

Microsoft Cloud for Healthcare Industry Labs

Lab 04: Azure Health Bot

Step-by-Step Lab

September 2021

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Overview

Learning Objectives

In this lab, you will learn to do the following:

- Set up Azure Health Bot
- Configure Dynamics 365 Customer Service Omnichannel Live Chat
- Embed Azure Health Bot in a Power Apps Portal
- Extend Azure Health Bot with custom scenarios

Prerequisites

Lab 01 – Care Management

Azure Health Bot

The Azure Health Bot Service is a cloud platform that empowers developers in healthcare organizations to build and deploy their compliant, Al-powered virtual health assistants and health bots, that help them improve processes and reduce costs. It allows you to offer your users *intelligent* and *personalized access* to health-related information and interactions through a natural conversation experience.

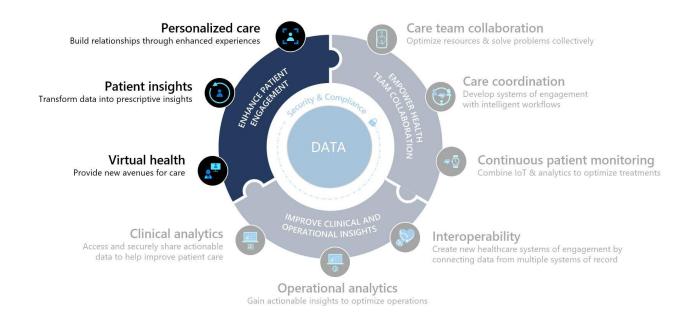
Using the service, healthcare organizations can build a "health bot instance" and integrate it with their systems that patients, nurses, doctors, and other representatives interact with. Building an instance allows you to:

- Improve processes
- Improve services
- Improve outcomes
- Reduces cost

The Health Bot Service contains a **built-in medical database**, including **triage protocols**. You can also extend a health bot instance to include your own scenarios and integrate with other IT systems and data sources. To learn more about Azure Health Bot, you can reference this Microsoft Docs article: <u>Azure Health Bot Overview</u>.

Industry Prioritized Scenarios

The Azure Health Bot focuses on the **Enhance patient engagement** priority scenario by creating a virtual bot health option to allow for new avenues of care with embedded insights.



Atkins Family Healthcare Story

This lab will focus on Lamna Healthcare Company.



As part of their digital transformation efforts, Lamna Healthcare Company is seeking to streamline their patient engagement capabilities by implementing Azure Health Bot to help improve processes and services, such as entering medication requests. By allowing patients to interact with this service, Lamna Healthcare Company will move one step closer to their goal of improving patient outcomes while reducing overall costs.

In this lab, you will play the role of a Lamna Healthcare IT developer and configure Azure Health Bot for a medication refill scenario.

Exercise 1: Set Up Azure Health Bot

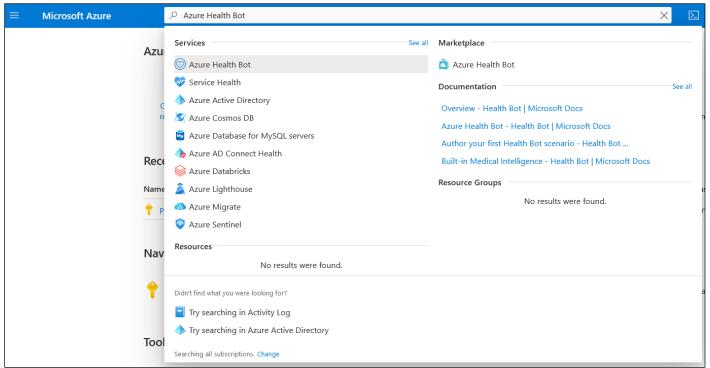
In this exercise, you will do the following:

- Set up Health Bot from Azure Portal
- Configure and enable the integration between Dynamics 365 Omnichannel and Health Bot
- Configure and enable Bot channel to obtain a Bot Id

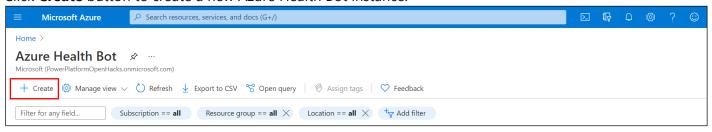
Azure Health Bot empowers developers in healthcare organizations to build and deploy Al-powered, compliant, conversational healthcare experiences at scale. It combines built-in medical database with natural language capabilities to understand clinical terminology and can be easily customized to support your organization's clinical use cases. The service ensures alignment with industry compliance requirements and is privacy protected to HIPAA standards. To learn more about Azure Health Bot, please reference this <u>Azure Health Bot documentation</u>.

Task 1: Install Azure Health Bot in Azure Subscription

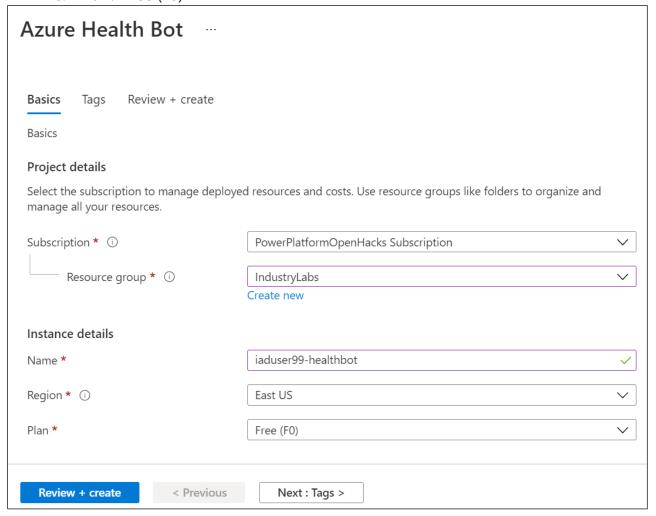
- 1. While logged in to your Microsoft 365 tenant, open a new tab in your internet browser incognito or inprivate mode and navigate to Azure Portal at https://portal.azure.com/
- 2. Search for **Azure Health Bot** in the top search bar.
- Select "Azure Health Bot" from the search results.



4. Click Create button to create a new Azure Health Bot instance.



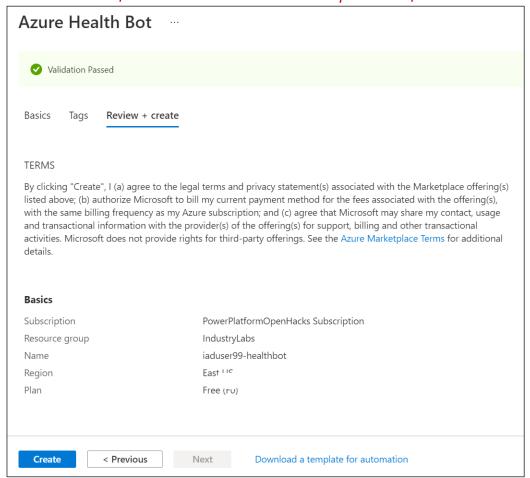
- 5. You will be redirected to the Azure Health Bot page. Enter the following information:
 - a. Subscription: PowerPlatformOpenHacks Subscription
 - b. **Resource Group**: IndustryLabs
 - c. Name: iaduser[x]-healthbot (e.g., iaduser01-healthbot)
 - d. **Region**: East US e. **Plan**: Free (F0)



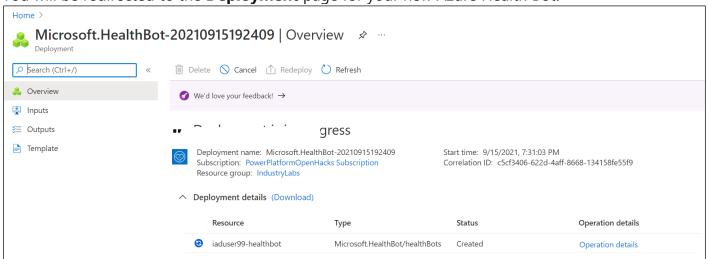
6. Select Review + Create.

7. On the Review and create page, verify your details are correct as Azure validates your Health Bot. When the create button is enabled after validation passes, click **Create**.

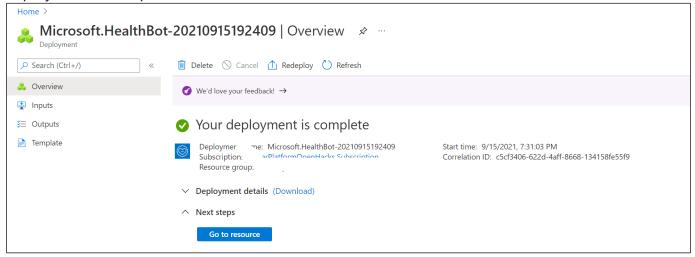
Note: It will take few seconds to run the backend process before the Create button is enabled.



8. You will be redirected to the **Deployment** page for your new Azure Health Bot.

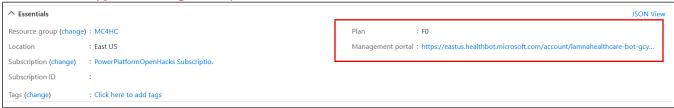


When deployment is complete, the Go to resource button will enable. Please wait until deployment is complete for the Azure Health Bot, then select Go to resource when enabled.

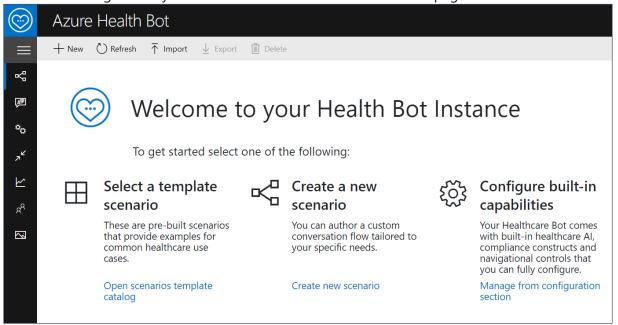


10. You will be redirected to the **Resource** page for your new Azure Health Bot. Click the **Management portal** link in the Essential section to open your Azure Health Bot instance configuration page.

Note: Please copy this Management portal link and store it to access the Health Bot later.



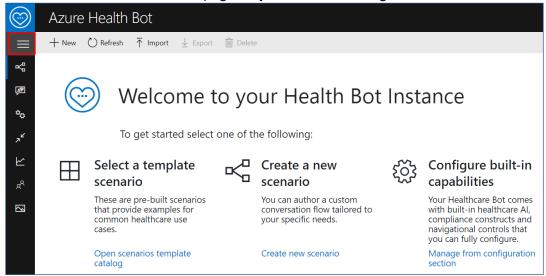
11. You will be navigated to your new Azure Health Bot instance homepage.



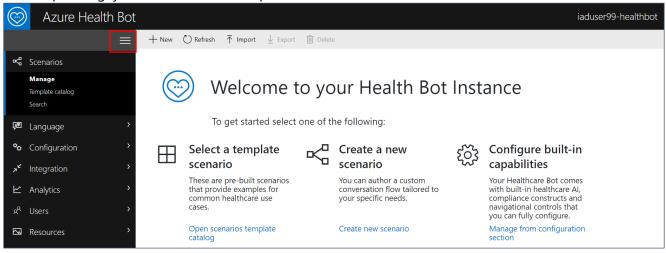
Congratulations! You have successfully created a new Health Bot instance in your Azure tenant.

Task 2: Update Azure Health Bot Settings to Enable Dynamics 365 Integration

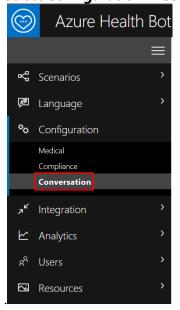
1. On the Azure Health Bot homepage, **expand** the side navigation bar to see the sitemap labels.



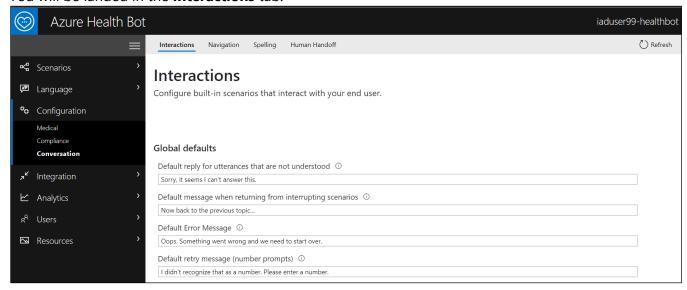
After expanding, you will see the sitemap labels next to the icons:



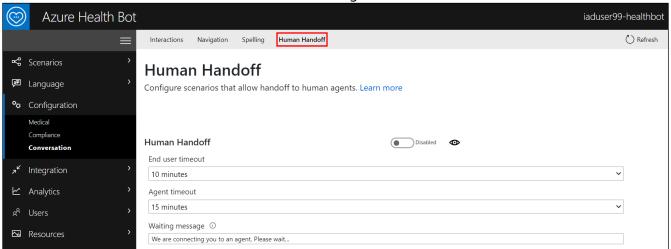
2. Select **Configuration** > **Conversation** on the navigation bar.



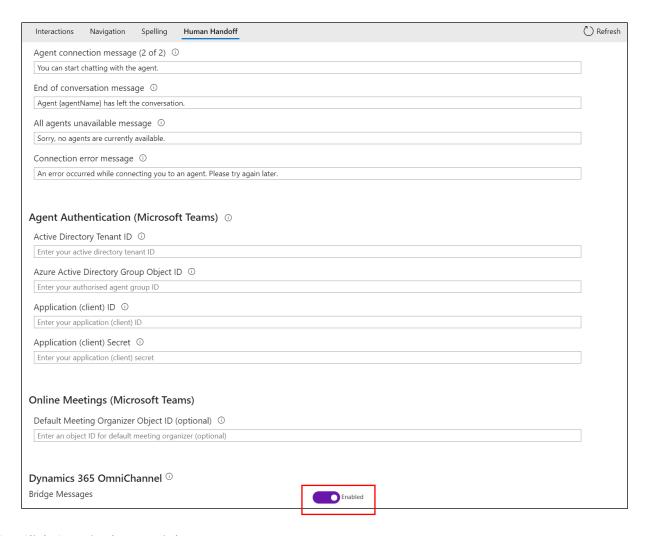
3. You will be landed in the **Interactions** tab.



4. Select **Human Handoff** tab in the Conversation settings.



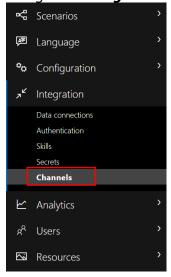
5. Scroll to the bottom of the **Human Handoff** page. Under **Dynamics 365 Omnichannel**, toggle **Enabled** for **Bridge Messages**. This is required to allow communication and bridge messages between the Azure health Bot and Dynamics 365 Omnichannel for Customer Service.



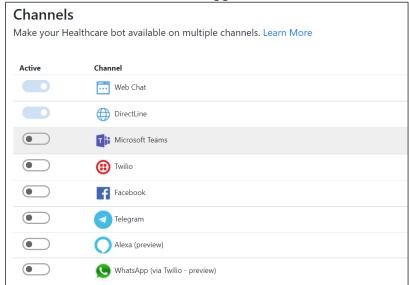
6. Click **Save** in the top right.



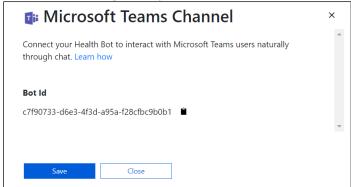
- 7. Now let's enable the Health Bot for **Microsoft Teams** Channel.
- 8. Navigate to Integration > Channels.



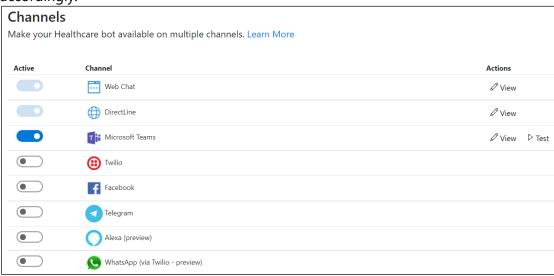
9. In the Channels list, select the toggle to **enable Microsoft Teams.**



10. This will bring out a side window with your **Bot Id** information. **Copy and store** the Botld for later to use when creating the Dynamics 365 Application User.



11. Select **Save**. This should enable Teams channel and your Microsoft Teams toggle should reflect accordingly.

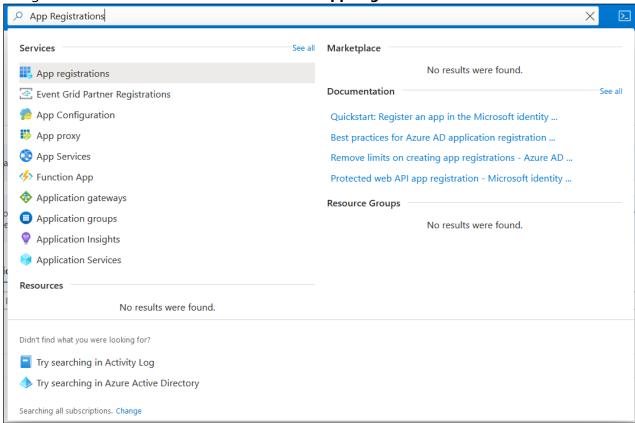


Congratulations! You completed the Azure Health Bot settings for integration with Microsoft Teams and Dynamics 365 Omnichannel for Customer Service.

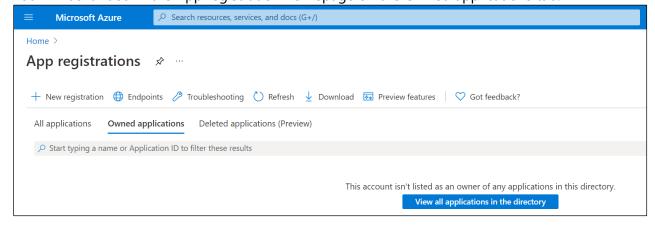
Task 3: Obtain Azure Application ID

In this task, you will be using an Azure Application ID already created in our Azure tenant called "**MCH Application Id**". Registering this Id establishes a trusted relationship between your Dynamics 365 app and the Microsoft identity platform. Using this Id, you will later create a Dynamics 365 Application User to bridge the authentication between Azure Health Bot and Power Apps.

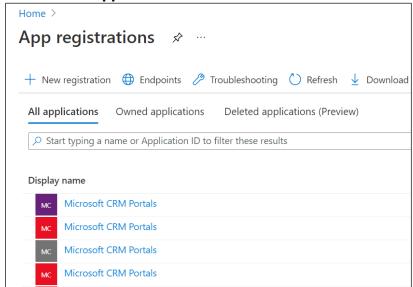
1. Navigate back to the Azure Portal and search for App Registrations in the Search box.



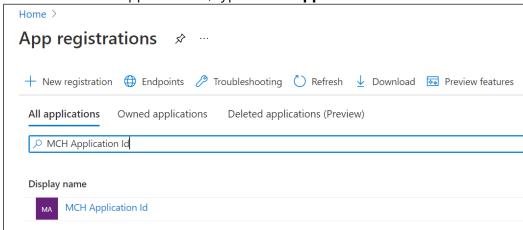
2. You will be landed in the App registration homepage on the Owned applications tab.



3. Select the **All applications** tab.

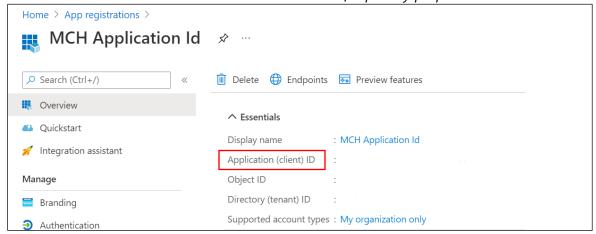


4. To **search** for our Application Id, type "**MCH Application Id**" in the Search box.



5. Select the **MCH Application Id** app registration resource. **Copy and store** the **Application (client) ID** for later to use when creating the Dynamics 365 Application User.

Note: ID values have been removed in the screenshot for privacy purposes.



Congratulations! You have successfully obtained the MCH Application ID from Application Registrations in the Azure Portal.

Exercise 2: Configure Omnichannel Live Chat

In this exercise, you will be configuring live chat for **Dynamics 365 Omnichannel for Customer Service**. Omnichannel for Customer Service offers a suite of capabilities that extend the power of Dynamics 365 Customer Service Enterprise to enable organizations to instantly connect and engage with their customers across digital messaging channels.

In the following tasks, you will complete the following:

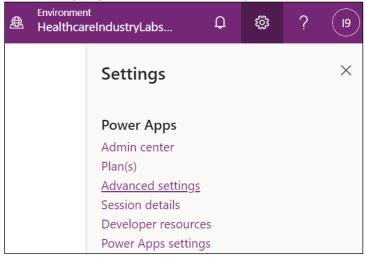
- 1. Assign Omnichannel agent security role
- 2. Create an Application User using the MCH Application Id and your Bot ID
- 3. Configure Queues for Bot and Agent Users
- 4. Configure a Context Variable and Routing rule to route the message either to a Bot or Agent.

Task 1: Assign Omnichannel Agent Security Role

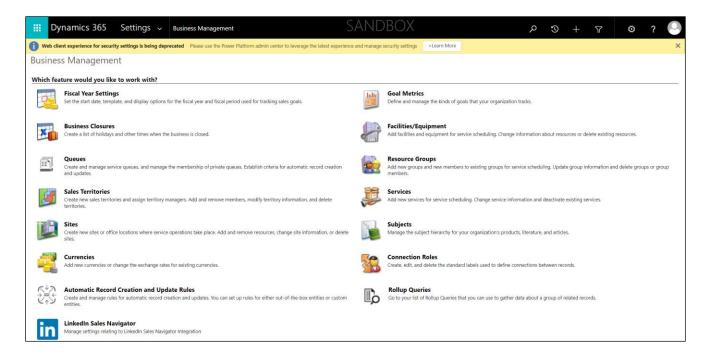
- 1. While in the In-Private or Incognito window, navigate to **Power Apps.**
- 2. Ensure the correct environment from the upper right **Environment** drop down is selected.



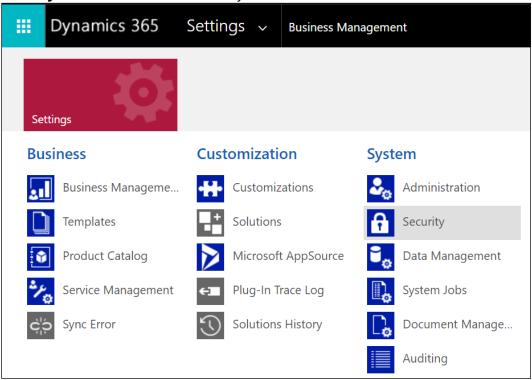
3. Select the **gauge icon** in the upper right corner and navigate to **Advanced Settings**.



4. A new window should open and navigate to Dynamics 365. It may take a while to load. If it's been longer than a minute, stop and reload the page. It should then load faster. It will land you in the Business Management section of Dynamics 365.



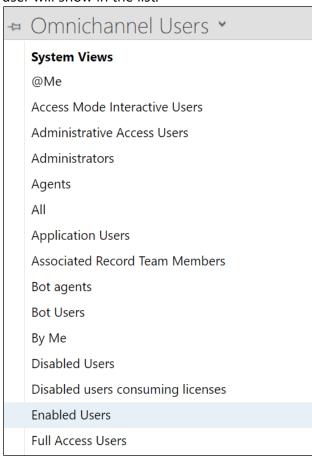
5. On the top command bar next to Dynamics 365, select **Settings** to open the drop-down, then select **Security** in the third column under System.



6. Under Security, select **Users**.

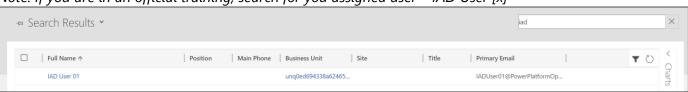


7. Switch the view drop down from Omnichannel Users to **Enabled Users** for the grid view so that your user will show in the list.

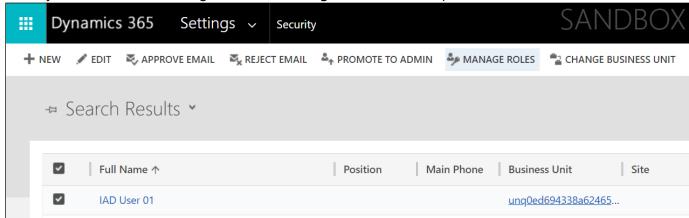


8. While in the Enabled User list, scroll to **find your user** or use the **Search** bar.

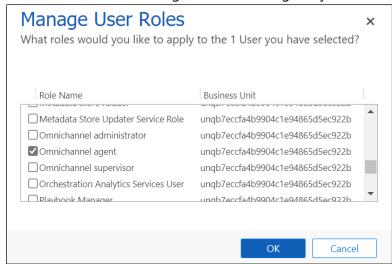
Note: If you are in an official training, search for you assigned user – IAD User [x]



9. Select your user for the training and select **Manage Roles** on the top command bar.



10. Select the Omnichannel Agent roles to assign to your user and select **OK**.



Congratulations! You assigned the proper omnichannel agent role to your user to allow you to be a live agent in omnichannel.

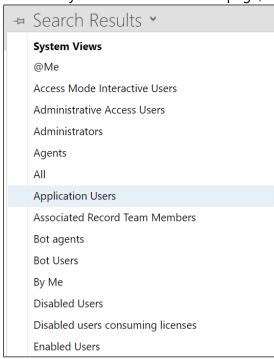
Task 2: Create Health Bot User in Dynamics 365 Customer Service

We need two users to configure in Omnichannel for Dynamics 365 Customer Service:

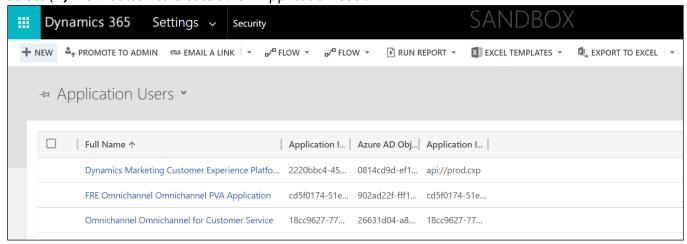
- **Health Bot User** This is the Azure Health Bot user we created in the previous exercise.
- Omnichannel Agent User This is your current user whom you are logged into Dynamics 365. This will allow you to be a live agent in Customer Service who receives messages from portal users through Azure Bot escalations. *Note: For internal trainings, this is your assigned user, iaduser[x]*

In this task, you will create a **Bot User** which helps connect **Azure Health Bot** with **Omnichannel live Chat**.

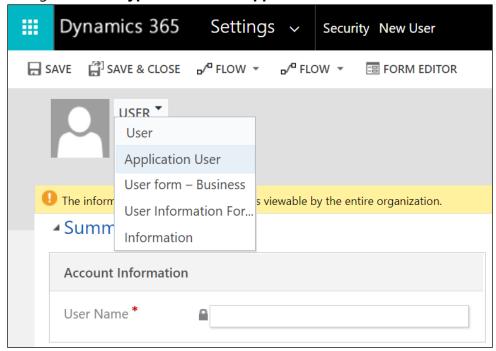
1. While in Dynamics 365 in the User page, switch the view to **Application Users**.



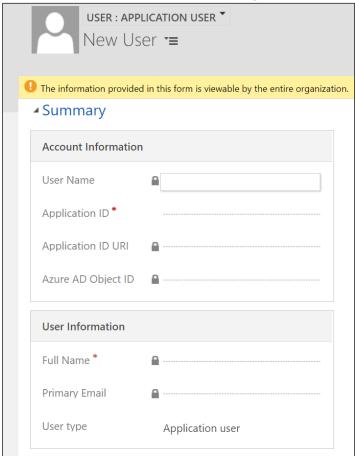
2. Select (+) **New** button to create a new Application User.



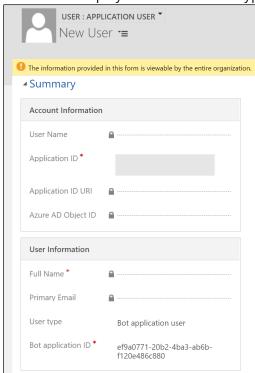
3. Change the **form type** from User to **Application User** above the New User name.



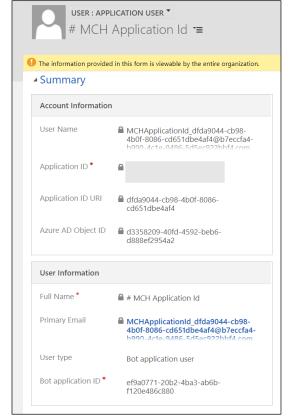
4. You will see a new form appear that aligns to an Application User.



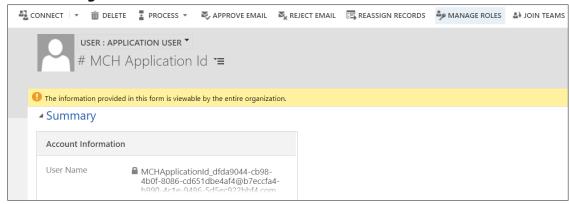
- 5. On the **New User** record, enter or select the following information:
 - a. **Application ID**: This is the Application (client) ID you obtained in the Azure Portal for the supplied MCH Application ID.
 - b. User type: Select Bot application user. This will display a new field to store the Bot application Id.
 - c. **Bot application ID**: This is the Azure Health Botld you copied when enabling the Teams channel. This field is displayed once the User Type is selected to be Bot application user.



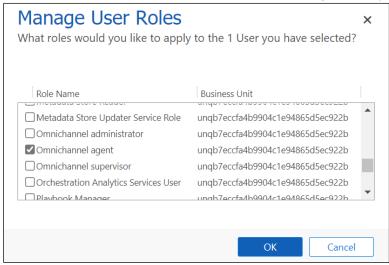
6. Click Save. It will auto populate the other values in the record.



7. Select Manage Roles on the command bar.



8. Assign the **Omnichannel Agent role** to the Bot User as you did for your own user in the previous task. This will allow the bot to act as an omnichannel agent like your user.

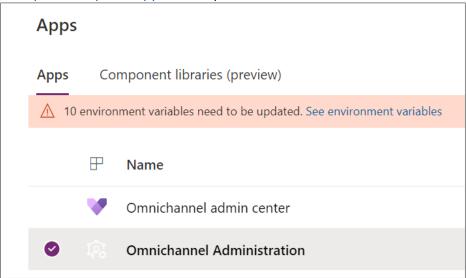


Congratulations! You successfully created a Bot User and assigned to it the Omnichannel Agent role.

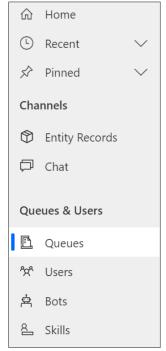
Task 3: Create and Configure Omnichannel Queues

In this task, you will create and configure the omnichannel queues necessary to communicate with the correct bot or agent depending on the situation.

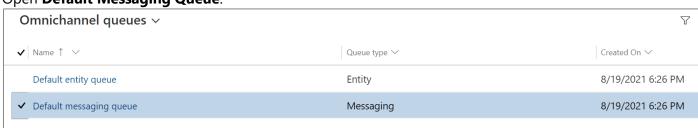
1. In http://make.powerapps.com, open the **Omnichannel Administration** app.



2. Select **Queues** on the left navigation bar.

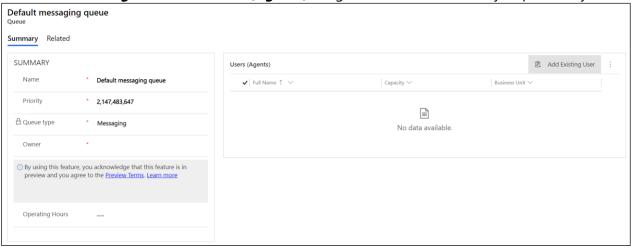


3. Open Default Messaging Queue.

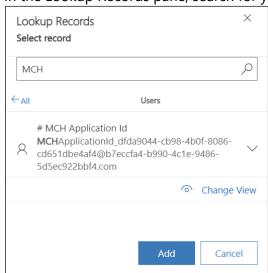


4. We will now associate the Default messaging queue with the Bot User so it will respond to incoming messages from customers without agent (human) intervention.

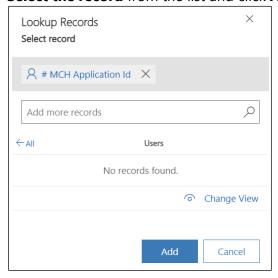
Select Add Existing User on the User (Agents) subgrid to add the Bot user you previously created.



5. In the Lookup Records pane, search for your **Bot User** (MCHApplicationId) created in the earlier task.

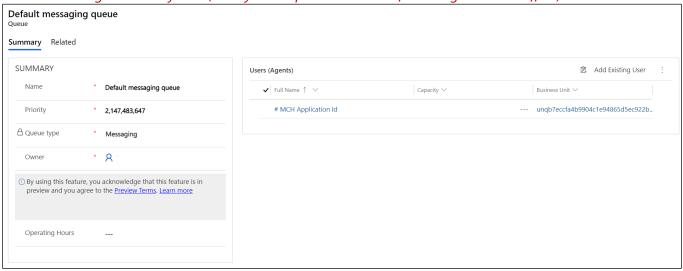


6. **Select the record** from the list and click **Add**.

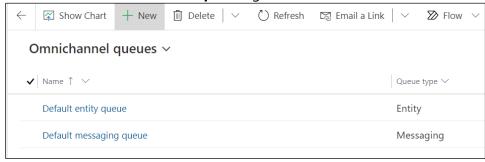


7. You should now see the Bot User (MCH Application Id) in the Users (Agents) list.

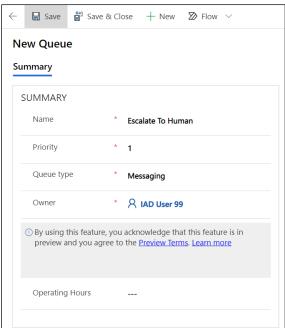
Note: If your user does not populate after adding, make sure you have assigned the bot user the correct omnichannel agent security role (it may take up to 15 minutes for changes to take effect)



8. Go back to the **Omnichannel queues** grid. Click + **New** to create a new Queue.

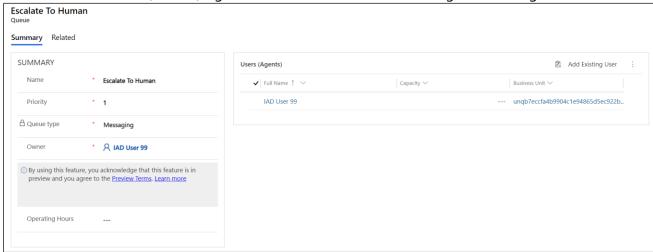


- 9. Give the new Queue the following details:
 - a. Name: "Escalate To Human"
 - b. **Priority**: 1 (lower than default queue)
 - c. Click Save.



10. A Users (Agents) **subgrid should appear** on the right and your **user should be automatically added** to the list. If your user account is not on the list, add it through the Add Existing User button now.

The queue **Escalate To Human** is created to manage and redirect the incoming messages from a user to a Customer Service (human) Agent when Bot sends the user through to a live agent.

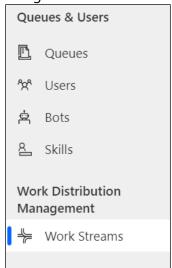


Congratulations! You have created the necessary queue to escalate to human agent and added the appropriate users to each messaging queue.

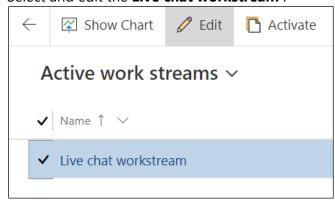
Task 4: Update Live Work Stream with Context Variables and Routing Rules

In this task, we will set up basic chat routing. This will allow for users to chat with a bot user in certain cases and a live human agent in other scenarios. The routing rules will allow chat to behave as follows:

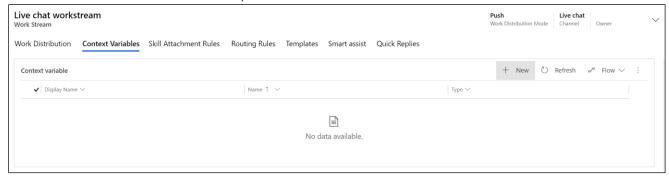
- **Route to Bot:** Initial customer conversation is through Health Bot in the default messaging queue. When the chat bot is first opened, route to Default queue which only contains the bot user (agent).
- **Human Routing Rule**: When context variable **EscalateToAgent** is present and set to 1, we route to the queue that has only human users (agents) who can take over conversation.
- 1. Navigate to Work Streams.



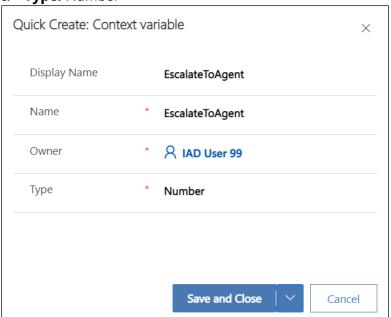
2. Select and edit the Live chat workstream.



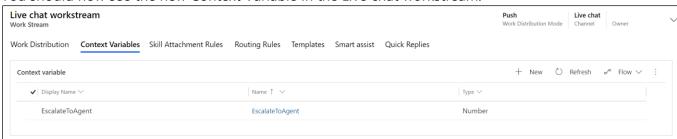
3. In the Live chat workstream record, select the Context Variables tab. Select + New.



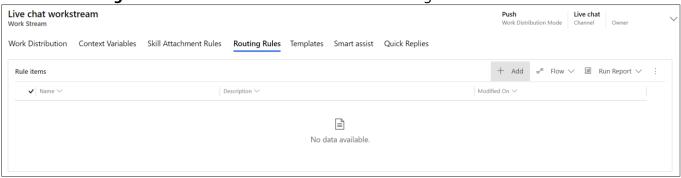
- 4. Create the new Context Variable with the following details:
 - a. **DisplayName:** EscalateToAgent
 - b. **Name:** EscalateToAgent
 - c. Type: Number



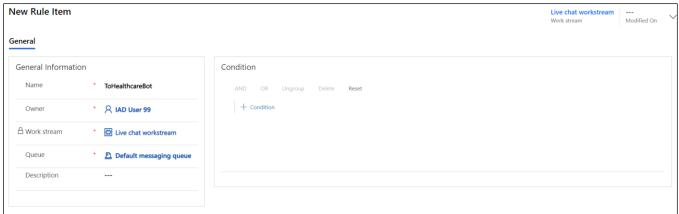
- 5. Click Save and Close.
- 6. You should now see the new Context Variable in the Live chat workstream.



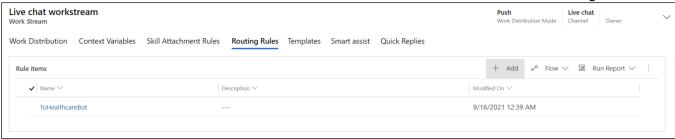
7. Select the **Routing Rules** tab. Click + **Add** to create a new routing rule.



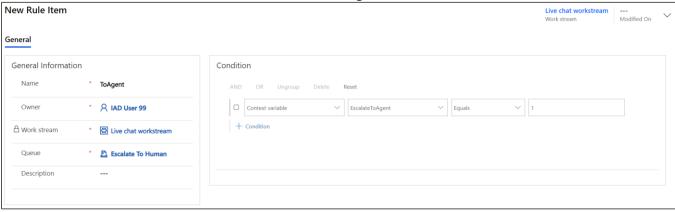
- 8. Create the new Health Bot routing rule with the following details:
 - a. Name: ToHealthcareBot
 - b. Queue: Default messaging queue
 - c. No Conditions.

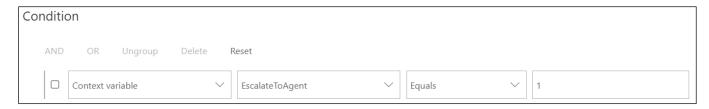


Select Save & Close. On the Live chat workstream, click + Add to add another new Routing Rule.



- 10. Create the new Omnichannel Agent routing rule with the following details:
 - a. Name: ToAgent
 - b. **Queue:** EscalateToHuman
 - c. Add Condition: Context Variable "EscalateToAgent = 1"





11. Select Save & Close.

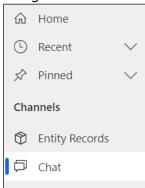
12. On the Live chat workstream, you should now see the two **Routing Rules** we created for **Bot** (ToHealthcareBot) and **Agent** (ToAgent).



Congratulations! You have created the proper context variable and routing rules that will allow customers to begin conversation with a health bot and escalate to a human agent.

Task 5: Create Chat Widget for Health Bot

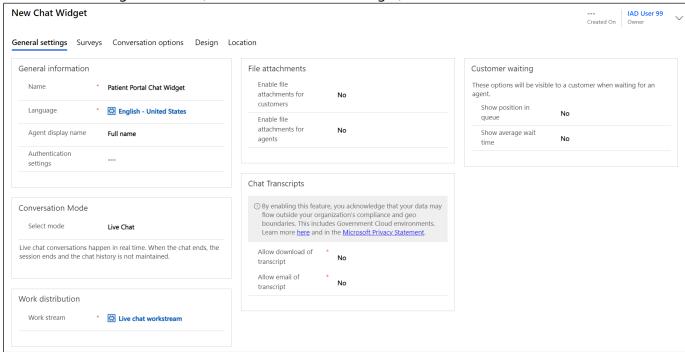
1. Navigate to Chat.



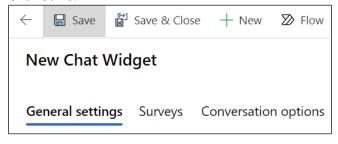
2. Select +New Chat Widget.



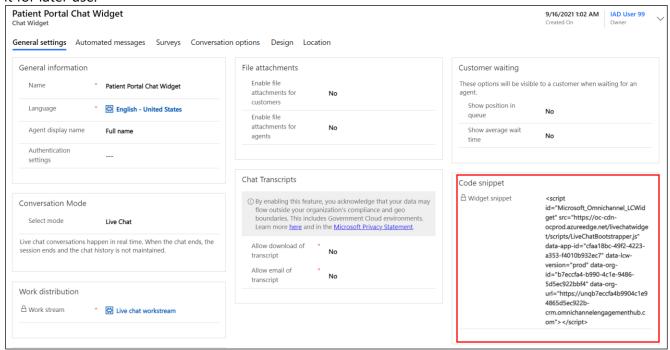
3. Give the Chat Widget a Name (ex: Patient Portal Chat Widget).



4. Click Save.



1. After the record is saved, a **Widget Code Snippet** will be generated. **Copy** the code snippet and store it for later use.



Congratulations! In this exercise, you have successfully configured Customer Service Omnichannel Live chat by creating the necessary Users, Queues, Work Streams, Context Variables, Routing Rules, and Chat Widget. These all work together and allow patients to chat with a virtual health bot with the option to escalate up to a human agent if needed.

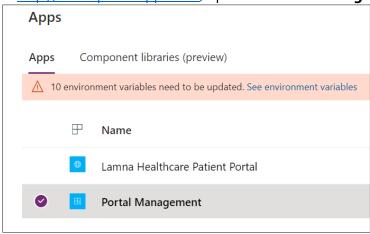
Exercise 3: Embed Health Bot in Power Apps Portal

In this exercise, you will be embedding the **Omnichannel Chat Widget** into the Power Apps Customer self-service portal using Portal Management configuration. In your environment, we created a Lamna Healthcare Company Portal using the **Customer self-service portal** template before deploying Microsoft Cloud for Healthcare. Now we will configure the chat widget to show on the customer website.

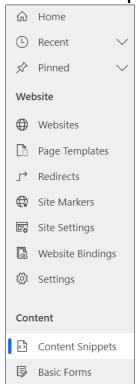
Customer self-service portal: A customer self-service portal enables customers to access self-service knowledge, support resources, view the progress of their cases, and provide feedback.

Portal Management: Application to help you get started with the advanced portal configuration. In this walk-through, you will learn how to configure Chat widget in **Portal Management** app.

1. In http://make.powerapps.com, open the **Portal Management** app.



2. Select **Content Snippets** in the left navigation pane



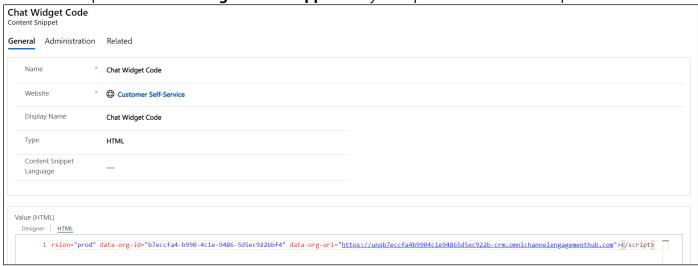
1. In **Active Content Snippets**, type "**Chat**" in the **Search** box and press enter.



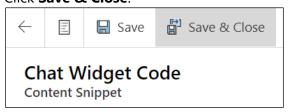
You will see two Chat Widget Code records retrieved in the list.
 Click to open the Chat Widget Code record related to Customer Self-service.



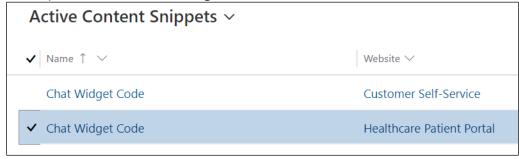
3. In the **Chat Widget Code** record associated with Customer self-service, select **Value (HTML)** > **Html** Tab and then paste the **Chat Widget Code snippet** that you copied and stored in the previous task.



4. Click Save & Close.



5. Now open the other Chat Widget Code associated with the Healthcare Patient Portal website.



6. In the **Chat Widget Code** record assocaited with the Healthcare Patient Portal, paste in **Value** (HTML) the same **Chat Widget Code snippet** that you copied and stored previously and added to the customer self-service chat widget code. Replace any value that may have already populated the field.



7. Select Save and Close.

Congratulations! In this exercise you have successfully updated the chat widget in the Power App Portal Content Snippets. With this configuration, the Health Bot will be visible on the Power Apps portal, for both the customer self-service template and the healthcare patient portal template.



Thank you for joining us on Day 1 of Microsoft Cloud for Healthcare Industry Labs!

We will continue Lab 04: Azure Health Bot on Day 2, extending the bot with custom scenarios.