Configuring Channels

Qlik Insight Bot
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1. Introduction

With Qlik Insight Bot, users can have insightful conversations regarding their Qlik Sense Enterprise data assets on recognized chat platforms such as Slack, Microsoft Teams, or Skype for Business Online. For your users to have conversations with Qlik Insight Bot, you must configure the platform.

You can configure all platforms using a bot in Azure. For information about creating bots in Azure, see Qlik Insight Bot Creating a bot in Azure.

For Slack and Skype for Business Online, you can install the Qlik Insight Bot service for the platform instead of using an Azure bot. For Microsoft Teams, you can configure the platform using App Studio instead of using an Azure bot.

The purpose of this document is to show how to configure channels with Azure, and how to configure Microsoft Teams with App Studio.

2. Configuring Slack

There are two ways to configure bot for Slack.

1. Using Azure Bot
2. Using Qlik Insight Bot Slack Engine Service

2.1 Configure with Azure Bot

Configure a Request URL

1. Go to the Azure portal, and select the bot you want to configure.

See Creating a Bot in Azure for more information.

2. Select Settings under Bot Management.
3. Copy the **Bot handle** and replace it with `{Bot handle}` in the following URL and then store the modified URL in a text file for later use:

   https://slack.botframework.com/api/Events/{Bot handle}

   e.g. https://slack.botframework.com/api/Events/TestBot
Configure a messaging endpoint

4. Under Configuration, type https://<Server URL>:443/api/messages as a messaging endpoint under section, and then click Save.

A Server URL is a public URL of a server where Qlik Insight Bot Service is to be installed.

Create a Slack app

5. Log in to Slack using admin credentials.

6. Go to Slack API and click Create a classic Slack app to create an application.

7. Enter an App Name, select Development Slack Workspace, and then click Create App.
Add a new Redirect URL

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

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

10. 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

11. Select **App Home** under **Features** from left panel.

12. Click **Add Legacy Bot User**.

13. Enter **Display Name**, **Default Username**, turn on **Always Show My Bot as Online** and click **Add Bot User**.
Subscribe to Bot Events

14. After creating a bot user, click Event Subscriptions, under Features from left panel and turn on Enable Events.
15. Enter the **Request URL**. This is the URL which we stored earlier. (refer Step-3). E.g. https://slack.botframework.com/api/Events/{Bot handle}

16. Scroll down to **Subscribe to Bot Events** add following bot user events and click **Save changes**.
   a. memberJoinedChannel
   b. memberLeftChannel
   c. message.channels
   d. message.groups
   e. message.im
   f. message.mpim

Configure Interactive Components

17. After subscribing to bot events, click **Interactive Components** under **Features** from left panel and turn on **Interactivity**.

18. Enter the **Request URL** and click **Save Changes**.
   •  https://slack.botframework.com/api/Actions
Install Application

19. After completing the configuration, click **Install App** under **Settings** from left panel. Click **Install App to Workspace** to install the application.

20. Click **Allow** to authorize bot user.

21. Copy the **Bot User OAuth Access Token** and store it somewhere in a text file. This will be needed in the Qlik Insight Bot Configuration App - Channels section.
Configuring Slack

Save Application Credentials

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

23. Scroll down to App Credentials, copy **Client ID**, **Client Secret** and **Verification Token** and store them. They will be needed later.
Configure Slack Bot with Azure

24. Go to Azure Portal and select the appropriate Bot.

25. Select Channels under Bot Management.

26. Scroll down to More channels, select Slack.
27. Enter **Client ID**, **Client Secret** and **Verification Token** (refer step – 23), and then click **Save**.

28. Click **Allow** to validate the Slack Bot with Azure.

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

### 2.2 Configure with Qlik Insight Bot Slack Engine Service

To configure bot with Slack without using Azure, you will have to install a Qlik Insight Bot Slack Engine Service. You can install Qlik Insight Bot Slack Engine Service by running Qlik Insight Bot installer.

**Create a Slack app**

1. Log in to **Slack** using admin credentials.
2. Go to **Slack API** and click **Create a classic Slack app** to create an application.
3. Enter an **App Name**, select **Development Slack Workspace**, and then click **Create App**.

4. Select **App Home** under **Features** from left panel and Click **Add Legacy Bot User**.

5. Enter **Display Name**, **Default Username**, turn on **Always Show My Bot as Online** and click **Add Bot User**.
Configure Interactive Components

6. Click **Interactive Components** under **Features** from left panel and turn on **Interactivity**.

7. Enter the **Request URL** and click **Save Changes**.
   - **https://<qib-engine-service-url>/api/slack/actions**
   
   Here, the `qib-engine-service-url` will be the URL where we are going to install Qlik Insight Bot Engine Service is running. Ex. **https://foo.domain.com:4434/api/slack/actions**
Install Application

8. After completing the configuration, click Install App under Settings from left panel. Click Install App to Workspace to install the application.

9. Click Allow to authorize bot user.

10. Copy the Bot User OAuth Access Token and store it somewhere in a text file. This will be needed in the Qlik Insight Bot Configuration App -> Channels sections.
Now, Slack Bot should be configured with Qlik Insight Bot service and ready to use.

3. Configuring Microsoft Teams

There are two ways to configure bot for Microsoft Teams.

3. Using Azure
4. Using App Studio in Microsoft Teams

3.1 Using Azure

Configure a messaging endpoint

1. In Azure Portal, select a bot you want to configure.

See Creating a Bot in Azure for more information.
Select **Settings** under **Bot Management**.

2. Provide **https://<Server URL>:4434/api/messages** as a messaging endpoint under **Configuration** section, and then 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.
Configuring Microsoft Teams

Add Microsoft Teams

1. Select **Channels** under **Bot Management**.

2. Scroll down to **Add a featured channel**, and select **Microsoft Teams**.

3. Click **Save**.

Now, the Microsoft Teams bot should be configured with Qlik Insight Bot Web service and ready to use.
3.2 Using App Studio in Microsoft Teams

To create an app using App Studio in Microsoft Teams, you must have access to 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, locate **App Studio**.

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

4. Click **Install**. You will see the following screen. Click **Open** for **Bot**.
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. Your users will see this as your bot name.

   ![App Studio](image)

   **App names**
   
   A short name (10 characters or less) is required. Feel free to also include a longer version if your preferred name exceeds 10 characters.

<table>
<thead>
<tr>
<th>Short name</th>
<th>Long name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo App</td>
<td>New App for Microsoft Teams</td>
</tr>
</tbody>
</table>

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, to help users to identify the application.**

10. **Developer Information:** Enter your name and a valid https URL. This will appear with the 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 for 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 the name of the bot. Select the following:
   - Under Messaging bot, select *My bot supports uploading and downloading files.*
   - Under Scope, select **Personal**.
15. Click Create bot. The following screen appears.

16. Store the Bot name and Bot ID. Bot ID is a Microsoft App ID and will be needed when you configure the application in Qlik Insight Bot.

17. App Passwords: Click Generate new password for the application. Store this password. This will be needed for the Microsoft App Password when you configure the application in Qlik Insight Bot.

18. Under Messaging endpoint, type https://<QIB-Host>:4434/api/messages. 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.
3.3 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 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.

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

Create a user in Office 365

First, you must create a user in the Office 365 environment. This user will be a Bot user.

1. Login to [Office 365](https://www.office.com) using an admin account.

2. Under Apps, select Admin.
3. From the User management section, select Add User.

4. Fill in the appropriate information for the new user.
5. Under **Password**, select **Let me create the password** and enter a password. Uncheck **Require this user to change their password when they first sign in**.

6. Under **Product Licenses**, 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 activate a user after creating.

Create an application in Azure

The application created in Azure will be used to authorize the bot user.

1. Login to [Azure Portal](#) to create an application for Skype for Business Online, and click **Azure Active Directory** under Favorites on the 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 type</td>
<td>Select 1st option.</td>
</tr>
<tr>
<td>Redirect URL</td>
<td>Leave it blank. As this is optional, no need to add redirect URL.</td>
</tr>
</tbody>
</table>
Click Register.

5. Copy the **Application ID** and store it. It will be used later when you configure Qlik Insight Bot.
6. Click API Permissions.

![Image of API Permissions page]

**Note**: User with Admin rights can give/change the API Permissions.

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

![Image of adding a permission]

8. Click *Delegated permissions*.

![Image of delegated permissions]
9. Click **expand all** to select all permissions. Make sure you have selected all check boxes.

10. Click **Grant consent**. This will grant permissions to users in your organization.

11. Click **Authentication** and scroll down to **Advanced settings**.
12. Make default client type to **Yes** to treat application as a public client.

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

**Add Qlik Insight Bot in SFB Online**

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

To use Qlik Insight Bot in mashups, you must add an extension in the Qlik Sense environment. Below are the steps to enable the QIB extension in mashups.

5.1 Include the QIB Extension in the mashup

1. Create a new html division with class “qui-buttonset-right”. A sample code is shown below.
   ```html
   <div class="qui-buttonset-right"></div>
   ```

2. 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, minimum-scale=1.0, maximum-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">
<link rel="stylesheet" href="QIBExtension.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;">

</div>

<!--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>
</div>
</body></html>
```
6. 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 js.
   a. `hub/external/insight-bot/web-chat-hub.js`
   b. `hub/external/insight-bot/web-chat-auth.js`

   Below is the sample code for the same
   ```javascript
   require(["js/qlik","hub/external/insight-bot/web-hub-auth","hub/external/insight-bot/web-chat-hub"], function (qlik, 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/insight-bot/web-hub-auth","hub/external/insight-bot/web-chat-hub"], function (qlik,init,bot){
   
   qlik.setOnError( function ( error ) {
   $( '#popupText' ).append( error.message + "<br>" );
   $( '#popup' ).fadeIn( 1000 );
   });
   $( "#closePopup" ).click( function () {
   $( '#popup' ).hide();
   });
   var config = {
   'url': window.location.origin+':4431'};
   //Start QIB hub code
   init($, bot, config);
   
   var app = qlik.openApp(<APP ID>, config);
   });
   ```

   **Note:** `window.location.origin`: need to change if Qlik Sense and QIB Webchat Service are on separate servers.

   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 a Direct Line channel with Azure

7. Configuring a Direct Line channel with Azure

1. Go to Azure Portal, 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.
5. Add a reference name, and then click **Done**.

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

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