Microsoft

Robotic Process Automation in a Day

Lab 10 – Run the scenario in unattended mode

90 mins

December 2020

Lab Overview

You will complete the following tasks in this lab:

- **Exercise 1 – Basic Desktop flow in Unattended mode**
  - Configure a data gateway for a new virtual machine
  - Create a new Cloud flow that calls an existing Desktop flow from Lab 4 in unattended mode
  - Perform a test run of this simple unattended Desktop Flow scenario
- **Exercise 2 – Desktop flow + Cloud flow scenario in Unattended mode**
  - Streamline the invoice processing solution to simplify the test scenario
  - Perform a test run of the updated invoice processing solution in unattended mode
- **Exercise 3 – Unattended gateway cluster scenario**
  - Configure a data gateway for a second virtual machine
  - Add the second VM's gateway to a gateway cluster with the first VM's gateway
  - Perform multiple test runs of the updated invoice processing solution in unattended mode, distributing the test runs across the gateway cluster

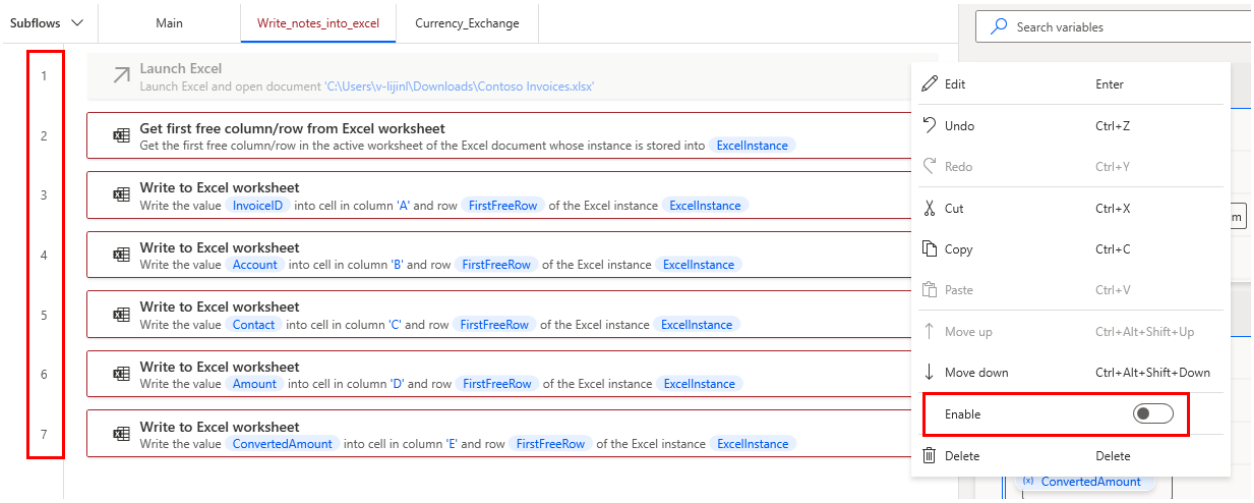
Prerequisites

You will need to have a paid unattended RPA license to do the following exercises. There is no unattended trial licensing. If you do not have a paid unattended license, please just read through this doc as learning materials, without doing the labs.

This lab builds on the initial setup lab (lab 1) and labs 3-9 – ensure these labs are complete.

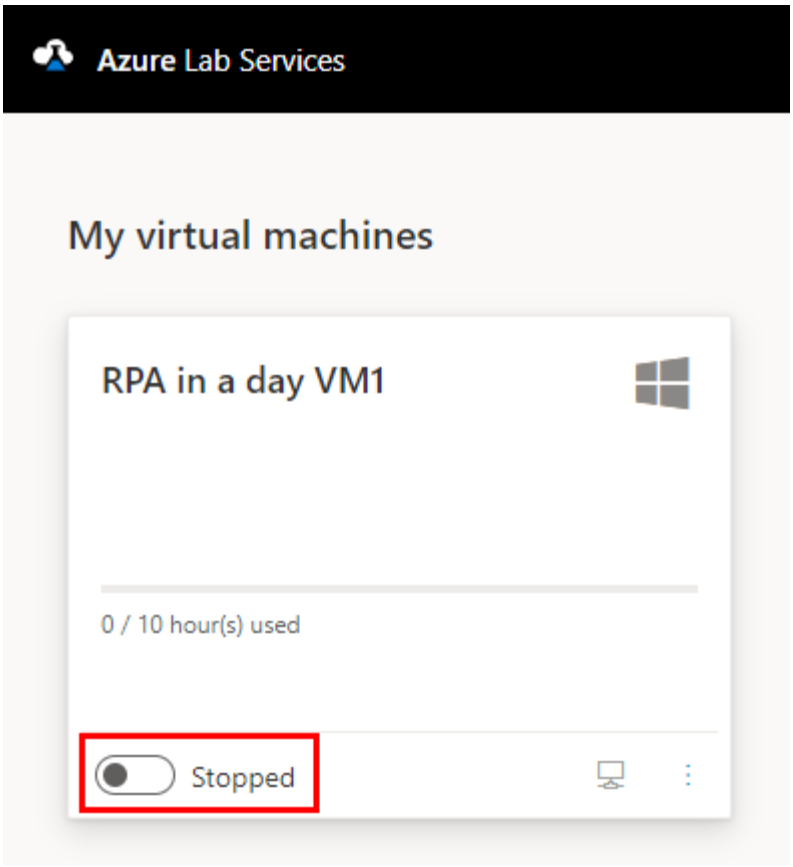
Exercise 1: Basic Desktop Flow in Unattended mode

1. If your remote VM has no Excel installed, you should disable the following steps from your desktop flow before you run them on the remote VM.

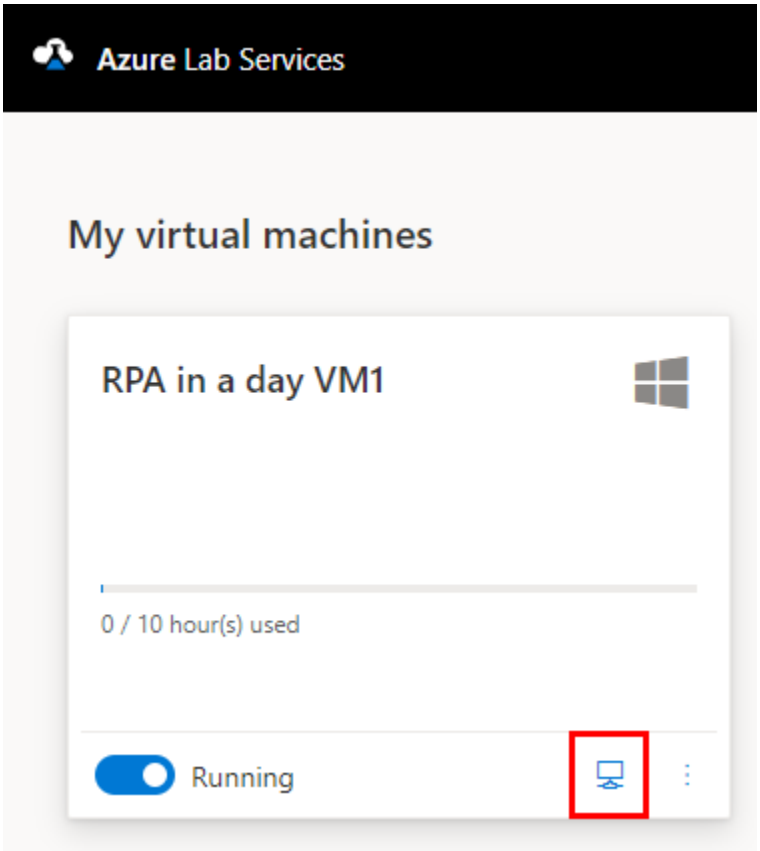


2. Open the test profile in a browser and navigate to: https://aka.ms/rpa/vm1 [should be provided by the trainer]
3. **Start** your VM.

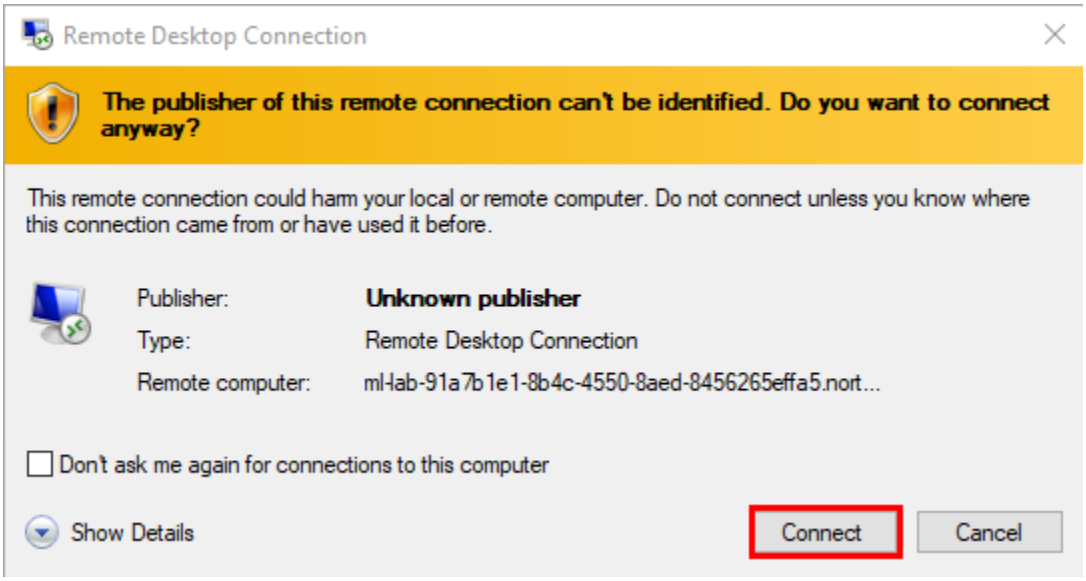
Note: It will take a couple minutes to get started.


Azure Lab Services
My virtual machines
RPA in a day VM1
0 / 10 hour(s) used
Stopped

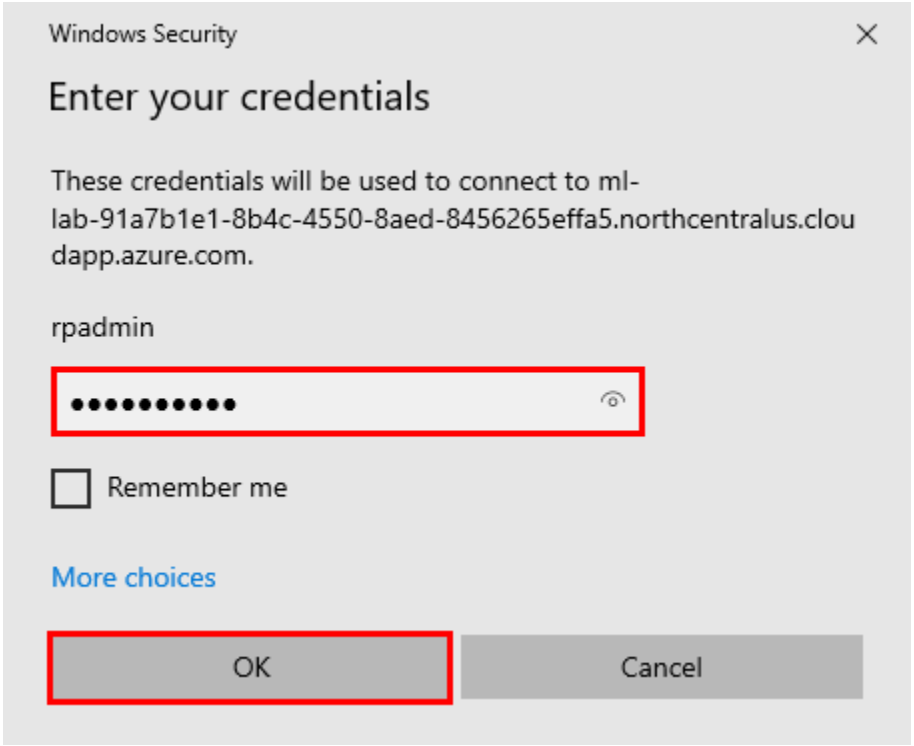
4. Once it's running, click on the **connect to the virtual machine** icon.



5. This will download the "RPA in a day VM1.rdp" [should be provided by the trainer] file, double click on it to get connected.

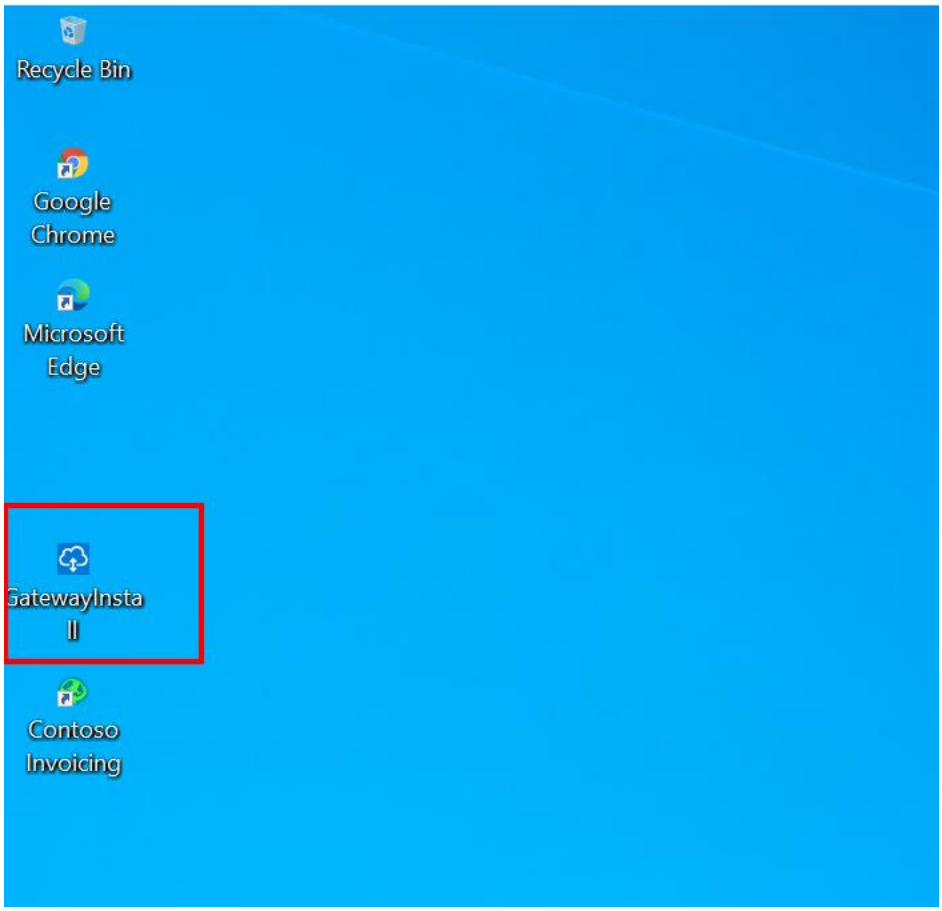


6. Use the following credentials to log in to the VM:
   - **Username**: rpadmin [should be provided by the trainer]
   - **Password**: Uiflowrpa! [should be provided by the trainer]

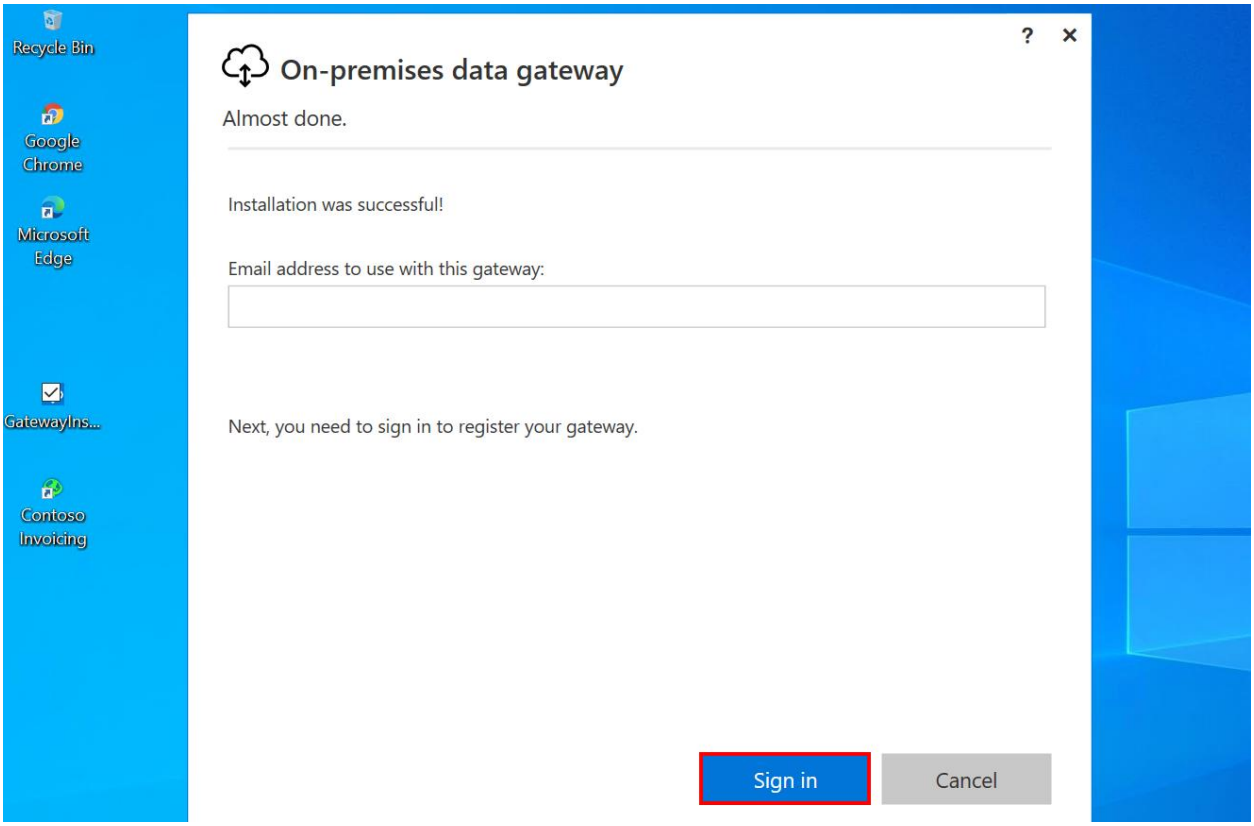


7. If there is no Desktop flows pre-installed on the VM, or it has old version of Desktop flow, you need to upgrade the Desktop flows version.
https://docs.microsoft.com/en-us/power-automate/ui-flows/upgrade

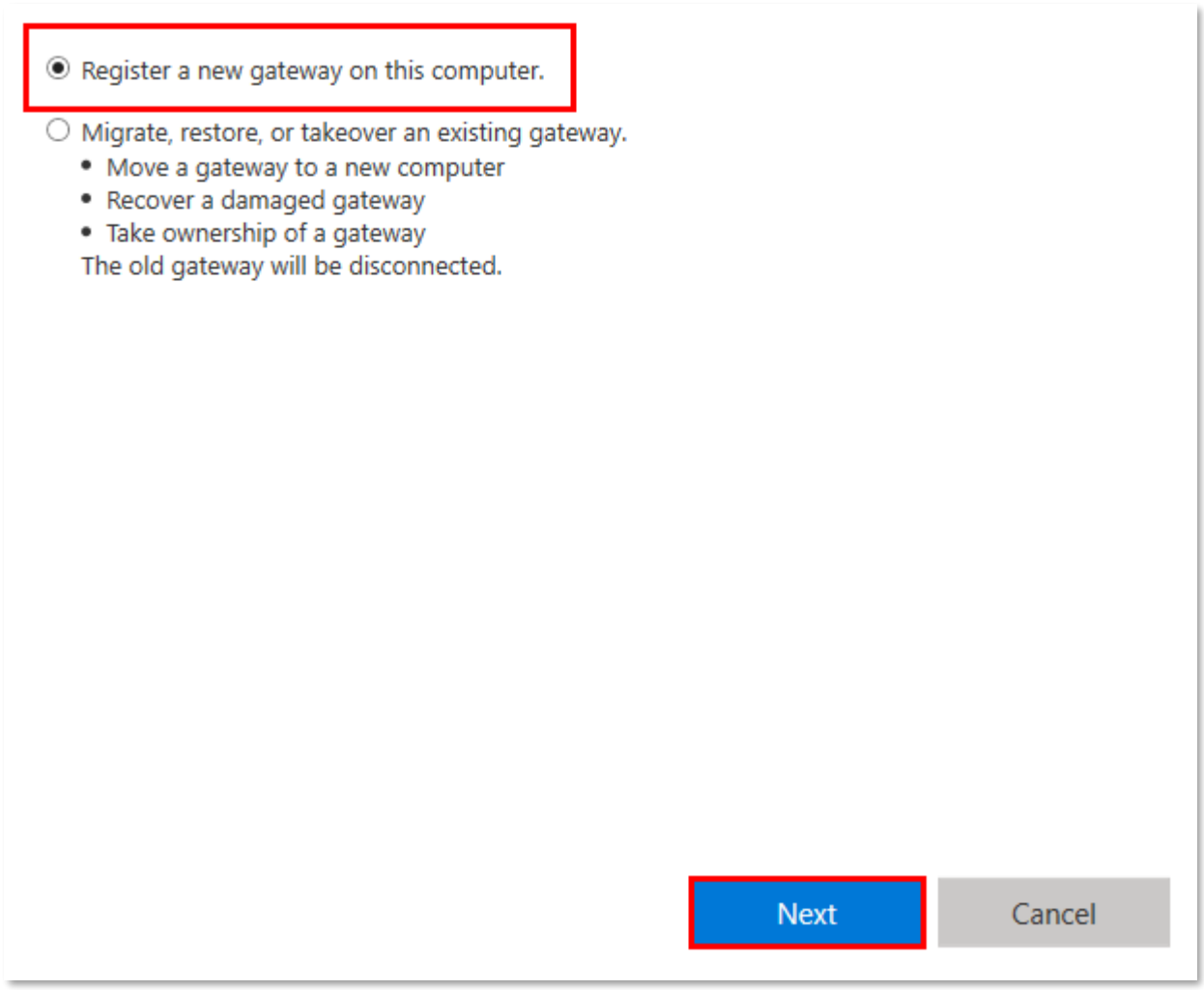
8. If it is not yet installed, or it has an old version, install/upgrade to the latest Gateway on the VM. (note, the Gateway region must be the same as your environment region)
https://docs.microsoft.com/en-us/power-automate/ui-flows/setup#install-the-on-premises-data-gateway



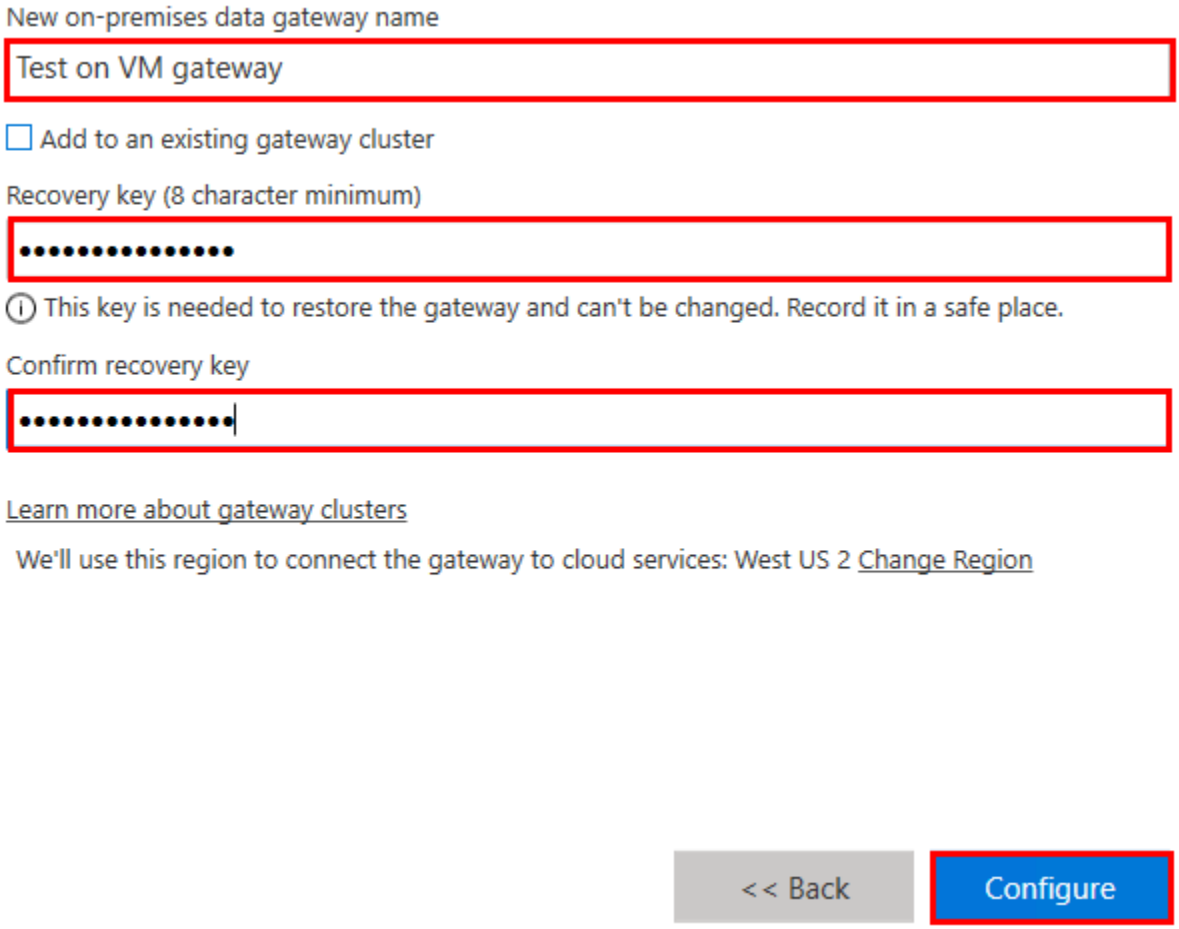
9. After installing the Gateway, sign into the gateway using the same account that you created in lab 1 (the one you use to sign in Power Automate portal)



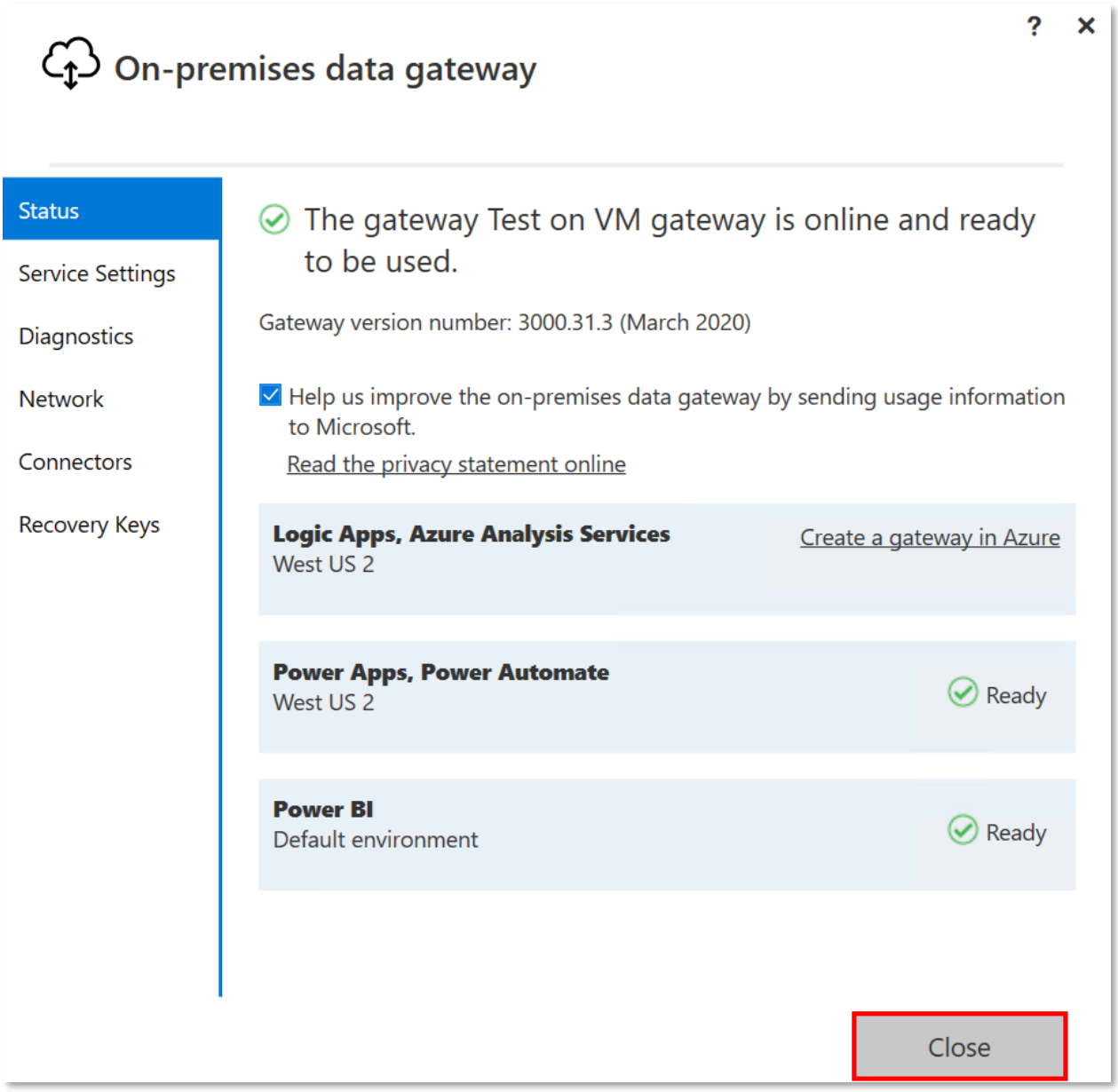
10. Select **Register a new gateway on this computer**, then click **Next**.



11. Name the gateway **Test on VM gateway**. Create a **recovery key**. Then click **Configure**.

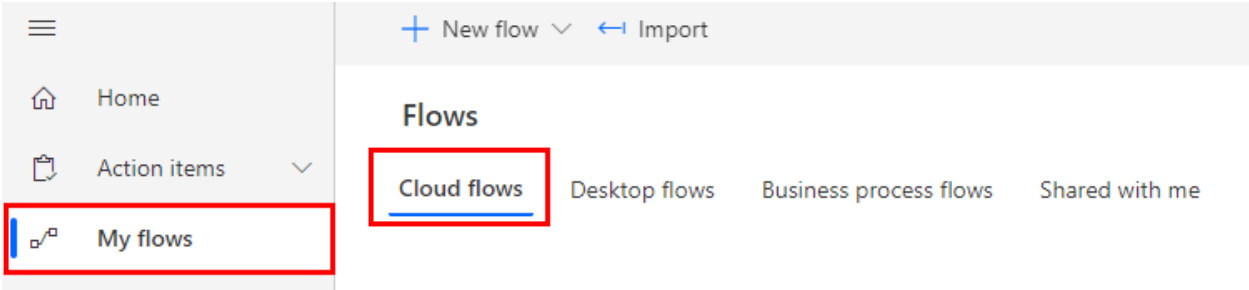


12. Click **Close**.

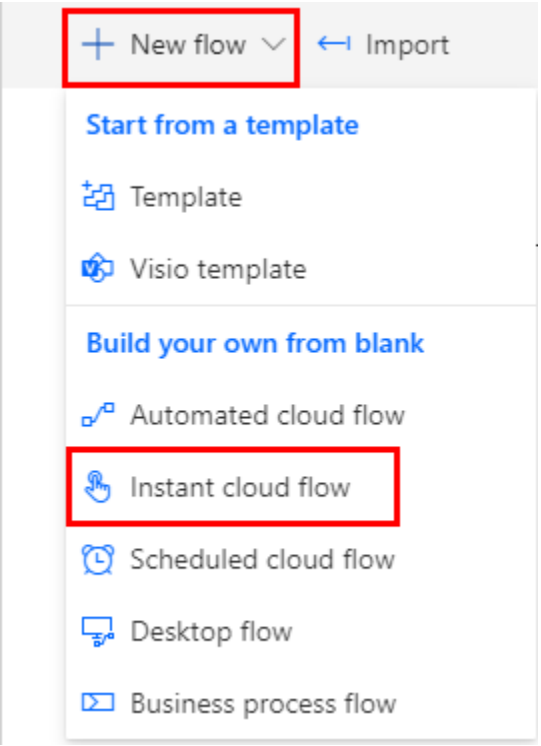


13. If the Contoso app is not pre-installed on the VM, copy and install it on your VM. You can find the latest version under the lab package.

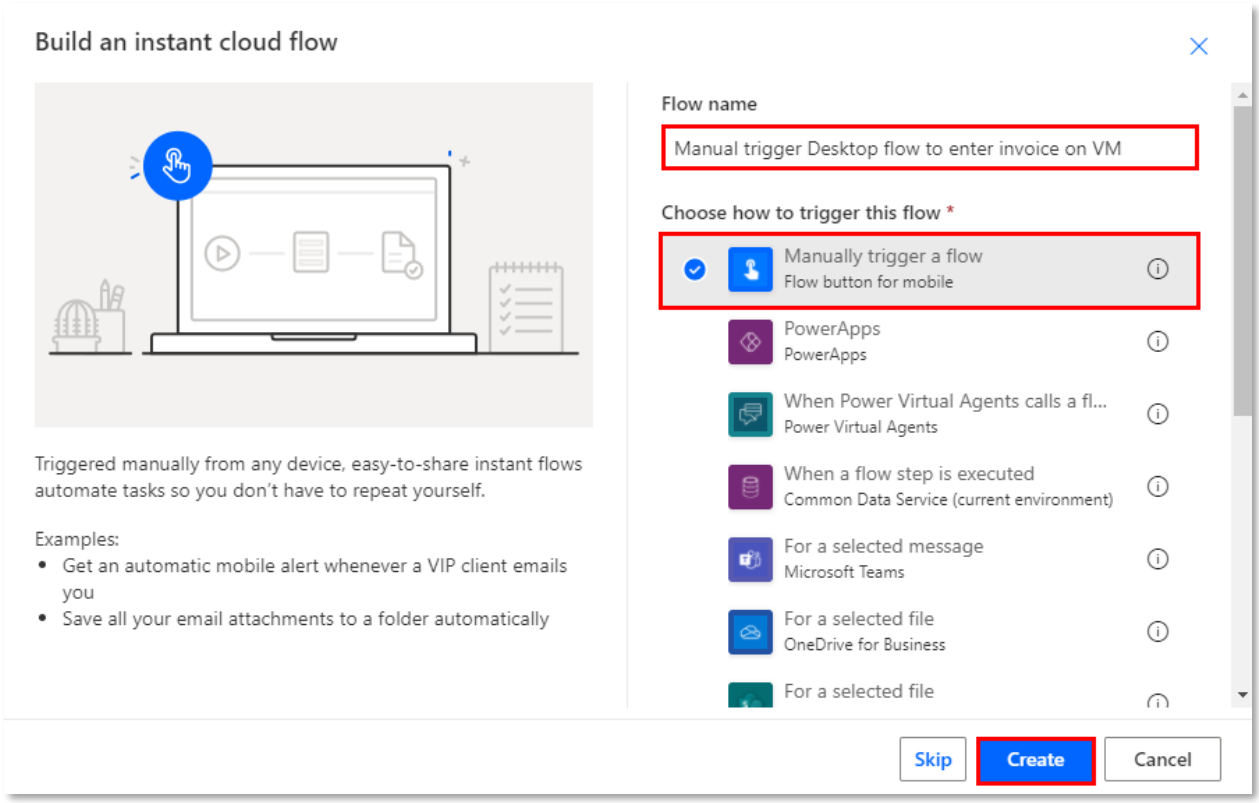
14. Now go back to your own computer (not VM) navigate to flow.microsoft.com. Go to **My flows** > **Cloud flows**.



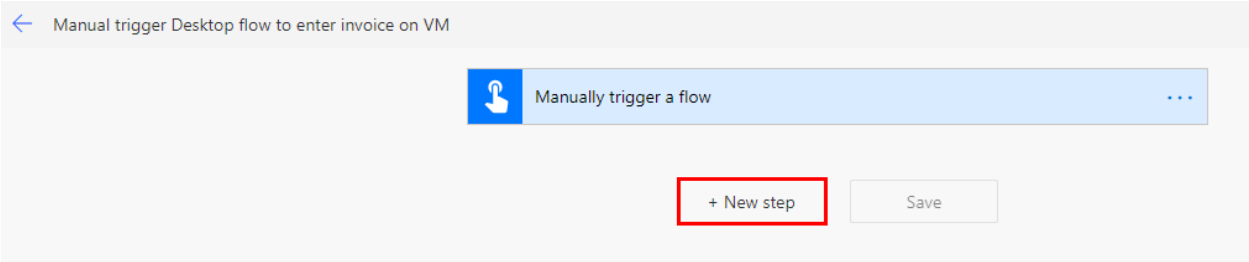
15. Click **+New flow** > **Instant cloud flow**



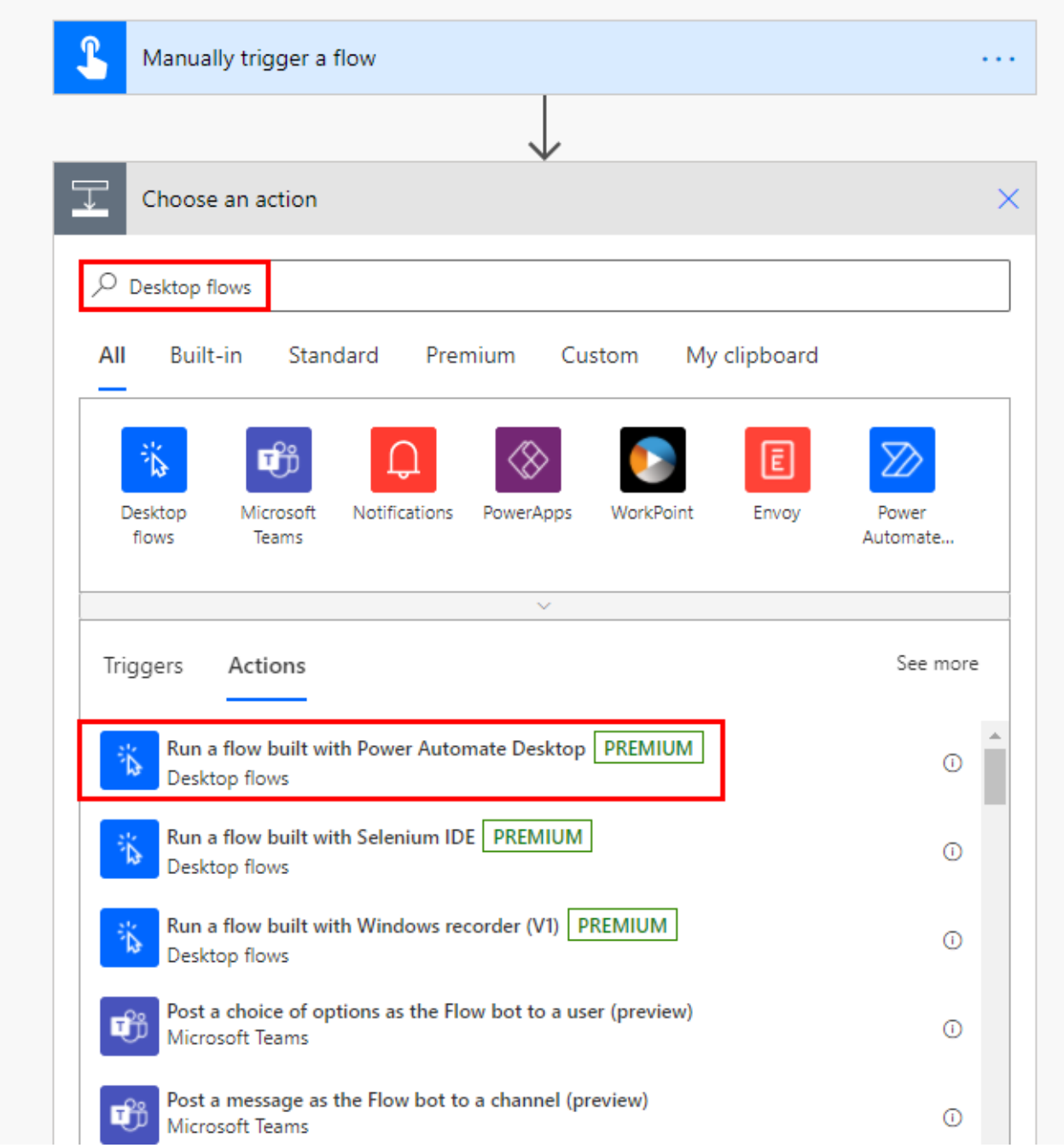
16. Name the flow as **Manual trigger Desktop flow to enter invoice on VM**, select **Manually trigger a flow**. Then click **Create**.



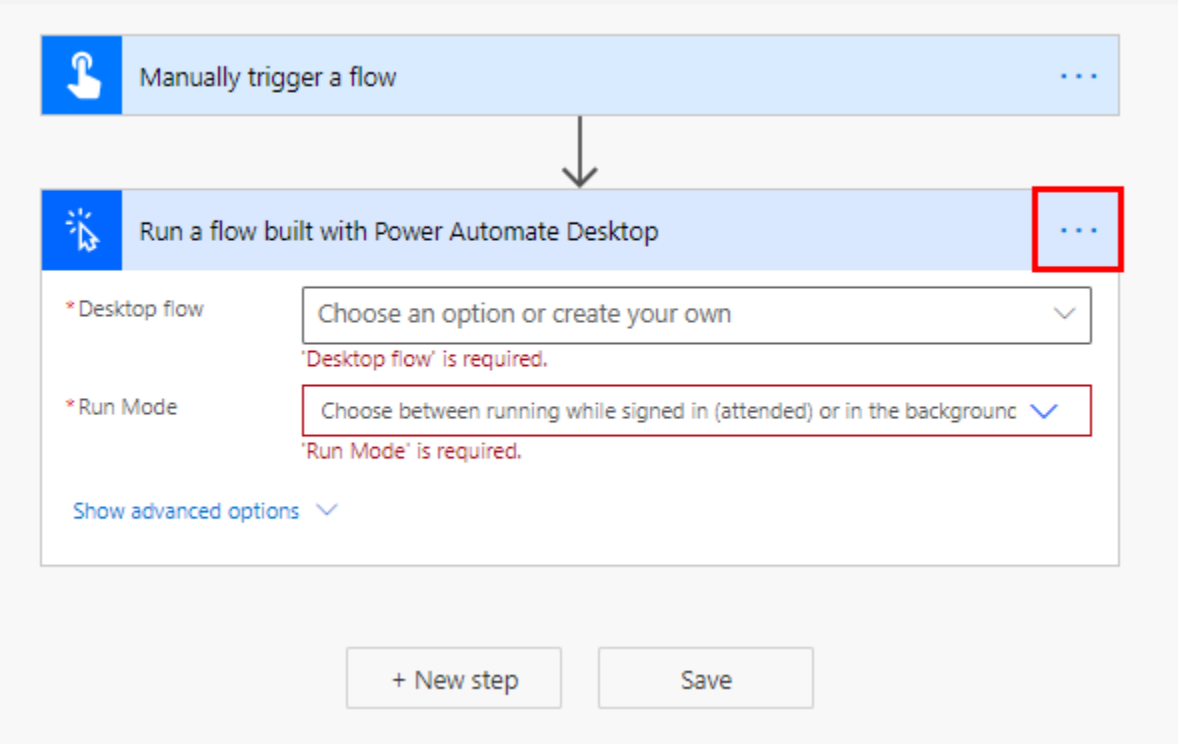
17. Click **+New step**.



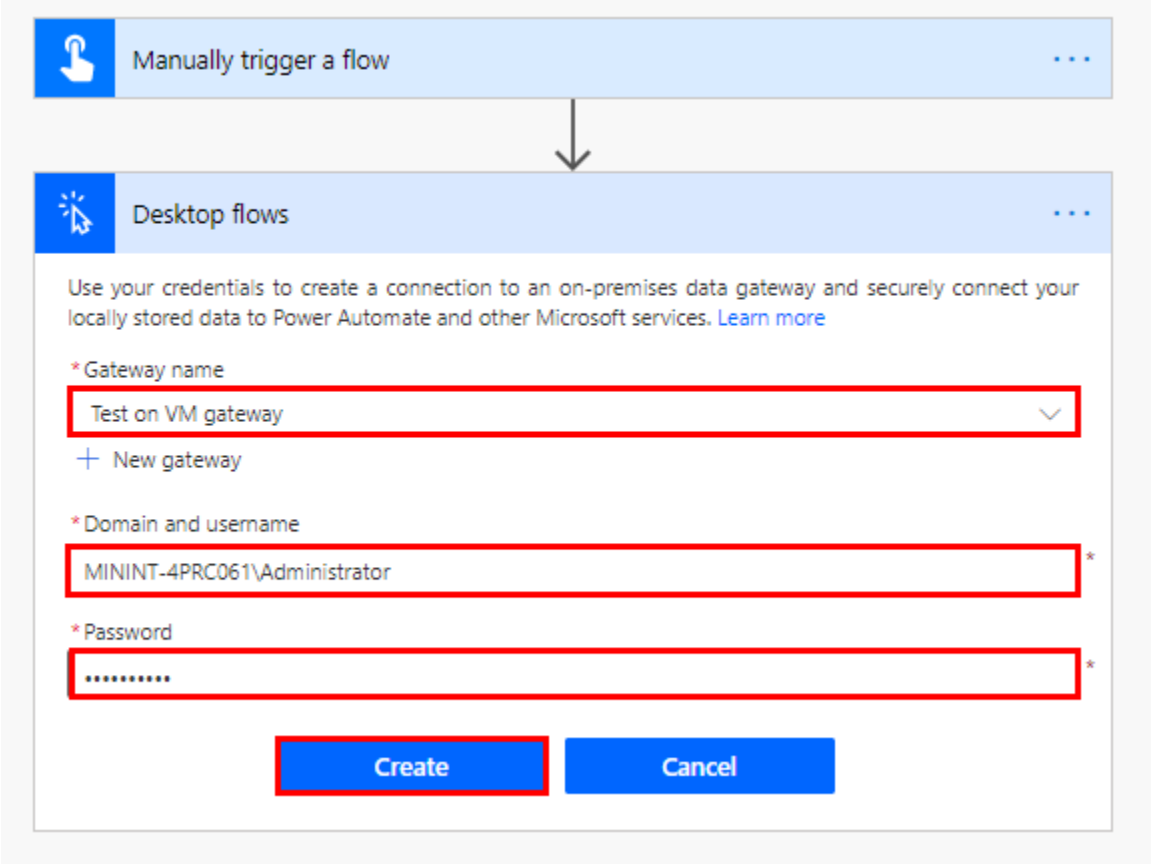
18. Search for **Desktop flows** and select **Run a flow built with Power Automate Desktop**.



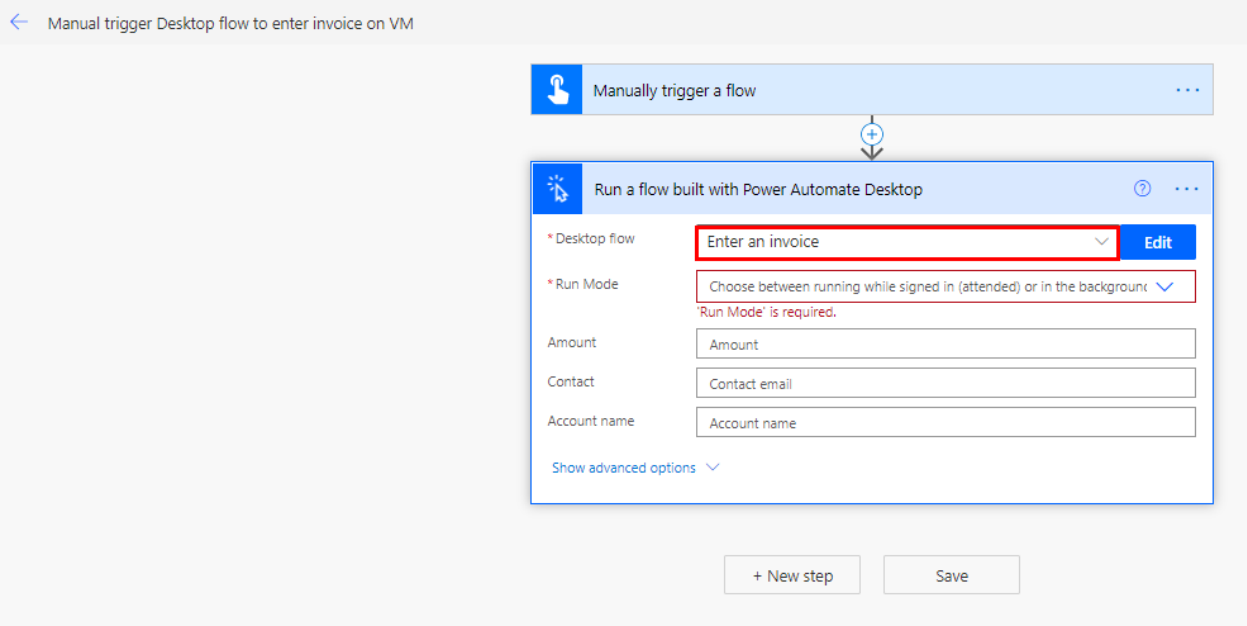
19. Click on the three dots and select **Add new connection**.



20. Select **Test on VM gateway** in the Gateway name field, enter username (e.g. ml-refvm-607426\rpadmin) and **password**. Or the VM log in credential provided by your instructor. Then click **Create**.



21. Select **Enter an invoice** Desktop flow.



22. Fill the box with these values:

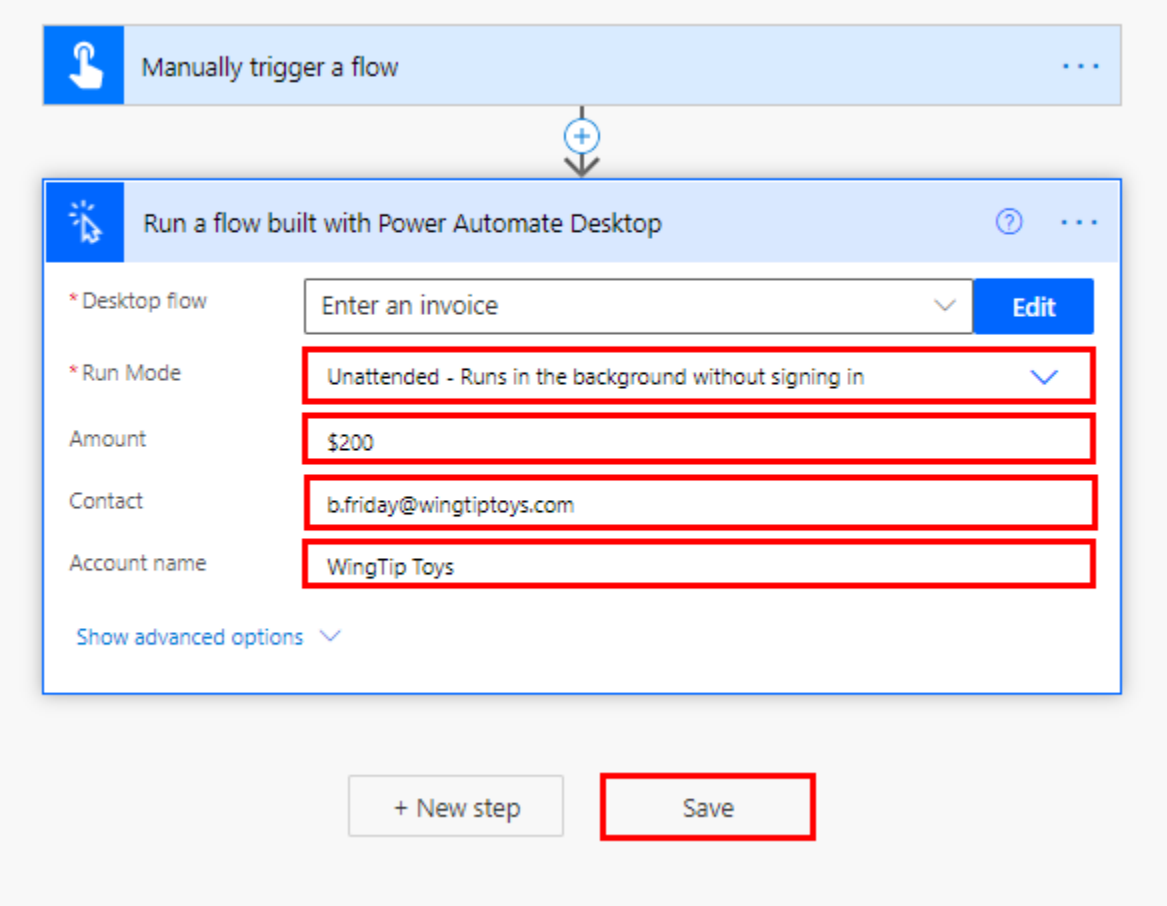
Run Mode: Unattended -Runs in the background without signing in

Amount: $200

Contact: b.friday@wingtiptoys.com

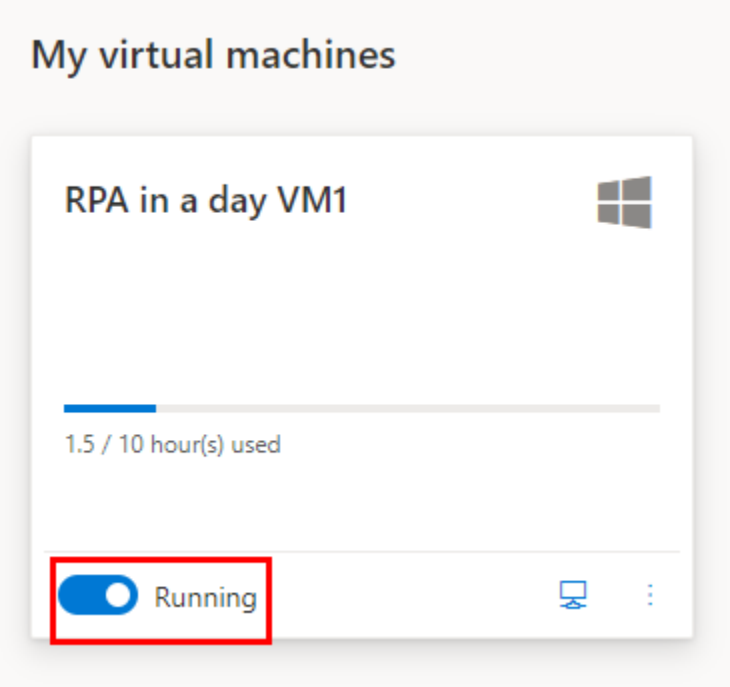
Account: WingTip Toys

Then click **Save**.

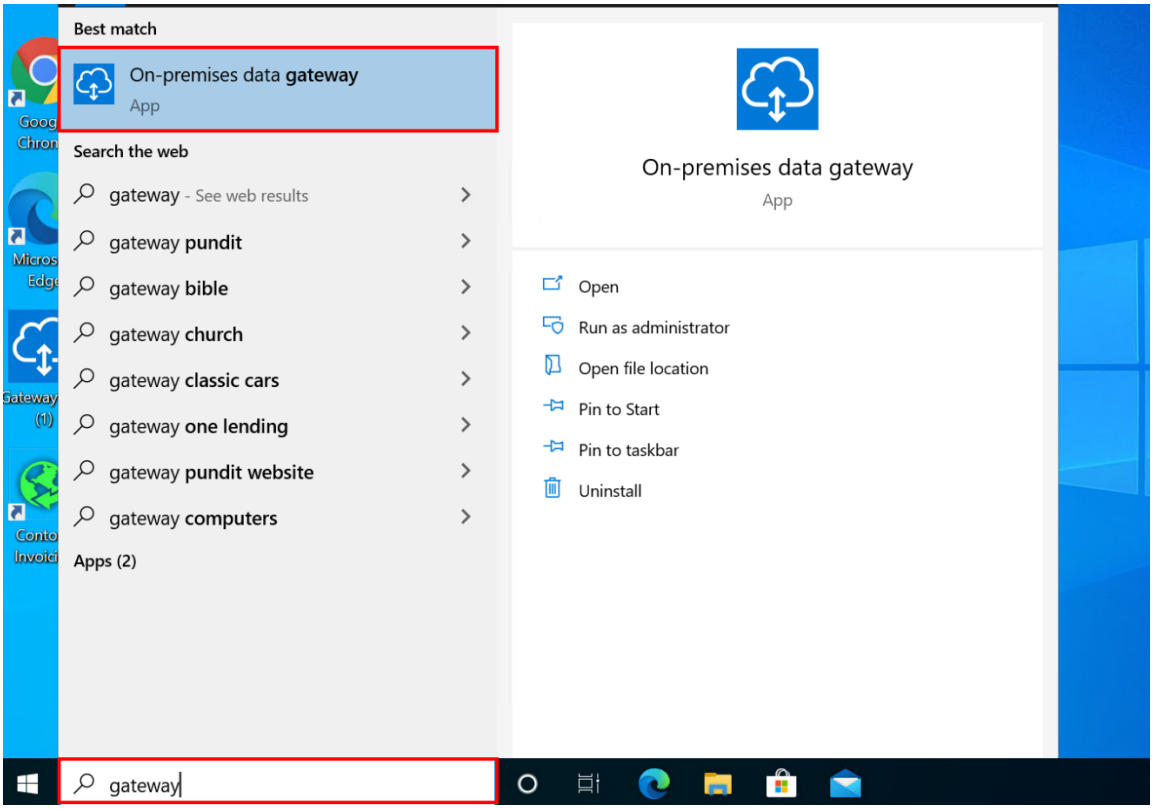


23. Prepare to test unattended flow. Make sure your VM is in good state. Review the steps below:

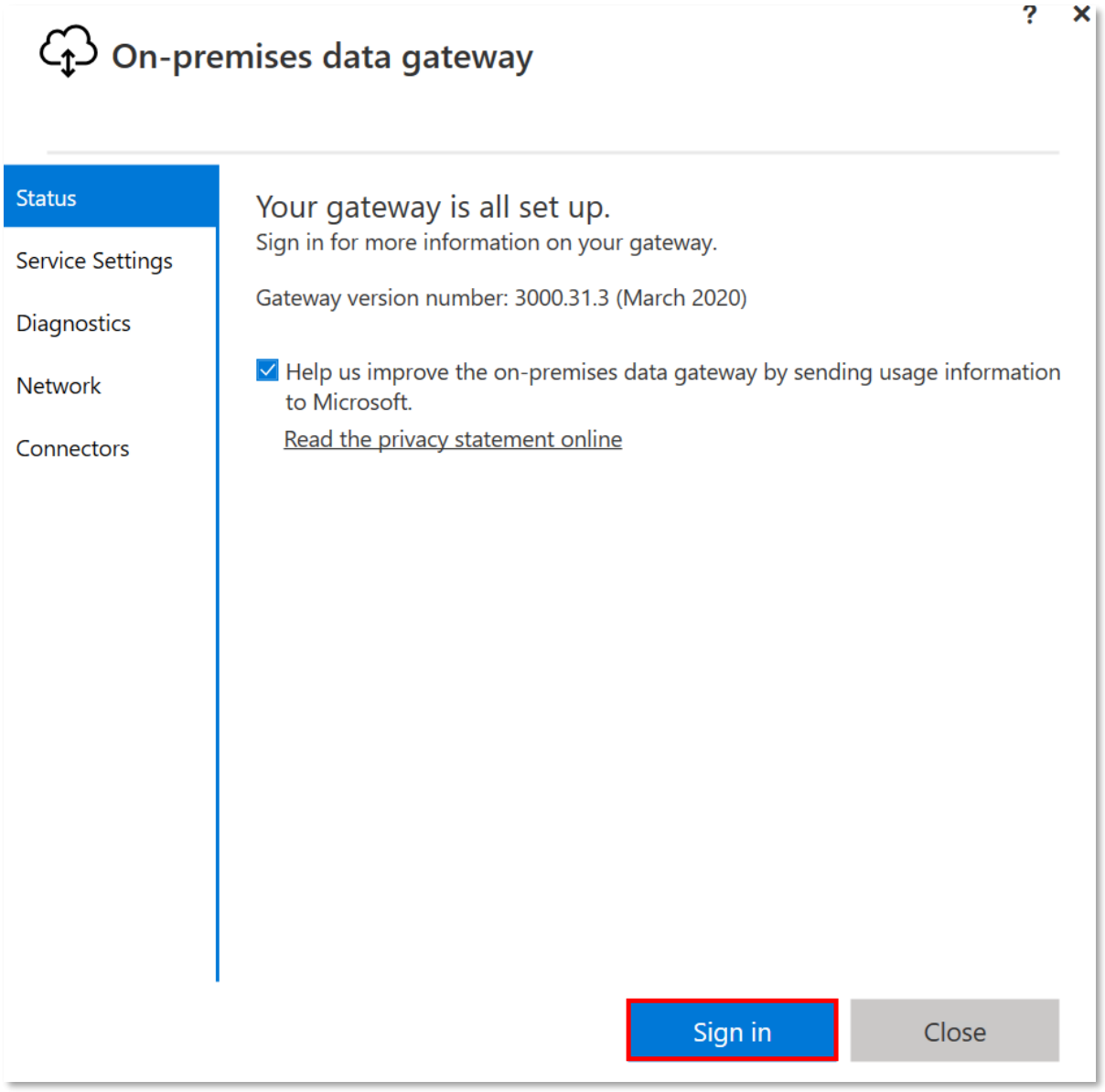
a) Navigate to https://labs.azure.com/virtualmachines to see if your VM is still running. Start the VM if it's stopped.



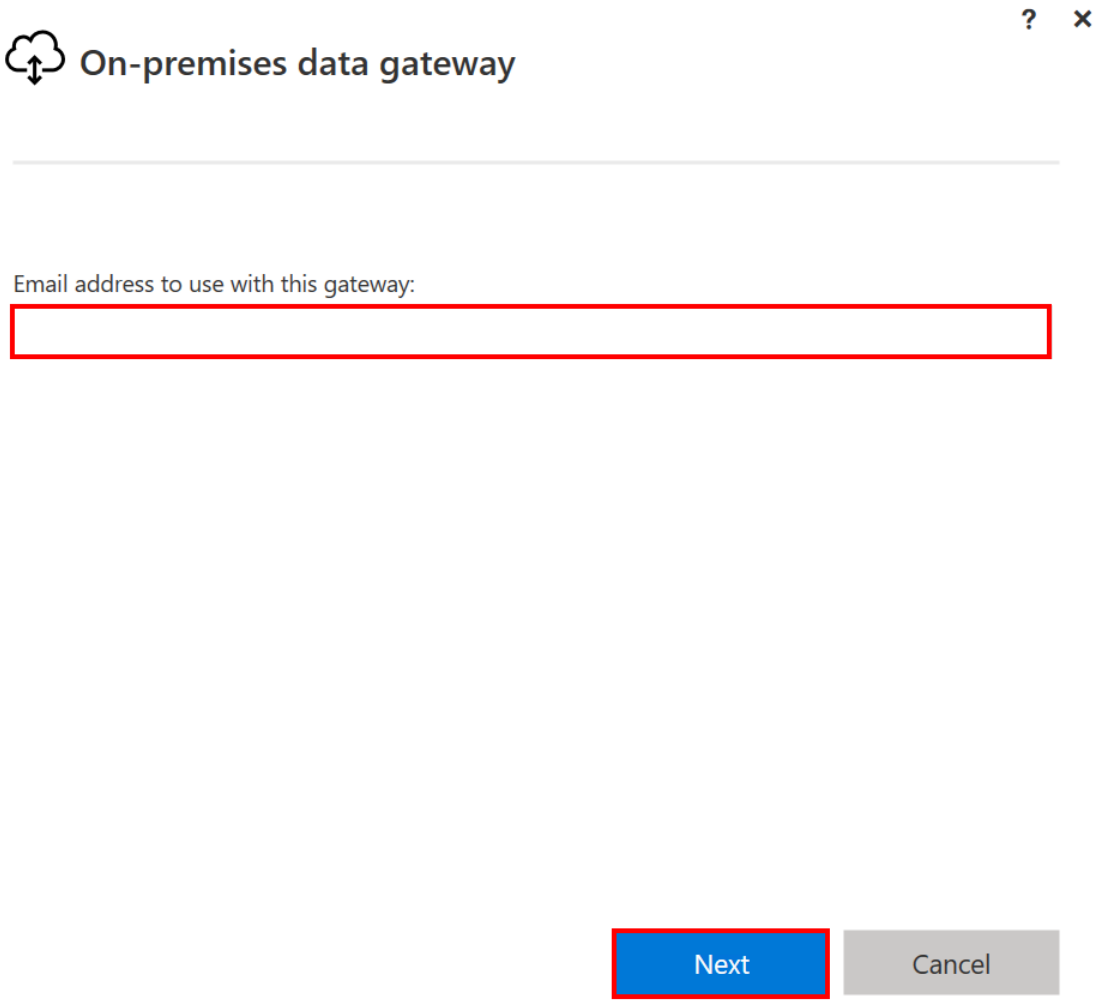
b) To sign into the gateway on VM, search gateway in VM windows search bar. Select **On-premises data gateway**.



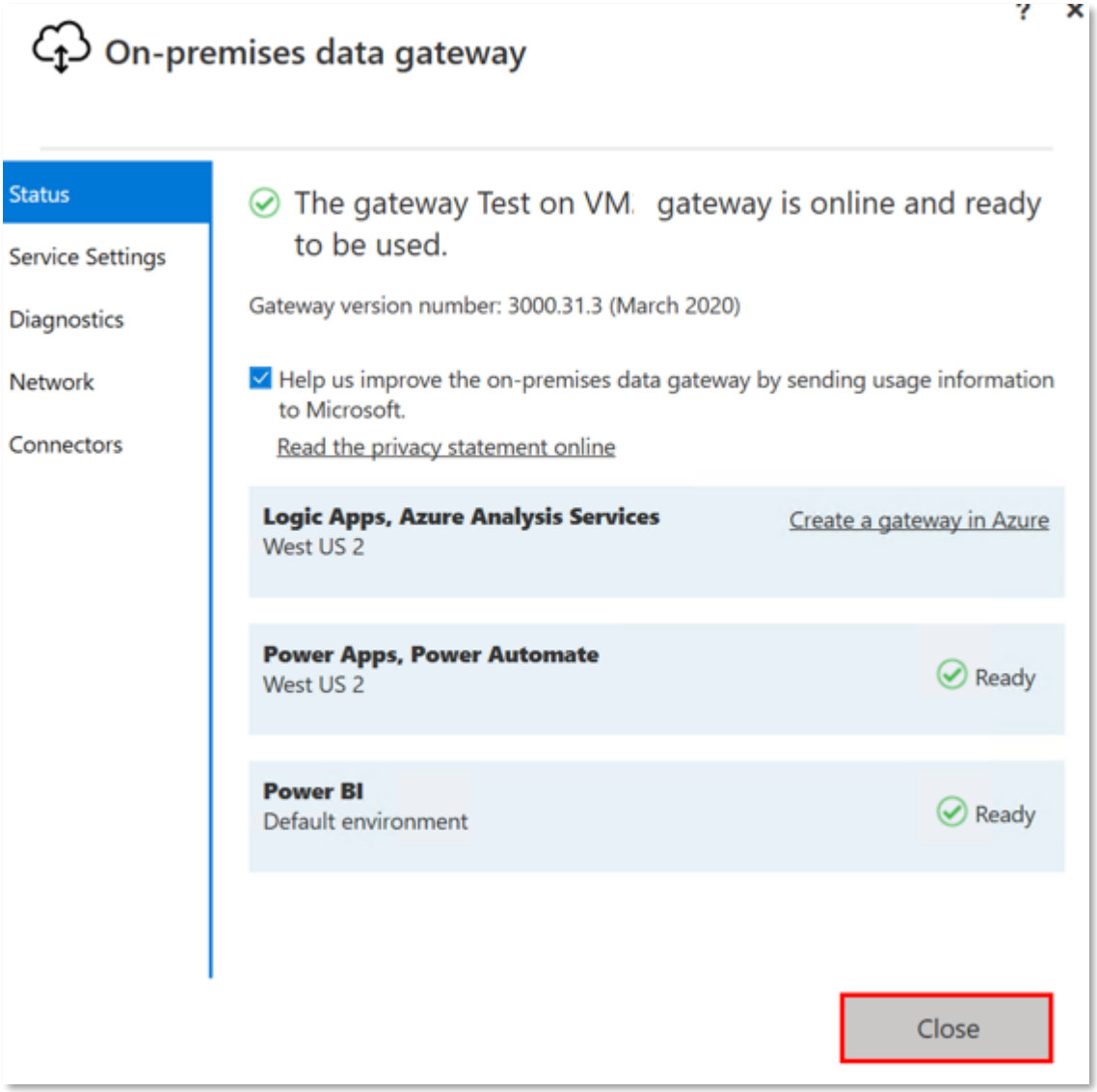
c) Click **Sign in**.



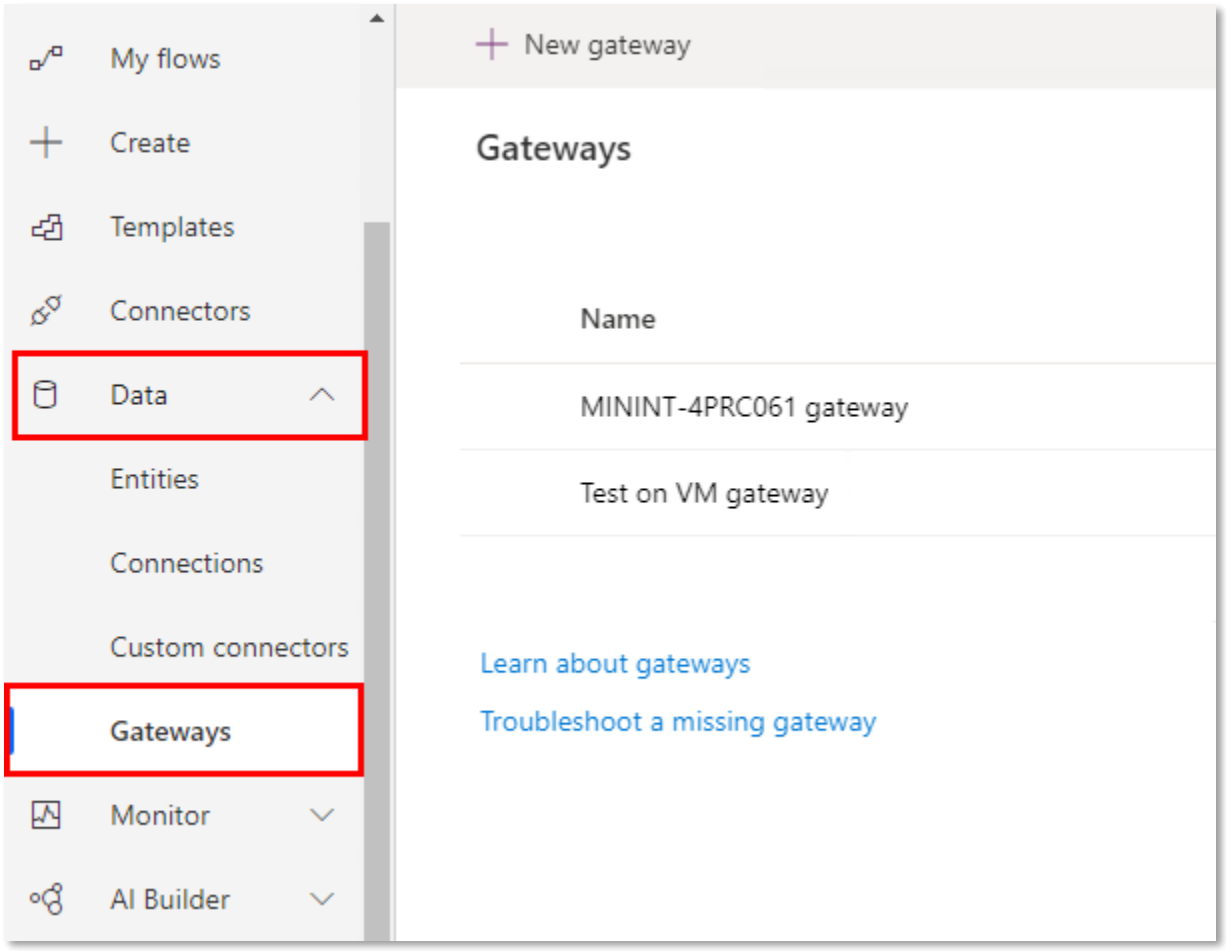
d) Enter your email then click **Next**.



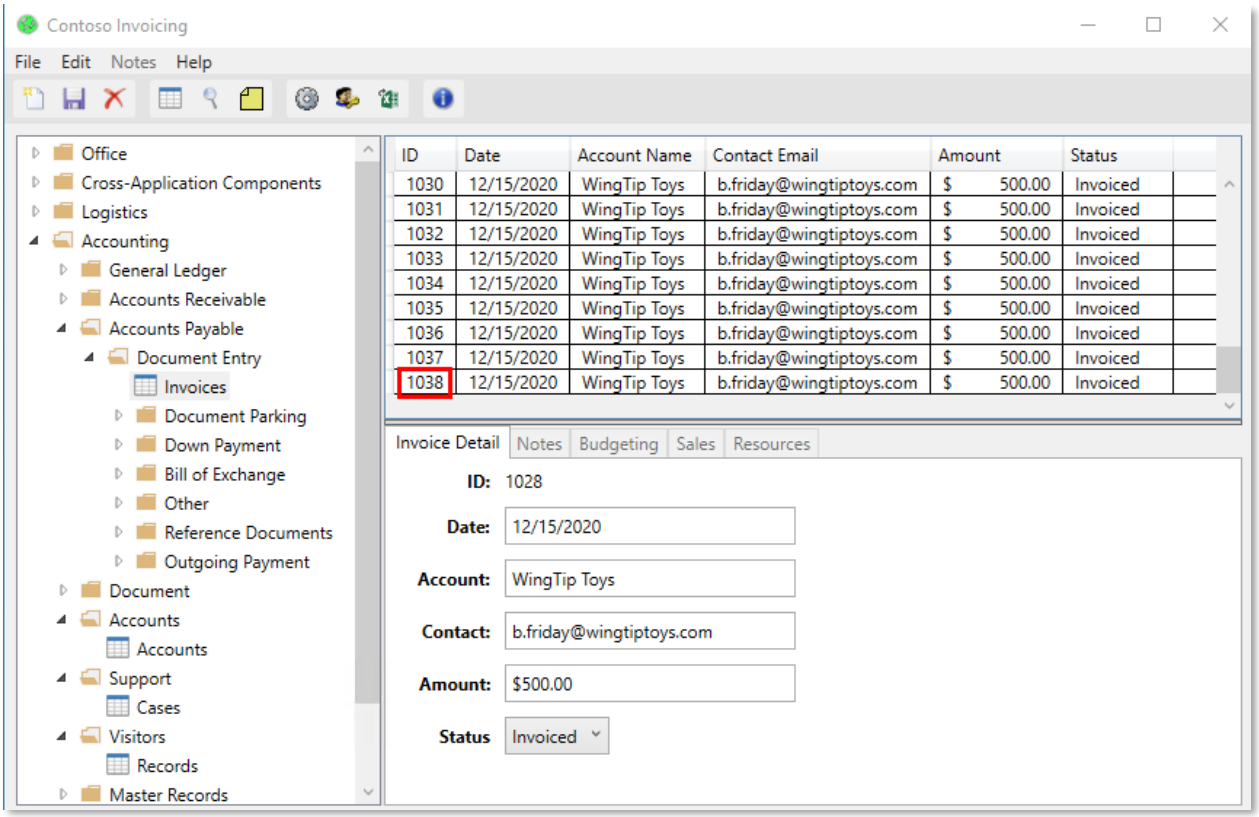
e) Now you can see your gateway is online and ready to be used, click **Close**.



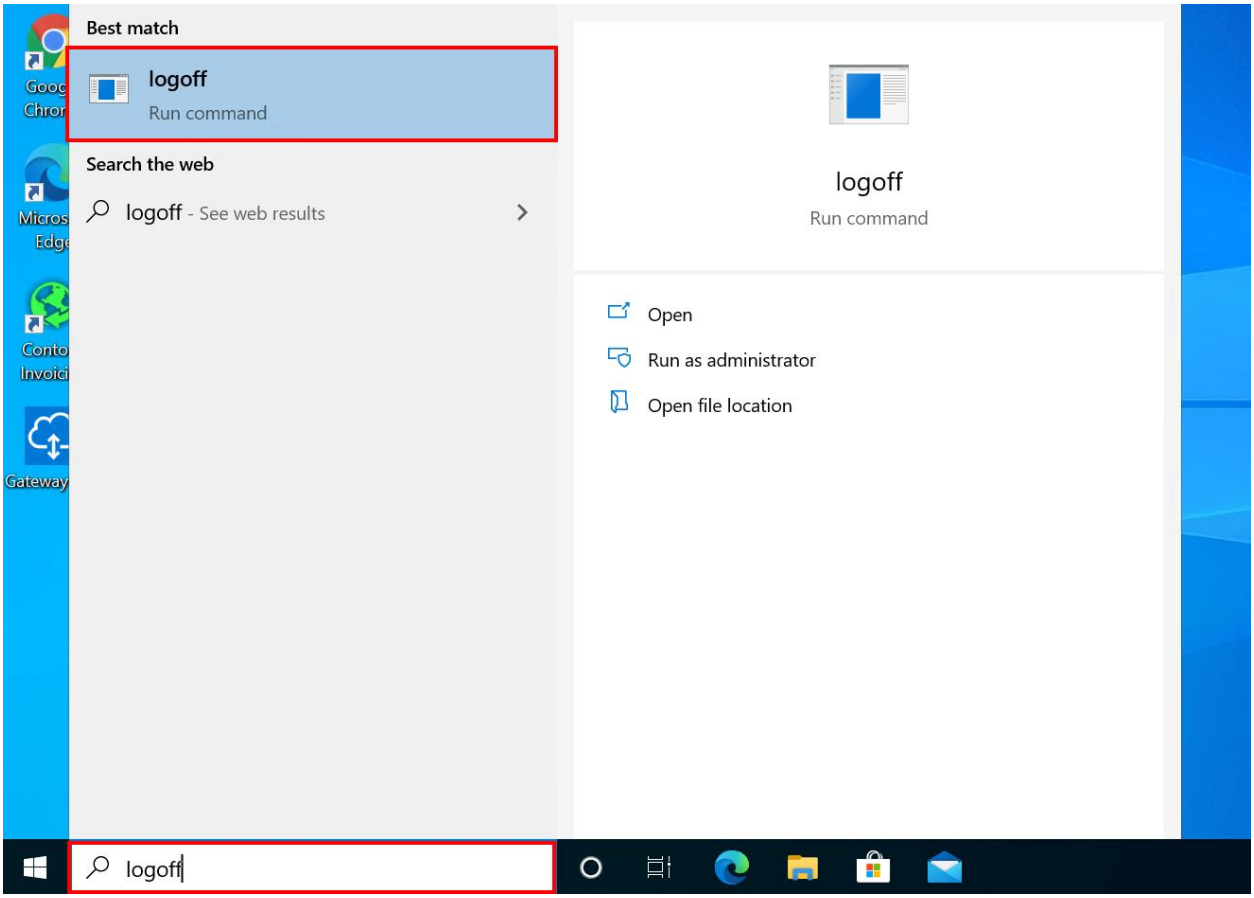
f) On the portal, you will see the gateway is online as well under **Data**->**Gateway**



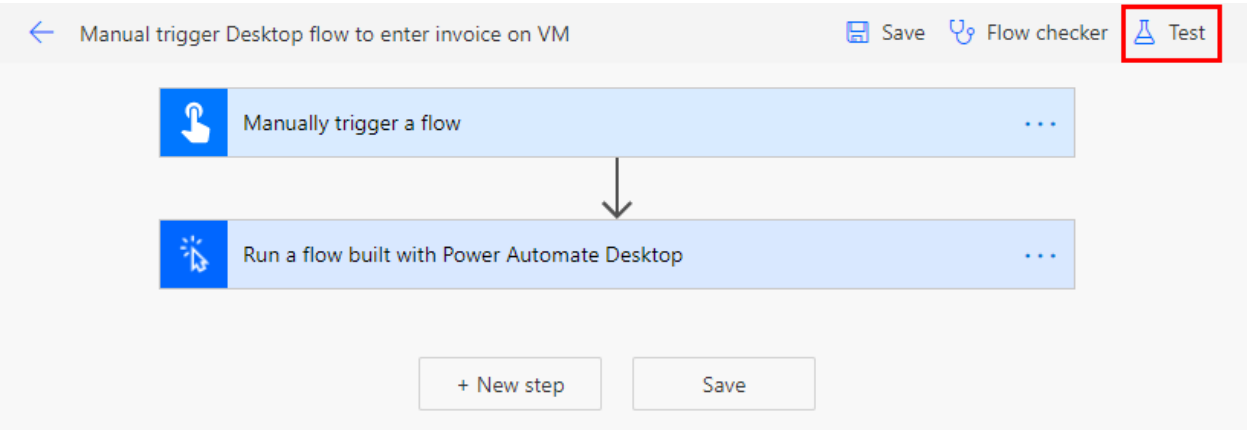
g) Open Contoso invoicing app, go to Invoice tab, and write down what is the current highest invoice ID number. This is to prepare for the comparison with the new IDs after the unattended run.



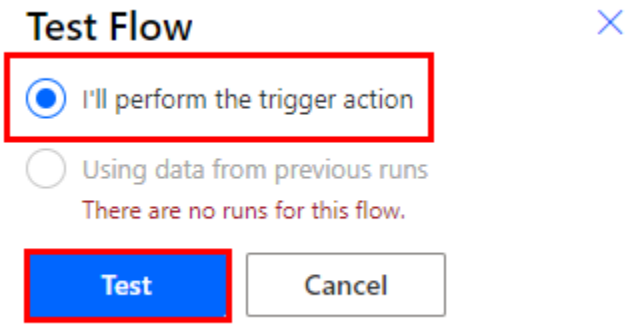
h) **Log off** your VM.



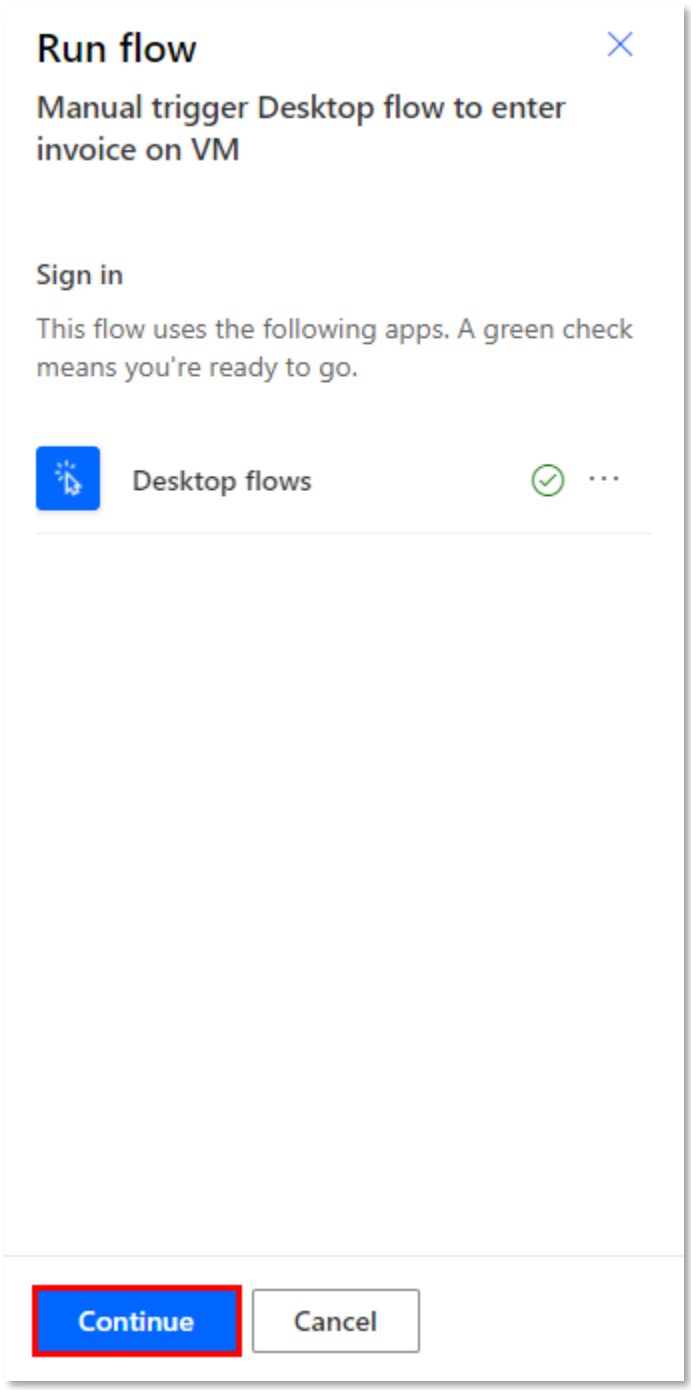
24. Now from the portal in your own computer (not the vm), click **Test**.



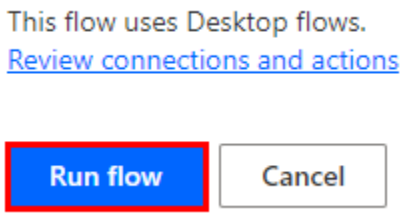
25. Select **I'll perform the trigger action**. Click **Test**.



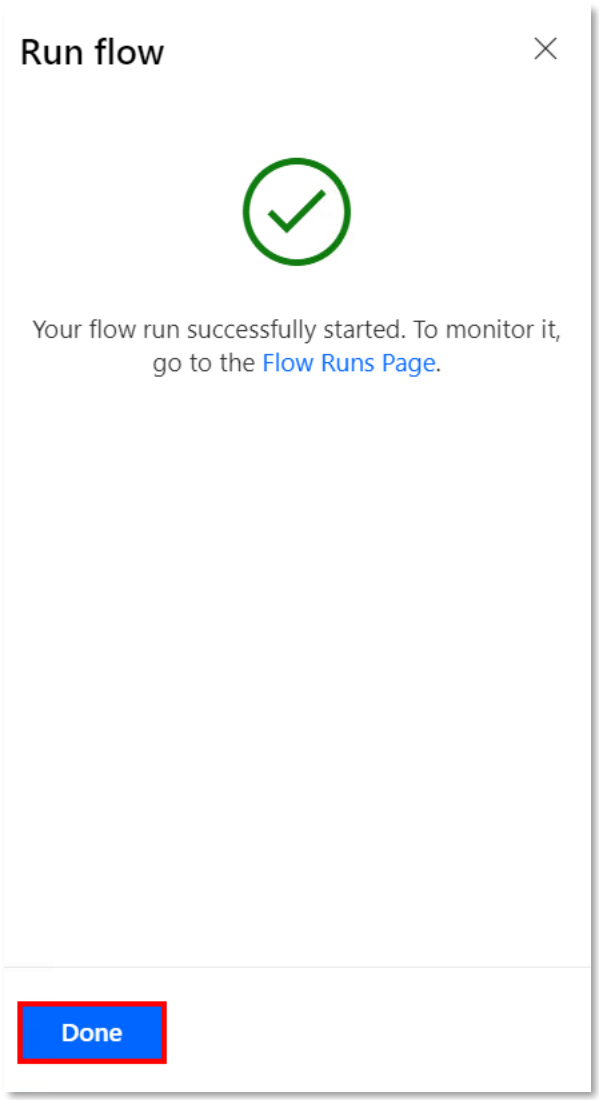
26. Click **Continue**.



27. Click **Run flow**.



28. Click **Done**.



29. The flow will be running unattended on the VM that you have logged off. You can monitor the flow run from the portal run history. It should run successfully.

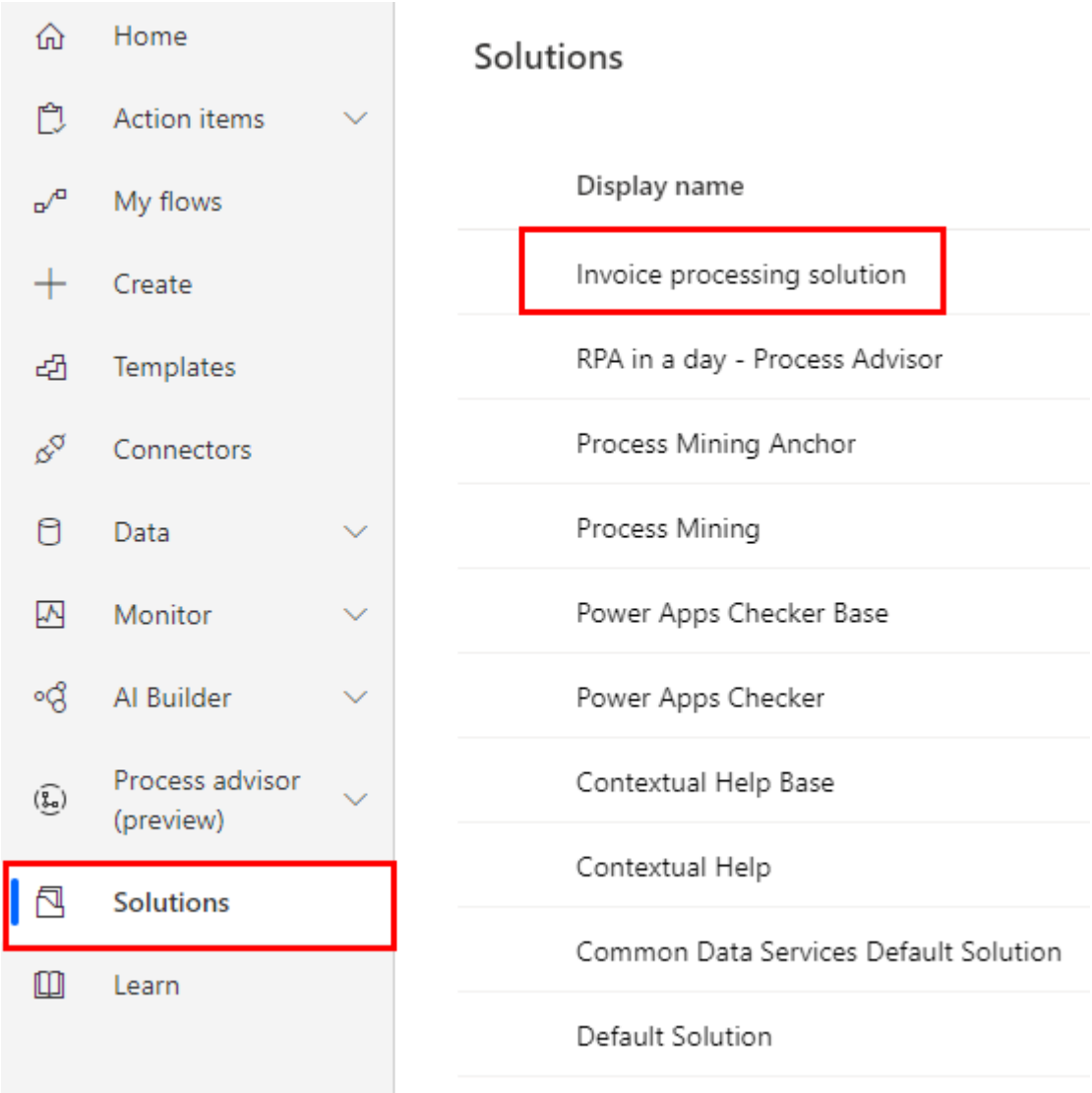
Tip: If the installation location paths (e.g. C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\LegacyInvoicingApp.exe) are different for the Contoso app on the machine at recording time vs the VM used for playback time, you will have to either modify the path manually from the portal script steps, or uninstall/reinstall the Contoso app on the VM to the same path, or simply delete the script and re-record the Desktop flow on the VM again to pick up the correct path.

30. You can log back into the VM and write down the Contoso app newest invoice ID.

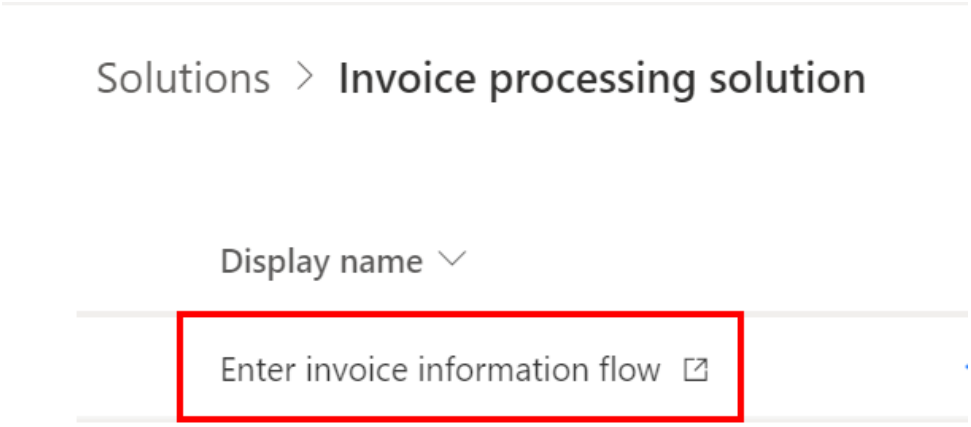
Note: You can simply find your VM rdp file under **File Explorer** > **Downloads and use it to connect to the VM.**

Exercise 2: End-to-end Invoice Processing Scenario in Unattended mode

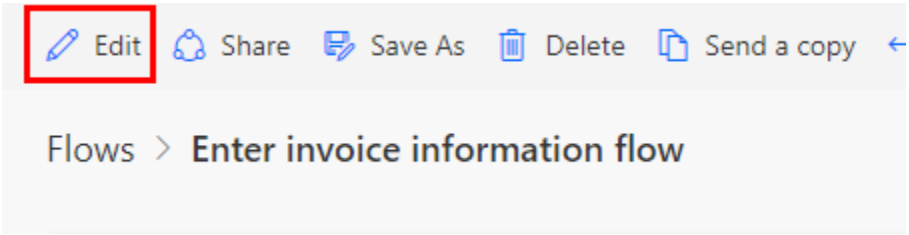
1. Now we will update the E2E invoicing process flow to be run unattended. Go to **Solutions**. Select **Invoice processing solution (the one you created in lab 7)**



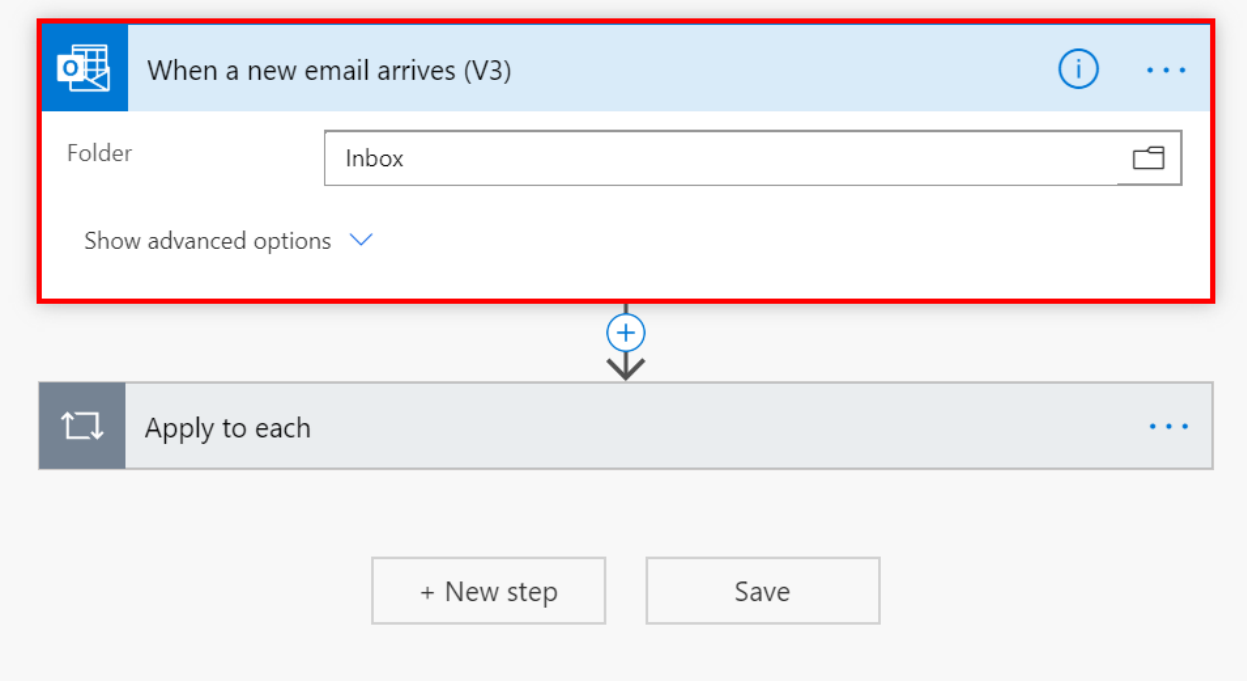
2. Open **Enter invoice information flow (the one you created in lab 7)**.



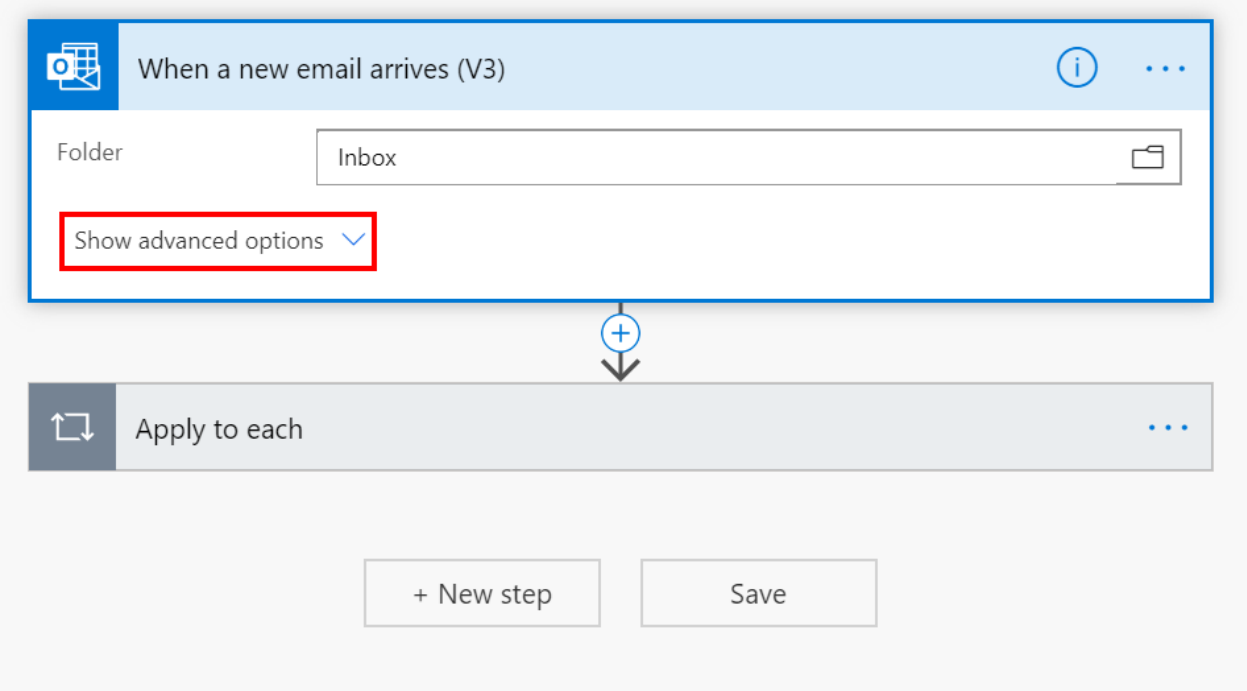
3. Click **Edit**.



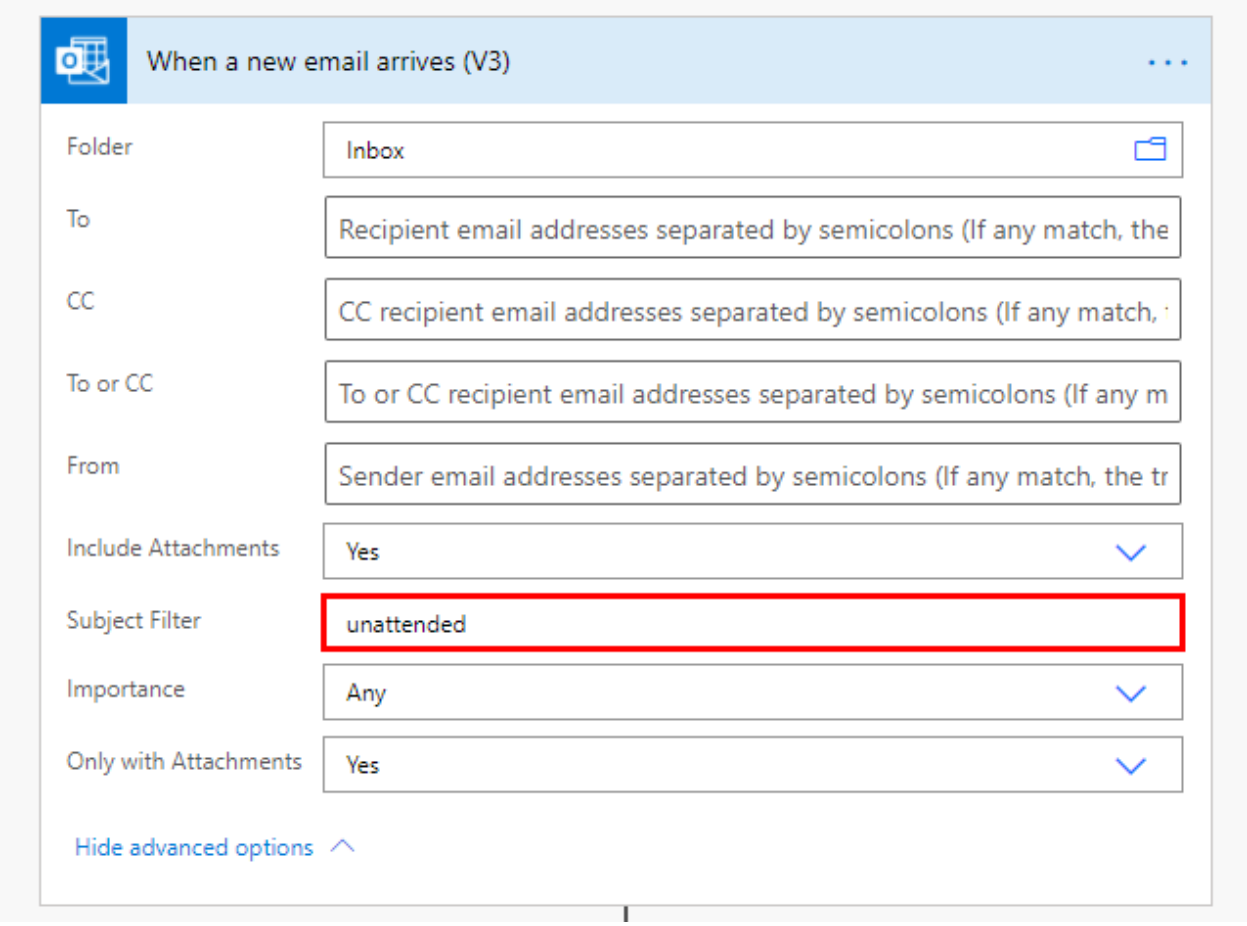
4. Expand **When a new email arrives** step.



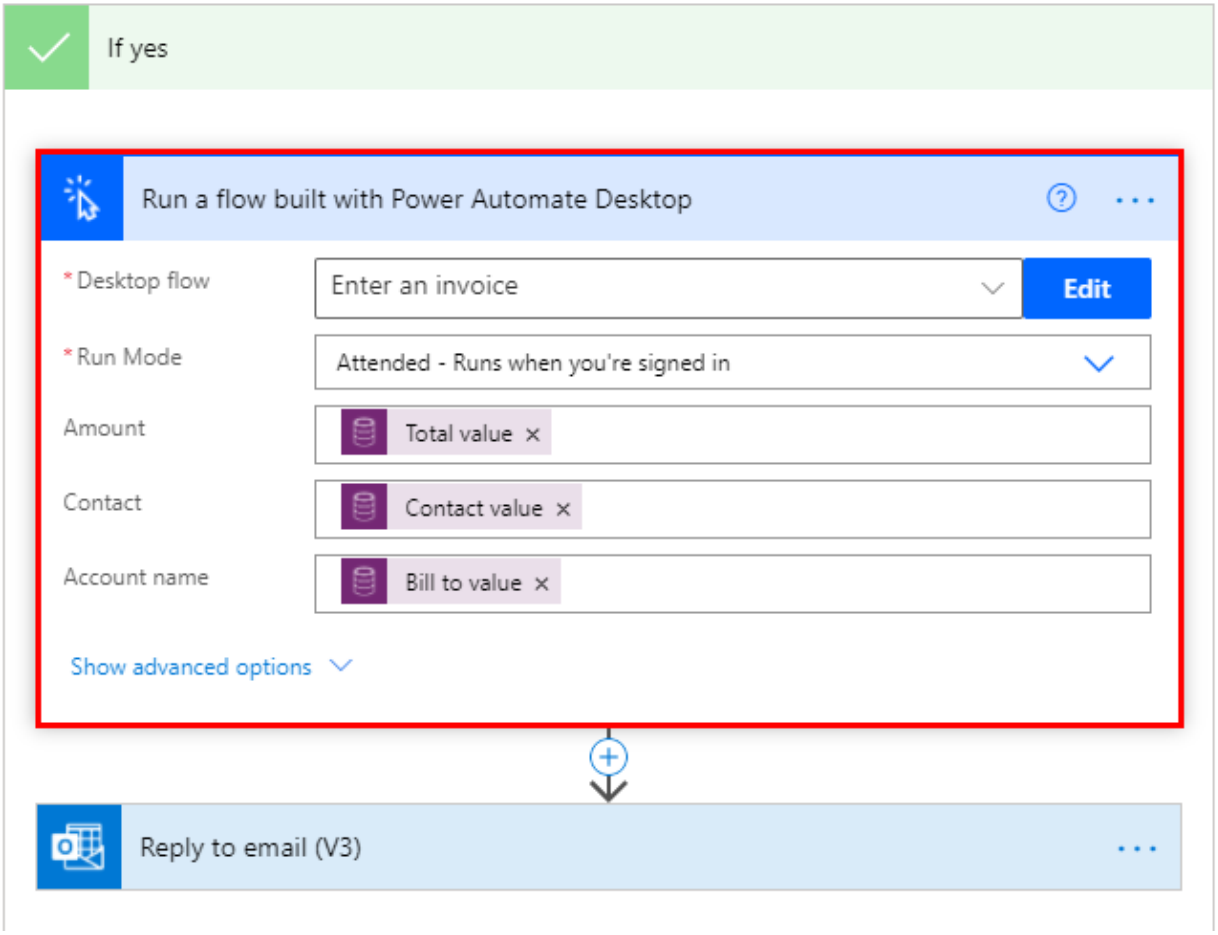
5. Click **Show advanced options**.



6. Type in **unattended** in Subject Filter field.

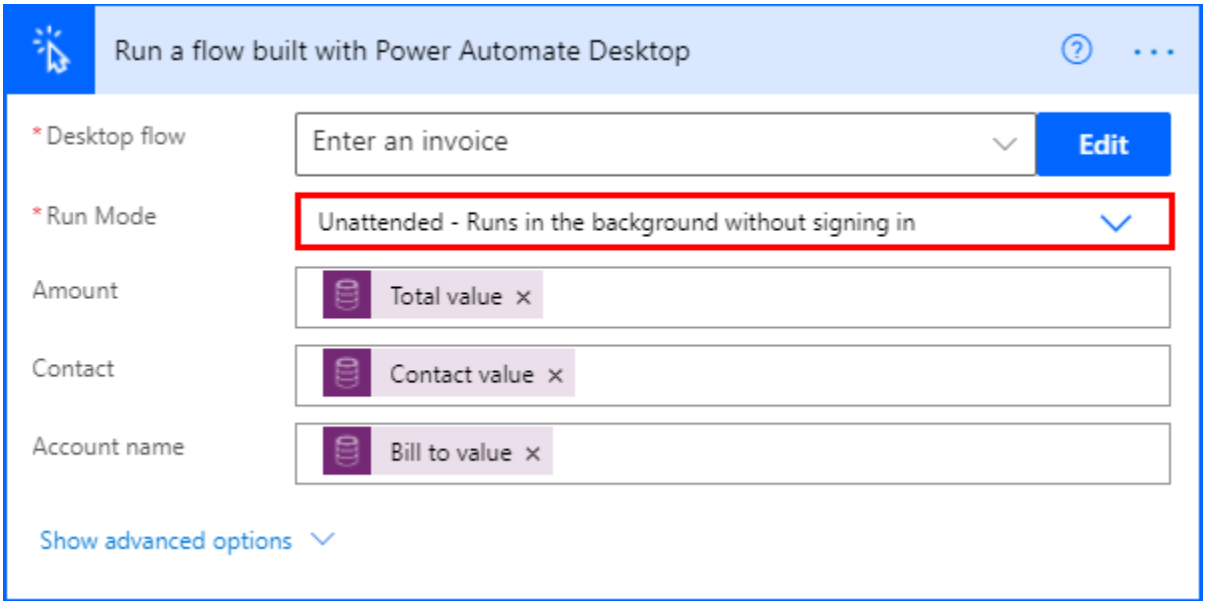


7. Expand **Run a flow built with Power Automate Desktop**.

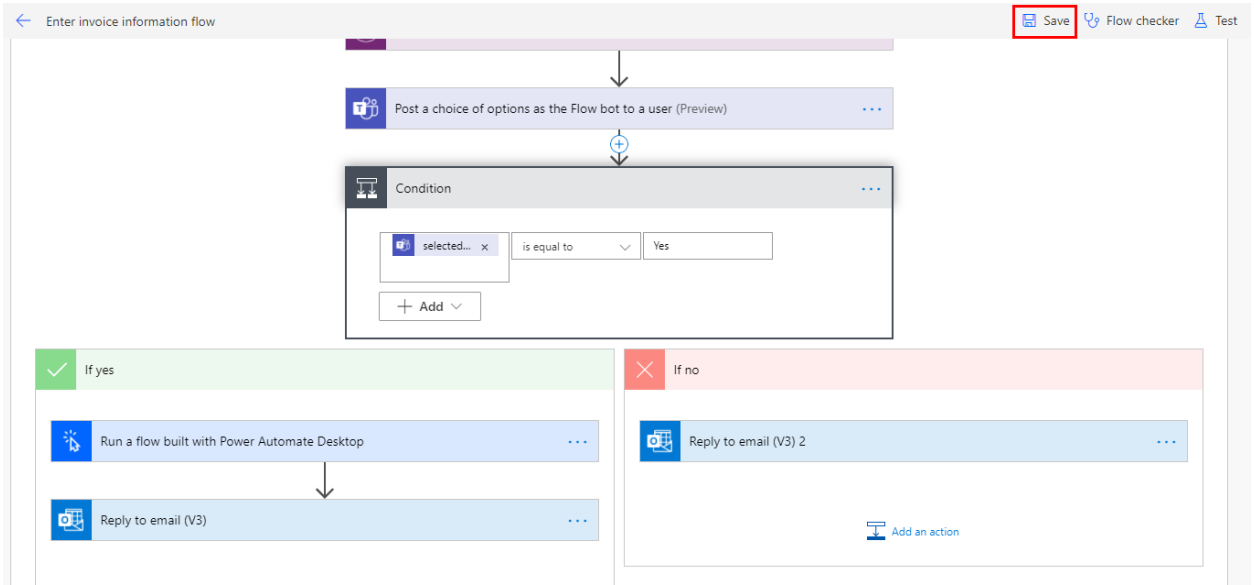


8. Select the ellipsis icon (…) for **Run a flow built with Power Automate Desktop** action and select the correct unattended connection that you created in exercise 1 of lab 10.

9. Select **Unattended – Runs in the background without signing in** in **Run Mode** field.



10. Click **Save**.



11. Make sure your VM is ready for unattended run. E.g. make sure VM is running, gateway on VM is online (by checking on the portal under Data->gateway), write down the highest invoice ID number, logged off the VM using logoff command.

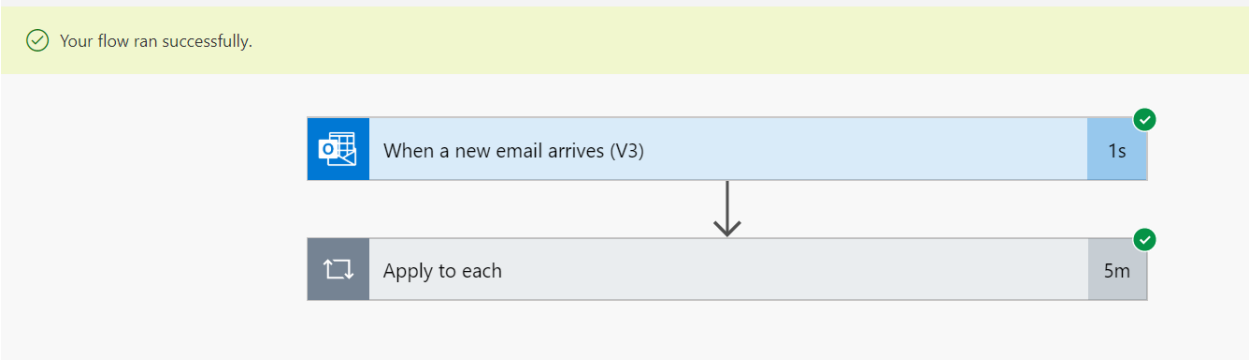
12. Now prepare to trigger this flow. In a separate tab, open the Teams app (open it in the browser, not the app).

13. In another separate tab, open the Office 365 Outlook app.

14. Compose a new email with the following settings:
    a. To: *{email address of the user identity you are using in this lab}*
    b. Subject: **unattended**
    c. Attachments: **newinvoice.jpg** *(from the lab resource files)*
15. Send the email and wait for the flow to be triggered to run.

16. Wait for an approval request message to you in the Teams tab - approve the invoice.

17. In the Outlook tab, wait for a confirmation email that indicates the approval is complete.

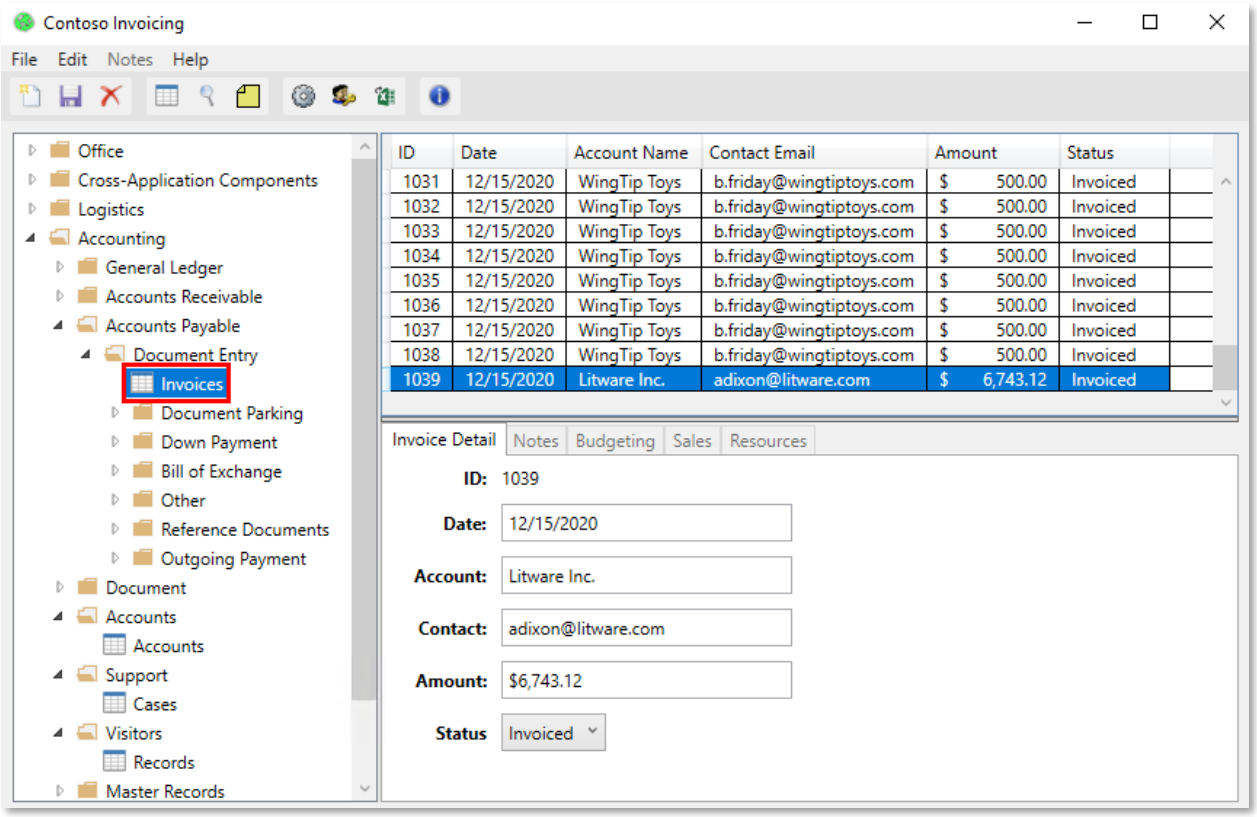


18. Log in back to VM to check the new added entry after your flow ran successfully.

Note: You can simply find your VM rdp file under **File Explorer** > **Downloads and use it to connect to the VM.**

19. Open **Contoso Invoicing** app on VM.

20. Click **Invoices**. And you can find the new entries here from the unattended runs. Notice the ID increased compared to the number you write down earlier.

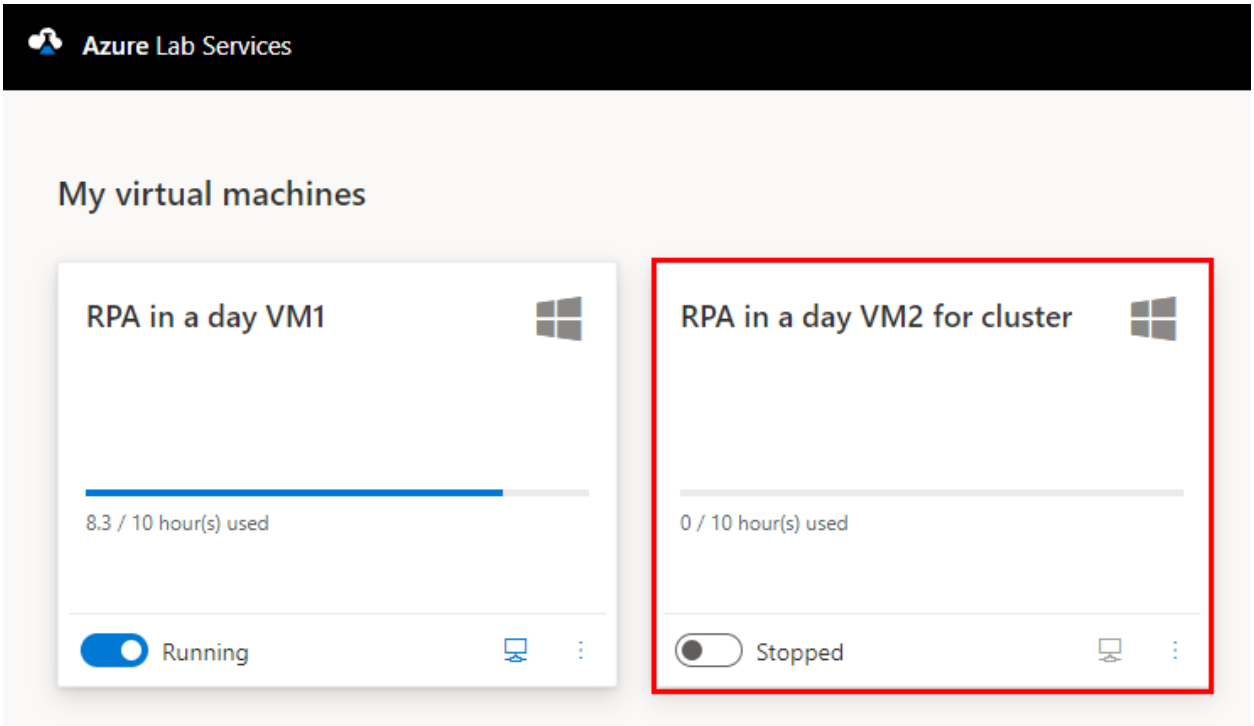


Exercise 3: Run unattended on a cluster of 2 VMs

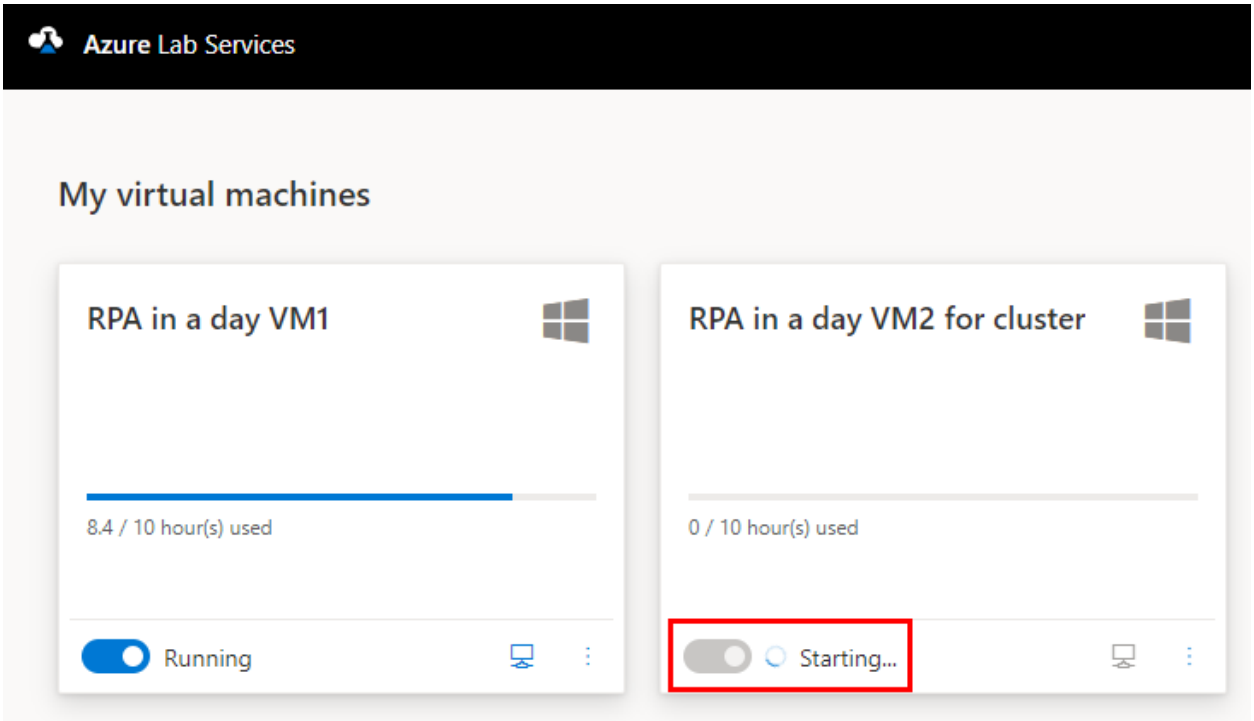
1. We already have 1 VM used in exercise 1 and 2 in this lab 10. Now we will add one more VM to make these 2 VMs to form a cluster.

Note, **All VMs need to have the same machine login credential to be joined to a cluster.** Otherwise, you will not be able to create a connection that can log in and run Desktop flow on all of the VMs within this cluster.

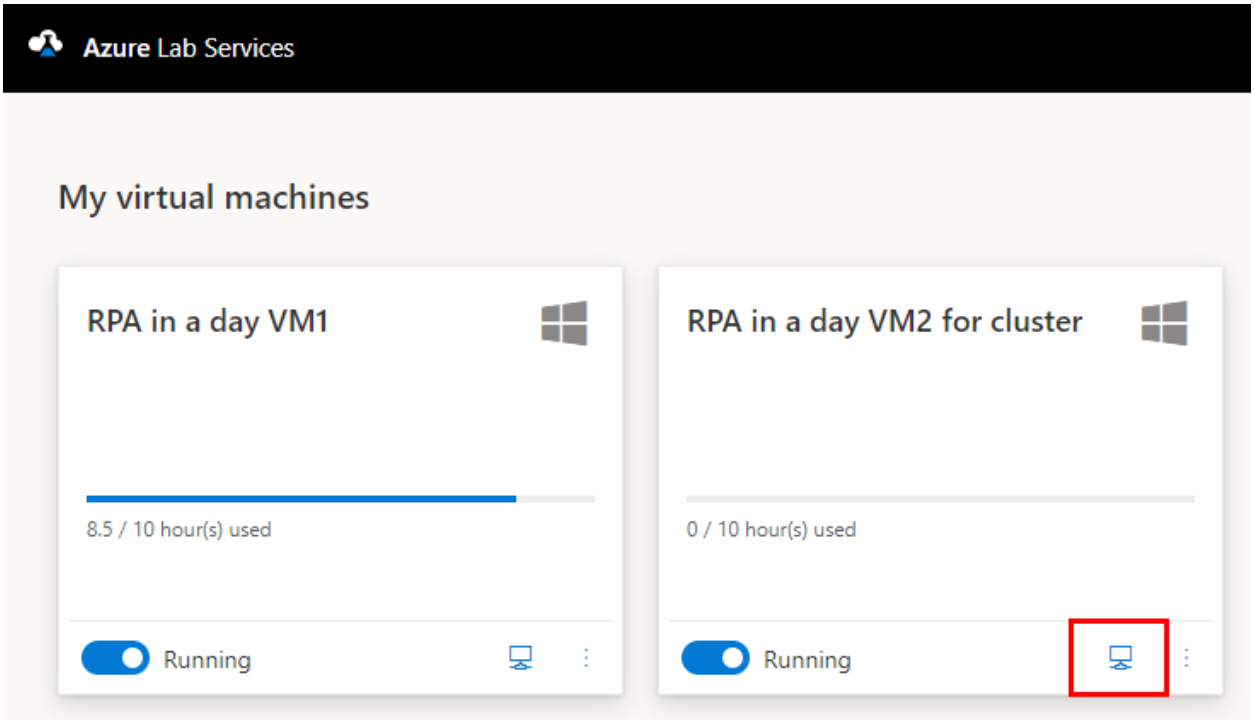
2. Navigate to http://aka.ms/rpa/vm2 [should be provided by the trainer] to get the second VM "RPA in a day VM2 for cluster" [should be provided by the trainer]



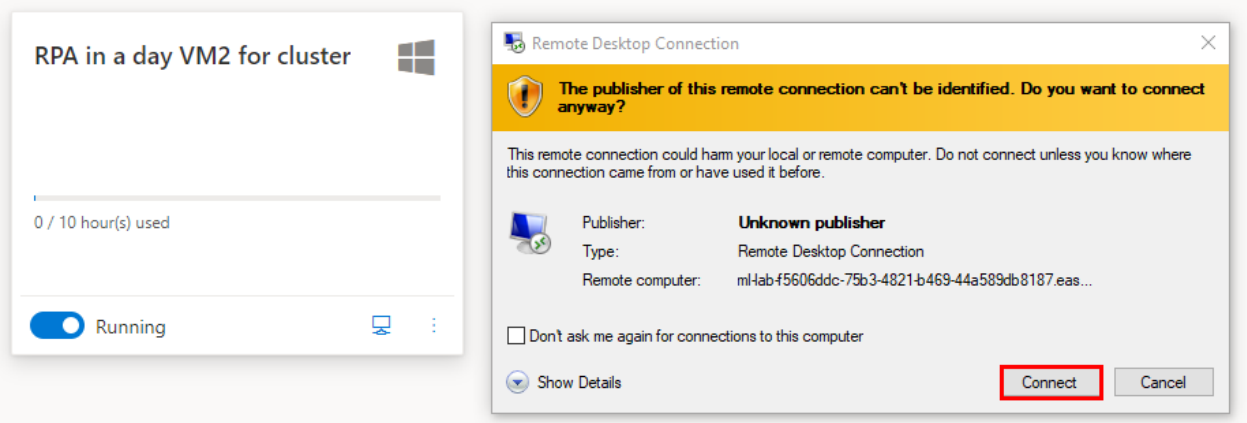
3. Ensure your first VM is running (if not, start it), and start your second VM.



4. Click on the **connect to the virtual machine** icon.

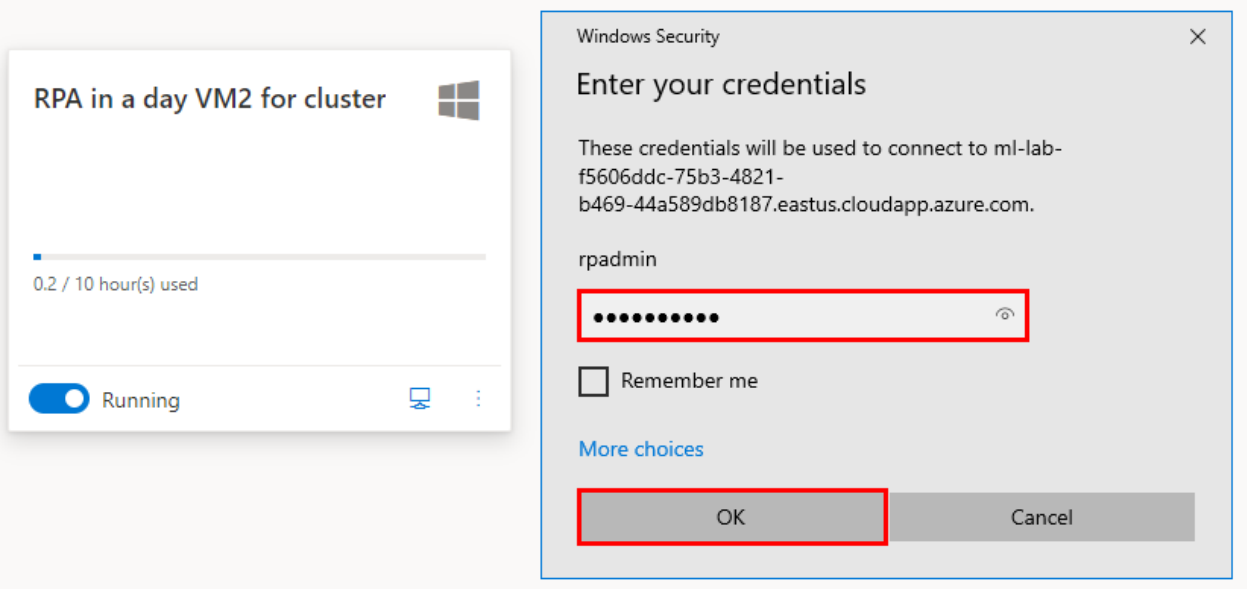


5. Click **Connect**.



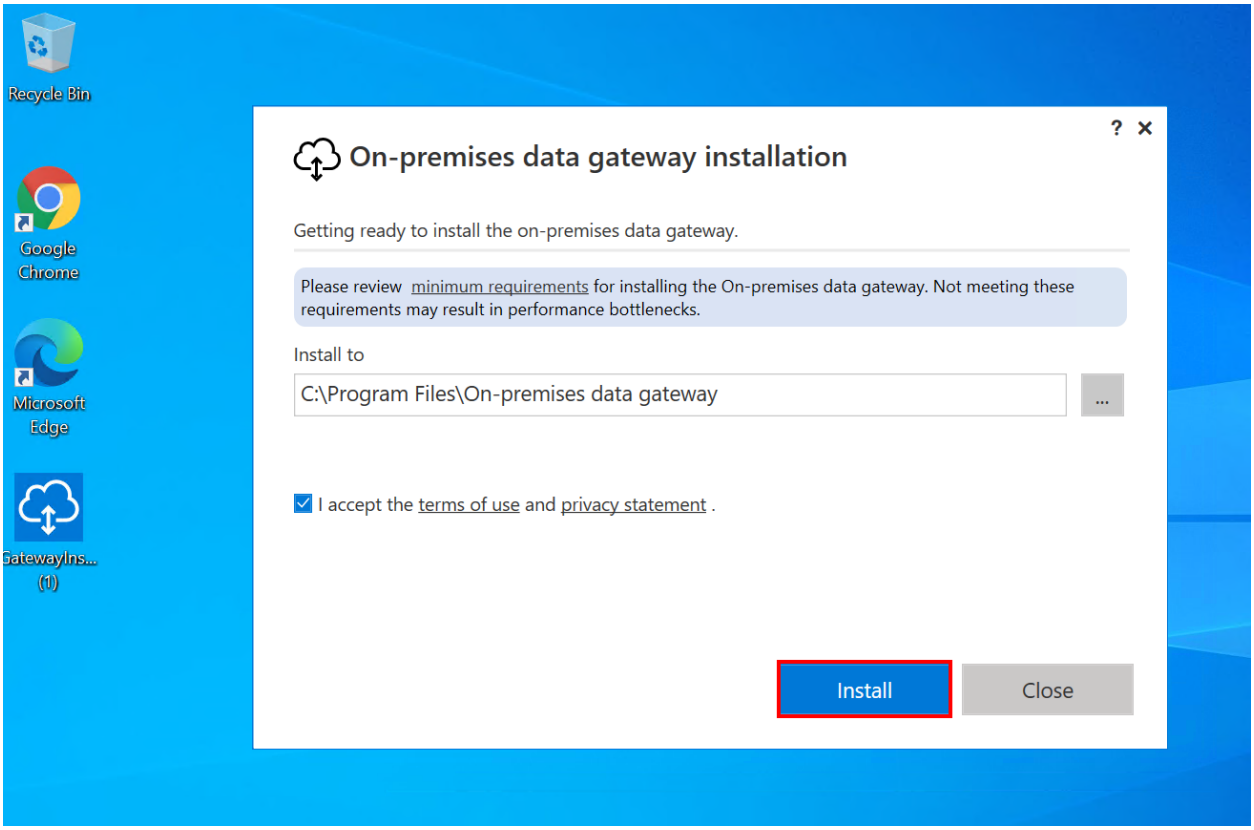
6. Use the following credentials to log in to the VM which is the same as your first VM:
   - **Username**: rpadmin [should be provided by the trainer]
   - **Password**: Uiflowrpa! [should be provided by the trainer]

   Then click **OK**.

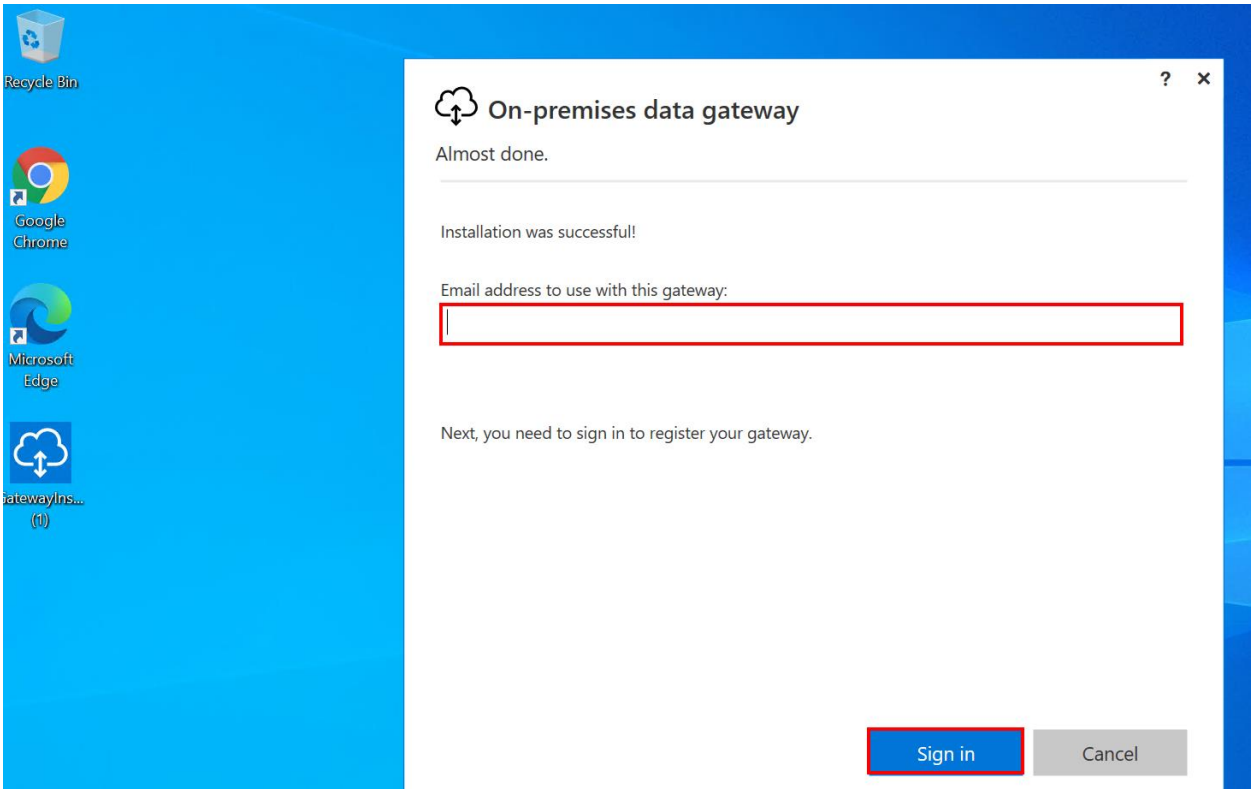


7. Install the gateway on the second VM.

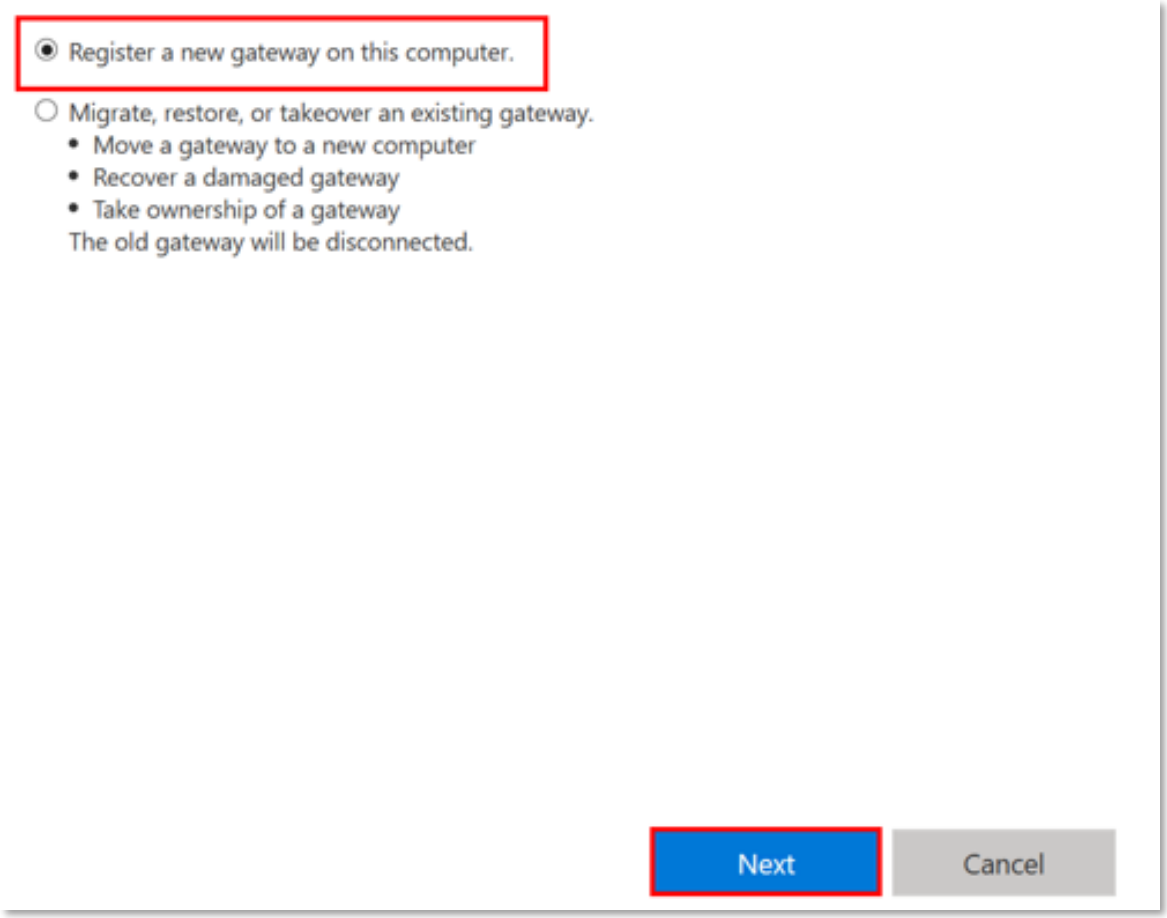
8. Click **Install**.



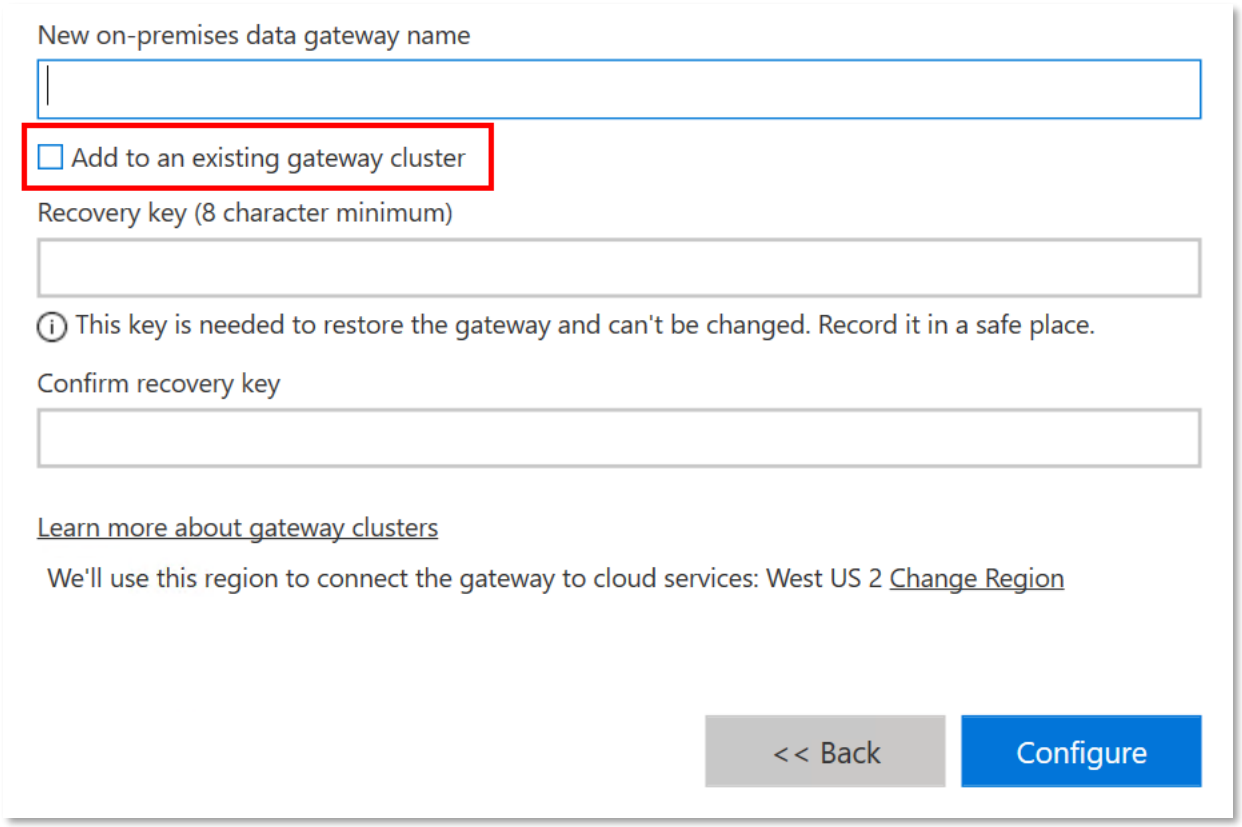
9. Sign in with the UPN for the tenant admin for the tenant you created in the setup lab.



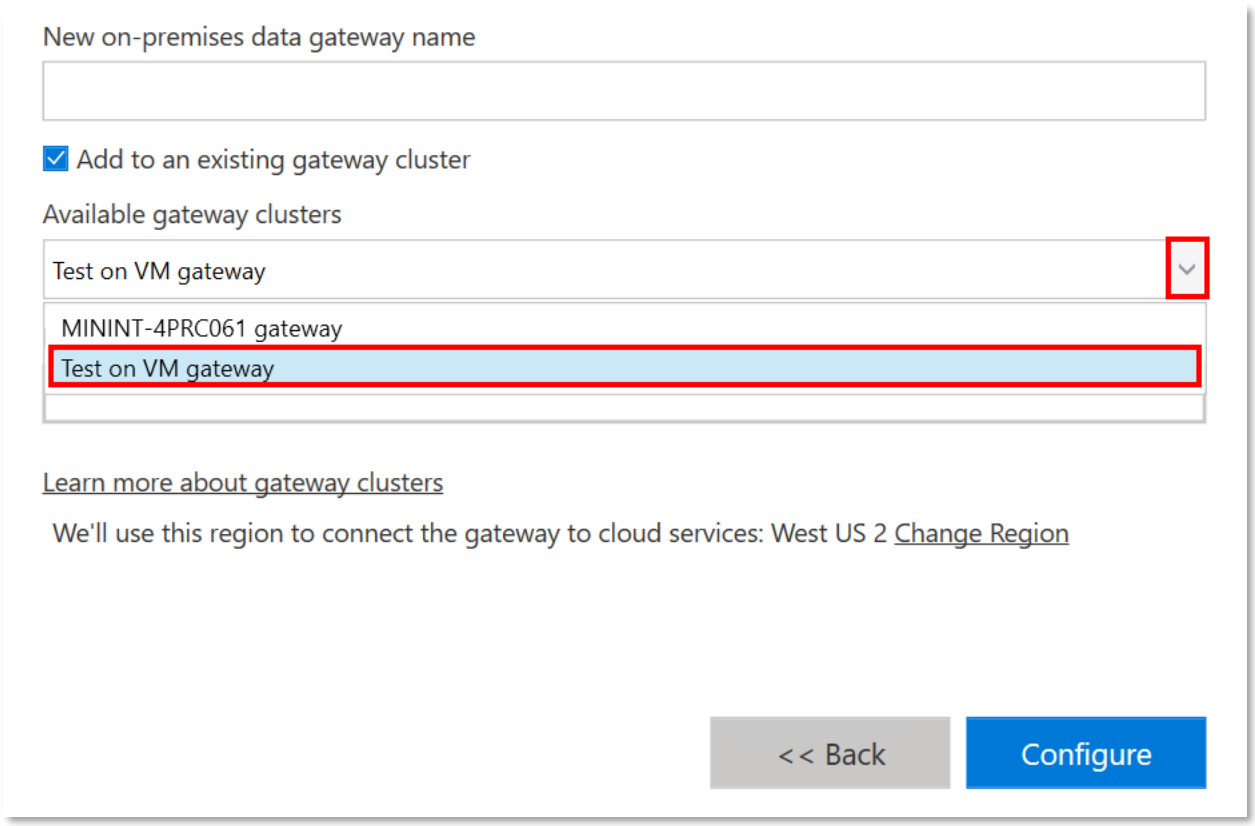
10. Select **Register a new gateway on this computer** then click **Next**.



11. **Note: Make sure you check the** Add to an existing gateway cluster box.

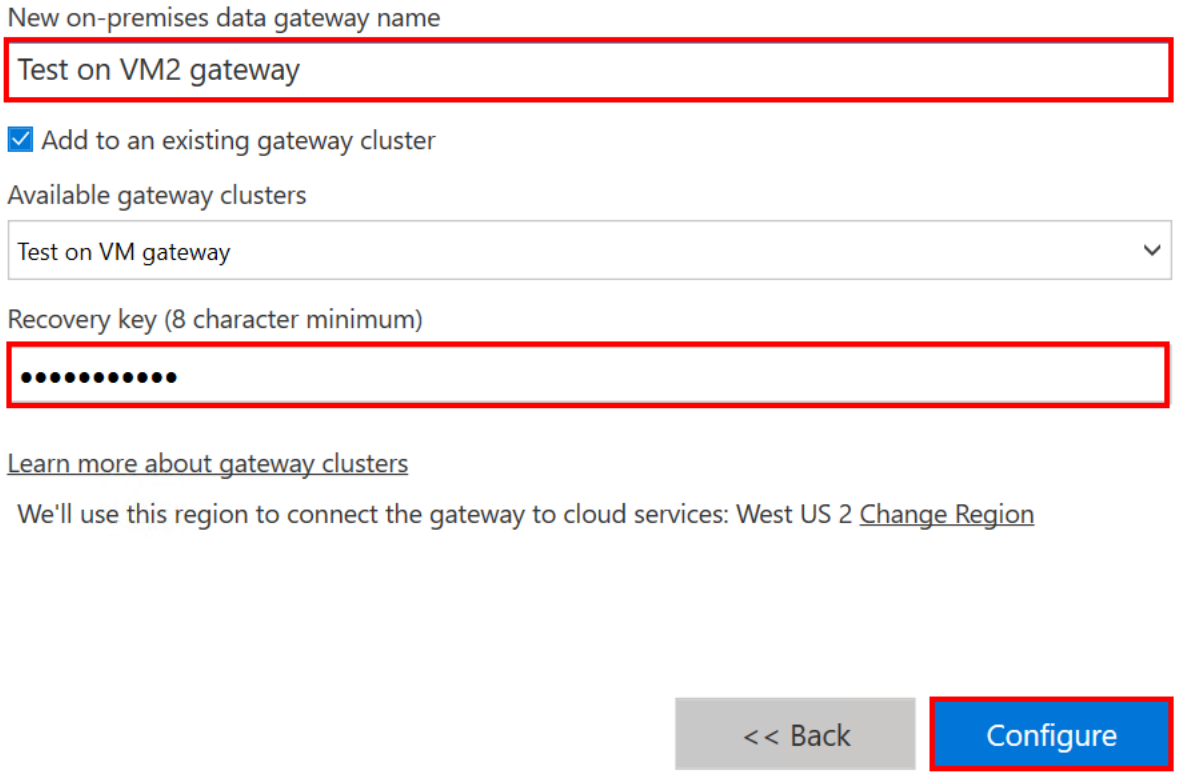


12. In the "Available gateway cluster" dropdown menu, please select the gateway name that you have created on your 1st VM. By selecting this, the new gateway you are configuring now will be added into the same cluster as the gateway from the 1st VM.

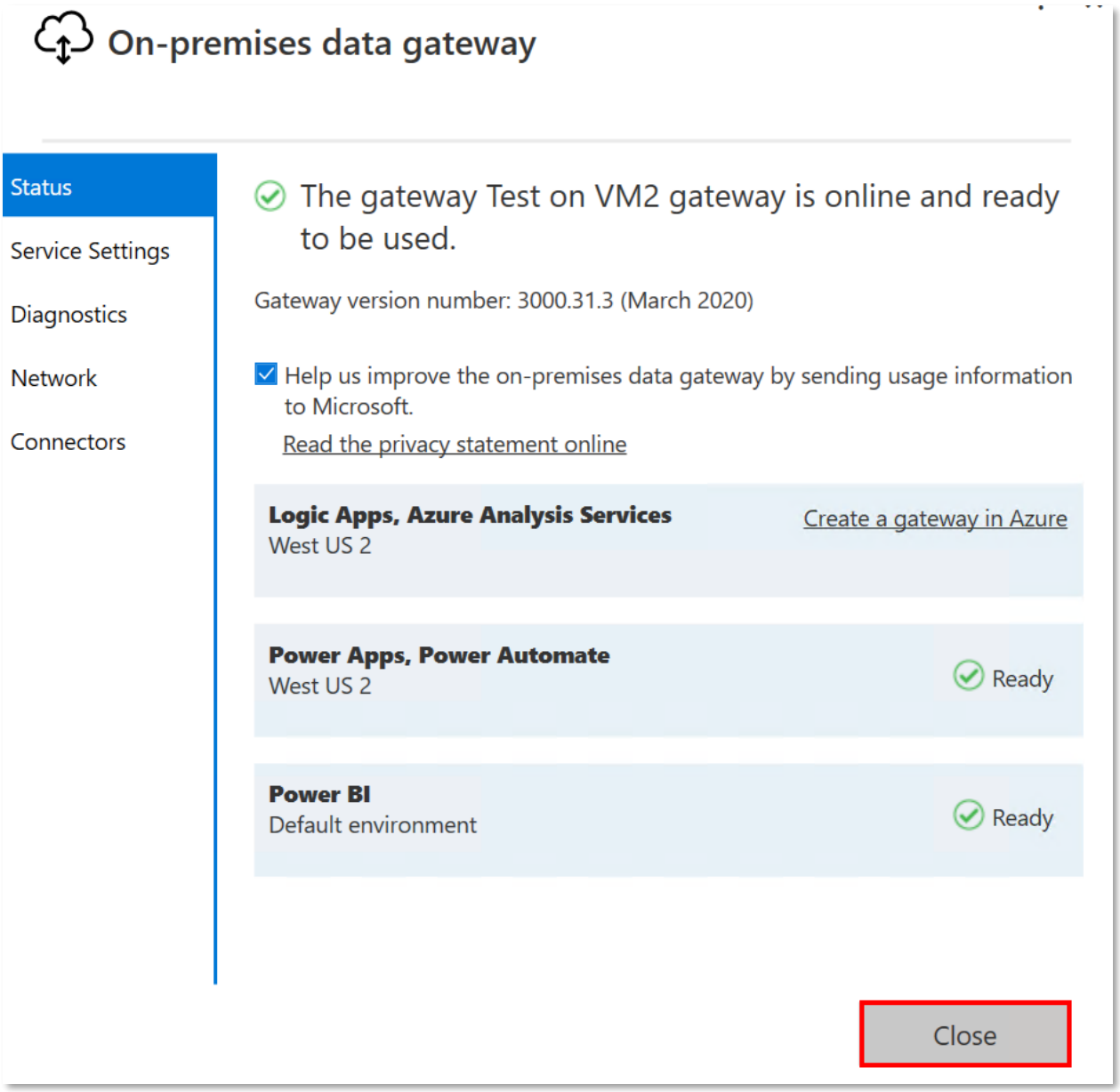


13. Name the gateway as **Test on VM2 gateway**. Enter your **Recovery key that you used when you set up the gateway on the 1st VM**. Then click **Configure**.

Note: To add new gateway instances to this cluster, this primary gateway instance needs to be online.



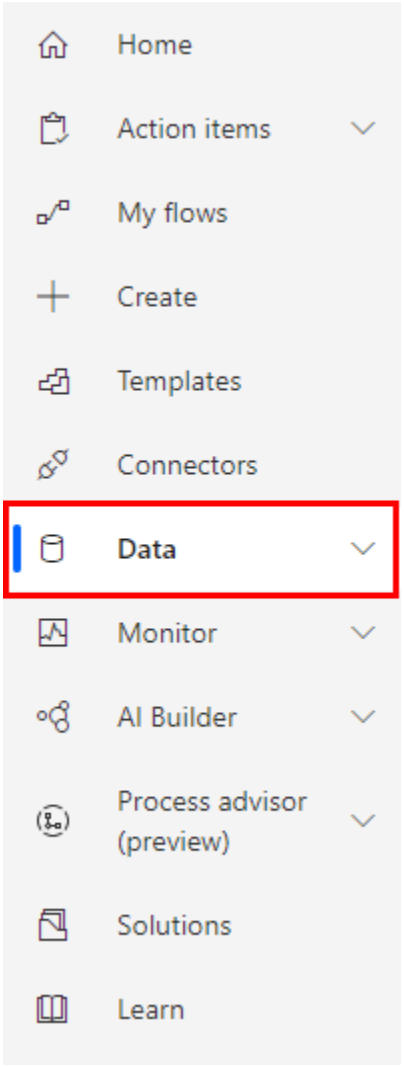
14. Now your 2nd gateway is configured into the same cluster and ready to be used, now you can click **Close**.



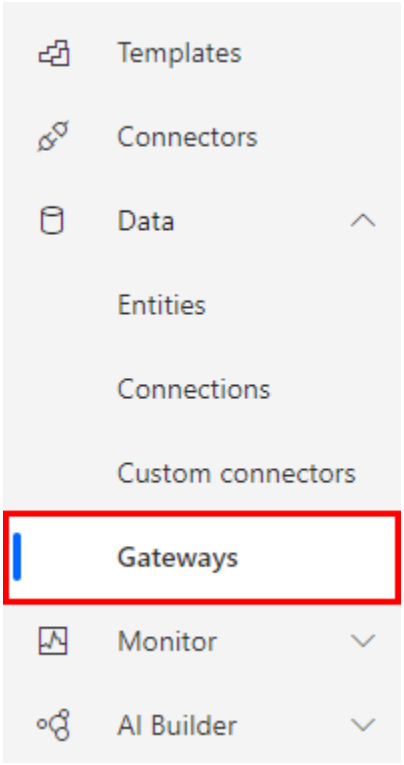
15. If it is not pre-installed, you need to copy and install the **Contoso Invoicing** app on your VM.

16. If it is not pre-installed, you also need to install the latest **Desktop flow**

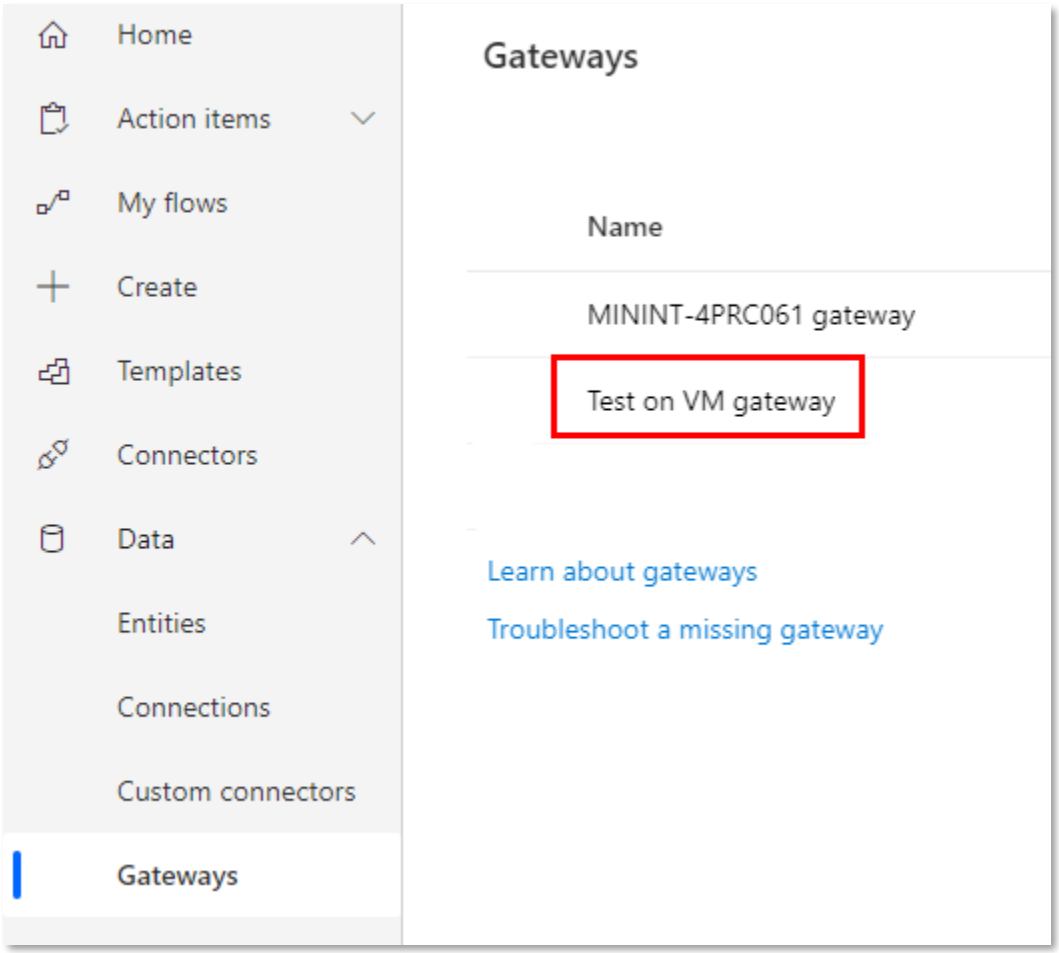
17. Now on your own computer, **not the VMs**, navigate to powerautomate.microsoft.com Sign in using your tenant account and Go to **Data**.



18. Click **Gateways**.



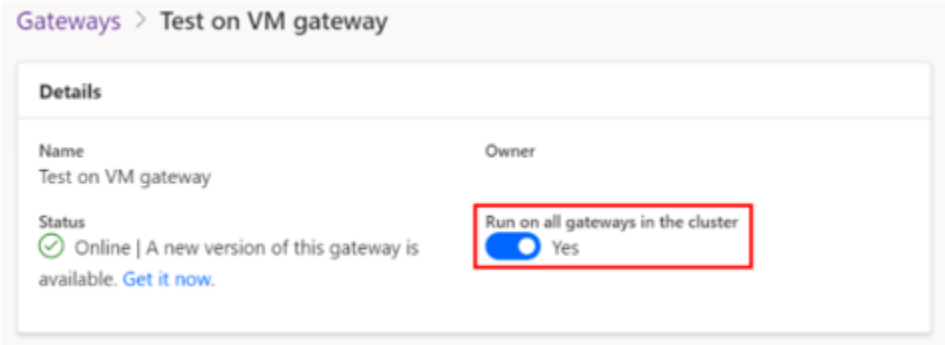
19. Select **Test on VM gateway**.



Note: you can see there are 2 Gateways in this cluster now. Select **Yes** on "Run on all gateways in the cluster".

Note: When the run on all gateways is enabled, the cluster will perform load balancing during runtime, which means all queued tasks will be distribute to the next VM that becomes available. Once the task is assigned, it will not be taken back to the queue anymore.

Note: the cluster will use the first VM as the name of the cluster.



20. Ensure your both VMs are ready for unattended run. E.g. make sure VMs are running, gateways on VMs are online, write down the highest invoice ID numbers on each VM, logged off the VMs using logoff command.

21. Now send yourself four emails with different attachments (you can find those files under the Unattended lab folder under lab data packages. Each of these 4 emails should have "unattended" in the email titles.

22. Monitor 4 flows are kicked off in parallel. Approve any Teams requests and monitor all the run results.

23. After all runs completed, log in back to both VMs to open the Contoso Invoicing app and check the newly added entries with the new invoice IDs. In most of the cases, 2 new entries should be added to each VM. Some cases due to network delay, the results could be different.