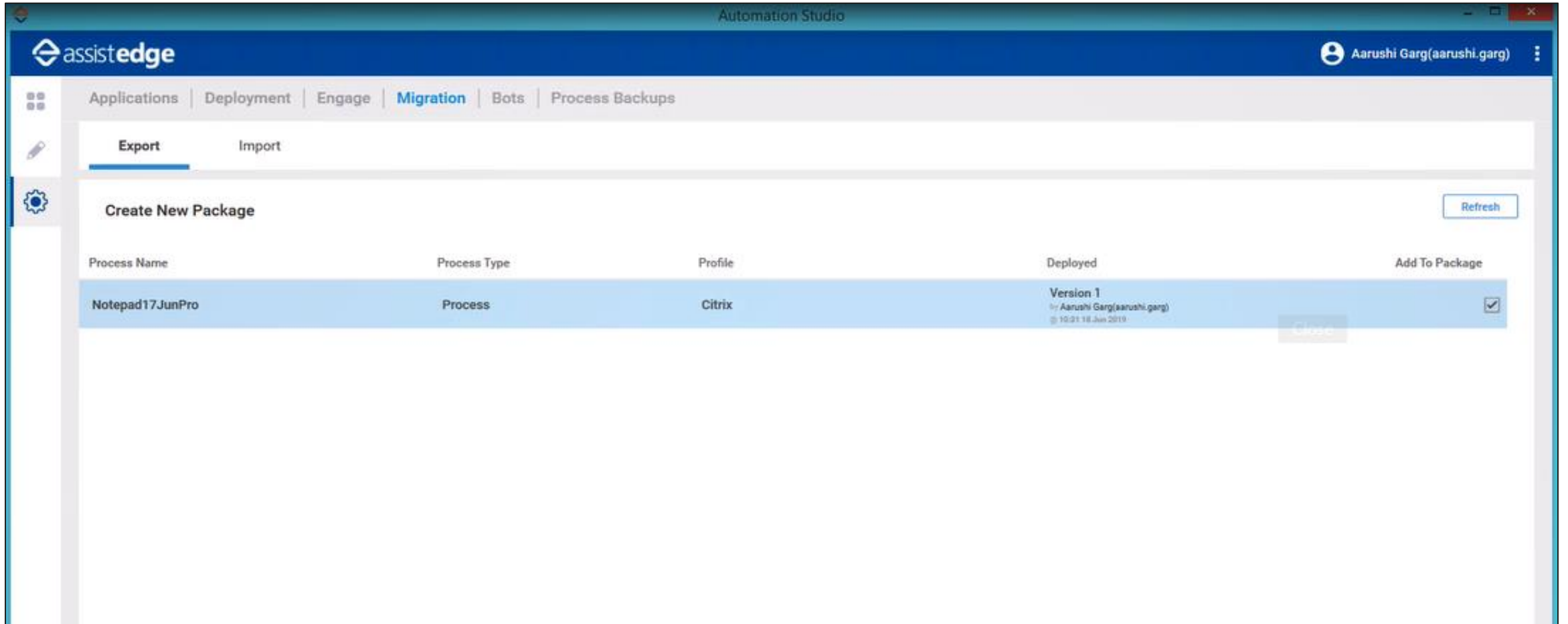***Path of the file: CitrixPackage\client-tools\AssistCtxRuntime***

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Automation of applications in Citrix environment in the Studio present in Citrix environment

5. Open automation studio and create process

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# Automation of applications in Citrix environment in the Studio present in Citrix environment(cont.)

5. Export the created process

Note: The package that is created for this exported process is internally marked as Citrix automation package.

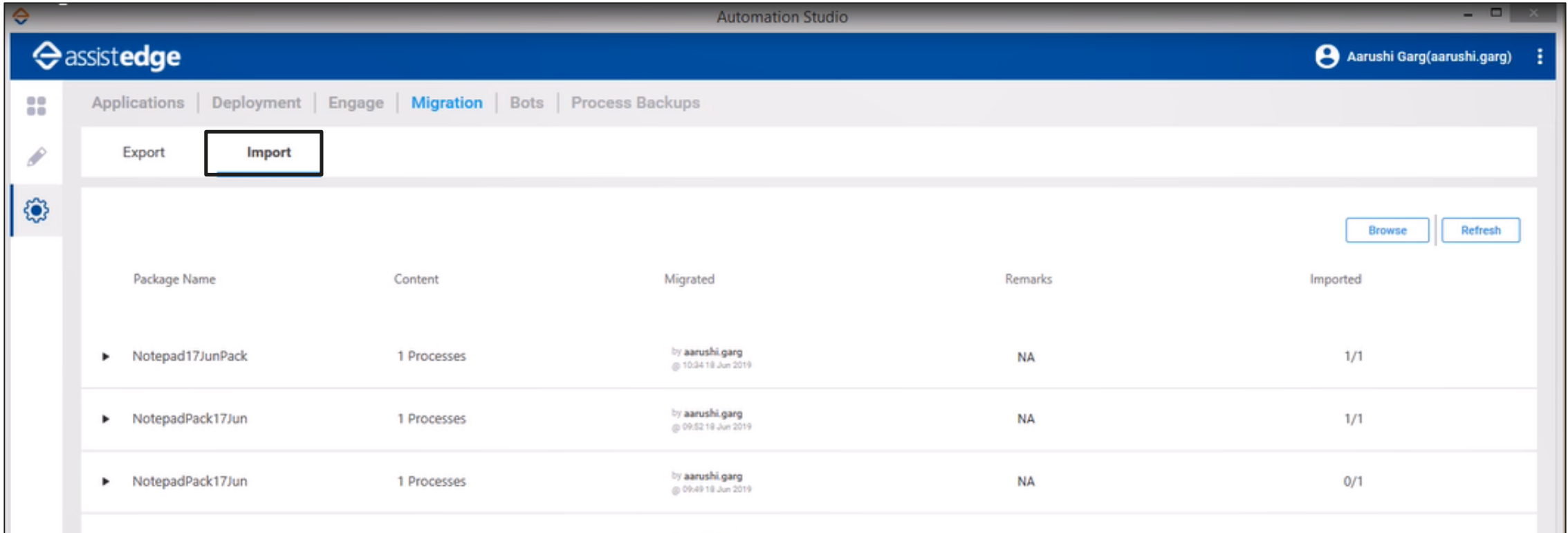©2019 EdgeVerve Systems Limited   Internal

Steps to be followed in the local environment(non-Citrix)

1. Copy the exported process to a file location on the local environment outside Citrix

2. Add a Citrix Application of type 'CitrixHost' under 'CitrixApps'

3. Create a Sign-In Process for the above added CitrixHost application
   - Create a sign-in process for the application
   - Explicitly configuring the user id and password fields is not required, these 2 fields are implicitly configured
   - Test, publish and deploy the sign-in process

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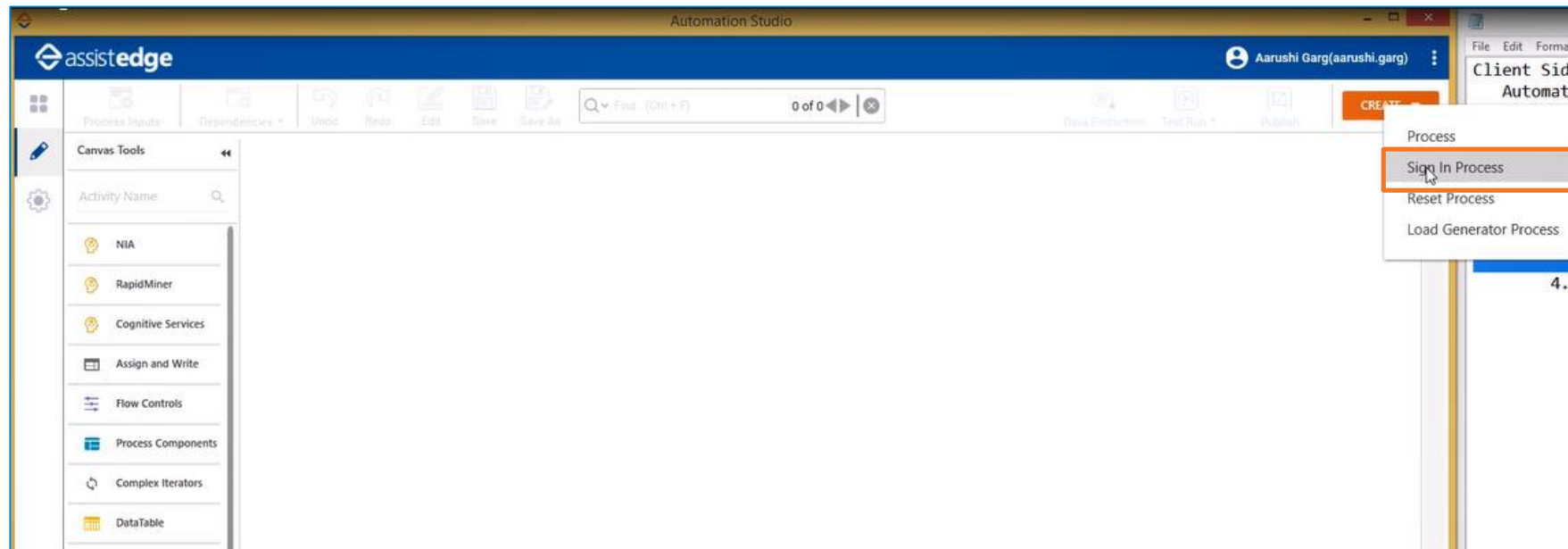
Steps to be followed in the local environment(cont.)

4.   Import the package in the Studio instance outside the Citrix environment

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Steps to be followed in the local environment(cont.)

4. Create a process on the Automation Studio to automate the applications in the local environment

5. To include the Citrix based application in the process flow, reuse the imported process
   - Drag and drop the CitrixHost application
   - Place the Reuse actiity within the Citrix host application container
   - Select the imported Citrix process

6. Save and test the process

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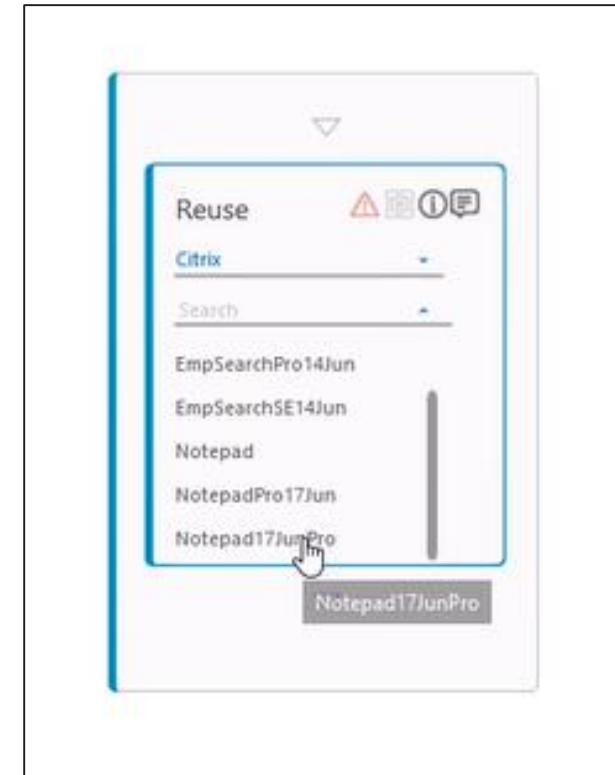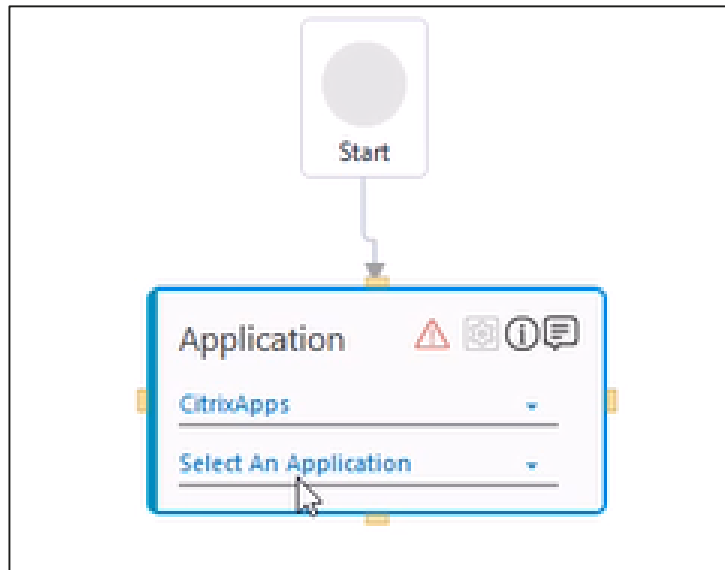
# Steps to be followed in the local environment(cont.)

➢ On setup of environment and testing the process all the applications in the process including Citrix based applications are ***launched, signed in and automation*** is performed on them

➢ Communication between local environment and Citrix based environment happens through the automation component on Citrix over ***virtual channel***

➢ Citrix based applications are ***rendered as images*** and the automation happening on the same can be seen from the local environment

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Mainframe Automation

Steps to add a mainframe application

1. Studio>Application Section>Add application
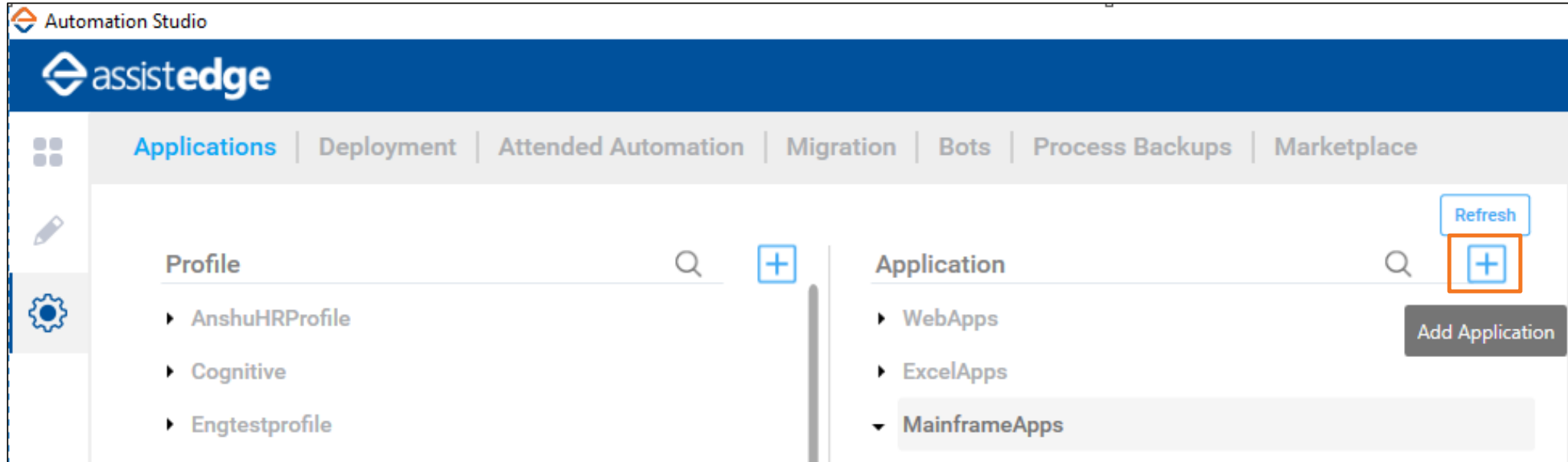
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Mainframe Automation in 18.0

➢ EHLLAPI - Emulator High-level Language Application Program Interface has been added in 18.0

➢ No need to create a plugin for each emulator

➢ EHLLAPI is generic approach to automate IBM mainframe which will be emulator agnostic

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Mainframe automation in 18.0

- To automate the Mainframe application, use the **"Start Field Configuration"** button.

- From the property grid, select one of the below configuration options for a Mainframe application

  - Set text - Set a value to the application

  - Get text - Fetch a value from the application

  - Fire event - Execute an action in the application

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