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Introduction
Qlik Insight Bot is an exclusively built chat bot to which a user can have an insightful conversation regarding his/her data assets, on recognized chat platforms like Slack, Microsoft Teams, Skype for Business Online etc. In order to have a conversation with Qlik Insight Bot, there are several configurations must be done.

For most channels you must provide channel configuration information to run your bot on the channel.

The purpose of this document is to guide you to how to configure channels with Azure.
Configuring Slack

Configure Request URL

1. Go to Azure Portal, select a Bot you want to configure.

2. Select Settings under Bot Management.
3. Copy the **Bot handle** and replace it with `{Bot handle}` in below URL.
https://slack.botframework.com/api/Events/{Bot handle}. Store the modified URL in a text editor. This will be used later.

   e.g. https://slack.botframework.com/api/Events/TestBot

   ![Image of Bot handle settings](image1)

   **Configure Messaging Endpoint**

4. Provide https://<Server URL>:443/api/messages as a messaging endpoint under **Configuration** section, click **Save** to configure Messaging endpoint.

   A **Server URL** is a Public URL of a server on which **Qlik Insight Bot Service** is to be Installed.

   ![Image of Messaging endpoint settings](image2)
Create a Slack App
5. Login to Slack using admin credentials.
6. Go to Slack API and click Your Apps to create an application.

7. Click Create an App.

8. Enter App Name, select Development Slack Workspace and click Create App.
Add a new Redirect URL
(Skip this section if you are not using Slack channel from Azure)

9. After creating an app, select **OAuth & Permissions**, under **Features** on left panel.

10. Click **Add a new Redirect URL**.

11. Enter [https://slack.botframework.com](https://slack.botframework.com) as a Redirect URL, click **Add** to add URL and click **Save URLs** to save the added URL.
Create a Slack Bot User

12. After adding Redirect URLs, select Bot Users under Features from left panel.

13. Click Add a Bot User.

14. Enter Display Name, Default Username, turn on Always Show My Bot as Online and click Add Bot User.
Configuring channels

Subscribe to Bot Events
(Skip this section if you are not using Slack channel from Azure)

15. After creating a Bot User, click **Event Subscriptions**, under **Features** from left panel and turn on **Enable Events**.

![Event Subscriptions](image)

16. Enter the **Request URL**. This is the URL which we have stored earlier. (refer Step-3). E.g. https://slack.botframework.com/api/Events/{Bot handle}

![Request URL](image)

17. Scroll down to **Subscribe to Bot Events** add following bot user events and click **Save changes**.
   a. member_joined_channel
   b. member_left_channel
   c. message.channels
   d. message.groups
   e. message.im
   f. message.mpim
Configure Interactive Components

18. After subscribing Bot events, click Interactive Components under Features from left panel and turn on Interactivity.

19. Enter the below Request URL and click Save Changes.
   - If Azure is being used: https://slack.botframework.com/api/Actions
   - If Azure is not being used: https://<domain>:4434/api/slack/actions

Here, the domain will be the name of the server where we are going to install Qlik Insight Bot.
Configuring channels

Install Application

20. After completing all configurations, click **Install App** under **Settings** from left panel.

21. Click **Install App to Workspace** to install application.

22. Click **Authorize** to authorize bot user.
Save Application Credentials
(Jump to step – 26 if you are not using Slack channel from Azure)

23. After installing an application, click **Basic Information** under **Settings** on left panel.

![Basic Information](image)

24. Scroll down to App Credentials, copy **Client ID**, **Client Secret** and **Verification Token** and store them. They will be needed later.

![App Credentials](image)

25. Select **OAuth & Permission** under **Features** on left pane.

![OAuth & Permission](image)
26. Copy **Bot User OAuth Access Token** and store it somewhere in file. This will used later in Qlik Insight Bot Configuration App.

Configure Slack Bot with Qlik Insight Bot Web service  
(Skip this section if you are not using Slack channel from Azure)

27. Go to **Azure Portal** and select the appropriate Bot.

28. Select **Channels** under **Bot Management**.
29. Scroll down to **More channels**, select **Slack**.

![Slack Configuration](image1.png)

30. Enter **Client ID**, **Client Secret** and **Verification Token** (refer step – 24), click **Save**.

![Configure Slack](image2.png)

31. Click **Authorize** to validate Slack Bot with Azure.

![Authorize Slack](image3.png)

Now, Slack Bot should be configured with Qlik Insight Bot Web service and ready to use.
Configuring Microsoft Teams

There are two ways to configure bot for Microsoft Teams.

1. Using Azure
2. Using App Studio in Microsoft Teams

Using Azure

Configure Messaging Endpoint

1. Go to Azure Portal, select a Bot you want to configure.
2. Select Settings under Bot Management.
3. Provide https://<Server URL>:4434/api/messages as a messaging endpoint under Configuration section, click Save to configure Messaging endpoint.

A Server URL is a Public URL of a server on which Qlik Insight Bot Service is to be Installed.
Add Microsoft Teams
1. Select Channels under Bot Management.
2. Scroll down to Add a featured channel, select Microsoft Teams.
3. Click Save.
Now, Microsoft Teams Bot should be configured with Qlik Insight Bot Web service and ready to use.

Using App Studio in Microsoft Teams
To create an app using app studio in Microsoft Teams, you must have access of App Registration in Microsoft Azure Portal. It is not possible to create an app in Microsoft Teams without access to app registration.

Configuration in App Studio

1. **App Studio** is a Teams’ app which can be found under Teams’ Apps. See the Apps Icon in the left-hand ribbon of Teams.
2. In the Apps, search **App Studio**.

   ![App Studio search](image)

3. Select the **App Studio**. You will see the below screen.

   ![App Studio screen](image)

4. Click **Install**. You will see below screen. Click **Open** for **Bot**.

   ![App Studio bot screen](image)
5. This will open the App Studio in Teams as shown below.

6. Click **Manifest Editor** and **Create a new app**.

7. Provide appropriate **App Details**. Give a short/unique name for your application. This will be displayed as your bot name.

   ![App Details](image)

   **App names**
   - A short name (30 characters or less) is required. Feel free to also include a longer version if your preferred name exceeds 30 characters.
   - *Short name* | *Long name* |
   - Demo App | App for Microsoft Teams

8. **Identification**: Click **Generate** to get unique **App ID**. Give appropriate package name and version of your application.
9. Add application specific description to the application which will help users to identify the application.

10. **Developer Information**: Enter your name and valid https URL. This will be show with application description as who has created this application.

11. **App URLs**: Provide the links to your privacy statement and terms of use.

12. **Branding**: Provide an icon to your application.

13. After successfully providing the information, Select **Bots** from the left panel under **Capabilities**. Click **Set up** to install the Bot.
14. When you click **Set up**, a window as shown below will open. In **New bot**, give name of the Bot. Select the checkbox for below
   
   a. **My bot supports uploading and downloading files** under **Messaging bot**
   b. **Personal** under **Scope**

15. Click **Create bot**. You will see below image when you successfully create the BOT
Configuring channels

16. Store the **Bot name** and **Bot ID**. Bot ID is a Microsoft App ID and will be needed at the time of QIB application configuration.

17. **App Passwords**: Click **Generate new password** for the application. Store this password. This will be needed at the time of QIB Application configuration as Microsoft App Password.

18. **Messaging endpoint**: Provide `https://<QIB-Host>:4434/api/messages` as a messaging endpoint under Messaging endpoint section. A Server URL must be publicly accessible URL of a server on which Qlik Insight Bot Service is to be Installed.

19. After successfully adding the information, Select **Test and distribute** under **Finish** in the left panel.

20. Click **Install**. This will install the Bot.
Now, your BOT should be configured with Qlik Insight Bot and ready to use.

Add Qlik Insight Bot in Microsoft Teams

1. Click “New chat” icon.

2. Enter Microsoft App ID/Bot ID of a bot for which you enabled Microsoft Teams in Azure (refer Step-8 of 4 QIB - Creating Bot in Azure document) or enabled from App Studio as mentioned in Step-16 under Configuration in App Studio.
3. Select the bot application.

4. Now you may start conversation with the bot.
Configuring Skype for Business Online

Create a user in Office 365

First, it is required to create a user in Office 365 environment. The same will act as a **BOT user**. Below are the steps for the same.

1. **Login to Office 365** using admin account to create a user for Qlik Insight Bot.

2. **Select** from Apps.

3. **Select Add User** from User management section.

4. **Fill the appropriate information for new user.**
5. In Password section, select **Let me create the password** and enter Password. Make sure to uncheck **Require this user to change their password when they first sign in** check box.

6. In Product Licenses section, make sure you must assign a **Skype for Business Online** license to the user.

7. In Role section under the **Optional Setting**, make sure **User (no administrator access)** option is selected and click Next.
8. Click Finish adding.

**Note:** It will take an hour to active a user after creating.

Create an application in Azure
The application created in Azure will be used to authorize the BOT user. Follow below steps.

1. Login to [Azure Portal](#) to create an application for Skype for Business Online, click [Azure Active Directory](#) under Favorites on left pane.
2. Click **App registrations**, under Manage.

3. Click **New registration** to create new application.

4. Enter below details for application.

<table>
<thead>
<tr>
<th>Name</th>
<th>Application Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported account</td>
<td>Application Name</td>
</tr>
<tr>
<td>Redirect URL</td>
<td>Leave it blank. As this</td>
</tr>
<tr>
<td></td>
<td>is optional, no need to</td>
</tr>
<tr>
<td></td>
<td>add redirect URL.</td>
</tr>
</tbody>
</table>
Click Register.

5. **Copy the Application ID** and store it. It will be used later at the time of Qlik Insight Bot configuration.
6. Click **API Permissions**.

7. Select **Skype for Business** by clicking **Add a permission**.

8. Click **Delegated permissions**.

**NOTE:** User with Admin rights can give/change the API Permissions.
9. Click expand all select all permissions. Make sure you have selected all check boxes.

10. Click Grant consent. This will grant you the permissions.
11. Click **Authentication** and scroll down to Advanced settings.

![Authentication settings](image)

12. Make default client type to **Yes** to treat application as a public client.

![Client type settings](image)

Click Save. The **Bot** application should now be created successfully.

**Add Qlik Insight Bot in SFB Online**

Login to SFB, search for a bot user which we created earlier in Office 365 and start the conversation.
Configuring QIB Extension in Mashup

Qlik Insight Bot extension must be added in the Qlik Sense Environment. Below are the steps to enable the QIB extension in Mashup.

1. **Include the QIB Extension in the mashup.**
2. **Create a new html division with class “qui-buttonset-right”.** A sample code is shown below.

   ```html
   <div class="qui-buttonset-right"></div>
   ```

3. **To control the appearance, create a style with Id “#QIBBtnV2”.** A sample code is shown below.

   ```html
   <style>
   /*Apply style in extension button*/
   #QIBBtnV2 {
     position: relative !important;
     float: right !important;
     top: 10px !important;
     font-family: sans-serif !important;
   }
   </style>
   ```

Below is a sample code for mashup to include QIB extension.

```html
<!doctype html>
<html><head>
<style>
/*Apply style in extension button*/
#QIBBtnV2 {
  position: relative !important;
  float: right !important;
  top: 10px !important;
  font-family: sans-serif !important;
}
</style>
<meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
<title>Qlik Sense Mashup</title>
<meta charset="utf-8">
<meta http-equiv="content-type" content="text/html; charset=UTF-8">
<meta name="HandheldFriendly" content="True">
<meta name="MobileOptimized" content="320">
<meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, minimum-scale=1.0, user-scalable=no">
<meta name="apple-mobile-web-app-capable" content="yes">
<meta name="apple-mobile-web-app-status-bar-style" content="black">
<meta http-equiv="cleartype" content="on">
<link rel="stylesheet" href="/..//resources/autogenerated/qlik-styles.css">
<script src="/..//resources/assets/external/requirejs/require.js"></script>
<script src="/QIBExtension.js"></script>
</head>
<body style="overflow: auto">div id="CurrentSelections" class="qvobjects"
  style="position:relative; top:0; left:0; width:100%; height:35px;">
  
  <!--Code for insert extension button-->
  <div class="qui-buttonset-right"></div>
  
  <!--Error Popup-->
  <div id="popup">
    <button type="button" class="close" data-dismiss="modal" aria-label="Close"
      id="closePopup"><span aria-hidden="true">Close</span></button>
    <p id="popupText"></p>
  </div>
</body></html>
```
Configuring QIB Webchat Hub in Mashup

Qlik Insight Bot Webchat on hub enabled in the Qlik Sense Environment. Below are the steps to enable the QIB webchat hub in Mashup.

1. Include below mentioned file location as parameters in `require` function in mashup html.
   - hub/external/requirejs/configuration
   - hub/external/requirejs/webchatauth
   - hub/external/requirejs/webchathub

   Below is the sample code for the same
   ```javascript
   require(["js/qlik", "hub/external/requirejs/configuration", "hub/external/requirejs/webchatauth", "hub/external/requirejs/webchathub"], function (qlik, config, init, bot) {
   
   2. Add below code in the mashup html

   ```javascript
   init($, bot, config);
   ```

   Below is the sample mashup html.

   ```javascript
   var prefix = window.location.pathname.substr(0, window.location.pathname.toLowerCase().lastIndexOf("/extensions") + 1);
   var config = {
     host: window.location.hostname,
     prefix: prefix,
     port: window.location.port,
     isSecure: window.location.protocol === "https:"
   };
   require.config({
     baseUrl: (config.isSecure ? "https://" : "http://") + config.host + (config.port ? ":" + config.port : "") + config.prefix + "resources"
   });
   require(["js/qlik", "hub/external/requirejs/configuration", "hub/external/requirejs/webchatauth", "hub/external/requirejs/webchathub"], function (qlik, config, init, bot) {
     qlik.setOnError(function (error) {
      $("#popupText").append(error.message + ":");
      $("#popup").fadeIn(1000);
    });
     $("#closePopup").click(function () {
      $("#popup").hide();
    });

    //Start QIB hub code
    init($, bot, config);
    var app = qlik.openApp(<APP ID>, config);
   });
   ```

   If you are using Qlik Sense June 2019 and want to integrate Qlik Insight Bot in mashup, download a zip containing below files from Configuration Application and put them at "C:\Program Files\Qlik\Sense\Client\hub\external\requirejs" location.

   - configuration.js
   - webchatauth.js
   - webchathub.js
Configuring Direct Line channel with Azure

1. Go to [Azure Portal](https://portal.azure.com), select a Bot you want to configure.

2. Select Channels under Bot Management.

3. Scroll down to Add a featured channel, select Direct Line.
4. Click **Add new site**.

![Configure Direct Line](image1.png)

5. Add a reference name, click **Done**.

![Configure Direct Line](image2.png)

6. You will see the **Secret Keys**, click **Show** to see the secret key. Save the Secret key to somewhere in the file this will be used to configure the Qlik Insight Bot’s Qlik Sense extension, click **Done**.

![Configure Direct Line](image3.png)

Now, Direct Line should be configured with Qlik Insight Bot Web service and ready to use.

--- EOD ---