



## CHIME FOR TEAMS INSTALLATION GUIDE

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## CONTENTS

System Requirements .....	3
Hardware Recommendations.....	3
Required Accounts .....	4
Chime Setup Wizard .....	5
Installation Type .....	6
Choose Installation Folder (Custom Installation Only) .....	6
Active Directory .....	7
Office 365 .....	7
Chime Database .....	8
Create/Update the Database .....	8
Configure Database Service Account .....	9
Service Account.....	10
Installation Options .....	11
Ready to Install .....	11
Chime Configuration Wizard .....	12
Configure Active Directory .....	13
Configure SQL .....	14
Pick Admin User .....	15
Setup SSL.....	16
(Optional) Setup Mail .....	17
Start the Chime Application .....	18
Starting from Configuration Wizard .....	18
Starting from Services.....	18
Issues Starting Chime .....	18
Access the Chime Application .....	20

# CHIME INSTALLATION GUIDE

## SYSTEM REQUIREMENTS

- 64-bit Windows Server®: 2008 R2, 2012, 2012 R2, 2016
- Connection to Microsoft SQL Server®. The application supports full SQL Server® or SQL Express Edition® or Azure SQL Database
  - Account with create access to SQL server (for building and updating the Chime database)
  - Account with read/write access to Chime database
    - The application supports both SQL and Windows server authentication options.
    - *Note:* For optimal performance, Chime and SQL Server should be in the same physical site.
- If hosted through Microsoft Azure, use a Standard D1 v2 (1 vcpu, 3.5 GiB memory) or greater for the Virtual Machine and a Standard S3: 100 DTUs Database
- .Net Framework 4.7.1+
- Configured Azure Active Directory application registration for Graph API access (see Chime Office 365 Prerequisites.pdf)
- 1+ Bot Framework registered bots per queue
- Microsoft Teams subscription

## HARDWARE RECOMMENDATIONS

The following are the recommended hardware configurations for Chime for Teams

# of Queues	# of Agents	RAM	Processor	Data Storage	Database Size
1-2	10	2 GB	1 - 2 Core	80 - 100 GB	4 GB
2+	10+	4 GB	2 - 4 Core	150 - 200 GB	8 - 10 GB

## REQUIRED ACCOUNTS

The following accounts will be need for the installation and/or operation of Chime.

### Azure Active Directory Graph API Registration

*This app registration is used to authenticate users accessing Chime, and to perform directory lookups when adding users or Teams channels to Chime*

Application ID: \_\_\_\_\_

Application Secret: \_\_\_\_\_

Tenant ID: \_\_\_\_\_

Tenant Name: \_\_\_\_\_

### Chime Database Admin Account

*This account is used to create the Chime database during the installation. This account needs SQL authentication with the ability to create the database. This account information is not stored, and is only utilized during creation or updating.*

SQL Server Name: \_\_\_\_\_

Username: \_\_\_\_\_

Password: \_\_\_\_\_

### Chime Database Service Account

*This account will be used by Chime to read and write information to the Chime database.*

Username: \_\_\_\_\_

Password: \_\_\_\_\_

*Account must have db\_datareader & db\_datawriter rights to Chime database*

### Chime Service Account

*This account will be used as the login for the Windows Service. If using Windows Authentication on the SQL connection, this must be the same account. This account must be granted the Local Security Setting of "Logon as a service". This account must be a member of the Chime server's local Administrator group or a member of the Domain Admins group of the domain to which the Chime server is joined. This is required for the OWIN web server components which power the Chime web interface to operate.*

Username: \_\_\_\_\_

Password: \_\_\_\_\_

**Dispatcher bots** – *These Bot Framework bots will be used by Chime to connect requests from a seeker to Teams experts. Each queue will need at least one bot, with additional bots allocated for agents to handle additional concurrent chat sessions*

## CHIME SETUP WIZARD

Once the required accounts have been provisioned for Chime, you are ready to begin the installation of the Chime application.

1. Run **ChimeSHInstaller.exe**. You will be prompted with the Chime for Teams Setup wizard.



Figure 1: Chime for Teams Setup Wizard

2. Click **Next** to proceed through the Setup wizard.

During the setup, you will need to enter the credentials for the following required accounts:

- Active Directory Application Information
- Chime Database Account
- Chime for Teams Service Account

## INSTALLATION TYPE

Chime has two installation options, Default and Custom. When installing using the default setting, Chime uses a default installation path and a default SQL Database name. When installing using the Custom Installation Settings, you will be able to select a specific installation path for Chime as well as more specific control over the name of the SQL Database used with Chime.

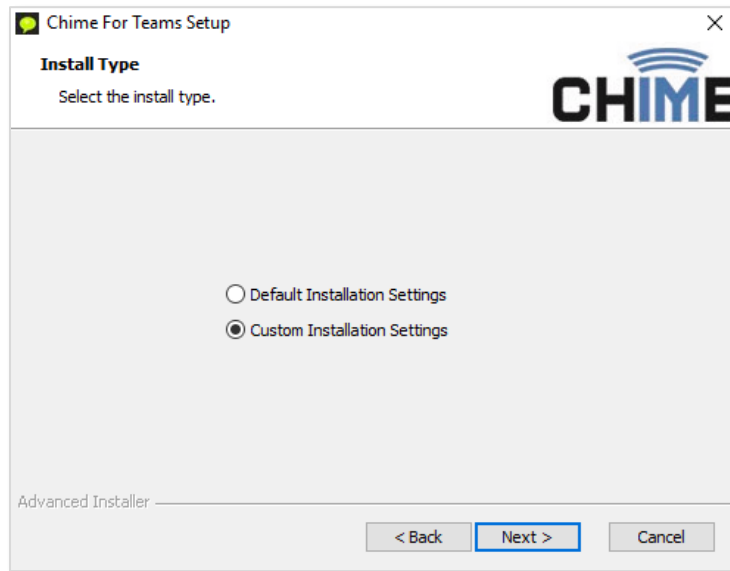


Figure 2: Custom Install Type

## CHOOSE INSTALLATION FOLDER (CUSTOM INSTALLATION ONLY)

To select an installation folder, simply click the Browse... button and navigate to the folder location you wish to install Chime. Once you have selected the desired folder location, click **Next**.

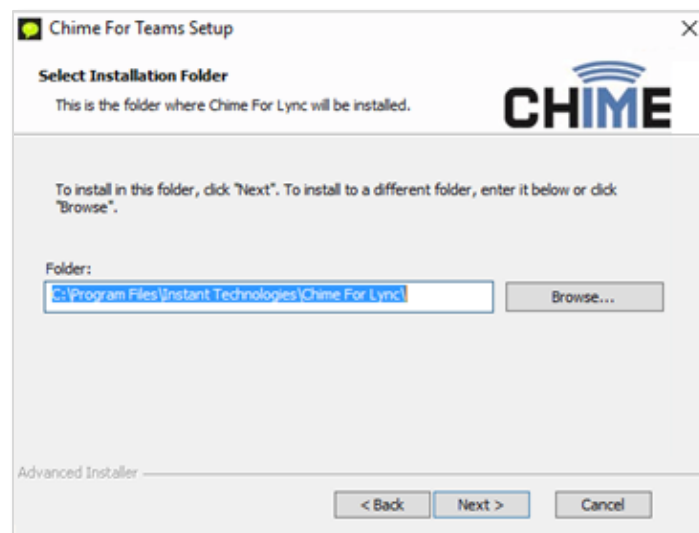


Figure 3: Custom Installation Setup

## ACTIVE DIRECTORY

The first required account is Active Directory. You will need the Active Directory account information to fill out this section.

## OFFICE 365

### PREREQUISITES:

- A.) Azure AD Application configured to sign-in and read user profile information with delegated permissions (see document title *Chime Office 365 Prerequisites* for more information)
- B.) Recorded Azure AD Tenant ID, Application Client ID, and Application API key from *Chime Office 365 Prerequisites* document.

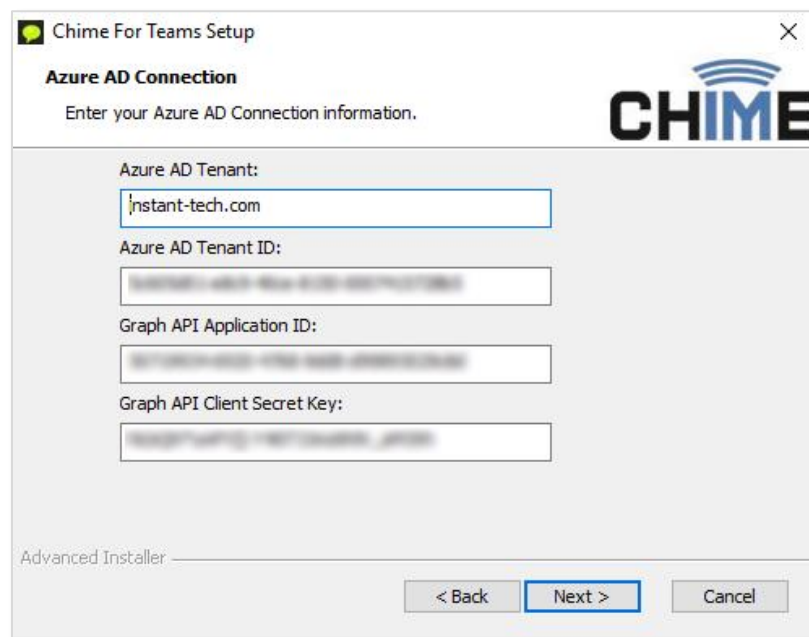


Figure 4: Provide Azure AD information

1. Enter the name of your Office 365 tenant in the input labeled **Azure AD Tenant**. This is usually the domain associated with your Office 365 email address, e.g. example.com.
2. Enter the **Azure AD Tenant ID** obtained in the corresponding input.
3. Enter the **Azure AD Application ID** obtained in the corresponding input.
4. Enter the Azure AD Application API key in the input labeled **Azure AD Client Secret Key**.



## CHIME DATABASE

Chime requires an account with administrative rights to the SQL database. In this section of the Setup wizard, the Chime database will be created. Chime requires read/write access to its own database.

### CREATE/UPDATE THE DATABASE

1. Enter the Fully Qualified Domain Name or IP address of the SQL Server where the Chime database will be installed.
2. Provide the username of the account that will be used to create the Chime database. This account needs *sys\_admin* rights for the SQL Server.
3. Enter the password for the SQL account.

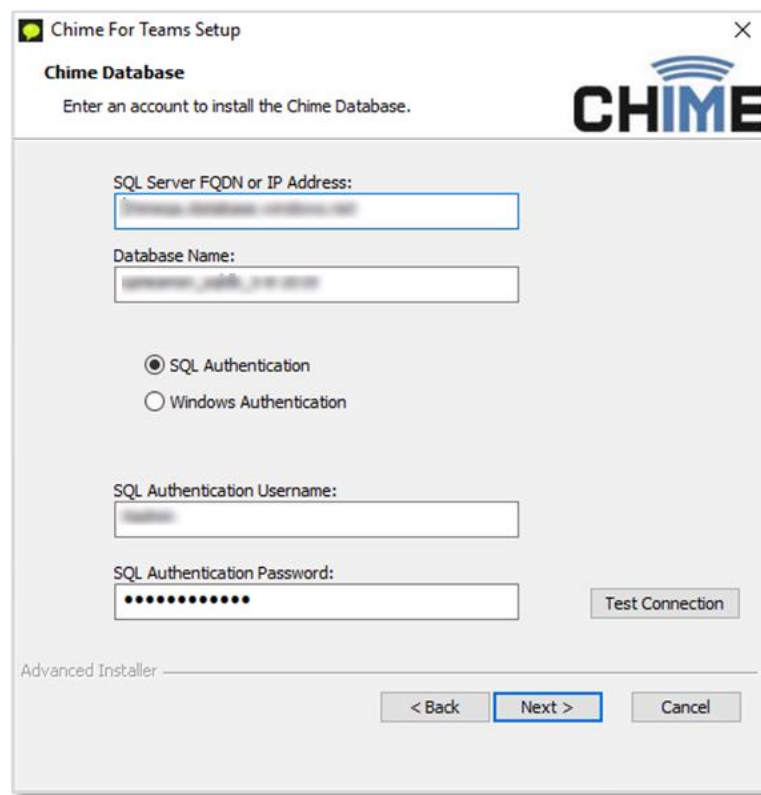
The image shows a screenshot of the 'Chime For Teams Setup' window, specifically the 'Chime Database' configuration step. The window has a title bar with a green icon and the text 'Chime For Teams Setup'. Below the title bar, the section is titled 'Chime Database' with a subtitle 'Enter an account to install the Chime Database.' and the CHIME logo. The form contains several input fields: 'SQL Server FQDN or IP Address:' with a text box containing 'localhost'; 'Database Name:' with a text box containing 'Chime'; two radio buttons for 'SQL Authentication' (selected) and 'Windows Authentication'; 'SQL Authentication Username:' with a text box containing 'sa'; and 'SQL Authentication Password:' with a masked text box showing ten dots. A 'Test Connection' button is located to the right of the password field. At the bottom, there is a progress bar labeled 'Advanced Installer' and three buttons: '< Back', 'Next >' (highlighted with a blue border), and 'Cancel'.

Figure 5: Chime Database Setup

*If you chose the Custom Install option, you are able to change the name of the Database.*

4. Click on **Test Connection** once the require account information has been entered.  
Note: If you get an error here about the TLS version, change the firewall rules for minimum TLS version to 1.0.
5. Click **Next** to proceed.

## CONFIGURE DATABASE SERVICE ACCOUNT

1. Choose the authentication scheme Chime will use to connect to the database.

If using SQL Authentication:

- a. Enter the username for the service account Chime will use to access the database.
- b. Enter the password for the service account

If using Window Authentication, the service account provided in the next screen will be used to connect to the database.

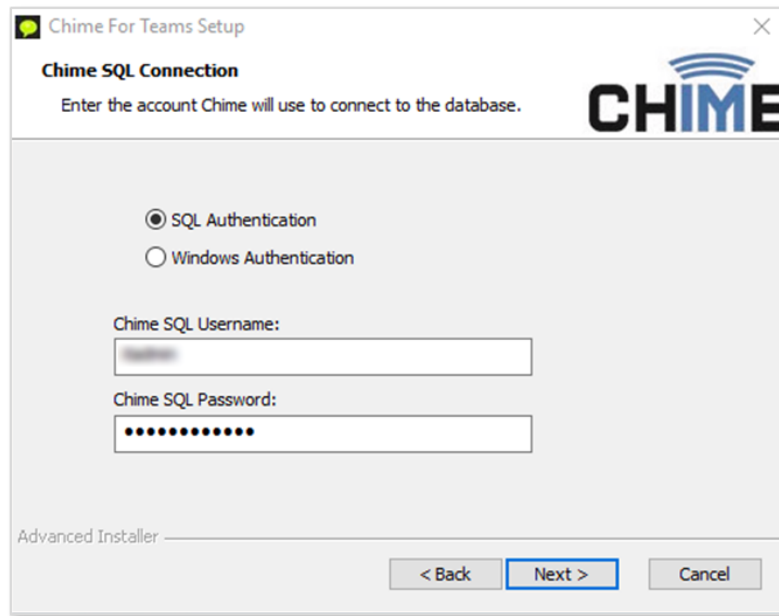


Figure 6: Configure Database Service Account

2. Click **Next** to proceed.

## SERVICE ACCOUNT

The Chime for Teams Service account is the account that will be used to run the Chime Self-Hosted application.



The image shows a Windows installer window titled "Chime For Teams Setup". The main heading is "Chime for Lync Service". Below the heading, it says "Enter the account the Chime for Lync service will use." and the CHIME logo is on the right. A grey box contains instructions: "This account will be used as the login for the Windows Service. If using Windows Authentication on the SQL connection, this must be the same account." and "This account must be granted the Local Security Setting of 'Logon as a service' and this account must be a member of the Chime server's local Administrator group". There are three input fields: "Domain:" with "./" entered, "Service Username:" with "chime" entered, and "Service Password:" with masked characters. At the bottom, it says "Advanced Installer" and has "< Back", "Next >" (highlighted), and "Cancel" buttons.

Figure 7: Chime Service Account

1. Enter the name of the domain that the Chime service account belongs to.
2. Provide the username of the account that will be used to run Chime.
3. Enter the password for the provided username.
4. Click **Next** to proceed through the installation.

## INSTALLATION OPTIONS

Optionally, you may customize the installation with the available Installation Options. By default, the installation will add a few routing tags to the Chime database (e.g., password reset, software installation, hardware, mobility, etc.). For most installations and upgrades, this is the recommended setting. If the default skill-routing tags are not desired, uncheck this option.

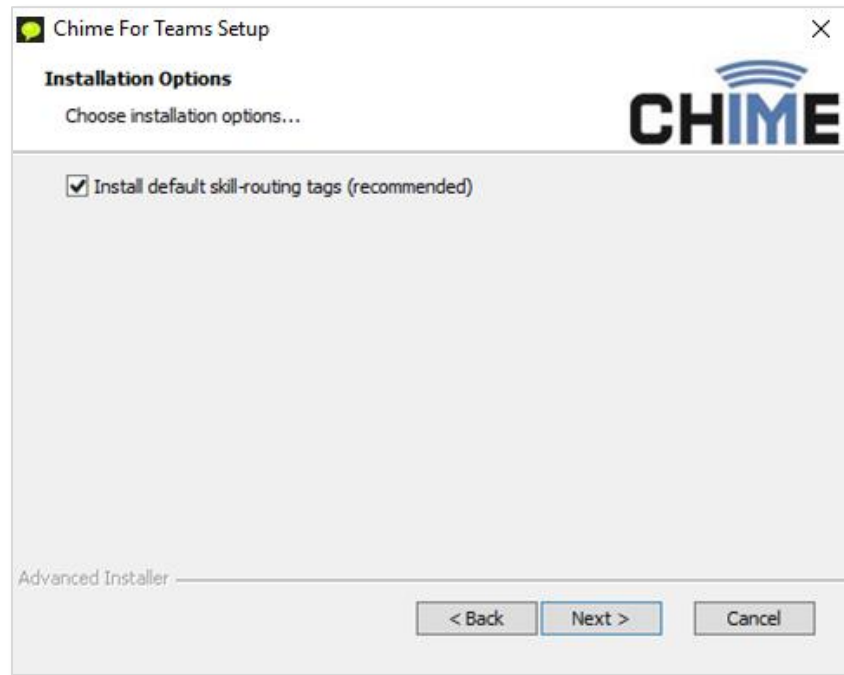


Figure 8: Installation Options screen

## READY TO INSTALL

Press the **Install** button to begin installing Chime.

Click **Finish** to close the setup wizard and launch the configuration wizard.

## CHIME CONFIGURATION WIZARD

Once all the required account information has been filled out in the Chime Setup wizard, you will be prompted with the next part of the installation, the Configuration Wizard. In this section you will do the following:

- Verify Active Directory account information
- Verify and test connection to the SQL Database
- Pick the first administrative user for the Chime application
- Configure SSL Certificates

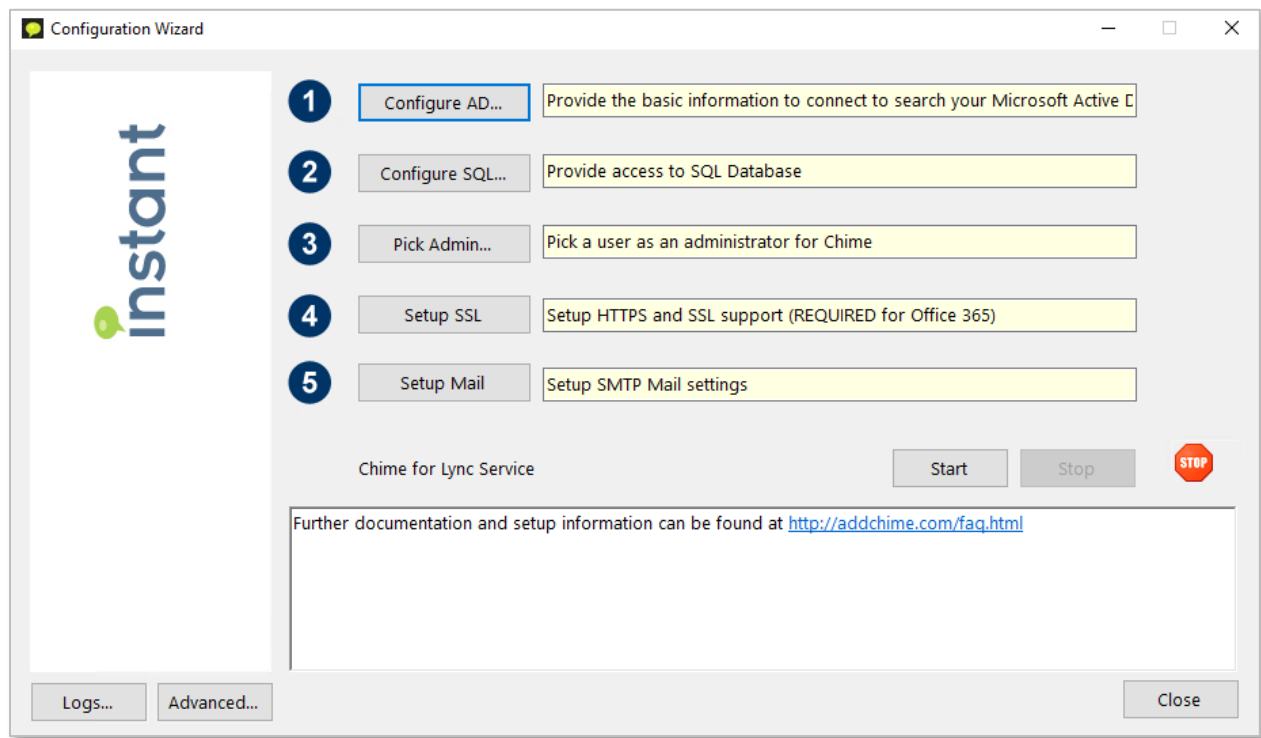


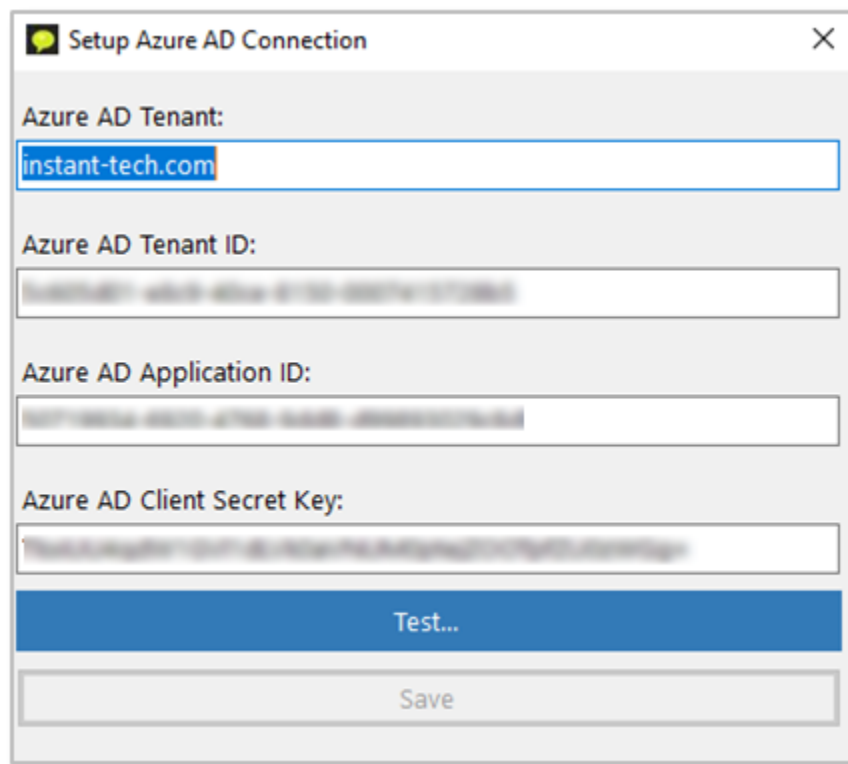
Figure 9: Configuration Wizard

## CONFIGURE ACTIVE DIRECTORY

In the first step of the configuration wizard, you will need to verify your active directory credentials.

Verify that the information in these fields matches what was provided during the installation phase. You can test to be sure that we can connect using the information provided using this tool.

1. Enter your **Azure AD Tenant**.
2. Enter your **Azure AD Tenant ID**.
3. Enter your **Azure AD Client ID**.
4. Enter your **Azure AD Client Secret Key** (API key).
5. Click **Test...** to verify that we can connect using the provided information
6. Click **Save** to save the information and close the window.



The screenshot shows a window titled "Setup Azure AD Connection". It contains the following fields and buttons:

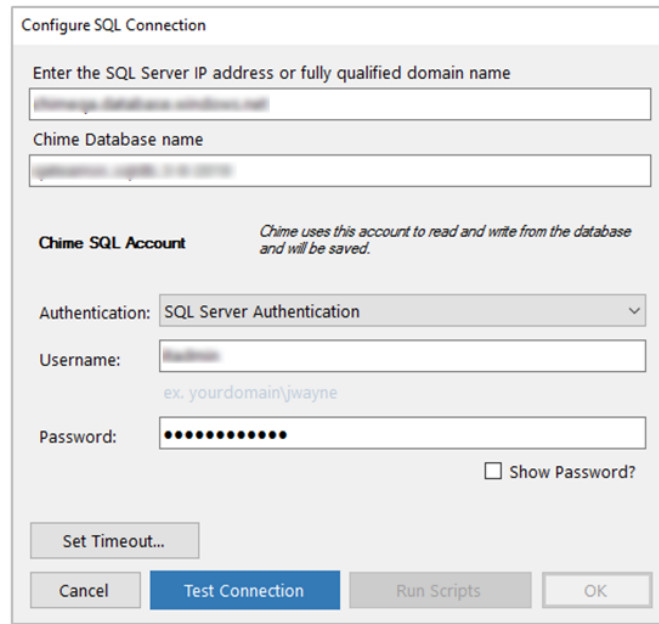
- Azure AD Tenant:** A text box containing "instant-tech.com".
- Azure AD Tenant ID:** An empty text box.
- Azure AD Application ID:** An empty text box.
- Azure AD Client Secret Key:** An empty text box.
- Test...** A blue button.
- Save** A grey button.

Figure 10: Azure AD Connection info

## CONFIGURE SQL

In this section you will need to enter the required account information for the Chime SQL account. This account needs read and write access to the Chime database.

1. Click **Configure SQL** in the configuration wizard.
2. Enter the name of the SQL instance that Chime will be hosted on.



The image shows a 'Configure SQL Connection' dialog box. It has a title bar with the text 'Configure SQL Connection'. Inside, there are two text input fields: the first is labeled 'Enter the SQL Server IP address or fully qualified domain name' and the second is labeled 'Chime Database name'. Below these is a section titled 'Chime SQL Account' with a note: 'Chime uses this account to read and write from the database and will be saved.' This section contains a dropdown menu for 'Authentication' set to 'SQL Server Authentication', a 'Username:' label followed by a text input field (with a hint 'ex. yourdomain\jwayne'), and a 'Password:' label followed by a masked password input field (with a 'Show Password?' checkbox to its right). At the bottom, there are four buttons: 'Set Timeout...', 'Cancel', 'Test Connection' (highlighted in blue), and 'Run Scripts' (disabled). An 'OK' button is also present at the bottom right.

Figure 11: SQL Connection

3. Select the appropriate authentication method for the Chime SQL account.
4. Enter the username and password for the Chime SQL account.
5. Click on **Test Connection** to test the connection to the database.
6. Click **OK** once you have successfully connected to the database.
7. Click the green **OK** button in the Configure SQL Connection window to proceed to the next step.

## PICK ADMIN USER

Chime will need a Teams-enabled account to be configured as the first Admin user of Chime. That person will be able to add other people once they log in.

1. Click on **Pick Admin** from the Configuration Wizard.
2. Enter the partial or full username of the person who will be the first admin. Click Search to find the user.

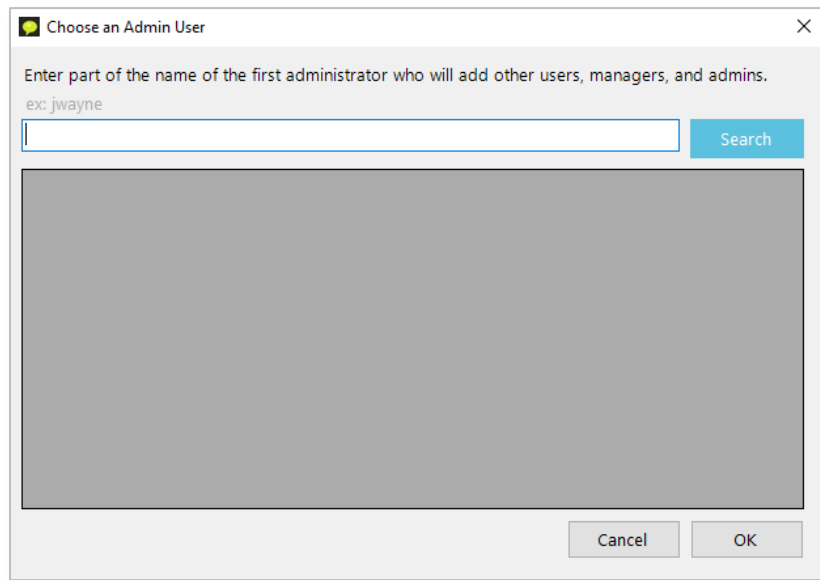


Figure 12: Pick Admin User

3. Select the correct user from the list and click Check User.
4. Once you've verified that the user picked is valid, click OK. Then, click OK in the Choose Admin user window to proceed to the next step of the Configuration Wizard.



## SETUP SSL

The configuration wizard provides a tool to register an SSL certificate with the Chime application. As a prerequisite, you will need to have a valid SSL certificate installed on the server. To do this install as smoothly as possible, we would recommend having a pfx format ssl cert on the server. For Chime to add this cert, the key needs to be included in the certificate added. In addition, when adding the certificate onto the server, add it in personal rather than local machine. Once the certificate has been installed on the server, you can follow these steps.

Once the certificate has been installed on the server, you can follow these steps.

1. Click the **Setup SSL** button.
2. Under SSL Binding, click **Add**.

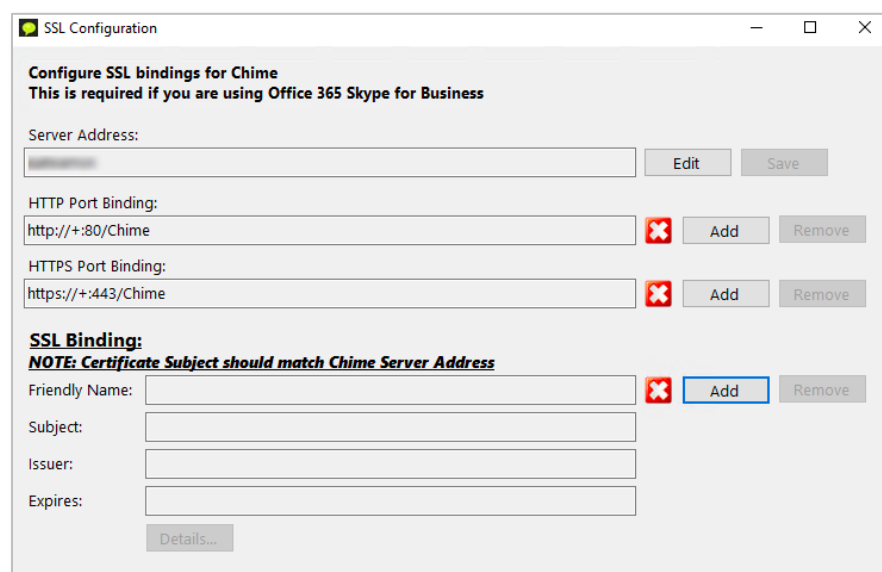


Figure 13: Setup SQL Connection

3. When the Select SSL Certificate window opens, select the \*.imchime.com certificate.



Figure 14: Select SSL Certificate

4. Close the SSL Configuration modal

## (OPTIONAL) SETUP MAIL

If you want to setup SMTP services before starting Chime, you can click on the **Setup Mail** button in the wizard. **Note:** this can be set in the Admin area of Chime after the service is started, and is not necessary to complete to start the Chime service.

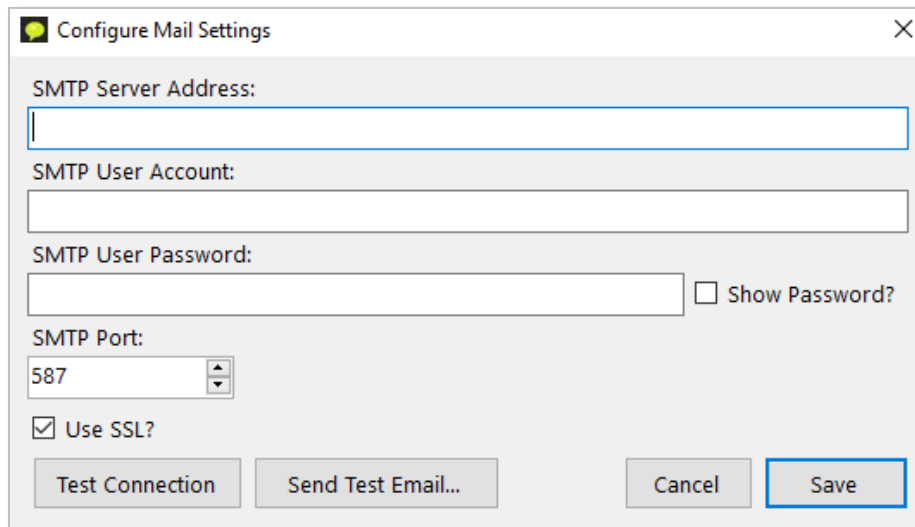
A screenshot of a Windows-style dialog box titled "Configure Mail Settings". It contains several input fields: "SMTP Server Address:" with a text box, "SMTP User Account:" with a text box, "SMTP User Password:" with a text box and a "Show Password?" checkbox, and "SMTP Port:" with a spinner box set to "587". There is also a checked checkbox for "Use SSL?". At the bottom, there are four buttons: "Test Connection", "Send Test Email...", "Cancel", and "Save".

Figure 15: Setup SQL Connection

1. Enter SMTP server Address.
2. Enter the SMTP user account used for any emails being sent out from Chime.
3. Enter Password for the user account
4. Choose what SMTP port will be used.
5. Check the Use SSL? Checkbox.
6. Test the connection to ensure the user account works.
7. Use the **Send Test Email...** button to send an email to yourself confirming it works.
8. Click **Save**.
9. Close the Setup Mail window.

## OPEN PORT 443

Before starting Chime, you will need to setup a firewall rule on your server that allows communication across port 443.

1. Open a powershell window.
2. In the powershell window, execute the following command:

```
New-NetFirewallRule -DisplayName "AllowPORT443" -LocalPort 443 -Action Allow -  
Direction Inbound -Protocol TCP -Profile Domain, Private, Public
```

This will open port 443 and allow your chime instance to use https.

## START THE CHIME APPLICATION

### STARTING FROM CONFIGURATION WIZARD

Once the Active Directory, SQL server, and SSL have all been setup, you can start the Chime service.

1. Click the **Start** button on the Chime Configuration Wizard.

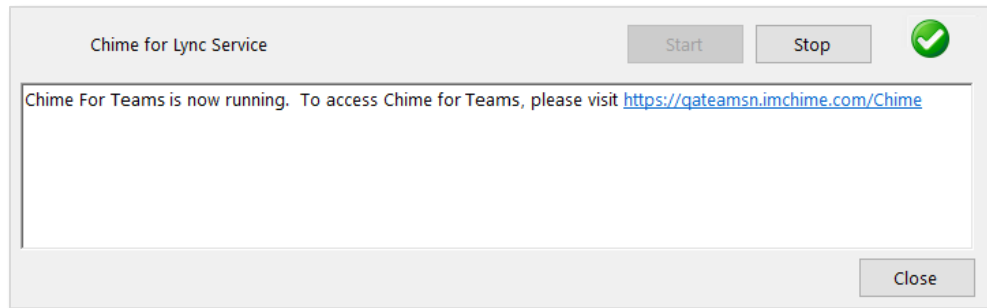


Figure 16: Chime Starting up

2. If the service starts, it will display a message saying “Chime for Teams is now running”
3. If Chime is not able to start it will display an error in the text bow instead. For any assistance in the install, you can email [support@instant-tech.com](mailto:support@instant-tech.com).

### STARTING FROM SERVICES

1. Log on to the server that Chime is hosted on.
2. Go to the Control Panel, and navigate to Administrative Tools.
3. Open ‘Services’.
4. Find ‘Chime for Teams’ in the list of services.
5. Right-click on Chime for Teams and click ‘Start’.

### ISSUES STARTING CHIME

#### UNABLE TO START THE CHIME SERVICE – INCORRECT LOGON

If you are unable to start the Chime service due to a logon failure, it’s possible that you entered the incorrect credentials for the Chime Service account during the install. To verify these credentials, follow these steps:

1. Log on to the server that Chime is hosted on.
2. Go to the **Control Panel**, and navigate to **Administrative Tools**.
3. Open ‘**Services**’.
4. Find ‘**Chime for Teams**’ in the list of services.
5. Right-click on Chime for Teams and click on ‘**Properties**’.
6. Navigate to the ‘**Log On**’ tab.
7. **Click OK** once the account credentials have been changed or verified.

8. Follow the steps to start the Chime service.

---

## UNABLE TO START THE SERVICE – LOG ON AS A SERVICE

If you are unable to start the Chime service, and receive an error message that the account doesn't have the proper rights, you will need to give administrative rights to the Chime Service account.

1. Log on to the server that Chime is hosted on.
2. Go to the **Control Panel**, and navigate to **Administrative Tools**.
3. Open '**Local Security Policy**'
4. Under '**Local Policies**', click on '**User Rights Assignment**'.
5. Click on '**Log On as a Service**', and then click on **Add User or Group**.
6. Enter the service account name, and click '**Check Names**'
7. **Click OK** once you've selected the service account to add.
8. Follow the steps to start the Chime service.

---

## UNABLE TO START THE SERVICE – SERVICE ACCOUNT NOT AN ADMINSTRATOR

If you are unable to start the Chime service, and receive an error message saying to check that account can log on as a service, you will need to add the Chime service account to the administrator group on your system.

1. Log on to the server that Chime is hosted on.
2. Go to the **Control Panel** and navigate to **Administrative Tools**.
3. Open '**Computer Management**'.
4. Under '**Local Users and Groups**', click on '**Groups**'.
5. Right-click on '**Administrators**' and select '**Properties**'.
6. Click '**Add**', enter the service account name and click '**Check Names**'.
7. Select the correct Chime service account and click '**OK**' back to Administrator Properties.
8. Click '**Apply**' and then '**OK**'
9. Follow the steps to start the Chime service.

## ACCESS THE CHIME APPLICATION

Once you've successfully installed Chime, you are ready to access the application.

1. Type in the URL of the Chime instance. It will look something like this:

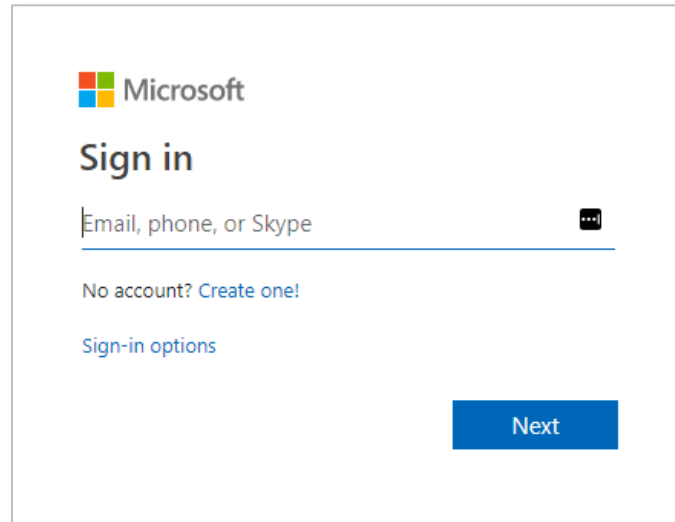


Figure 17: Chime Login

2. Log in to the application.
3. You are ready to add more administrators, agents, and start routing chats.

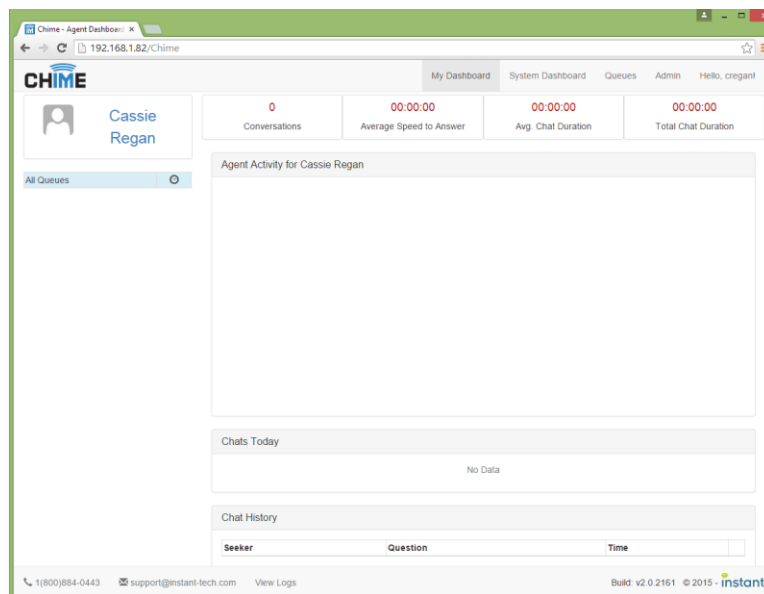


Figure 18: Chime Agent Dashboard