

XPRESSENTRY

Installation Guide & Upgrade Procedures

By



Updated 4/15/2025

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1. Foreword

The purpose of this document is to explain the installation requirements, pre-requisites, installation and configuration steps, upgrade procedures for existing customers (latest version includes the new Web Console), and uninstall steps of your software solution. This guide is intended for system administrators and IT professionals who are responsible for implementing and maintaining XPressEntry in their organization's environment. Readers should have working knowledge of the following:

1. Windows Server/Windows 10 administration
2. SQL Server management and configuration
3. Network and firewall configuration
4. Service account and permissions management
5. Basic database administration

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2. Installation Preparation

Before beginning installation, verify all requirements and pre-requisites are met. Missing components may cause installation failure or system performance issues.

2.1. Installation Requirements

6. [XPressEntry installer](#) (Latest version can be found using this link)
7. License File (Telaar Sales Rep emails this file to their point of contact). Administrator rights are required for installation.
8. Windows Firewall ports 30000/30001 opened for the XPressEntryService executable. **This is needed for the handheld devices to find the server.**

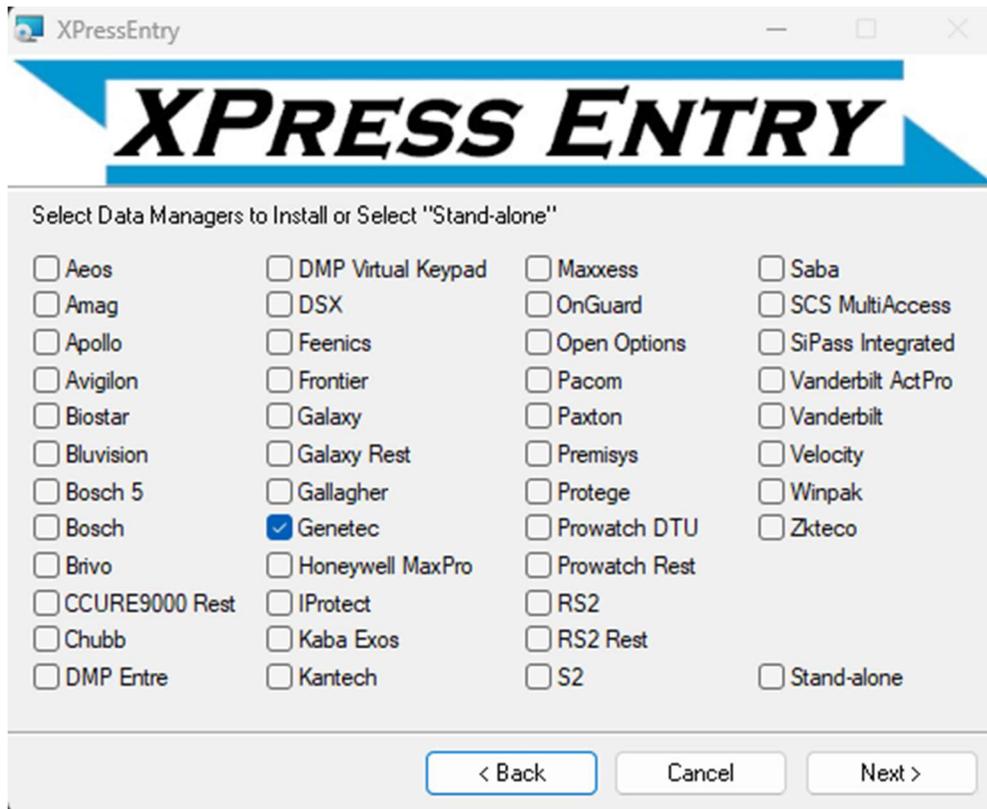
2.2. Installation Pre-requisites

9. Windows 10/Windows Server 2019 or newer, >= 8GB RAM
10. .NET Framework 4.7.2
11. 20GB free disk space for very large installations.
12. A windows domain service account (or local user if no domain) for the XPressEntry Service. Will be set to be either DB Owner or DB Reader/Writer of the XPressEntry SQL Server database.
13. SQL Server 2016 or SQL Server Express 2016 or newer installed and available locally or within the network.
14. SQL Server Management Studio installed on a machine that can access the database.

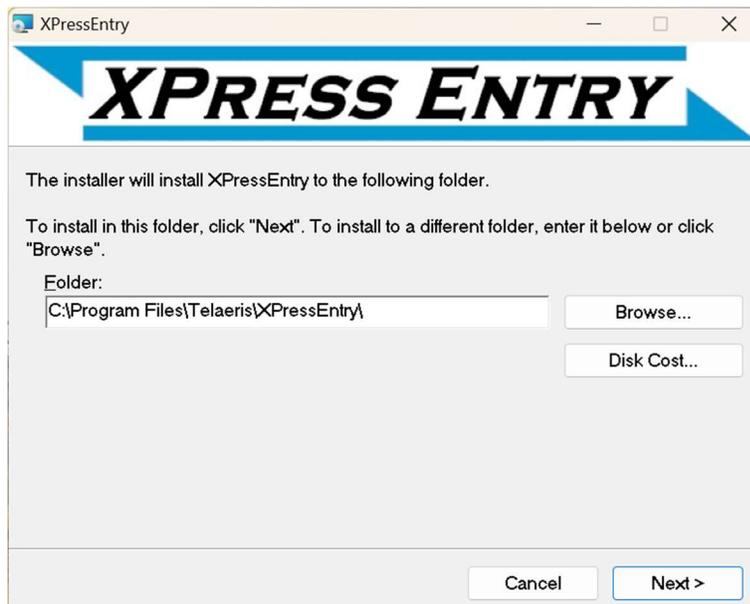
3. Installing XPressEntry

3.1. Run the XPressEntry MSI Installer

1. Run the XPressEntry MSI Installer.
2. Select the external system that XPressEntry will be integrating with. If upgrading XPressEntry, this should be set by default based on the previous configuration.
 1. If XPressEntry will not be integrating with an external system, select "Stand-alone".
 1. If upgrading from a previous version of XPressEntry, the installer will remember the integration configuration and prepopulate that box.



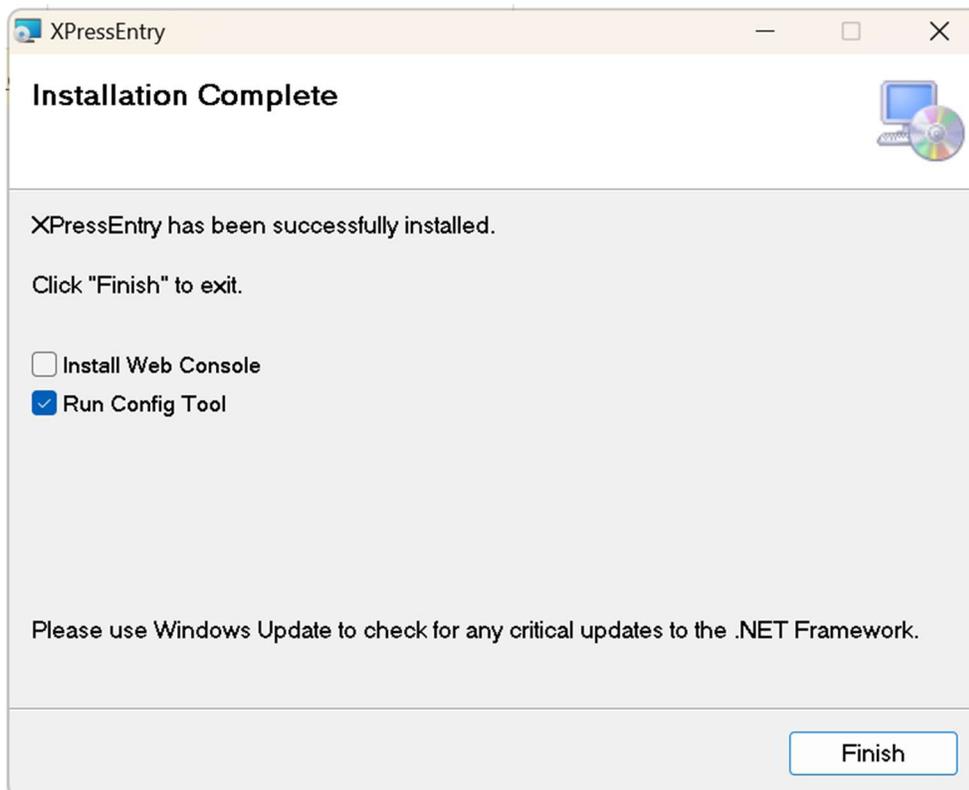
3. Select the Location to install XPressEntry



4. Once XPressEntry is installed, it will ask 2 things

1. Install Web Console (Optional)

2. Run Config Tool

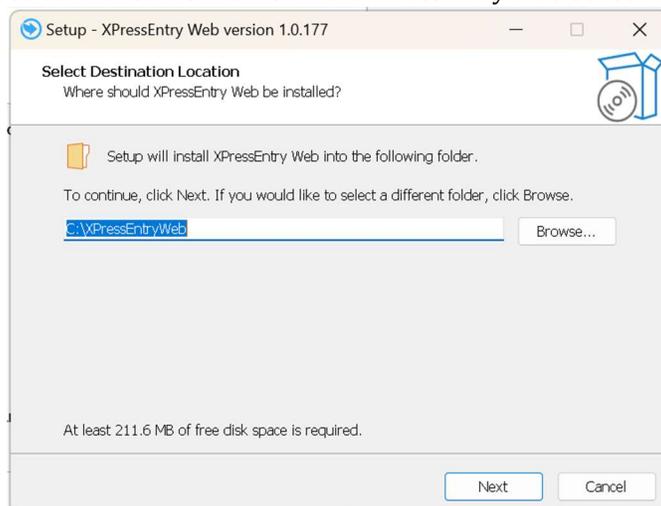


3.2. Install Web Console (Optional)

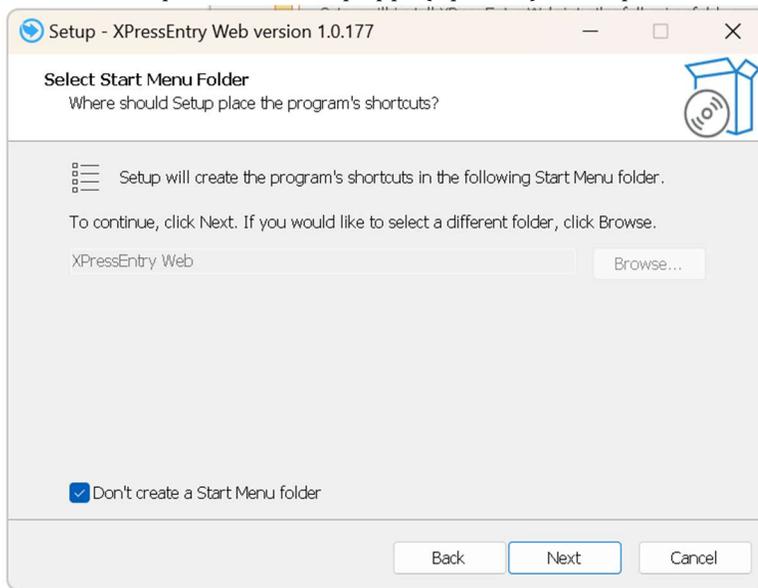
What is the Web Console? The XPRESSEntry Web Console is the management console that manages all aspects of the XPRESSEntry system, including device and user management, live data feeds, reporting, and configuring connections to integrated access control systems.

15. If you select "Install Web Console", it will open a new install window.

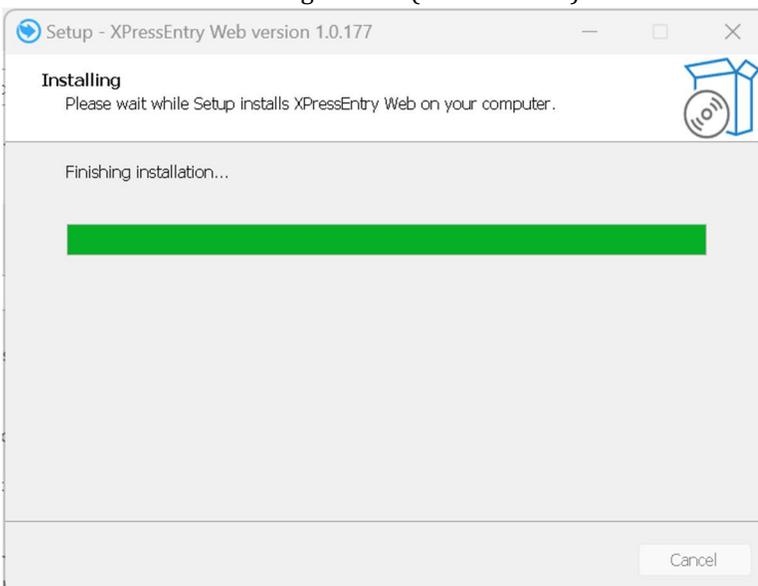
16. Select the location to install the XPRESSEntry Web Console.



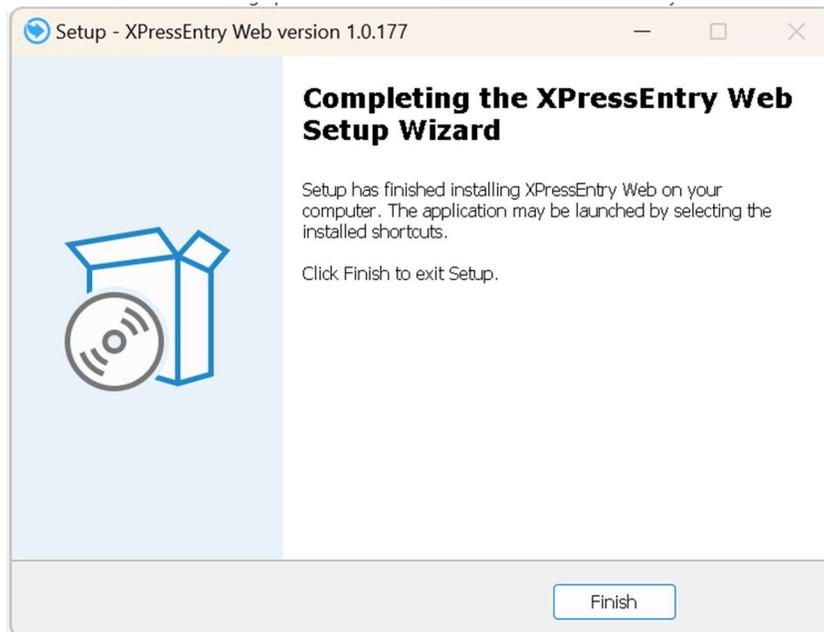
17. Select a startup folder for setup apps (Optional). Then press Next.



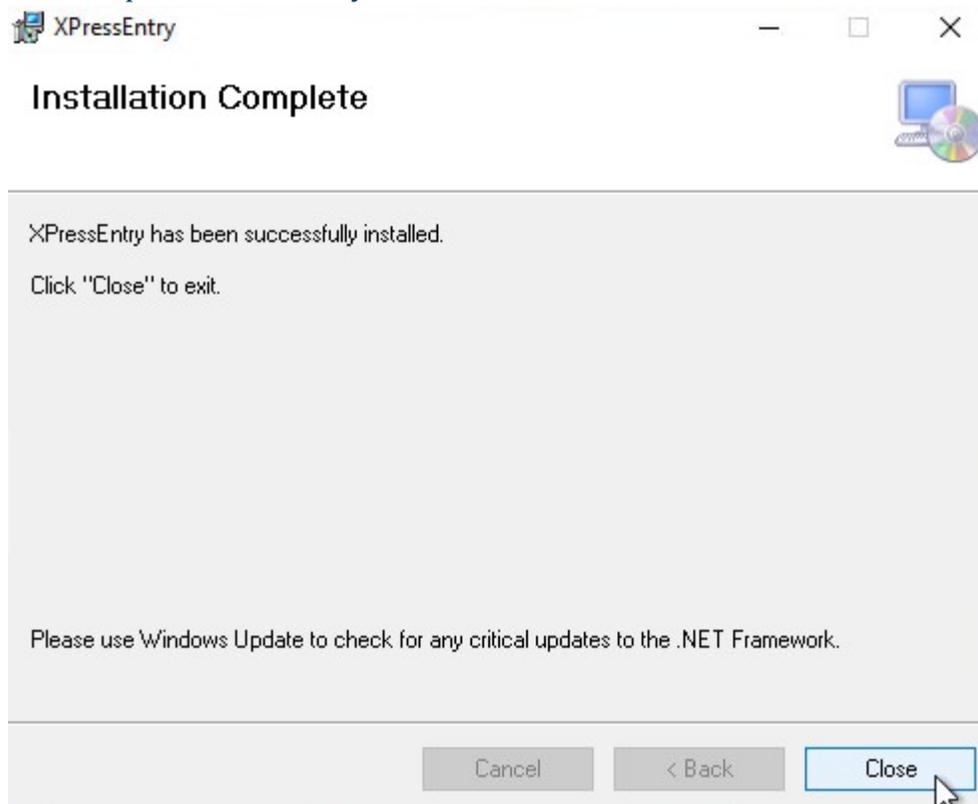
18. Select Install to begin the Web Console Installation. "Finishing Installation" will take some time as windows services are being created (shown below).



19. Once completed, select “Finish”



3.3 Complete XPressEntry Installation

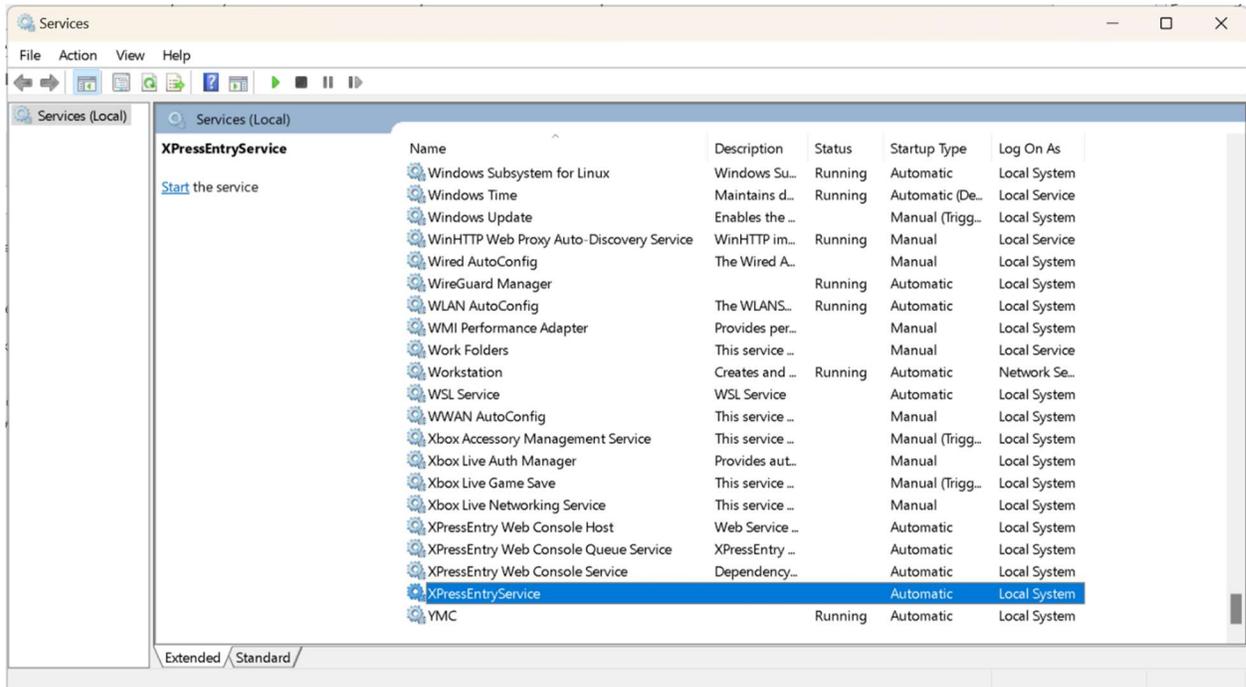


If “Run Config Tool” was checked during installation, XPressEntry Database Tool will open upon completion. If XPressEntry was installed for the first time, follow the instructions in 3.4 and 3.5 before using the XPressEntry Database Tool.

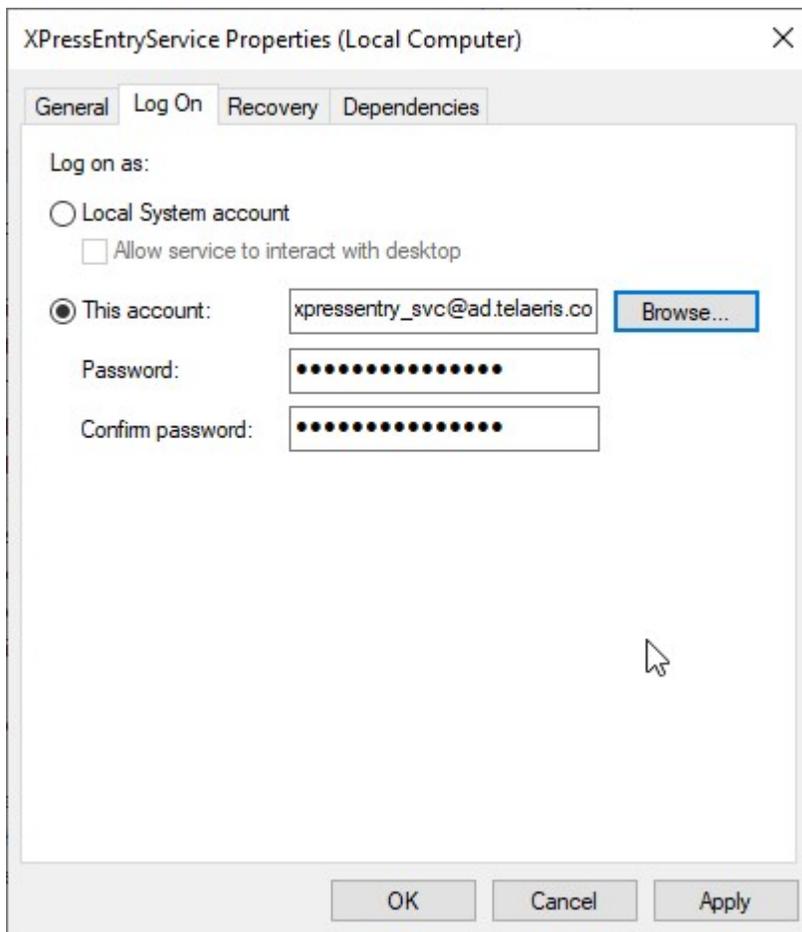
3.4. XPressEntry Setup Services

A Windows service account for SQL Server database trusted connection access is required.

1. Open Windows Services. Search the Services starting with “XPressEntry”. If the XPressEntry Web Console was installed, there would be 4 XPressEntry services as shown below. If the web console was NOT installed, only the XPressEntry Service would be installed. Execute the following instructions for EACH XPressEntry service



1. Right Click the service and click *properties*.
2. Click *Log On* Tab.
3. Click *This Account*, and enter the Windows domain service account information that will be used to connect to SQL Server. Click *Apply*.



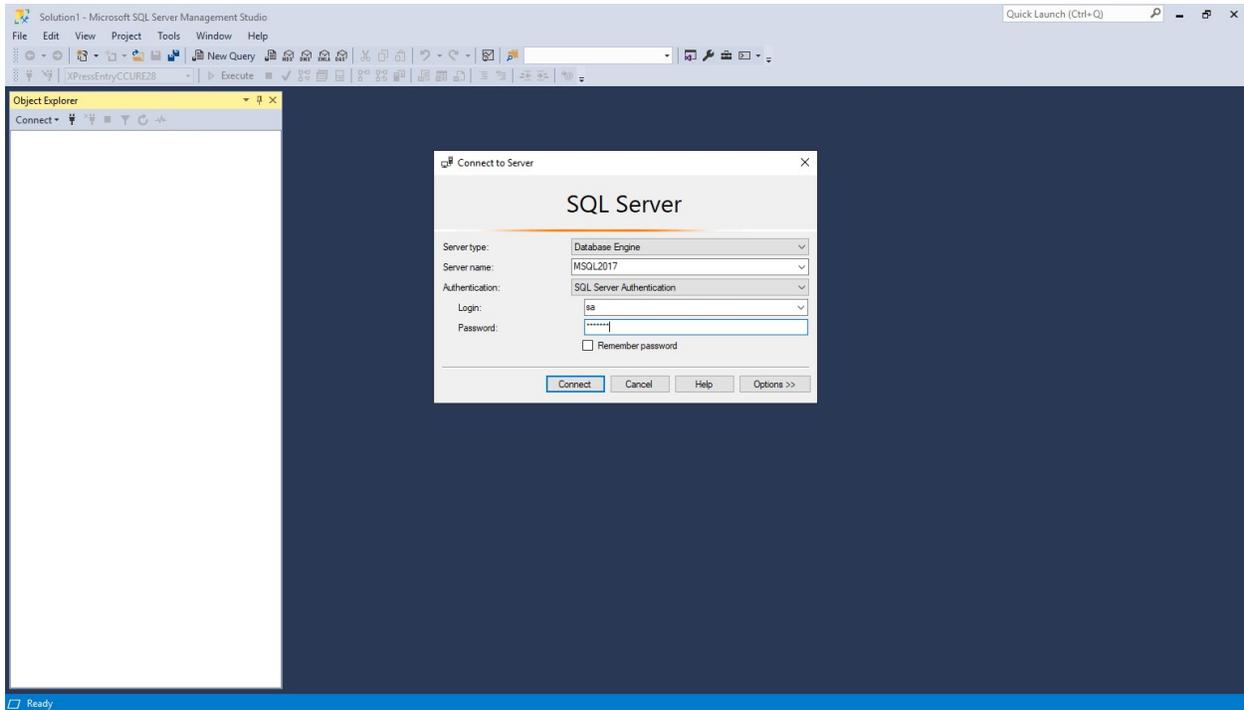
3.5. Setup SQL Server

There are 2 methods of creating the XPRESSentry database.

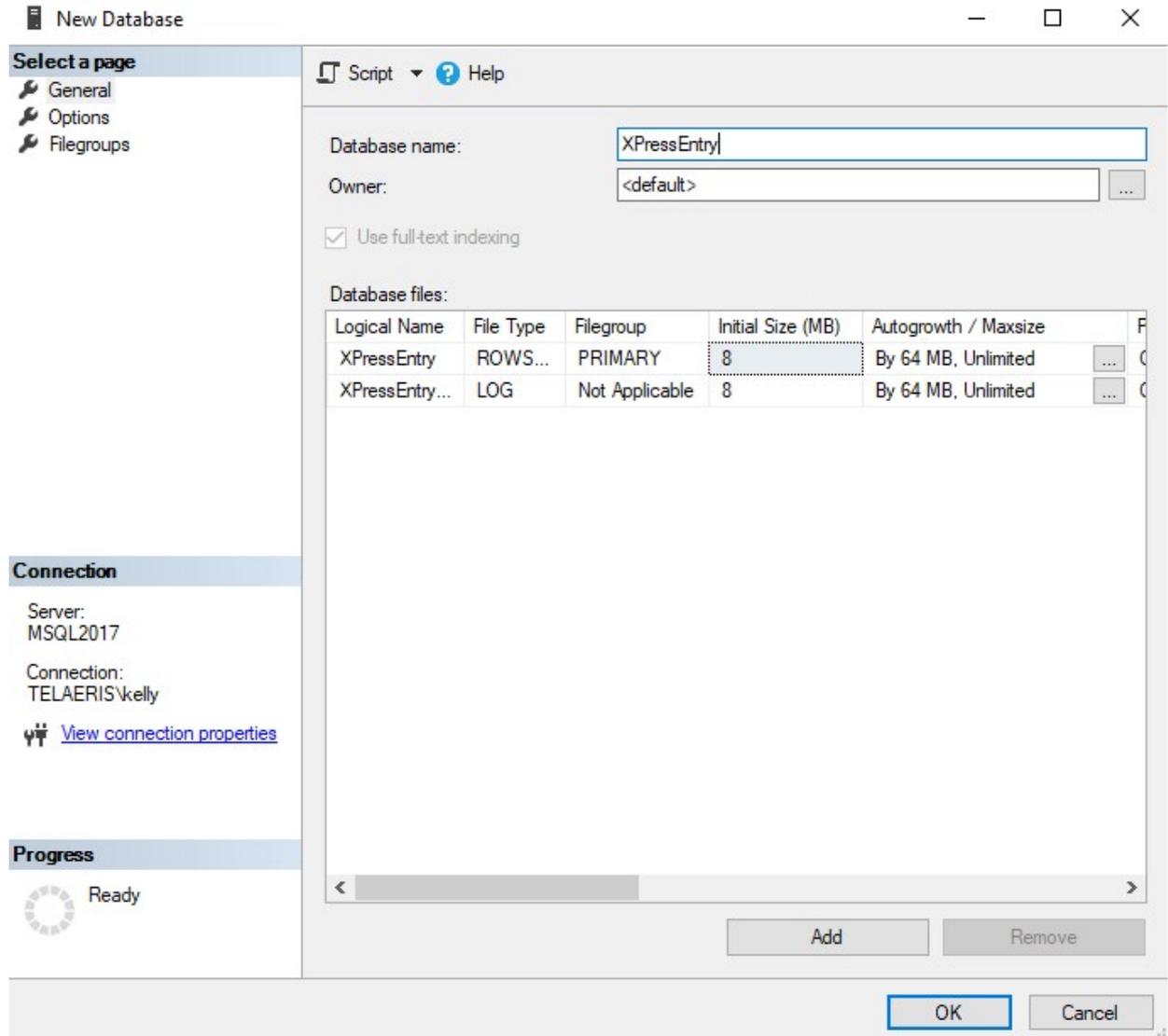
20. SQL Server Management Studio.
21. XPRESSentry Config Tool (requires the XPRESSentryDatabaseTool to be run by a Windows or Domain user who has SQL Server sysadmin permissions)

The following section explains how to create the XPRESSentry Database through SQL Server Management Studio. To create the database through XPRESSentryDatabaseTool, skip the database creation section below, but you will still need to set SQL permissions after creating the XPRESSentry Database (see item 3 below).

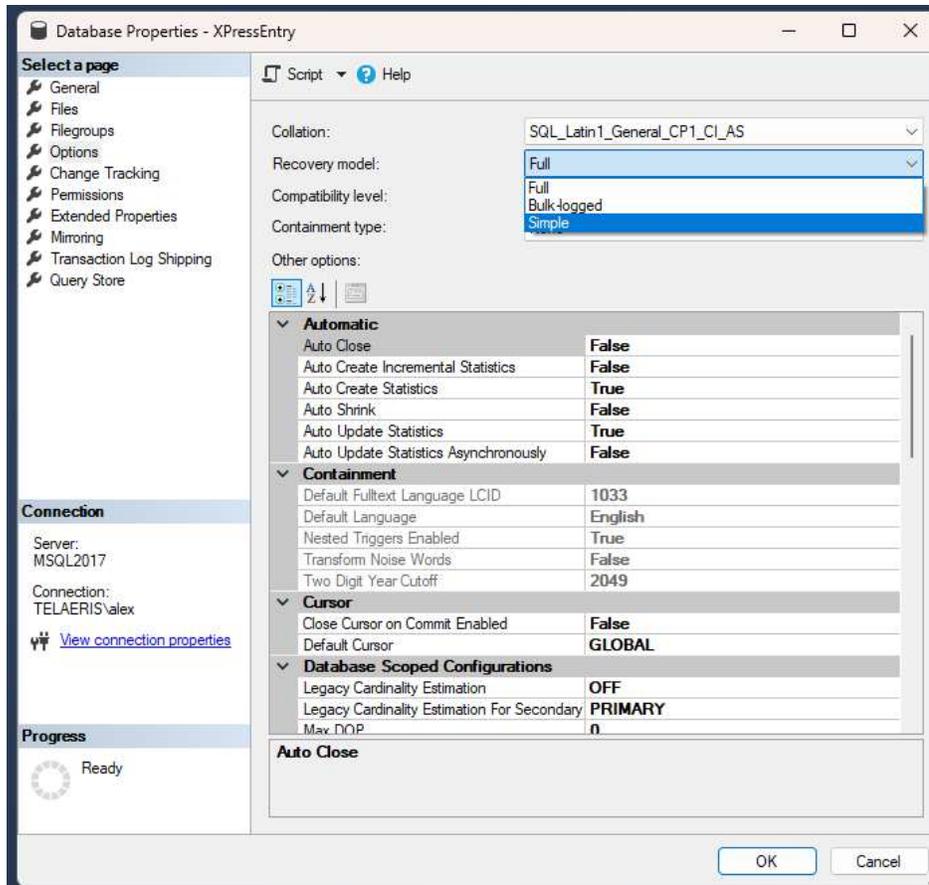
22. Open SQL Server Management Studio. Login with an account with database sysadmin access.



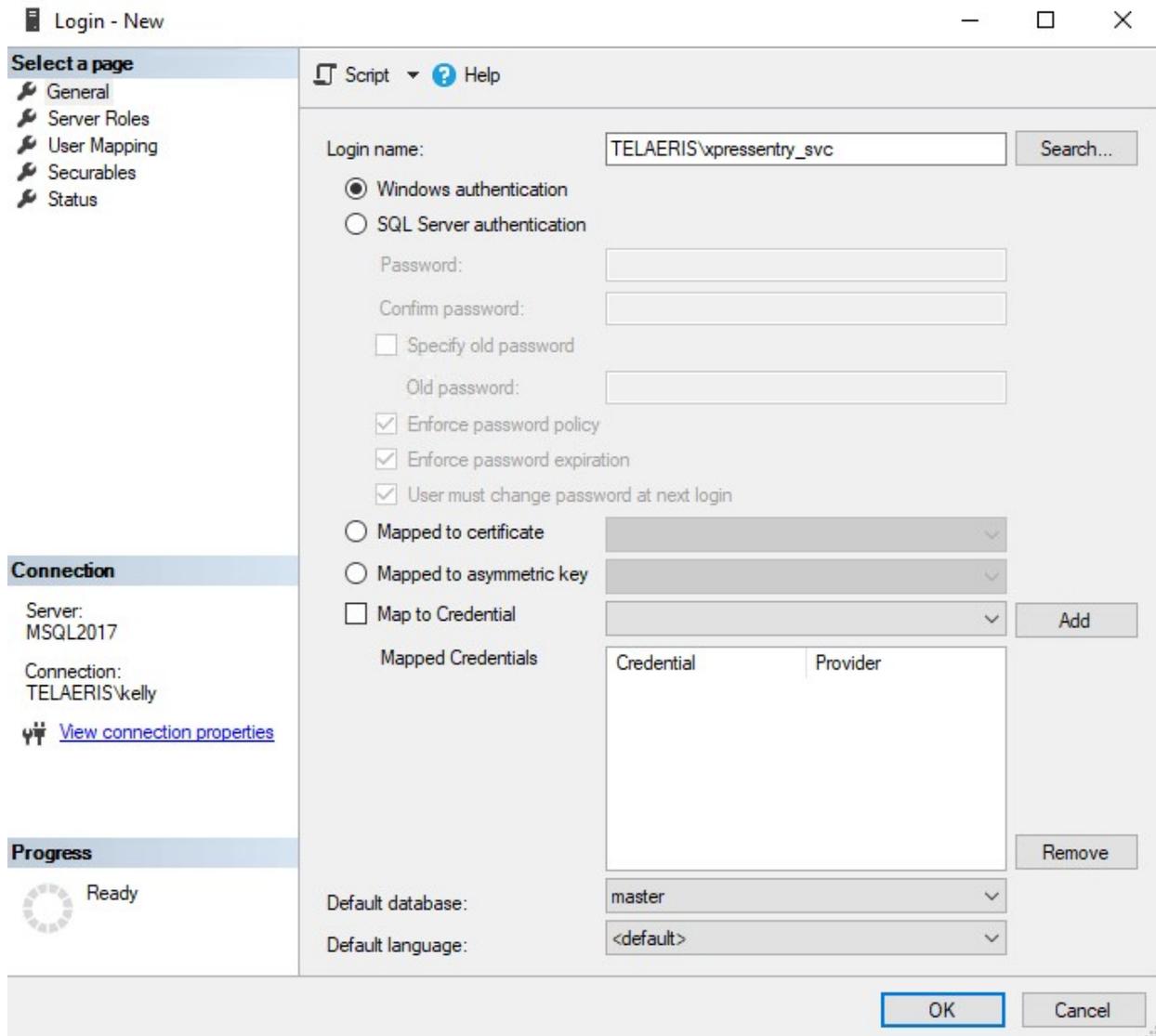
- From the Object Explorer window, right click *Databases* and click *New Database...* Name the database for the XPressEntry database.



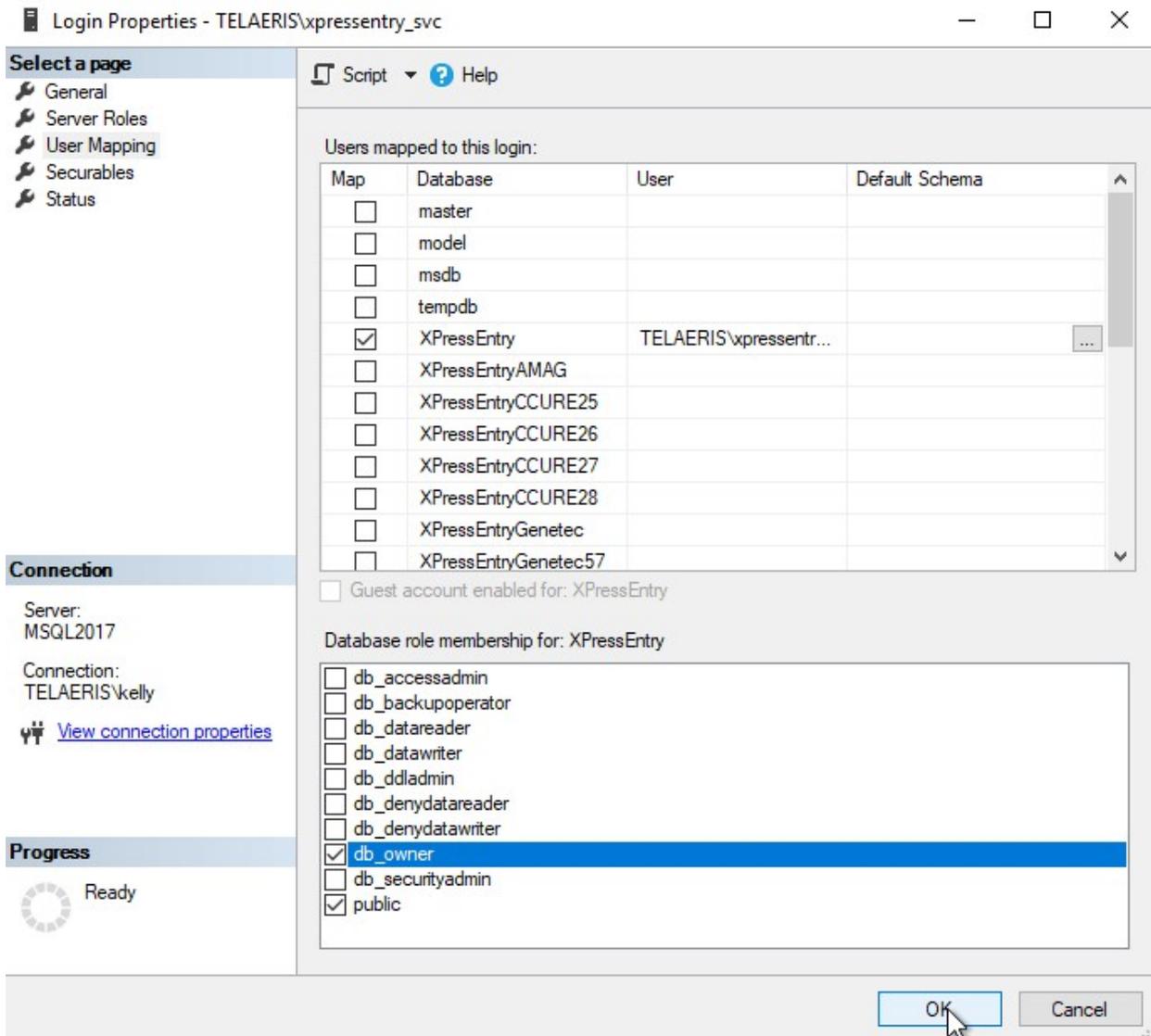
- It is recommended to use “Simple” recovery mode, especially if running SQL Express, as it can prevent large log files from being created. To set the recovery mode to Simple, select Options during or after creation, right click the database and select “Properties->Options”. Then select Simple under Recovery model as shown below.



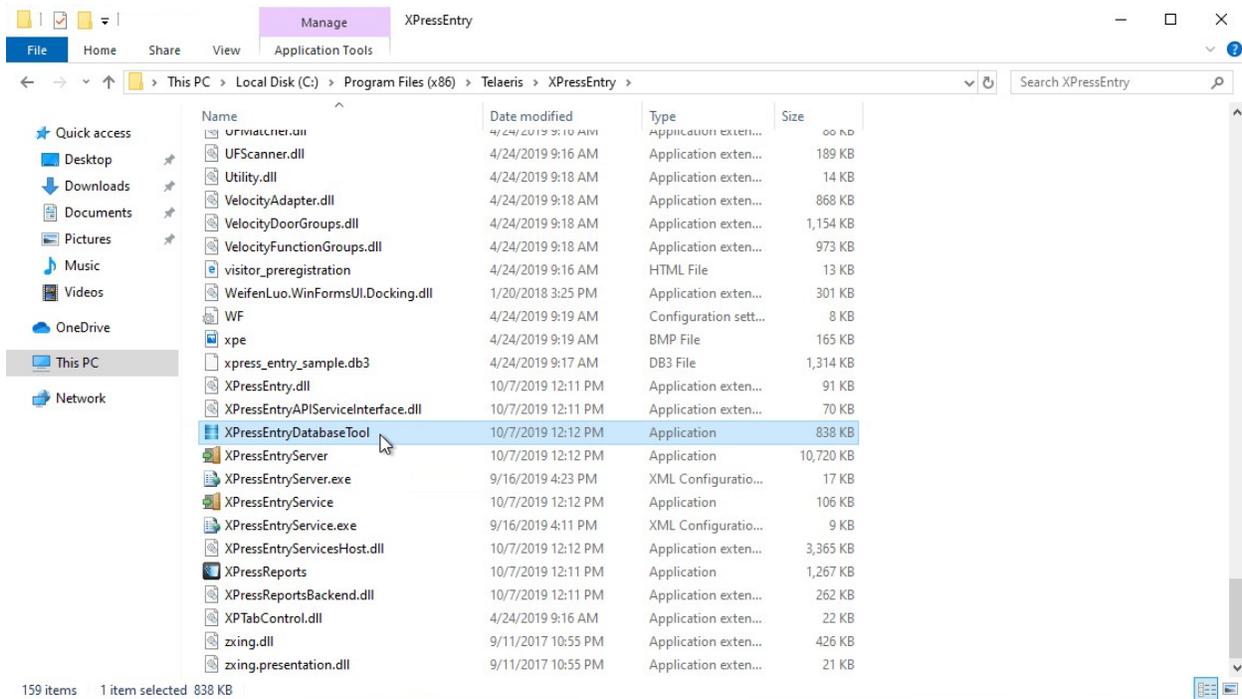
- Next, give the Windows service account `dbo.owner` access to the newly created XPressEntry database. From Object Explorer window, expand *Security*, and right click *Logins*. Click *New Login...* Search or add the windows service account for the *Login name*.



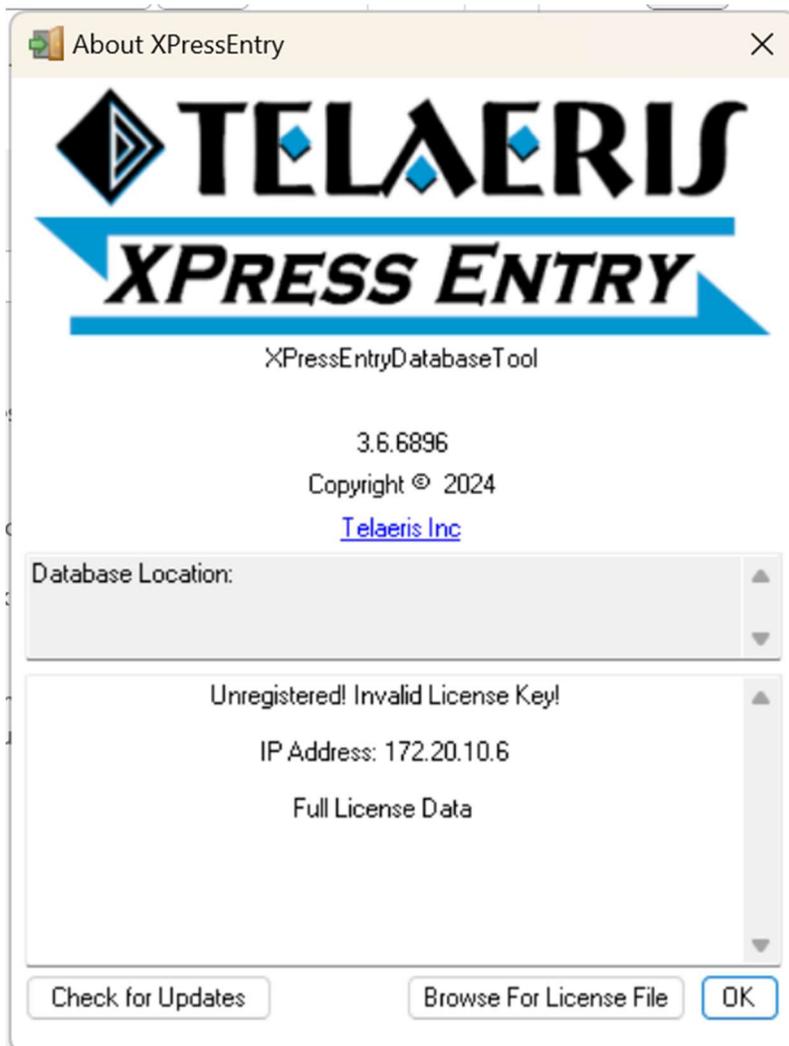
- Click on *User Mapping* on the left *Select a page* window. Search for the newly created database and check the Map box. Below, in the *Database role membership*, check *db_owner*, or separately, the combination of *db_datareader* and *db_datawriter*. *Db_owner* supersedes *db_datareader* and *db_datawriter*. Click OK.



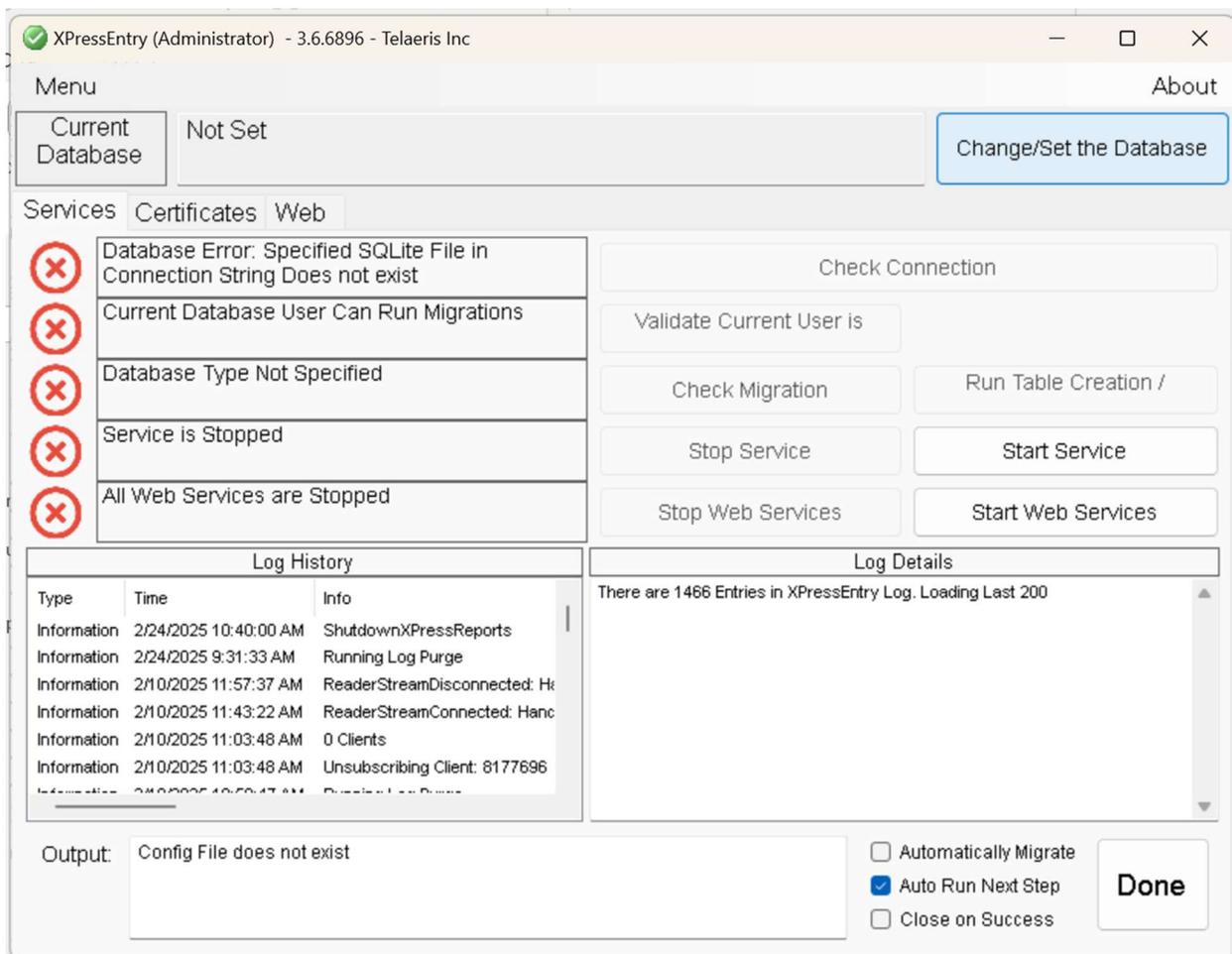
- Go to the location where XPressEntry was installed, or search in the Windows Start Menu for XPressEntry Database Tool. Run the XPressEntryDatabaseTool.exe
- Any Windows user that will be accessing XPressEntry Database Tool will require db_owner access to run database migrations. Running XPressEntry Database Tool as the service windows user will streamline the process if it is set to db_owner.
- Any Windows users that will be accessing the XPressEntry Server Application will also need db_datareader and db_datawriter access. This can be assigned to the domain users, or explicitly to administrators or specific users only.



7. Add the XPressEntry License – Click Browse for License File and add the license file provided by Telaar. If successful, the About XPressEntry page will close.



8. Click *Change/Set the Database*



9. Set the Server Information of the SQL Server Database and click Load Database.
 - a. If the XPressEntry database has not been created, set the SQL Server information, add a Database Name, then press Create Database.

Please Set Up Database Connection

Database Type: SQL Server

Connection String: Data Source=MSQL2017;Integrated Security=True;

SQL Server

Server Information

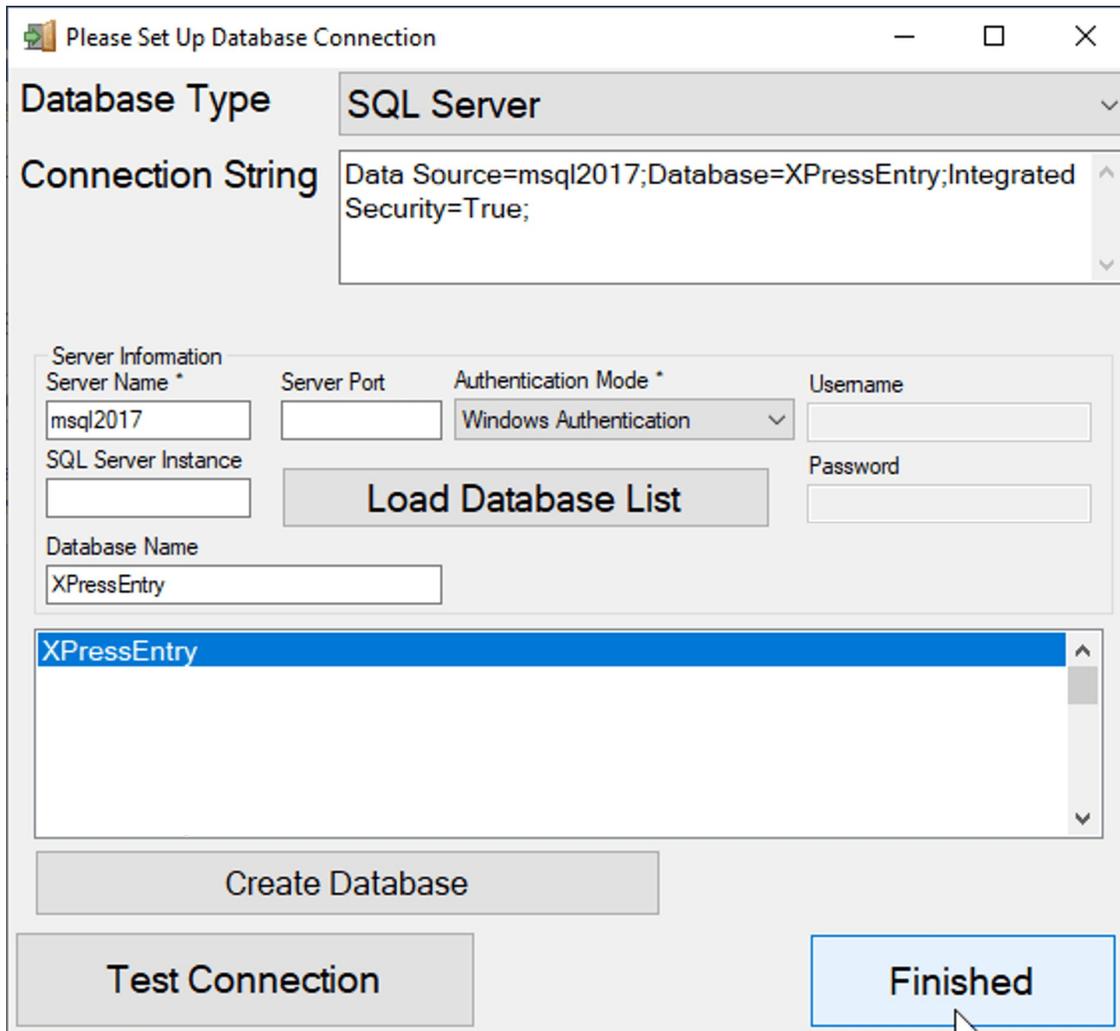
Server Name *	Server Port	Authentication Mode *	Username
MSQL2017		Windows Authentication	
SQL Server Instance	Load Database List		Password
Database Name	XPressEntryDatabaseManager		
XPressEntry			

Create Database

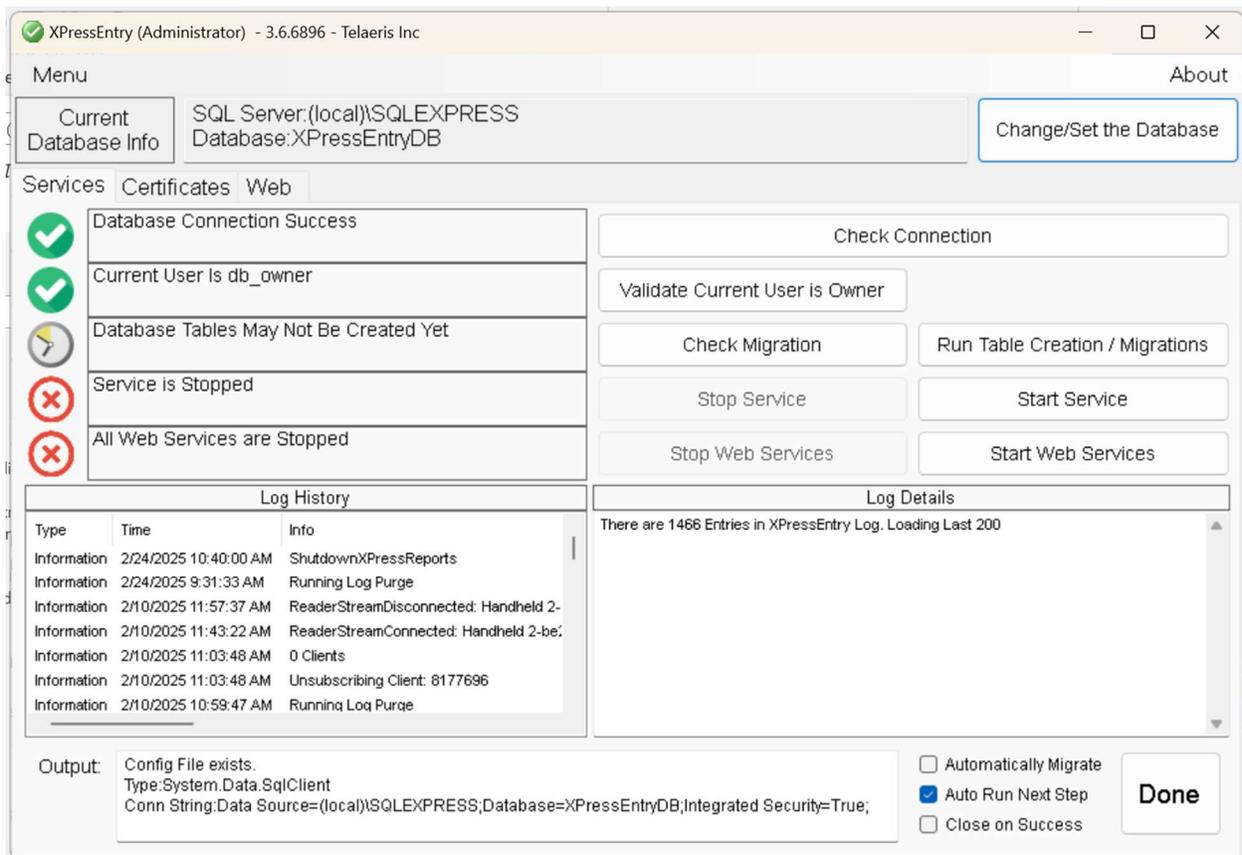
Test Connection

Finished

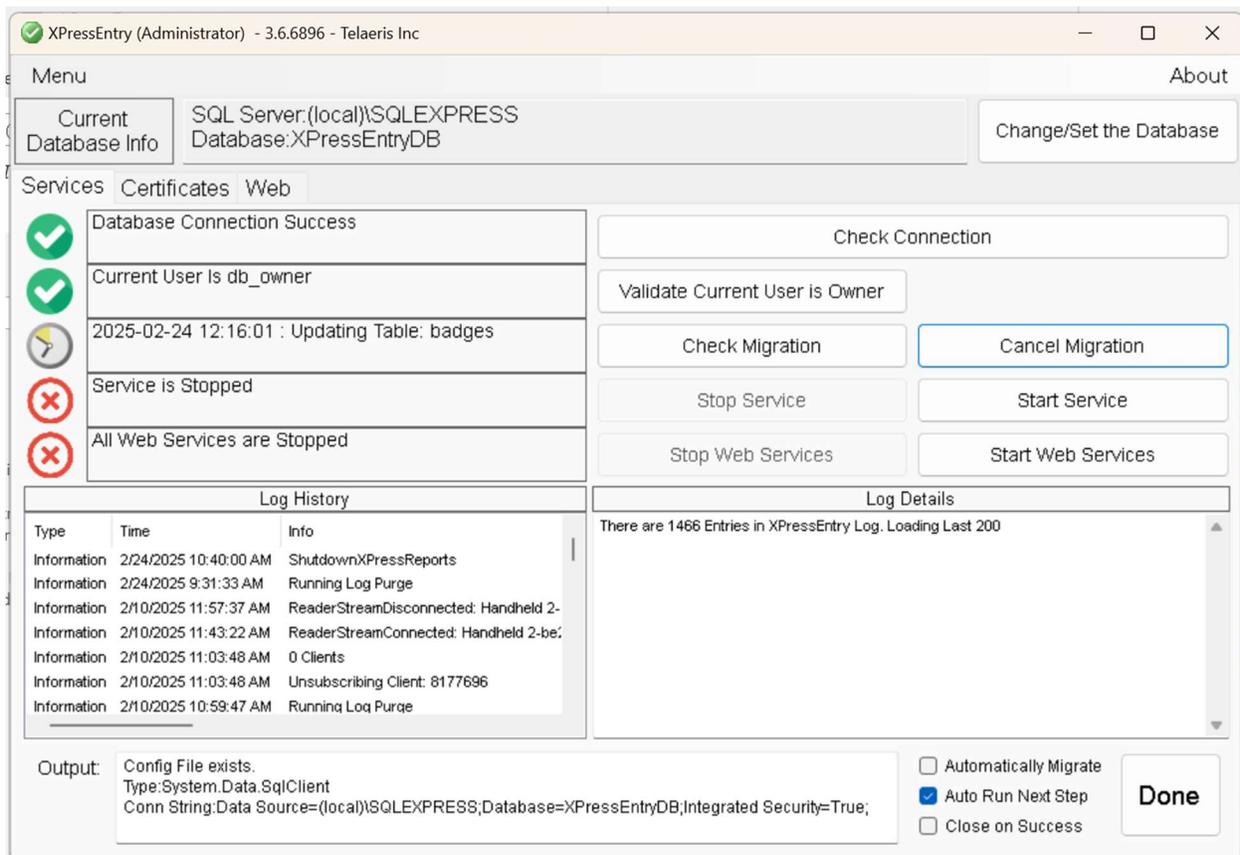
10. Select the XPressEntry database to connect to and click Finish. If the database was created in the previous step, it should automatically be selected.



11. Click *Validate Current User is Owner*.



12. Click *Run Table Creation/Migrations*.



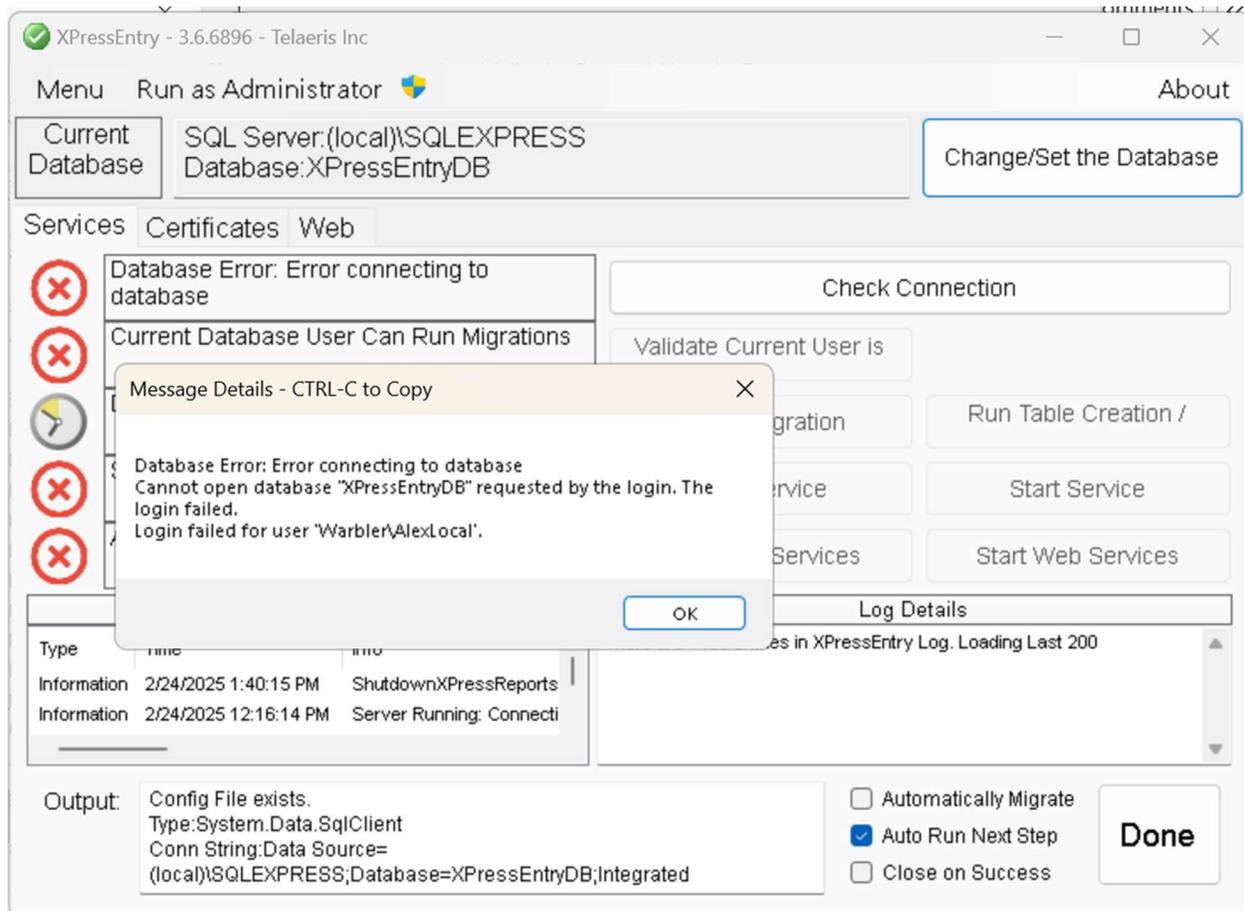
13. The database connection is set up correctly when Database Connection Success, Current User is db_owner, and Database Version is up to date are shown.

14. If XPRESSEntryDatabaseTool is running as Administrator, the XPRESSEntry Service will start automatically if the database is set, migrations are run, and the XPRESSEntry Service has the appropriate permissions.

15. If XPRESSEntryDatabaseTool is running as Administrator, the XPRESSEntry Web Console Services will automatically start. Further configuration is required. See section 7 below

3.6. Database Troubleshooting

1. You may double click any error box to display the full message.
2. If the Logged in windows user does not have reader or write access to the XPRESSEntry database, you will see the following error message during opening, or when click Check Connection. Assign proper read and write access to the current windows user.



4. Running XPressEntry Database Tool after Upgrade

- Check the Database Migration Version by clicking *check migration*. If the Migration version needs to be updated to the latest version, select *Run Table Creation/Migration*. If the Migration version is up to date, *Database Version is up to date at [VERSION]*.

The screenshot shows the XPressEntry Database Tool interface. At the top, it displays 'XPressEntry - 3.6.6888 - Telaar Inc' and 'Run as Administrator'. The current database information is 'SQL Server:localhost\SQLEXPRESS' and 'Database:XPressEntry'. A 'Change/Set the Database' button is available.

The 'Services' tab is active, showing a list of status checks:

- Database Connection Success (Green checkmark)
- Current User Is db_owner (Green checkmark)
- Current DB Version: 337, DB Version from App: 338 (Red X)
- Service is Stopped (Red X)
- All Web Services are Stopped (Red X)

Control buttons include: Check Connection, Validate Current User is Owner, Check Migration, Run Table Creation / Migrations, Stop Service, Start Service, Stop Web Services, and Start Web Services.

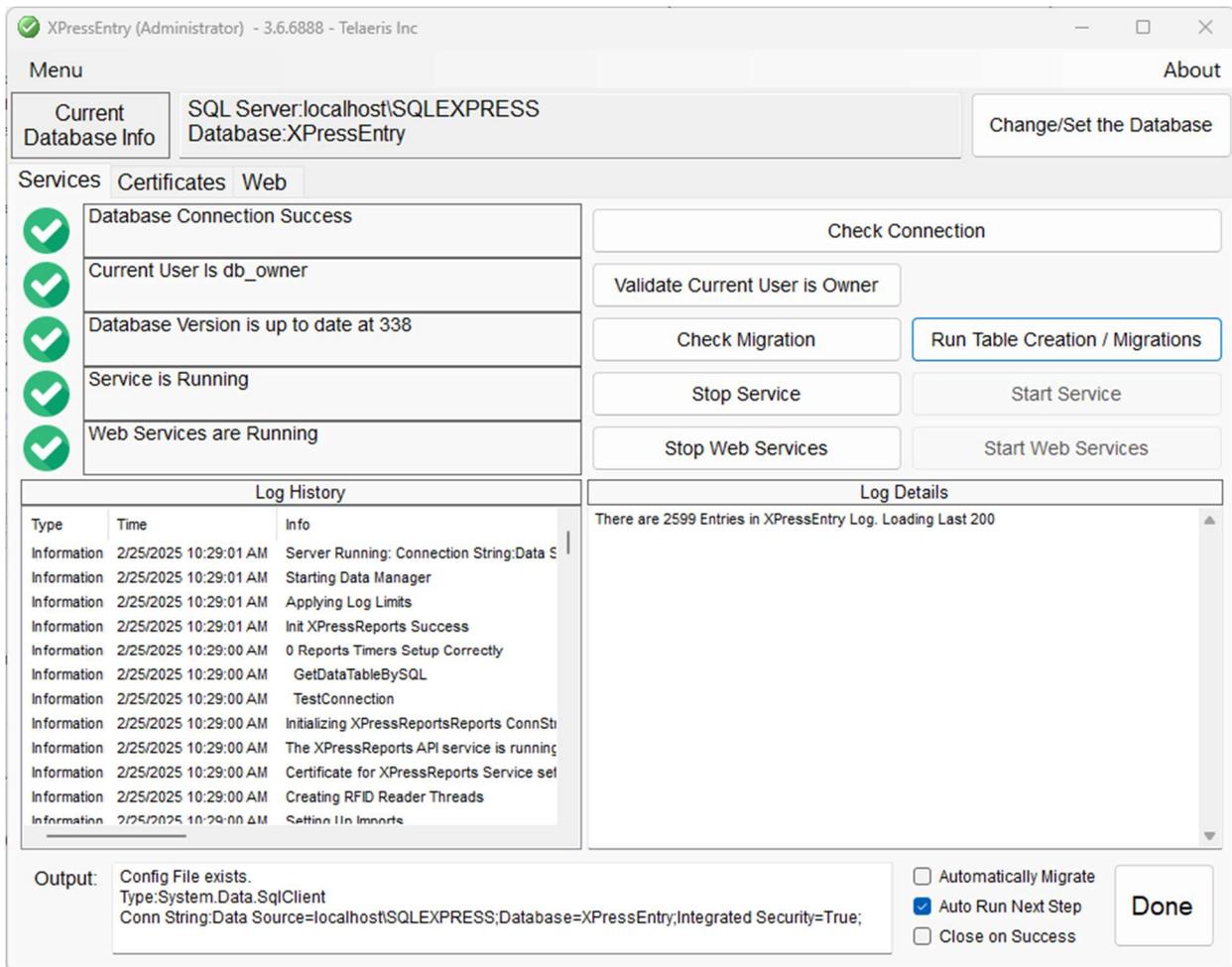
The 'Log History' table shows the following entries:

Type	Time	Info
Information	2/21/2025 2:21:30 PM	SDK GetDataObject: ReaderData id: 4
Information	2/21/2025 2:21:30 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:29 PM	SDK GetDataObject: ReaderData id: 1
Information	2/21/2025 2:21:29 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:29 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:28 PM	SDK GetDataObject: ReaderData id: 4
Information	2/21/2025 2:21:28 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:27 PM	SDK GetDataObject: ReaderData id: 1
Information	2/21/2025 2:21:27 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:27 PM	SDK GetDataObject: ReaderData id: 4
Information	2/21/2025 2:21:26 PM	SDK GetDataObject: ReaderData id: 5
Information	2/21/2025 2:21:25 PM	SDK GetDataObject: ReaderData id: 1

The 'Log Details' section indicates 'There are 2599 Entries in XPressEntry Log. Loading Last 200'.

The 'Output' section shows: 'Config File exists. Type: System.Data.SqlClient Conn String: Data Source=localhost\SQLEXPRESS;Database=XPressEntry;Integrated Security=True;'. Below this are checkboxes for 'Automatically Migrate' (unchecked), 'Auto Run Next Step' (checked), and 'Close on Success' (unchecked). A 'Done' button is present.

Once the database is up to date, start the services by running XPressEntry Database Tool as an administrator.



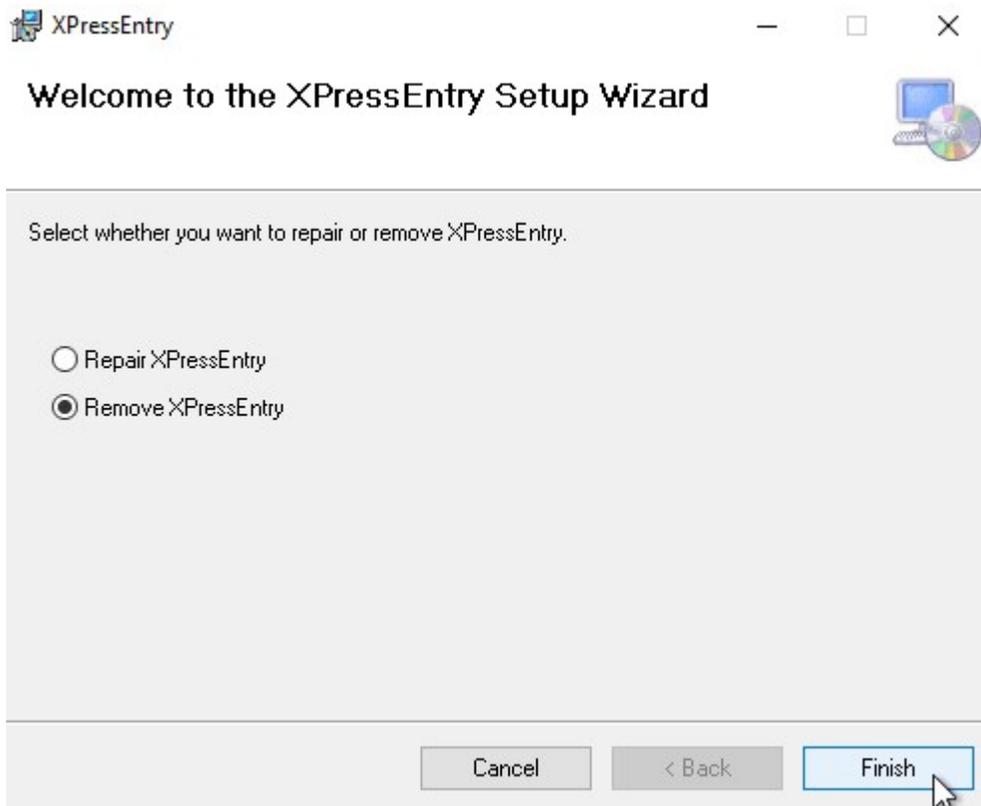
4. Upgrading XPressEntry Procedures

On Software Upgrade-

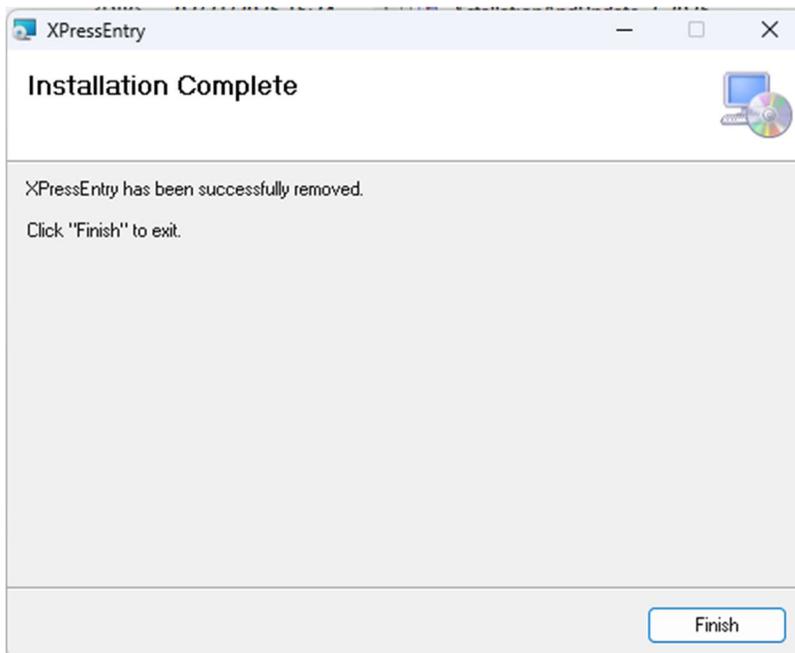
If XPressEntry is already installed, stop all XPressEntry Services before running the following steps. It is also recommended to back up the XPressEntry database after stopping the XPressEntry service and before running the installer.

5. Uninstalling XPressEntry

1. Stop the XPressEntry Service.
2. Run the XPressEntry MSI Installer or XPressEntry specific Data Manager Plugin Installer. Select *Remove XPressEntry*.

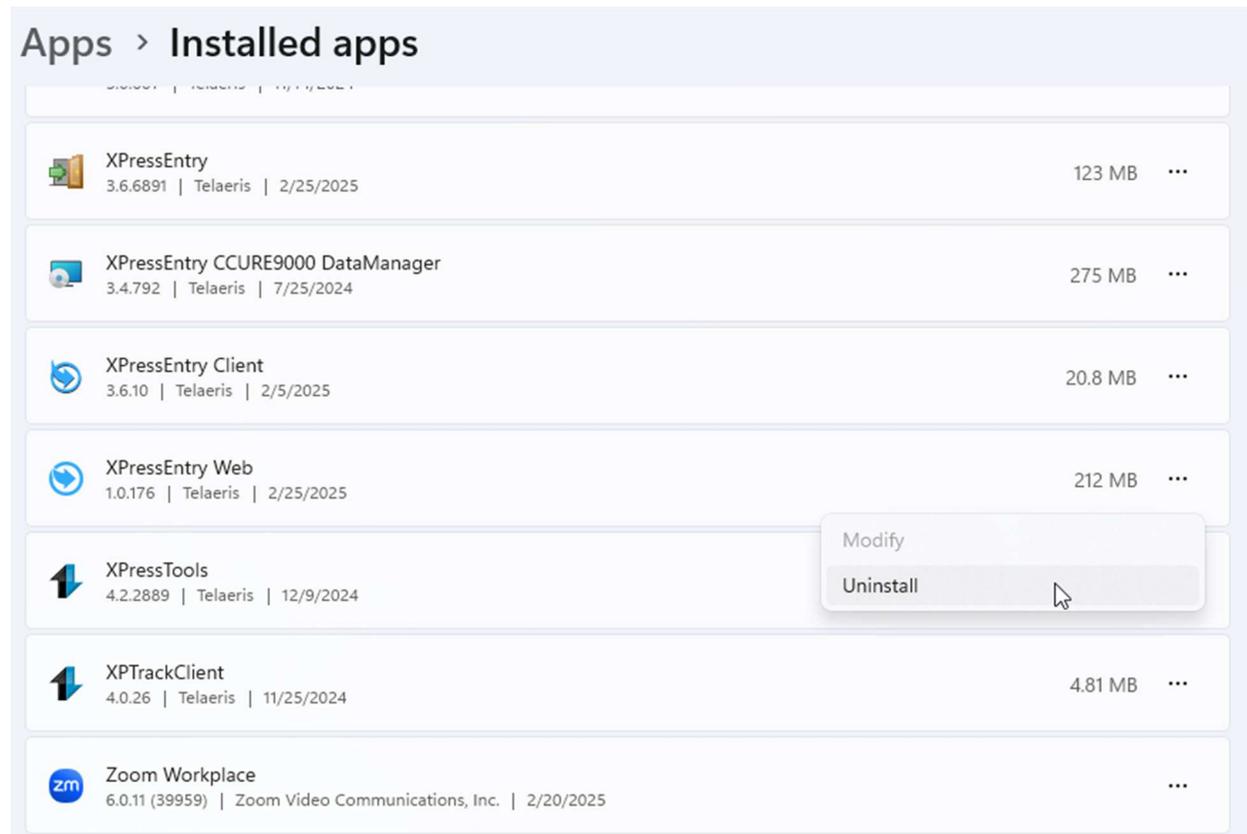


3. Select *Everyone*. Click *Next*.

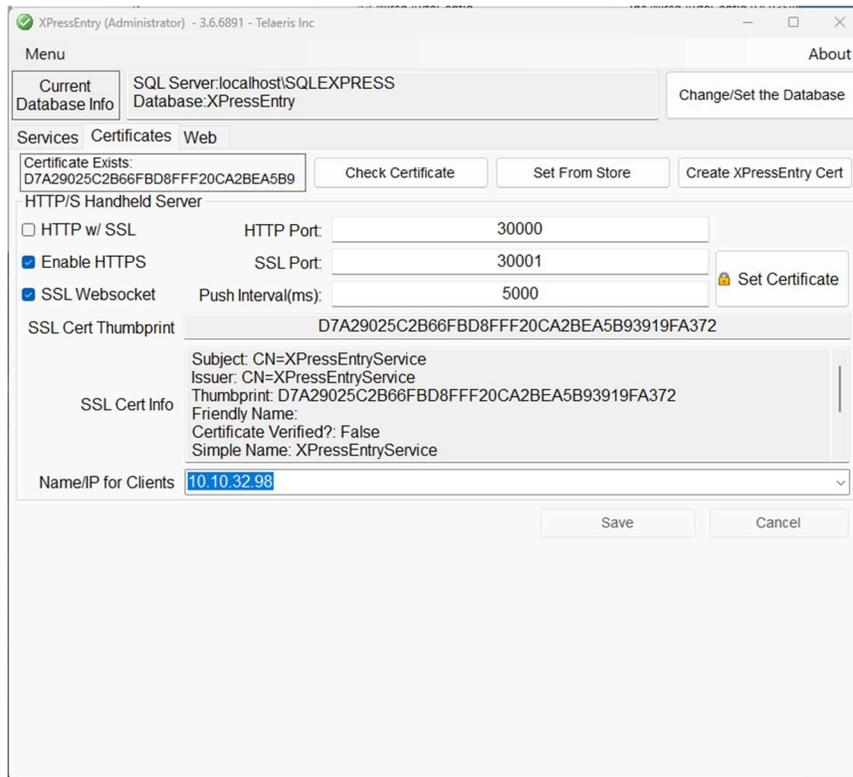


5.1. Uninstalling XPressEntry Web Console

23. Open “Installed apps” within Windows
24. Select XPressEntry Web>Uninstall. Then press uninstall again.



6. Setup XPressEntry Certificates



By default, XPressEntry Server uses a self-signed certificate to secure communication between the XPressEntry Service and any XPressEntry client applications, including the XPressEntry Server application.

25. Selecting “Create XPressEntry Cert” will create this certificate if it does not exist. If it does exist, it will recreate it.
26. Alternatively, you can select a certificate from the Windows certificate store. This certificate will be bound to port 30001 for server client encryption



XPressEntry separately uses a certificate to secure handheld communication.

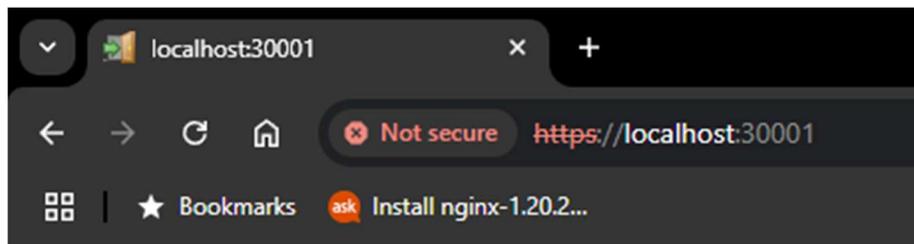
27. To enable SSL/TLS for handheld communication, select “Enable HTTPS” and “SSL Websocket”.
28. Normally, you should make sure HTTP w/SSL is not checked.
29. Select “Set Certificate” to choose the certificate to bind to the https port. You may use the XPressEntry Service certificate for handheld communication or you can generate a signed certificate from a valid certificate authority and utilize this certificate.
30. Once the certificate is set, it will attempt to bind the certificate to the SSL port. If this fails, it will ask you to run a command from an admin command line to bind this certificate.

31. The certificate information will be displayed below.
32. Set the Name/IP for clients. This is a valid name or IP that the handhelds will be able to reach the XPressEntry service from when enrolling.

HTTP/S Handheld Server	
<input type="checkbox"/> HTTP w/ SSL	HTTP Port: <input type="text" value="30000"/>
<input checked="" type="checkbox"/> Enable HTTPS	SSL Port: <input type="text" value="30001"/>
<input checked="" type="checkbox"/> SSL Websocket	Push Interval(ms): <input type="text" value="5000"/>
	Set Certificate
SSL Cert Thumbprint	D7A29025C2B66FBD8FFF20CA2BEA5B93919FA372
SSL Cert Info	Subject: CN=XPressEntryService Issuer: CN=XPressEntryService Thumbprint: D7A29025C2B66FBD8FFF20CA2BEA5B93919FA372 Friendly Name: Certificate Verified?: False Simple Name: XPressEntryService
Name/IP for Clients	<input type="text" value="10.10.32.98"/>

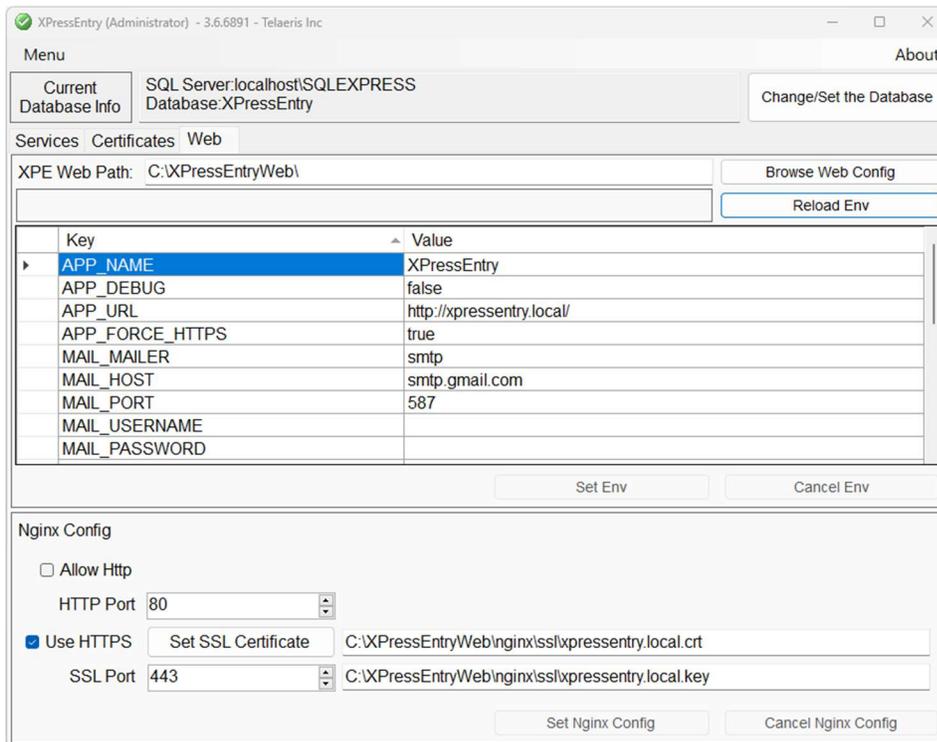
Once set, restart the XPressEntry service. If successful, open a browser and navigate to <https://localhost:30001>. It should return "server alive".

Note- If using the self-signed XPressEntry certificate, it will show as not secure.



Server alive : 2025-02-25 12:37:15

7. Setup XPressEntry Web Console



If XPressEntry Web Console was installed, navigate to the Web tab.

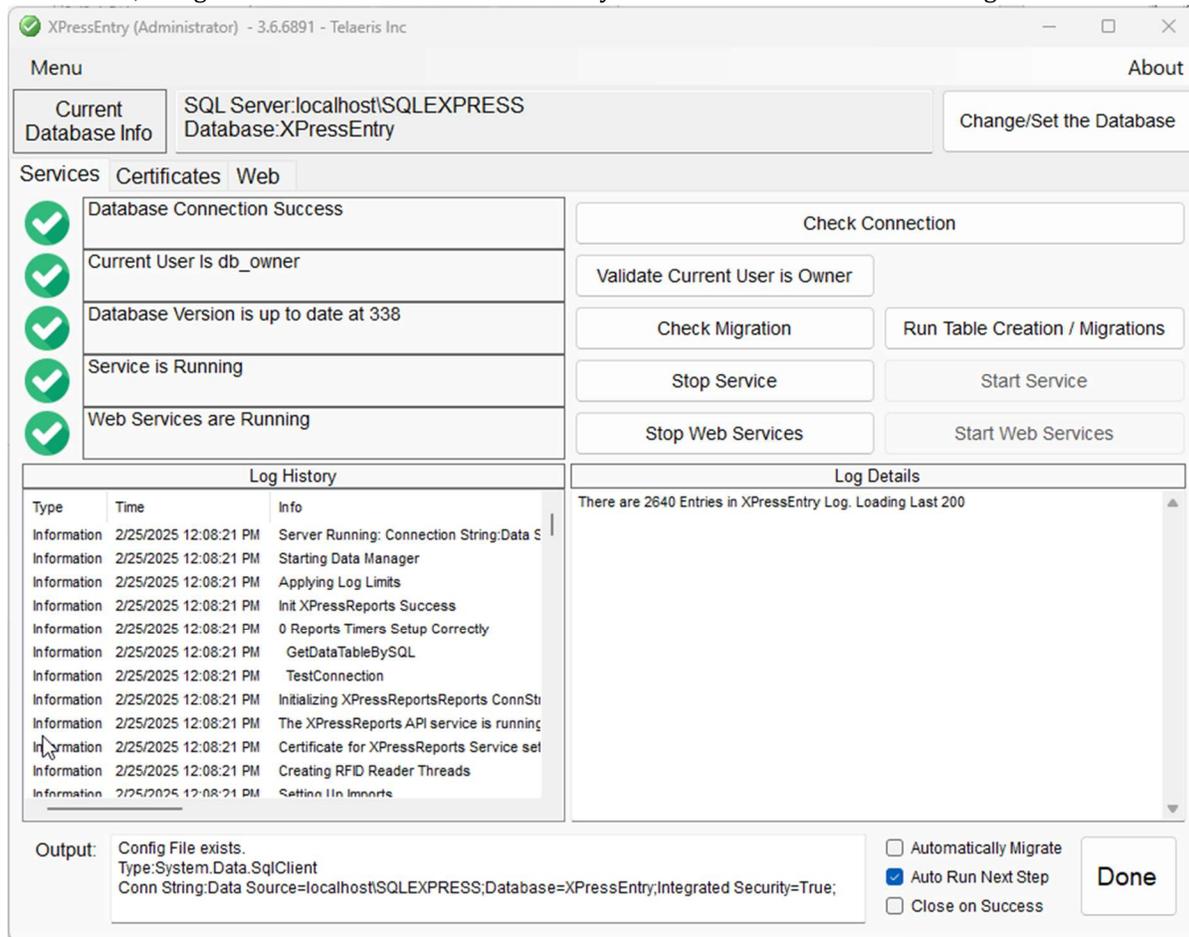
There are two sections that need to be configured and set.

33. Web Configuration- Updates the way that the web application functions. The items in bold below MUST be set.
- 34. APP_NAME**- The name shown on any emails sent from the application
35. APP_DEBUG- Provides additional debug tools on the website. It should only be set to true when troubleshooting.
36. APP_URL- set this to the url of your XPressEntry Web Route.
37. APP_FORCE_HTTPS- forces a redirect from http to https
38. MAIL_MAILER- only smtp is supported currently. For support for another mailer option, please contact Telaar.
39. MAIL_HOST- SMTP host
40. MAIL_PORT- SMTP port
41. MAIL_USERNAME- SMTP username
42. MAIL_PASSWORD- SMTP password
43. MAIL_ENCRYPTION- SMTP- Set to tls
44. MAIL_FROM_ADDRESS- SMTP address to show send from
45. MAIL_FROM_NAME- Name that shows on emails sent out
- 46. CENTRAL_DOMAIN**- IMPORTANT! The name of the URL that your site will use.
47. MAIL_SEND- Email is enabled
48. SHOW_RECAPTCHA- Enables the Recaptcha V3. Requires RECAPTCHA_SITE_KEY and RECAPTCHA_SECRET_KEY
49. MAX_ATTEMPTS- The number of consecutive unsuccessful login attempts required.
50. BLOCKED_UNTIL_IN_MINUTES- The number of minutes until another login attempt can be made.

51. EXPIRATION_TIME_IN_MINUTES- The number of minutes a user activation code is valid for.
52. TWO_FACTOR_COOKIE_EXPIRATION_DAYS- The number of days before a user needs to be prompted for 2FA an additional time on the same browser.
53. FIREBASE_CREDENTIALS- Google Firebase credentials for Workforce login (FUTURE)
54. Nginx Configuration- Update the web service.
55. Allow Http- Allows the XPressEntry Web console to be served over http://CENTRAL_DOMAIN
56. Use HTTPS- Allows the XPressEntry Web Console to be served over [HTTPS://CENTRAL_DOMAIN](https://CENTRAL_DOMAIN)
57. Set SSL Certificate- Exports a certificate from the Windows Certificate Store to be used for SSL/TLS encryption. This is required for SSL/TLS

For both the Web and Nginx configurations, set the appropriate values and select “Set Env/Nginx”. Saving the Env and Nginx configurations may take some time as the web services restart.

Once saved, navigate back to the Services tab to verify that the web services are running-



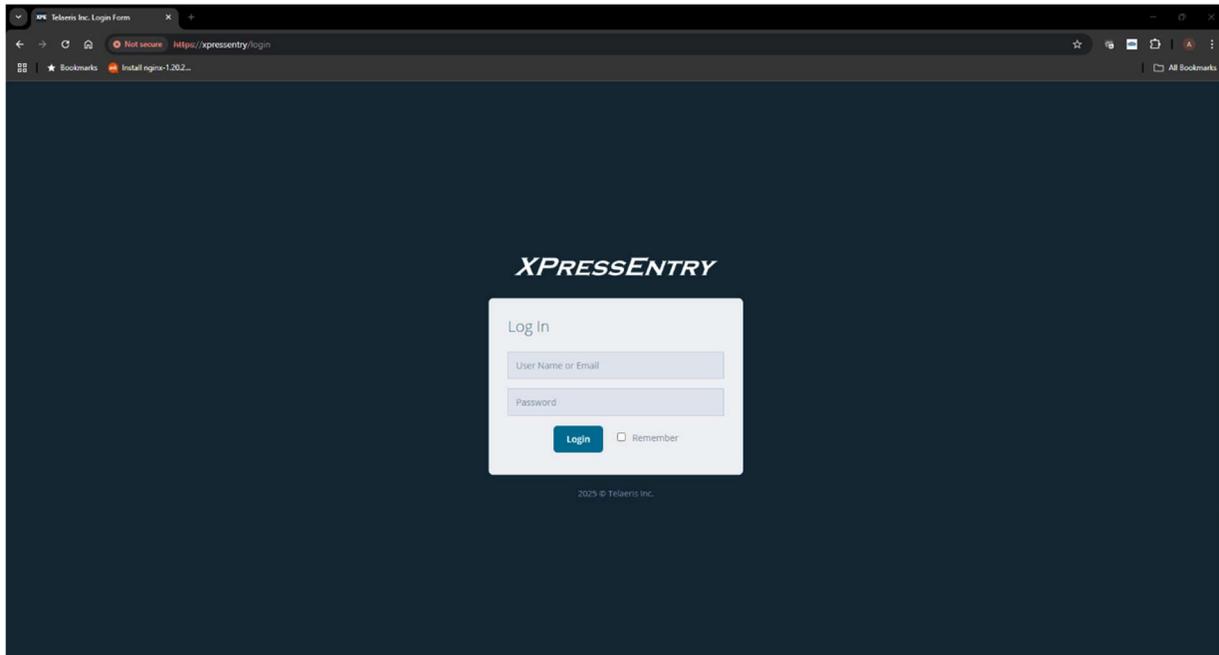
58. Logging into XPressEntry Web Console

Browse the route specified in the env and nginx config.

[http://\(CENTRAL_DOMAIN from ENV\)](http://(CENTRAL_DOMAIN from ENV))

OR

[https://\(CENTRAL_DOMAIN from ENV\)](https://(CENTRAL_DOMAIN from ENV))



If not using DNS, you will need to add an entry to your host file to be able to access your site using the CENTRAL_DOMAIN name. The host file is located at c:\Windows\System32\Drivers\etc\hosts. Then add the following line-

127.0.0.1 xpressentry.local

(you can replace xpressentry.local with your CENTRAL_DOMAIN name).

To log in, use a valid XPressEntry admin account. The default credentials are listed below-

Username- admin

Password- Telaar1s!