

Using Windows Authentication to Connect to SQL Server from Outside the Domain

This document explains how to connect J Street LIMS to SQL Server using Active Directory Windows Authentication from a device that is not joined to the same domain as SQL Server.

This also applies to those companies whose user log in to computers using log in names that are NOT part of the domain.

NOTE: This is an unusual situation. As such, it requires some additional manual steps to make this type of environment work. J Street Technology strongly recommends joining to the domain any computers that need to run J Street LIMS and access the database server. In a domain environment where all devices are joined to the same domain, these manual workaround steps are not required.

Overview

Here's a high-level overview of how this technique works:

1. **Active Directory Account:** The user must have an Active Directory account with the necessary permissions to access the SQL Server database.
2. **Network Connection:** The non-domain-joined computer must be able to connect to the domain-joined SQL Server, which can be achieved via WiFi, a network cable, or VPN.
3. **Using runas /netonly:** The user opens a command prompt and runs the runas command with the /netonly switch, specifying the Active Directory credentials that have access to SQL Server.
4. **Password Entry:** When prompted, the user enters the password for the Active Directory account. The password entry is secure and does not display on the screen.
5. **New Command Prompt Session:** A new command prompt window opens running under the context of the specified Active Directory user. This window is used for network communications that require Active Directory credentials.
6. **Mapping Network Drives:** If necessary, the user can map network drives within this new command prompt session using the net use command, as these mappings will not carry over from the primary Windows session.
7. **Launching the Application:** From the new command prompt session, the user launches the front-end application (such as MS Access or SQL Server Management Studio) that needs to connect to SQL Server using Windows Authentication.

Through this process, the application interacts with SQL Server as if it's running on a domain-joined computer, using the provided Active Directory credentials for authentication, while the local machine remains outside the domain. This allows for a secure method of database access in environments where it's not feasible to join every computer to the domain.

Step-by-Step Details

Step 1: Open Command Prompt

1. Press [Win] + [R] to open the Run dialog.
2. Type **cmd** and press [Enter] or click "OK."

Step 2: Use the Runas Command

1. In the command prompt, type the following command:

```
runas /user:DomainName\LocalComputerUserName /netonly cmd
```

2. Press [Enter].

Step 3: Enter Password

1. When prompted, enter the password for the DomainName\LocalComputerUserName account.
 - Note that the password will not be visible as you type.

Step 4: Launch J Street LIMS v6

1. Once the new command prompt opens (the window title will show that you're running it as DomainName\LocalComputerUserName), attempt to launch the J Street LIMS v6 application by typing:

```
"C:\ProgramData\Microsoft\Windows\Start Menu\Programs\J Street LIMS v6.lnk"
```

2. Press [Enter].

Step 5: Troubleshooting if the Application Does Not Launch

- If the application does not launch using the path provided, follow these steps to find the exact path:
 1. Click the Start menu and search for "LIMS."
 2. Find the "J Street LIMS v6" icon in the search results.
 3. Right-click on the "J Street LIMS v6" icon and choose "Open file location."
 4. In the File Explorer window that opens, locate the "J Street LIMS v6" shortcut.
 5. Hold [Shift] and right-click on the shortcut, then choose "Copy as path."
 6. Go back to the new command prompt window.
 7. Right-click to paste the path you copied into the command prompt (it will be surrounded by double quotes).
 8. Press [Enter] to launch the J Street LIMS v6 application.

Step 6: Verify Connection

- Once the J Street LIMS v6 application launches, verify that it can successfully connect to SQL Server using the specified Active Directory credentials through Windows Authentication.

By following these steps, users on non-domain-joined machines will be able to authenticate with SQL Server using their Active Directory credentials for database operations while using your J Street LIMS software.