Contents

1. Introduction .......................................................................................................................... 1
2. Qlik Insight Bot licensing .................................................................................................... 1
3. System requirements ............................................................................................................. 1
   3.1 Hardware ........................................................................................................................... 1
       Processors .......................................................................................................................... 1
       Memory .............................................................................................................................. 1
       Storage ............................................................................................................................... 1
   3.2 Software ............................................................................................................................ 2
       Platforms ........................................................................................................................... 2
       Chat platforms (channels) ............................................................................................... 2
       Supported browsers ......................................................................................................... 2
       Supported languages ........................................................................................................ 2
       Qlik Insight Bot Compatibility Matrix with Qlik Sense .................................................... 2
4. Ports ...................................................................................................................................... 3
5. User accounts ....................................................................................................................... 4
6. Architecture .......................................................................................................................... 5
   6.1 Certificates ....................................................................................................................... 5
7. Before you install .................................................................................................................. 5
   7.1 Exporting Qlik Sense certificates .................................................................................... 5
   7.2 Configuring Internet Information Services (IIS) .......................................................... 6
   7.3 .NET Framework 4.7.1 or later ....................................................................................... 10
   7.4 Opening the required ports in the firewall .................................................................... 11
   7.5 Right to create a sheet in Qlik Sense ............................................................................. 14
   7.6 Windows user group for QIB Administrators ................................................................. 15
   7.7 Security rules for Qlik Insight Bot access ..................................................................... 15
8. Installation and Configuration ............................................................................................... 16
   8.1 Install Qlik Insight Bot .................................................................................................... 17
   8.2 Setup Qlik Sense Certificates ......................................................................................... 21
       Steps to install the root certificate .................................................................................. 22
       Steps to move the PEM format certificates .................................................................. 23
   8.3 Configure Qlik Insight Bot Applications ........................................................................ 23
   8.4 Configure Qlik Insight Bot Web Services ...................................................................... 32
       Configure Engine Service ............................................................................................... 32
Contents

Configure Management Service ..................................................................................................................36
Configure NLP Service .................................................................................................................................39
Configure Qlik Insight Bot Management Console ....................................................................................42
Restart Services ...........................................................................................................................................45

9. Modify your Installation .............................................................................................................................46

10. Upgrading Qlik Insight Bot ......................................................................................................................49
    10.1 From Feb 2020 to June 2020 or June 2020 Patch 1 or Patch 2 ...............................................................49
    10.2 From June 2020 to June 2020 Patch 1 or Patch 2 ..................................................................................51
    10.3 From June 2020 Patch 1 to June 2020 Patch 2 .......................................................................................53

11. Uninstalling Qlik Insight Bot ..................................................................................................................55

12. Repairing Qlik Insight Bot .......................................................................................................................56

Appendix I – Mapping Qlik Sense node host name with its IP address .......................................................58
Appendix II – Getting the port for PostgreSQL ............................................................................................58
Appendix III – Give Access to PostgreSQL ................................................................................................58
Appendix IV – Configure TLS version in NLU ..............................................................................................59
Appendix V – Configure Email Property .....................................................................................................59
1. Introduction
To use Qlik Insight Bot, you must install Qlik Insight Bot as part of the Qlik Sense Enterprise deployment. You can run Qlik Insight Bot on the central node, or on a dedicated server.

You may also need to install Qlik Insight Bot components for third party platforms such as Slack or Skype for Business (online).

Versions of Qlik Sense Enterprise for Windows earlier than February 2020 require the Webchat Service.

Software is available on the Qlik download site.

Required:

• Qlik Insight Bot.exe

Optional:

• Qlik Insight Bot Webchat Service.exe (with Qlik Sense Enterprise June 2019 to Nov 2019 only)

2. Qlik Insight Bot licensing
A Qlik Insight Bot license is either:

• For Webchat in the Qlik Sense hub and extension (apps) only.
• For Webchat in the Qlik Sense hub and extension, and also for third-party chat platforms (Slack, MS Teams and Skype for business).

You apply the license as part of the installation of Qlik Insight Bot.

The Qlik Insight Bot license is part of the Qlik Sense Enterprise for Windows (QSEfW) license. Qlik Insight Bot is licensed as subscription only. However, a Qlik Insight Bot license can be added to any Qlik Sense Enterprise for Windows license.

For more information about Qlik Sense licensing, see Qlik product licenses on the Qlik help site.

3. System requirements
To install and run Qlik Insight Bot, you must meet minimum system requirements for the servers and the users.

3.1 Hardware

Processors
CPU cores: 8 minimum

Memory
32 GB minimum

Storage
Hard Disk Space: 25 GB minimum
3.2 Software

Platforms
1. Insight Bot Windows components
   a. Server Operating System
      i. Windows Server 2019
      ii. Windows Server 2016
      iii. Windows Server 2012 R2
   b. For development and test purposes
      i. Windows 10
      ii. Windows 8.1
2. Internet Information Services (IIS) 8.0 (Configuring Internet Information Services (IIS))
3. .NET framework 4.7.1 or later

Chat platforms (channels)
Chat platform(s) (based on user requirement)

- Webchat on Qlik Sense Hub
- Webchat using Qlik Insight Bot extension for Qlik Sense
- Slack
- Microsoft Teams
- Skype for Business (Online)

Supported browsers
For the Qlik Insight Bot Management Console, Google Chrome is required.

Supported languages
Qlik Insight Bot is available in English only.

Qlik Insight Bot Compatibility Matrix with Qlik Sense
Qlik Insight Bot supports with specific Qlik Sense Enterprise versions.

<table>
<thead>
<tr>
<th>Qlik Sense Version</th>
<th>Qlik Insight Bot Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2019</td>
<td></td>
</tr>
<tr>
<td>Sep 2019</td>
<td></td>
</tr>
<tr>
<td>Nov 2019</td>
<td></td>
</tr>
<tr>
<td>Feb 2020</td>
<td></td>
</tr>
<tr>
<td>Feb Patch 1</td>
<td></td>
</tr>
<tr>
<td>June 2020</td>
<td></td>
</tr>
<tr>
<td>June 2020</td>
<td></td>
</tr>
<tr>
<td>Patch 1</td>
<td></td>
</tr>
</tbody>
</table>

- Webchat installed with Qlik Sense
- Webchat Service is required to be installed separately
## 4. Ports

Required ports on Qlik Insight Bot servers.

<table>
<thead>
<tr>
<th>Service</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qlik Insight Bot Engine Service</td>
<td>4434</td>
</tr>
<tr>
<td>If you are going to use Slack and MS Teams channels, this port must be open for an external network.</td>
<td></td>
</tr>
<tr>
<td>For QSEfW February 2020 to Sep 2020, this port must be accessible from where the Qlik Sense Service Dispatcher is installed.</td>
<td></td>
</tr>
<tr>
<td>For QSEfW November 2019, this port must be accessible from the machine where the Qlik Insight Bot Webchat Service is installed.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot Management Console (portal)</td>
<td>4435</td>
</tr>
<tr>
<td>If the Qlik Insight Bot Management Console needs to be accessible from outside the machine where it is installed, this port must be open.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot Management Service</td>
<td>4436</td>
</tr>
<tr>
<td>It is not required to expose this port to outside the machine.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot NLP Service</td>
<td>4437</td>
</tr>
<tr>
<td>It is not required to expose this port to outside the machine.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot NLU Service</td>
<td>5000</td>
</tr>
<tr>
<td>This port must be accessible from the machines where Qlik Insight Bot engine service, NLP service, and deployment services are installed.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot Duckling Service</td>
<td>8000</td>
</tr>
<tr>
<td>It is not required to expose this port to outside the machine.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot Narrative Service</td>
<td>8001</td>
</tr>
<tr>
<td>It is not required to expose this port to outside the machine.</td>
<td></td>
</tr>
<tr>
<td>Qlik Insight Bot Webchat Service (QSEfW June 2019 to Nov 2019 only)</td>
<td>4431</td>
</tr>
<tr>
<td>Required to open in network to access webchat on hub and extension from Qlik Sense app.</td>
<td></td>
</tr>
</tbody>
</table>
5. User accounts

For installation and configuration, you need:

- a Windows user with administrator rights on the central node of Qlik Sense Enterprise and on the server where you will install Qlik Insight Bot, if not the same
- a user with root admin privileges in Qlik Sense with no section access

For QIB administration, you need:

- a user group in Windows that you create and name **Qlik Insight Bot Administrators**. Add your administrators to that group.

Requirements for users depend on how you plan to use Qlik Insight Bot:

- To use Qlik Insight Bot, users must be named users in the Qlik Sense Management Console, so that Qlik Sense can authenticate users and manage permissions within the apps.
- To be able to click through to an app, users must be identified in a security rule that you create in the QMC.
- For Qlik Insight Bot to be able to create on-the-fly sheets and answers for users, those users must have the correct permissions to create sheets and charts in the app, and therefore must have the appropriate license.
- To receive alerts, to use EmailMe, or to use Slack or MS Teams or Skype for Business, users in the QMC must have associated email addresses. Default it will consider email from “Email” property of Qlik Sense.
6. Architecture

Qlik Insight Bot is made up of

- chat clients for the Qlik Sense hub
- optional chat clients for Qlik Sense apps (a Qlik Sense extension), and for Slack or Skype for Business (via an Azure bot or directly)
- the configuration application
- the Qlik Insight Bot Management Console
- windows and web services

6.1 Certificates

Qlik Insight Bot web services, NLU and Narrative service need a valid SSL certificate.

Qlik Insight Bot need a Qlik Sense client certificate in Windows format from

- the central node
- each rim node with a Qlik Sense Enterprise engine in a Qlik Sense deployment

These certificates are to authenticate users and to determine authorizations for apps and data.

Qlik Insight Bot utilizes the client.pfx for inter service communication among windows and web services except NLU and Narrative service. NLU and Narrative services use certificates in PEM format for inter service communication.

Root.cer is only required certificate to be installed. IIS requires a certificate for binding. You can install any CA signed cert for the domain you are using. You can use server.pfx exported from Qlik Sense for binding in IIS. This binding is required for HTTPS secured connection only.

For more information, see the installation instructions Setup Qlik Sense Certificates

7. Before you install

Before you install Qlik Insight Bot, you must

- export certificates from Qlik Sense Enterprise for Windows
- configure Internet Information Services (IIS)
- install .Net Framework 4.7.1 or later
- open ports
- set up user permissions

7.1 Exporting Qlik Sense certificates

During the configuration steps for Qlik Insight Bot, you will need certificates from your Qlik Sense Enterprise for Windows installation. You export these from the QMC.
Before you install

For information about Qlik Sense certificates, see Exporting certificates through the QMC in the Qlik Sense administrator help.

Steps to export Qlik Sense certificates

1. In the Qlik Sense Management Console (QMC), go to Certificate under Configuration System on the left pane.
2. Click Add machine name:
   - In the Machine name box, type the full computer name of the computer that you are creating the certificates for.
   - Do not set a password.
   - Check “Include secret key”.
   - Select Windows Format as “Export file format for certificates”.
3. Confirm that you have not set a password, and then click Export Certificates.
4. Change the format to Platform independent PEM-format and then click Export Certificates again.

Certificates are exported to the central node of the Qlik Sense Enterprise deployment. The physical path where the certificates are stored is:

C:\ProgramData\Qlik\Sense\Repository\Exported Certificates\<Machine Name>

5. If you are installing Qlik Insight Bot on a separate machine, copy all 8 certificate files to a folder on that machine.

7.2 Configuring Internet Information Services (IIS)

To host the Qlik Insight Bot Web Services on IIS, you must enable certain features of IIS.

1. Open Server Manager.
2. From the Manage menu, click Add Roles and Features.
3. Click **Next**.
4. Select **Role-Based or Feature-Based Installation** and click **Next**.
5. Select the appropriate server (local is selected by default) as shown and click **Next**.
6. Select **Web Server (IIS)** and click **Next**.
7. Ignore the **Features** tab and go on.
8. Click **next**.
9. Select the following and click **next**.
   - **In Web Server**
     - In Common HTTPS Features
       - Default Document
       - Directory Browsing
       - HTTP Errors
       - Static Content
     - In Health and Diagnostics
       - HTTP Logging
       - Request Monitor
       - Tracing
     - In Performance Features
       - Static Content Compression
     - In Security
       - Request Filtering
       - Windows Authentication
     - In Application Development Features
       - ASP
       - ASP.NET 4.5/4.6/4.7
       - CGI
       - ISAPI Extensions
       - ISAPI Filters
       - WebSocket Protocol
   - **In Management Tools**
     - IIS Management Console
10. Click **Install.**

![](image1)

11. Once the installation is complete, click **Close.**

For a detailed guide, visit [this](#).

### 7.3 .NET Framework 4.7.1 or later

Check what version of the .NET Framework is installed on your machine.

1. Open **CMD.**
2. Execute command “\cd C:\Windows\Microsoft.NET\Framework\v4.0.30319\”.
3. Execute command `\MSBuild.exe -version`.

![](image2)

If you don’t have .NET Framework 4.7.1 or later installed on your machine, it will be taken care by Qlik Insight Bot installer and will install it. Also, if you want to install it now, you can download and install it.

For the installer and instructions, see the Microsoft Download Center ([here](#)).
7.4 Opening the required ports in the firewall

Ports 443, 4431 (for prior version of QSEfW Feb 2020), 4434, 4435 (optional), and 5000 (optional) must be open in the firewall (inbound) to access Qlik Insight Bot web services from outside the network. Port 4435 allows access to the Qlik Insight Bot Management Console.

For detailed information, see Ports.

If Qlik Insight Bot is installed on a different machine from Qlik Sense, ports 443, 4242, 4747, 4243 and 9200 must be open in the firewall where Qlik Sense is installed.

Do the following:
1. Open Windows firewall. Click Advanced settings from left pane.
2. Click Inbound Rules.
3. Click New Rule… under Actions in right pane.
4. Select Port option, click Next.
5. **In Protocol and Ports:**
   - select **TCP**
   - select **Specific local ports** and enter **443, 4434**, and if needed **4431, 4435, 5000**, and then click **Next**.
6. In **Action** section, select **Allow the connection**, click **Next**.

7. In **Profile** section, check for **Domain**, **Private** and **Public**, click **Next**.
8. Give an appropriate **Name** and **Description**, and then click **Finish**.

9. Follow the same steps to set **Outbound Rules** for the ports mentioned above. Also, change the action to **Allow the connection** at the time of creating the outbound rules.

    **Important**: Make sure the ports used by **Qlik Sense Services** are open in firewall if Qlik Sense and Qlik Insight Bot are on separate servers.

### 7.5 Right to create a sheet in Qlik Sense

When a user asks a question that will respond with chart image and a link to chart. On clicking this link, Qlik Insight Bot creates a chart on the fly. The on-the-fly chart object is created in a new sheet of the Qlik Sense app. Therefore, the user must have permission to create objects on sheets. If you don't want users to create charts in Qlik Sense, this rule is not needed. This will not affect the Qlik Insight Bot response.

Update the Stream rule from Security Rules in QMC if necessary.
7.6 Windows user group for QIB Administrators

In the Windows machine where Qlik Insight Bot is going to be installed, a user group must be created named “Qlik Insight Bot Administrators”. Add members in this group to whom you want to give access to configure and administer the Qlik Insight Bot.

7.7 Security rules for Qlik Insight Bot access

In the Qlik Sense QMC, create a security rule for Qlik Insight Bot access. The resource filter must be QIBUser_ and the action is one of the following:

- Read, for most cases
- Read and update, in which case users can force refreshes the connections of all users and settings from the chatbot

For example, to give all named users access to Qlik Insight Bot (user name not equal to null), enter the following condition:

((user.name!=""))
8. Installation and Configuration

Install Qlik Insight Bot by executing Qlik Insight Bot.exe downloaded from Qlik download side. See below for detailed instructions for installation and configuration.

- Install Qlik Insight Bot
- Copy required Qlik Sense certificates
- Configure web services in IIS
- Configure Qlik Insight Bot from Configuration Application

If you are using QSEfW versions from June 2019 to Nov 2019, you must also install the Webchat service (this component is part of the QSEfW installation in later versions):

- Qlik Insight Bot Webchat Service

Qlik Insight Bot installer consists of below listed components / services.

1. Qlik Insight Bot Services
   b. Narrative Service – Windows Service
   c. Engine Service – Web Service
   d. Management Service – Web Service
Installation and Configuration

2. Qlik Insight Bot NLU Services
   a. NLU Service – Windows Service
   b. Duckling Service – Windows Service

3. PostgreSQL database

4. Other Services - Optional
   a. Slack Engine Service – Windows Service
   b. SFB Online Service – Windows Service

8.1 Install Qlik Insight Bot

You can install all components of Qlik Insight Bot on single machine or you can separately install below components on different servers –

1. Qlik Insight Bot Services
2. Qlik Insight Bot NLU Services

Steps:

1. Run Qlik Insight Bot.exe as administrator. You will see below welcome screen displaying prerequisites checks. Mark the check box if below prerequisites are fulfilled and click Next.
   a. IIS roles and features must be enabled before starting installation, otherwise installation will fail. Refer Configuring Internet Information Services (IIS)

   Note: If you are installing other components than Qlik Insight Bot Services, IIS roles and features are not required to be enabled.

   b. If earlier version of Qlik Insight Bot is already installed on the machine, please make sure all the components from the machine are uninstalled and corresponding installation folders are deleted except C:\ProgramData\Qlik Insight Bot. Follow upgrade steps mentioned here Upgrading Qlik Insight Bot and resume installation.
Installation and Configuration

2. Accept the license agreement, and click Next

3. Choose the installation type from Full and Custom.

**Full Installation:** Qlik Insight Bot Services and Qlik Insight Bot NLU services, both will be selected and installed on the machine.

**Custom Installation:** You can decide what component you install. You can choose between Qlik Insight Bot Services and Qlik Insight Bot NLU services. This way you can separately install Qlik Insight Bot Services and NLU services.

**Channels (optional):** There are two optional services, one for integrating Slack and second for Skype for Business (online). You can select and install these services based on your chat platform integration, if you
have not created Web App Bot from Azure. You can install these services later whenever you require to install by running the installer again.

You can see list of services from the selected components in the right pane which are going to be installed. Select components and Click Next.

4. If Qlik Insight Bot NLU Services is selected, a dialog to enter PostgreSQL database details will be displayed. Select Install New Database if it is a fresh / first time install. You can select Use Existing Database, if you want to use existing PostgreSQL installation.

If you want to connect to an existing repository database, then enter the following values:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>Enter the host name of the database</td>
</tr>
<tr>
<td>Port</td>
<td>5432</td>
</tr>
<tr>
<td>Database User</td>
<td>Enter the username that will be used to access the database.</td>
</tr>
<tr>
<td>Password</td>
<td>Create your own database user password to access your repository database in the PostgreSQL database.</td>
</tr>
</tbody>
</table>
Test the connection by clicking **Test Connection**. PostgreSQL version must be 11.0 in case of using existing PostgreSQL instance. If you want to connect existing PostgreSQL instance installed on different machine, it must be reachable. IP and Port must be allowed from the machine where database is installed. See **Appendix III**.

If you have selected to Install New Database, or in case of successful Test Connection, Click **Next**.

5. Now you can see **Ready to Install** dialog. Here you can see the components which are going to be installed. Click **Install** to start installing Qlik Insight Bot.
6. You will see a message indicating that Qlik Sense has been installed successfully. 

**Click Finish.**

You are ready to configure your Qlik Insight Bot installation.

### 8.2 Setup Qlik Sense Certificates

Install the root certificate (root.cer) into the certificate store for the server where you are installing Qlik Insight Bot. If Qlik Sense and Qlik Insight Bot are on same server, it is not required to install root certificate. Please make sure that root certificate is installed. You can check it from MMC on windows.
Installation and Configuration

Move the PEM format Qlik Sense certificates to the Qlik Insight Bot program data, so that they will be available to the Narrative, Duckling, and NLU services.

You set up the remaining certificates when you configure the Qlik Insight Bot web services in IIS.

Steps to install the root certificate

1. Go to the folder with the certificates that you exported from Qlik Sense.
2. Double-click on the root certificate (root.cer) and install it:
   - Under Store Location, ensure you select Local Machine
   - Browse to select the certificate store Trusted Root Certification Authorities

To confirm that the certificate is installed, you can go to the MMC and check. You should see the server name of your Qlik Sense server in the Trusted Root Certification Authorities list, with a current expiry date.
Steps to move the PEM format certificates
1. Go to the folder with the certificates you exported from Qlik Sense and copy root.pem, server.pem, and server_key.pem.
2. Paste them into C:\ProgramData\Qlik Insight Bot\Certificate.
3. Restart NLU, Duckling and Narrative services from Windows services.

8.3 Configure Qlik Insight Bot Applications
1. Open Qlik Insight Bot Configuration Application from desktop.

2. You must login with a windows user that belongs to the Qlik Insight Bot Administrators user group.
3. In the configuration app, enter the following details and click Connect.

<table>
<thead>
<tr>
<th>QRS URL</th>
<th>The URL of the Qlik Sense server. In a multi-node installation, this is the URL of the central node. If you are installing Qlik Insight Bot on the same machine as Qlik Sense, use localhost. E.g. <a href="https://localhost">https://localhost</a> or <a href="https://qliksense.domain.com">https://qliksense.domain.com</a>. The Qlik Sense Repository Service port is 4242 by default.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qlik User ID</td>
<td>A Qlik Sense user id with “Root Admin” access without any section access restrictions</td>
</tr>
<tr>
<td>Qlik User Directory</td>
<td>Name of the User Domain Directory from Qlik Sense</td>
</tr>
<tr>
<td>Certificate</td>
<td>The client certificate that you exported from Qlik Sense i.e. client.pfx</td>
</tr>
</tbody>
</table>
4. Click **Connect**.

Qlik Insight Bot retrieves the license information and verifies that Qlik Sense is licensed to use Qlik Insight Bot. A success message appears, the Qlik Sense streams appear in the Stream dropdown, and proxies appear in the list on the right.

5. From the Stream dropdown list, select the streams you want to make available for Qlik Insight Bot.

6. **Node Status Check Interval**: Set time interval to check status of nodes allocated for Qlik Insight Bot Multi-Node.

7. **Configure each node which will communicate with Qlik Insight Bot** (usually, each node with a Qlik Sense engine installed).

<table>
<thead>
<tr>
<th>Proxies</th>
<th>Select the Proxy from the list of available proxies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Proxies</td>
<td>Select the Virtual proxy from the list of available virtual proxies</td>
</tr>
<tr>
<td>External URL</td>
<td>The URL of the Qlik Sense server. A Single Configurator URL points to an on-the-fly Qlik Sense object and is sent as a link to you when you demand a chart from Qlik Insight Bot. e.g. <a href="https://qliksense.domain.com">https://qliksense.domain.com</a> Do not use “localhost” as a value here.</td>
</tr>
<tr>
<td>Node</td>
<td>Select Load Balancer node. This node will be used by Qlik Insight Bot to interact with Qlik Sense</td>
</tr>
<tr>
<td>Certificate</td>
<td>The client certificate of the node you have selected. i.e. client.pfx e.g. C:\ProgramData\Qlik\Sense\Repository\Exported Certificates&lt;Machine Name&gt;</td>
</tr>
</tbody>
</table>

8. Click **Test Connection**. If the connection is successful, click **Add**.

The proxy appears in the table below.

**Note**: Qlik Insight Bot can connect to a Qlik Sense server only by means of the host name of the Qlik Sense node. When the host name of Qlik Sense node is not bound to its domain, you must map the host name of Qlik Sense node with its IP address.

Refer to **Appendix I** for the steps to map the host name of Qlik Sense node with its IP address.
9. In the **System** tab under **Database**, configure the postgres database installed with Qlik Insight Bot, and change the password if needed. Once you enter the password, click Create Database (Create Database) to create a database, and then click **Save** to save all details.

<table>
<thead>
<tr>
<th>Name</th>
<th>qlikinsightbot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>5432</td>
</tr>
</tbody>
</table>

Note: See **Appendix II** for instructions on how to check and verify the PostgreSQL port.

<table>
<thead>
<tr>
<th>User</th>
<th>Superuser Name of Postgres which is <strong>postgres</strong> by default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>Password of the Superuser of Postgres (default: <strong>postgres</strong>)</td>
</tr>
</tbody>
</table>

**Azure Bot**

Enter the **Microsoft App Id**, **Microsoft App Password**, **Storage Connection String (optional)** of any bots which have been created. For more information see the **Creating A Bot in Azure** user guide.

**Alert**

Check "Enable" to send alert(s) email to user. (By default, it is enabled.) Alerts are only sent when the following are true:

1. Alerts are enabled from the Configuration application.
2. The Qlik Sense app was reloaded (minimum time difference between Qlik Sense application reloads is 2 hours).
3. The alert condition(s) fulfilled.

Alerts can be set to trigger once or recurring.

1. **Once**: Default, it is set to Once. Alert will trigger once and then disabled.
2. **Recurring:** An alert will be sent every time when Qlik Sense application reloads, and condition(s) matched.

**Set Limit:** Maximum number of alerts a user can set.

10. From **Network** Configuration section, you can configure SMTP to enable **Alert me** and **Email me** features.

<table>
<thead>
<tr>
<th><strong>SMTP Server</strong></th>
<th>The host name of the SMTP (Simple Mail Transfer Protocol) server of email Id entered in Email which will be used to send mails for Alert me, email me features.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SMTP Port</strong></td>
<td>The Port number of the SMTP server.</td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td>A legitimate Email ID.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>Password of the Email ID.</td>
</tr>
<tr>
<td><strong>Use SSL</strong></td>
<td>Check it to enable Secure Socket Layer (Recommended).</td>
</tr>
<tr>
<td><strong>Test email address</strong></td>
<td>Email address to send a test mail.</td>
</tr>
</tbody>
</table>
11. In the Component tab, enter the URL for the NLU service, and then click Configure NLU. Please note that NLU will only configure if it is installed and configured properly.

**NLU Service Configuration**

<table>
<thead>
<tr>
<th>URL</th>
<th>URL of Qlik Insight Bot NLU Service along with its port number:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="https://localhost:5000">https://localhost:5000</a> – If installed on same server as other Qlik Insight Bot components</td>
</tr>
<tr>
<td></td>
<td><strong>https://&lt;server-name&gt;:5000</strong> – if installed separately</td>
</tr>
</tbody>
</table>

Note: NLU accepts TLS 1.2 and greater by default. If you want to enable for TLS 1.0 and 1.1, follow the steps from Appendix

12. In the Component tab, configure the Management, Narrative, and NLP services, and then click Save.

**Management Service Configuration**

<table>
<thead>
<tr>
<th>Remote URL</th>
<th>Remote URL of Qlik Insight Bot Management Service which will be <a href="https://localhost:4436">https://localhost:4436</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Local URL</td>
<td>Local URL will generate automatically.</td>
</tr>
</tbody>
</table>

**Narrative Service Configuration**

<table>
<thead>
<tr>
<th>Host</th>
<th>Host name of server on which Qlik Insight Bot Narrative Service is installed in this case it will be <a href="https://localhost">https://localhost</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>Port number of Qlik Insight Bot Narrative Service, on which you want to start Qlik Insight Bot Narrative Service, by default it will be 8001.</td>
</tr>
<tr>
<td>Allow Remote Host</td>
<td>This will allow Qlik Insight Bot to communicate with Narrative service when installed on another machine than the Qlik Insight Bot.</td>
</tr>
</tbody>
</table>
Installation and Configuration

If you are using PC Name, IP Address or Domain name instead of localhost in Host, check this option. This will add the host as a trusted entity.

NLP Service Configuration

| URL | URL of Qlik Insight Bot NLP Service which will be https://localhost:4437 |

13. On Channel Configuration section, you can configure Slack, Skype for Business, Webchat channels through which you want to communicate with the Qlik Insight Bot.

**Slack**

<table>
<thead>
<tr>
<th>Allow New Users</th>
<th>This will allow new user(s) to be added.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Token</td>
<td>Use the Bot User OAuth access token which we have generated in Save Application Credentials section of QIB – Configuring Channel document.</td>
</tr>
<tr>
<td></td>
<td>e.g. xoxb-000000000000-000000000000-xxXxx0xx0xxxXxxXxxx00x</td>
</tr>
</tbody>
</table>

| Qlik Insight Bot Engine URL | If you are using "Qlik Insight Bot Slack Engine" exe, Qlik Insight Bot Engine service url which must be the below https://localhost:4434 Leave this field blank if “Qlik Insight Bot Slack Engine Service” is not used. |

**Skype for Business**

<table>
<thead>
<tr>
<th>SFB Username</th>
<th>The user created in Office 365 environment. (QIB - Configuring Channels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>Password of the user created in Office 365 environment.</td>
</tr>
</tbody>
</table>
### Installation and Configuration

<table>
<thead>
<tr>
<th><strong>Tenant</strong></th>
<th>Domain name of SFB User Name. E.g. qlik.com</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client ID</strong></td>
<td>Provide the Application ID which we have saved earlier. (QIB - Configuring Channels)</td>
</tr>
<tr>
<td><strong>Qlik Insight Bot Engine URL</strong></td>
<td>Qlik Insight Bot Engine service url <a href="https://localhost:4434">https://localhost:4434</a></td>
</tr>
</tbody>
</table>

### Webchat

| **Qlik Insight Bot Engine URL** | If Qlik Insight Bot and Qlik Sense server are installed on the same machine, use Qlik Insight Bot Engine service url [https://localhost:4434](https://localhost:4434)  
If Qlik Insight Bot and Qlik Sense server are on different machines, provide the URL which can be accessed by webchat service. E.g. [https://<Server URL>:4434](https://<Server URL>:4434) |
| **Webchat Service URL** | This URL should be the URL of the machine on which you have installed Qlik Insight Bot webchat service which may be the same as the Qlik Sense access URL from outside the network. **(For Qlik Sense Enterprise June 2019 to November 2019 only)** |

**Note:** You are required to configure webchat to use Qlik Sense Extension and Webchat for Qlik Sense Hub. For more information, see Configuring Webchat and Qlik Sense Extension.

14. From **Other** Configuration tab, you can configure the following.

**Filter**

If Auto Clear is set, Qlik Insight Bot will remove any applied filters, context and currently selection application after the minutes you have set in **Clear Filter Time** if the user seats idle for that time period.

**Auto Convert**

Money – This will show the amount in symbolic form, i.e $1000000 will be shown as $1M.
App Object

Disable chart creation in Qlik Sense application by checking the box. A Qlik Sense chart will not be created and hence, the chart link will not be generated. This won’t change the response of the query.

Qlik Sense application objects created by Qlik Insight Bot will be deleted automatically after configured day(s) for Delete Sheet Time.

For example, if the “Delete Sheet Time” is set to “1”, all sheets created by Qlik Insight Bot will be deleted after 1 day.

Timezone

Qlik Insight Bot will consider the time zone you have set from this section while giving any response to the user.

Log Configuration

You can enable the Qlik Insight Bot question logging feature by enabling the Log Configuration. This will store the questions asked by users in a log file.

Select path for storing the Qlik Insight Bot questions log file, which is C:\ProgramData\Qlik Insight Bot\Logs by default.

Note: Make sure that IIS_IUSRS has read/write permission to the selected folder.

Prefix for Synonyms Tags

Qlik Insight Bot consumes tags added into Master Items. It may be possible that there are few tags which are already added into master items and you don’t want to consider them for Qlik Insight Bot. In this case, you can configure that prefix in the Configuration Application and add tags with any prefix. So, Qlik Insight Bot will pick up only those tags which has this prefix added. If prefix is not added, it will pick all available tags from master items. Ex. If you want to pick tag with prefix QIB_, you simply add prefix QIB_ in configuration application and tag can be QIB_Cities for the master dimension City.

Please note that the configuration for prefix is applied to all the application.
15. From **Add On** tab you can download the Qlik Sense Extension and Webchat for Qlik Sense Hub.

**Notes:**
The Qlik Sense Extension is used when you want Qlik Insight Bot to be available within apps. The Webchat service is only required for the November 2019 version of Qlik Sense Enterprise (and earlier).
For more information, see the Qlik Insight Bot **Configuring Webchat and Qlik Sense Extension** guide.

- For **Qlik Sense Extension**, click **Download**. Also, you need to configure the web chat from the channel configuration tab.
- For **Webchat for Qlik Sense Hub**, select the appropriate Qlik Sense version, and click **Download**. Also, you need to configure the web chat from the channel configuration tab.

**Note:** If you make any changes in the Qlik Insight Bot Configuration application for the webchat channel, you are required to re-download and re-configure the Qlik Sense Extension and Webchat for Qlik Sense Hub.

16. The **License** section shows the license detail.
If your license information (License Expiration Information) has been updated by Qlik and you need to reflect those changes on Qlik Insight Bot, click [Update License] button. All Qlik Insight Bot Services need to be restarted in order to reflect the change.

Qlik Insight Bot from Configuration Application should now be configured.

8.4 Configure Qlik Insight Bot Web Services

Below services are hosted on IIS.

1. Engine Service
2. Management Service
3. NLP Service
4. Insight Bot Management Console

Open Internet Information Service (IIS) Manager and start configuring each service one by one.

**Note:** You must have a valid SSL certificate in IIS. You can check by going to Server Certificates in IIS. If it is not available, you can use server.pfx for binding. You can import server.pfx exported from Qlik Sense to IIS. It must be exported for the QIB machine name.

Configure Engine Service

1. Select engineservice under sites on left pane.
2. Click Bindings under Edit Site on right pane.
3. Click **Add**…

4. Enter the following and click OK.

<table>
<thead>
<tr>
<th>Type</th>
<th>Select <strong>https</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td><strong>Enter 4434</strong></td>
</tr>
<tr>
<td>SSL Certificate</td>
<td>Select your SSL certificate from drop down menu.</td>
</tr>
</tbody>
</table>
5. Select other Binding, click **Remove**.

6. Go to **SSL Settings**, then select **Require SSL**, and check **Accept**.
7. After changing the port of Qlik Insight Bot Engine Service, you need to check that the service is running by hitting `https://<servername>:4434` in the web browser.
A popup window will open to select the certificate. Click **Cancel** and you will see the home page for the Engine Service.

### Configure Management Service

1. Select **management service** under **sites** on left pane.
2. Click **Bindings** under **Edit Site** on right pane.
3. Click **Add…**
4. Enter the following and click **OK**.
   - **Type**: Select **https**
Installation and Configuration

<table>
<thead>
<tr>
<th>Port</th>
<th>Enter 4436</th>
</tr>
</thead>
</table>

**SSL Certificate**  Select your SSL certificate from drop down menu.

5. Select other Binding, click **Remove**.

6. Go to **SSL Settings**, then select **Require SSL**, and check **Accept**.
7. After changing the port of Qlik Insight Bot Management Service, you need to check that the service is running by hitting https://<servername>:443 in the web browser.
A popup window will open to select the certificate. Click **Cancel** and you will see the home page for the Management Service.

**Configure NLP Service**

1. Select **nlpservice** under **sites** on left pane.
2. Click **Bindings** under **Edit Site** on right pane.

3. Click **Add…**

4. Enter the following and click **OK**.
   - **Type**  
   - **Select https**
5. Select other Binding, click **Remove**.

6. Go to **SSL Settings**, then select **Require SSL**, and check **Accept**.
After changing the port of Qlik Insight Bot NLP Service, you need to check that the service is running by hitting `https://<servername>:443` in the web browser.
A popup window will open to select the certificate. Click **Cancel** and you will see the home page for the NLP Service.

**Configure Qlik Insight Bot Management Console**

1. **Select portal** under **sites** on left pane.
2. **Click Bindings** under **Edit Site** on right pane.

3. **Click Add…**

4. **Enter the following and click OK.**
   
   **Type**  
   **Select https**
5. Select other Binding, click **Remove**.

6. Select **Authentication** and confirm that **Windows Authentication** is enabled.
7. After changing the port of Qlik Insight Bot Management Console, you need to check that the service is running by hitting `https://<servername>:4435` in the web browser.
Installation and Configuration

A popup window is open to enter credentials. Enter credentials of the user who belongs to user group **Qlik Insight Bot Administrators**.

Qlik Insight Bot Management Console is a web application to manage Qlik Sense apps. For more information, see the Qlik Insight Bot Management Console Guide.

**Restart Services**

Restart below mentioned Qlik Insight Bot Services:

1. Windows Services
   a. Qlik Insight Bot Deployment Engine Service
   b. Qlik Insight Bot NLU Service
   c. Qlik Insight Bot Duckling Service
   d. Qlik Insight Bot Narrative Service

2. Web Services - IIS
   a. Engine Service
   b. Management Service
   c. NLP Service
   d. Portal

**Note**: If you make any change in Configuration Application, above services must be restarted.

To enable webchat on Qlik Sense, please refer “Configuring Webchat and Qlik Sense Extension”.

If you want to enable Slack / Microsoft Teams / Skype for Business (online), please follow the document “Configuring Channels”
9. Modify your Installation

If you want to add any component(s) to existing installation which are not installed, you can install it by running the installer again on the machine where other components are installed.

Suppose you want to integrate Slack with Qlik Insight Bot and you have not installed Qlik Insight Bot Slack Engine Service previously. You can run the installer again on the machine, select the Slack Service from there and install it.

**Steps:**

1. Run Qlik Insight Bot.exe as administrator. You will see below welcome screen showing options of uninstall and modify. Click **Modify**.

2. Accept the License Agreement, click **Next**.
3. Select the component which is not installed. By default, it will only allow components which are not installed on the machine. Click Next.

4. You can see Ready to Install dialog. Click Install.
5. You will see a message indicating that installation is successful.

Click Finish.

6. Perform the configuration steps for the installed component(s).
10. Upgrading Qlik Insight Bot

Note: For prior to Qlik Insight Bot Feb 2020 version, you will have to follow steps from earlier versions’ releases notes.

10.1 From Feb 2020 to June 2020 or June 2020 Patch 1 or Patch 2

Steps:

1. Open IIS Manager and stop all the web services related to Qlik Insight Bot.

2. Stop all Qlik Insight Bot Windows Services
3. Take backup of file **config.json** located at `C:\Program Files (x86)\Qlik Insight Bot\Qlik Insight Bot Webchat Service` from the machine where QIB webchat is installed in case of QSEfW Nov 2019 and earlier versions.

4. Uninstall below components from Control Panel
   a. Qlik Insight Bot Applications
   b. Qlik Insight Bot Services
   c. Qlik Insight Bot Narrative Service
   d. Qlik Insight Bot NLU Service
   e. Qlik Insight Bot Duckling Service
   f. Qlik Insight Bot Webchat Service (if installed)
   g. Qlik Insight Bot Slack Engine Service (if installed)
   h. Qlik Insight Bot SFB Online Service (if installed)

5. Delete below mentioned folders, if they exist
   a. `C:\Program Files (x86)\Qlik Insight Bot`
   b. `C:\inetpub\wwwroot\`
      i. `qlikinsightbotengineservice`
      ii. `qlikinsightbotmanagementservice`
      iii. `qlikinsightbotnlpservice`
      iv. `portal`

6. Run Qlik Insight Bot.exe as administrator and follow all the installation steps mentioned at **Install Qlik Insight Bot**.

7. Configure Qlik Insight Bot Web Services as mentioned at **Configure Qlik Insight Bot Web Services**

8. Install Qlik Insight Bot Webchat Service.exe (in case of QSEfW Nov 2019 and prior)
   a. In case of QSEfW Nov 2019 and prior, if Webchat Service is installed on a machine separately from other QIB components, make the appropriate changes in **config.json** located at...
Upgrading Qlik Insight Bot

9. Restart web services related to QIB from IIS and windows services
   You should now be ready to interact with the latest version of Qlik Insight Bot.

10.2 From June 2020 to June 2020 Patch 1 or Patch 2

Steps:

1. Open IIS Manager and stop all the web services related to Qlik Insight Bot.

2. Stop all Qlik Insight Bot Windows Services
3. Run Qlik Insight Bot Patch 1.exe as administrator and click **Upgrade**

4. Follow the installation steps.

5. Click **Cancel** when you see below dialog.
Upgrading Qlik Insight Bot

6. Finish the installation.

10.3 From June 2020 Patch 1 to June 2020 Patch 2

Steps:

1. Open IIS Manager and stop all the web services related to Qlik Insight Bot.

2. Stop all Qlik Insight Bot Windows Services
3. Run Qlik Insight Bot Patch 2.exe as administrator and click **Upgrade**

4. Follow the installation steps and finish installation.

   You should now be ready to interact with the latest version of Qlik Insight Bot.
11. Uninstalling Qlik Insight Bot

Do the following for uninstalling Qlik Insight Bot.

**Steps:**

1. To start uninstalling, open the **Control Panel** and select **Uninstall a program**. Then select **Qlik Insight Bot** from the list of programs and click **Uninstall**.

2. A confirmation screen is displayed with the options of Repair and Uninstall. Select the **Uninstall** and you will be asked whether you are sure to uninstall the Qlik Insight Bot from your computer.

3. Click **Yes** and it will start uninstalling Qlik Insight Bot.

4. The progress of the uninstall process is displayed. When finished the uninstall dialog confirms that Qlik Insight Bot has been uninstalled successfully.

5. Click **Finish**.

You have now uninstalled Qlik Insight Bot.
12. Repairing Qlik Insight Bot

The Repair option restores all files, shortcuts and registry values. Also, for IIS Web Services, ports and SSL bindings will also be removed.

Do the following:

1. To start repairing the installation, open the Control Panel and select Uninstall a program. Then select Qlik Insight Bot from the list of programs and click Change. The Qlik Insight Bot Setup maintenance screen is displayed.

   ![Qlik Insight Bot Setup Wizard]

   Welcome to Qlik Insight Bot Setup Wizard
   Uninstall will remove Qlik Insight Bot from your computer. It will also remove related files and directories.
   Repair will restore all files and directories related to Qlik Insight Bot to their original state on your computer.

2. Click Repair.
   It will start repair instantly and the progress is displayed. When finished, it will show a dialog with information that repair is done.
3. Click Finish.
4. Now, you will have to update port, SSL bindings and SSL settings for Qlik Insight Bot Web Services as mentioned at Configure Qlik Insight Bot Web Services.

You have now successfully repaired your Qlik Insight Bot installation.
Appendix I – Mapping Qlik Sense node host name with its IP address

1. Go to QMC > CONFIGURE SYSTEM > Nodes.
2. Copy the host name of a Central node (column “Host name”).
3. Go to C:\Windows\System32\drivers\etc.
4. Open the Host file in text editor in administrator mode.
5. Reach to end of the document and put Qlik Sense Server node IP address along with its host name.
6. Save and close.

Appendix II – Getting the port for PostgreSQL

1. Open pgAdmin.
2. Right click PostgreSQL 11 server, select Properties.
3. Go to Connection tab.
4. Copy the port.

Appendix III – Give Access to PostgreSQL

The pg_hba.conf file handles client authentication. Each record specifies a connection type, such as a client IP address range, database name, user name, and the authentication method used.

To edit the pg_hba.conf file:
1. Navigate to the pg_hba.conf file in C:\Program Files\PostgreSQL\<version>\data of your PostgreSQL installation.
2. Open the file in a text editor as an administrator.
3. Locate the following line:
   
   host all all 127.0.0.1/32 md5

   This line determines which servers can access the repository database server. The default address setting, 127.0.0.1/32, only allows local host to access the database.
4. Replace 127.0.0.1/32 with a sub net specification that covers all the IP addresses of the nodes in your site. When specifying these settings, add one row for each node, using /32 as a suffix for each address, or add a sub net that covers all addresses using, for example, /24 as a suffix:
   - IPv4 (32-bit addresses):
     - To specify a single address: 192.168.1.0/24, or 172.20.143.89/32
     - For a small network: 172.20.143.0/24, or 10.6.0.0/16 for a larger one.
     - To allow access from all IPv4 addresses: 0.0.0.0/0
   - IPv6 (128-bit numeric addresses):
     - For a single host: ::1/128 (in this case the IPv6 loopback address)
     - For a small network: fe80::7a31:c1ff:0000:0000/96
     - To allow access from all IPv6 addresses: ::/0
5. Save your changes.

For more information on how to set a more restrictive IP address, see the PostgreSQL documentation.

You have installed and configured a PostgreSQL database on a separate server. You are now ready to resume your installation of Qlik Insight Bot.
Appendix IV – Configure TLS version in NLU

To change the TLS version in NLU, do the following. Only applicable for QIB June 2020 Patch 1.

1. Go to C:\Program Files (x86)\Qlik Insight Bot\Qlik Insight Bot NLU Service\ (Installation Directory).
2. Open Config.json file. Search for the TLS_VERSION change the value for that parameter. Default would be TLSv1_2.
   Possible values for the TLS_VERSION could be TLSv1_0, TLSv1_1 and TLSv1_3
3. Once you change the TLS version, restart the QIB NLU Service from windows service.

Appendix V – Configure Email Property

To change the email property from default set to other, do following. Only application for QIB June 2020 Patch 1.

1. Go to C:\inetpub\wwwroot\Engine Service and locate web.config
2. Open web.config file. Search below snippet in code.

```
(..)
   <add key="EmailInAttribute" value="true" />
   <add key="EmailPropertyName" value="email" />
</appSettings>
(..)
```
3. Change the property name in value of EmailPropertyName to the one which contains email id in QMC.
4. Change the value of EmailInAttribute to false only if you want to use userid as your email id.
5. Save file.
6. Restart the IIS.