CTX-UiPath Deployment Plan

Contents

Preface

About this Manual

This document provides a guide on how to import CTX-UiPath subtasks and deploy a Cortex PowerShell Agent for a Robot.

Audience

This document is designed for people interested in using the CTX-UiPath module to execute a UiPath process on a remote machine.

Related Material

Document
CTX-UiPath – User Guide
CTX-UiPath.studiopkg

Abbreviations used in this Document

None

Versions

Document Revisions

The following revisions have been made to this document

Date	Revision	Notes
04/07/2019	1.0	First Release

Module Versions

This version of the CTX-UiPath deployment plan is relevant up to version 1.0 of the CTX-UiPath module.

1 Requirements

This document details all the steps required to deploy the UiPath Subtasks.

Requirements:

- A minimum of UiPath Studio Enterprise edition 19.4.3 installed on the UiPath Server.

- A minimum of Cortex v6.5 installed on the Cortex Server.

- A minimum of PowerShell v5 installed on the Cortex Server.

- Windows Task Scheduler for a minimum of Windows Server 2008 installed on the UiPath Server.

- Connectivity between the Cortex Server and the UiPath Server.

2   Import CTX-UiPath

To deploy the CTX-UiPath module on the Cortex Application Server, the CTX-UiPath Studio Package needs to be imported on your Cortex system. To do this:

- Download the CTX-UiPath Studio Package

- Import the Studio Package in the Cortex Gateway hosted on the Cortex Application Server

- Ensure the relevant users have the required permissions in 'Studio Authorisation'

After this, all users in the authorised groups will be able to view and execute the subtasks.

3   Initial Cortex PowerShell Agent Deployment

The installation of the PowerShell Agent will have to be carried out on each of the servers that are needing to execute a UiPAth process and be orchestrated by Cortex.

> ⌦ If only one process is to be executed at a time on a given UiPath server, then only the steps in Section 3 are required.

3.1 Prerequisite Steps

3.1.1 User

A user for the Cortex PowerShell Agent service to run as must be set up. This user's credentials must be known, and it must have "Log on as a service" rights. To assign it these rights perform the following steps:

1.   Navigate to **Start** -> **Administrative Tools** -> **Local Security Policy**.
2.   In the **Local Security Policy** dialog, expand the **Local Policies** node then select **User Rights Assignment**.
3.   In the right-hand panel, double-click on the **Log on as a service policy**.
4.   In the **Properties** dialog, click on the **Add User or Group** button.

> ⌦ For step 5 it is possible to use the **Advanced…** button to look up names rather than entering them manually. Various filters can be set to find the correct user more easily. Multiple users can be selected by holding down <CTRL> while clicking. **OK** adds the selected users or groups into the **Enter the object names to select** text box.

5.   Type the name of the user into the **Enter the object names to select** text box separated by a semi-colon. Click the **Check Names** button to confirm that the users exist.
6.   Click **OK** on the **Select Users** dialog, and then confirm the user is correct by clicking **OK** on the **Properties** dialog.

3.1.2 Ports

The Cort'ex PowerShell Agent requires two ports for connection to the Cortex Application Server. By default, it will be installed for connectivity over ports 22100 and 22101, these should be left unchanged.

> ⌦ These ports must have inbound connections allowed though any firewalls on the UiPath server.

3.2 Installation

To install the Cortex PowerShell Agent, follow the below process:

1.   Run **Cortex PowerShell Agent.msi**, click **Next**.
2.   Tick the **I accept the terms in the License Agreement** checkbox. Click **Next**.
3.   Normally, the Cortex PowerShell Agent Service should be installed to the default installation path; however, if required, change the path of installation to point to the required installation folder. Click **Next**.
4.   The Cortex PowerShell Agent Service should be run as a LocalSystem; ensure the **Run service as LocalSystem** radio button is selected. Click **Next**.
5.   Leave "Require user credentials to be specified in "Execute PowerShell Script" blocks" ticked to require all PowerShell scripts to execute as a user specified on "Execute PowerShell Script" blocks. This is recommended. Click **Next**.

6. Leave the Ports with their default values. Click **Test Port,** then once that is successful click **Next.**

7. The versions of PowerShell that are installed will be displayed. Click **Next**.

8. Click **Install** to begin the installation.

9. Once the installer confirms that it has completed installing the Cortex PowerShell Agent Service, click **Finish**.

3.3 User Assignment

To assign the user set discussed in Section 3.1.1 to the Cortex PowerShell Agent, perform the following steps

1. Navigate to Start and search for 'Services'. Press **enter**.

2. Locate the **Cortex PowerShell Agent Service**. Right click it and select **Properties**.

3. Navigate to the **Log on** tab.

4. Select **This Account** and enter the credentials for the robot's user. Select **Ok.**

5. Stop the service, wait five seconds, then start it.

The UiPath machine will now be ready to have processes executed one by one by Cortex.

4 Further Cortex PowerShell Agent Deployments

If more than one user of a UiPath machine wish to execute processes independently, a further Cortex PowerShell Agent must be deployed for each of them. Once this is done, each user may execute processes in the background or in their own remote desktop sessions as required, without these executions interfering with one another.

> The steps in Section 4 are to be followed given that those in Section 3 have been completed.

4.1 Prerequisite Steps

4.1.1 Users

Each user's account on the UiPath machine must have "Log on as a service" rights, as in Section 3.1.1.

4.1.2 Ports

Each Cortex PowerShell Agent requires two ports for connection to the Cortex Application Server. As stated in Section 3.1.2, the initial Cortex PowerShell Agent will be installed with connectivity over ports 22100 and 22101, so it is advised to choose two consecutive port numbers between 22102 and 65535 inclusive for further PowerShell agents.

> The chosen ports must have inbound connections allowed though any firewalls on the UiPath server.

4.2 Automated Installation

To deploy using the Cortex PowerShell Agent for a given user using the automated process, perform the following steps:

1. Ensure that the initial Cortex PowerShell Agent has been installed on the UiPath machine as in Section 3.
2. On the Cortex Application Server, call the provided subtask **DRCP-Deploy-Robot-Cortex-PSAgent** with input parameters as described in Section 5.1 in the CTX-UiPath - User Guide.
3. Once this has executed successfully, navigate to S**tart** and search for 'Services'. Press **enter**.
4. Ensure that is a new service running, named **Cortex PowerShell Agent Service for <USERNAME>**, where **<USERNAME >** is the user passed when calling the subtask

The UiPath machine will now be ready to have processes executed independently by Cortex.

4.3 Manual Installation

To deploy without using the provided subtask, perform the following steps:

4.3.1 Create Agent install directory

1. Ensure that the initial Cortex PowerShell Agent has been installed on the UiPath machine as in Section 3.
2. Navigate to the directory where the Cortex PowerShell Agent was installed to in Section 3.2, by default this is 'C:\Program Files (x86)\Cortex'
3. Copy and paste the directory named 'Cortex PowerShell Agent Service'.
4. Rename it to 'Cortex PowerShell Agent Service for <USERNAME>'.

5. Open this new directory.
6. Open **Innovise.Cortex.Server.Api.PowerShell.Agent.exe.config**
7. Find and replace '22100' to the first port that the PowerShell Agent for this user will use.
8. Find and replace '22101' to the second port that the PowerShell Agent for this user will use.
9. Save and exit.

4.3.2 Set up Service and assign it a user

1. Open CMD as administrator.
2. Run the following command, with <USERNAME> substituted for the name of the user and <INSTALL DIRECTORY> for the directory navigated to in Section 3.3.2 step 1.

```
sc create
Innovise.Cortex.Server.Api.PowerShell.Agent.<USERNAME>.PowerShellAgentSer
vice displayname="Cortex PowerShell Agent Service" binpath="<INSTALL
DIRECTORY>\Cortex\Cortex PowerShell Agent Service for
<USERNAME>\Innovise.Cortex.Server.Api.PowerShell.Agent.exe"
```

3. Once this has executed successfully, navigate to Start and search for 'Services'. Press **enter**.
4. Locate the **Cortex PowerShell Agent Service for <USERNAME>**. Right click it and select **Properties**.
5. Navigate to the **Log on** tab.
6. Select **This Account** and enter the credentials for the robot's user. Select **Ok.**
7. Stop the service, wait five seconds, then start it.

The UiPath machine will now be ready to have processes executed independently by Cortex.