

On-Premise Installation Guide

Version 192

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This guide provides instructions for installing and configuring Axero's intranet software on your server.

- [Environment Requirements](#) – Details the necessary technologies and configurations for optimal running of Axero.
- [Installation Process](#) – A step-by-step guide for setting up Axero, from server preparation to software setup.
- [Troubleshooting](#) – Solutions and advice for resolving common issues encountered during installation or initial use.
- Other Considerations
 - [Disaster Recovery](#) – Details and recommendations on how to ensure you have a procedure and backups available should your site become inaccessible.
 - [Sandbox/Development Environment](#) – Explains how to create a testing environment that mirrors your production setup for safe experimentation and updates.
 - [On-Premise Management](#) – List of upcoming requirement changes and general best practices for managing and hosting your intranet.
 - [Upgrading Axero Software](#) – Guidelines for updating Axero to the latest version, including preparation and post-upgrade procedures.

Environment Requirements

Axero is committed to maintaining the highest standards of performance and security, which involves regularly updating our environment requirements. To ensure our customers are always informed about these updates, we share all relevant information in Axero's [On-Premise Management](#) guide. We recommend clicking the **Follow** button located at the bottom right of the page to receive notifications about the latest requirements and changes.

Domain, SSL, & SSO

- Select a domain name before initiating the setup.
- Install an SSL certificate in IIS before installing Axero.
- Review the list of supported [Single Sign-On \(SSO\) providers](#).

Hardware Specifications

- **Operating System:** Windows Server 2019
- **Database Server:** SQL Server 2016 R2 or higher. SQL Server Management Studio is required. SQL Express is an option but has a 10-GB limit.
- **Storage:** Solid State Drive (SSD) recommended

Note Azure Web Apps are not supported due to a timeout limit affecting content indexing.

RAM and Storage Recommendations

- **0-5,000 users:** 16 GB RAM
- **5,000-20,000 users:** 32 GB RAM
- **250,000 users:** 64 GB RAM
- **1,000,000 users:** [Contact Axero](#) for guidance
- **Storage:** 100 GB SSD for up to 20,000 users, 500 GB SSD for 250,000 users

Technologies Required

- IIS 8 or above (IIS v10.0 recommended)
- .NET Framework: ASP.NET 4.8 runtime
- HTML5 WebSockets must be enabled
- [Java SDK](#) for Elasticsearch service

Network Ports Configuration

- **Web Server:** Ports 80 & 443 for Internet/internal network
- **SQL Server:** Port 1433
- **Elasticsearch:** Port 9207
- **Licensing:** licensing.axerosolutions.com on port 443
- **SMTP server:** Port 25
- Active Directory ports, if AD is enabled

TLS and Cipher Suites

- Use TLS 1.2 with strong ciphers for IIS hosting VM. This is required for compatibility with our Licensing API and as a security best practice.
- Add the following cipher suites in the specified order:

```
TLS_AES_128_GCM_SHA256
TLS_AES_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
```

Note The six cipher suites should be prioritized and added before any others.

Installation Process

If you're looking for assistance with your on-premise installation, including having one of our team members guide you through the process, please contact your Client Success Manager for more information on our Enhanced Support options.

Follow these steps to set up Axero on your server:

1. **Downloading Axero**

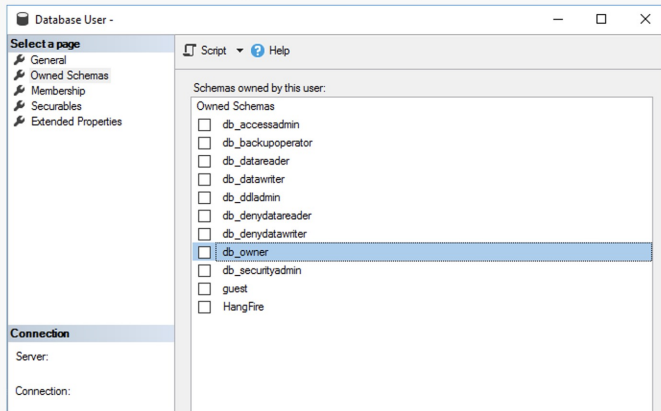
- If you've purchased the on-premise version of Axero, initiate the process by submitting a [private case](#) titled "Company Name | On-Premise Installation" to request the latest version.

2. Database Setup

- **Creation:** Create a new database in SQL Server.
- **Schema Setup:** Run `DB_Scripts\CommuniFire_Database_Schema.sql` on the newly created database. This script can be found in the setup folder that is provided.

3. User Creation for Database

- Create a new SQL user or use an existing Active Directory (AD) user.
- Assign `db_owner` permissions to this user for the database you created in Step 2.
- In addition, under Owned Schemas (right-click the database name, select **Properties**, and then select **Owned Schemas**), assign `db_owner` permission.



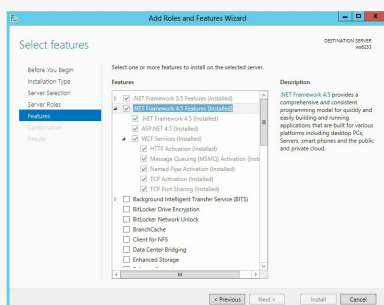
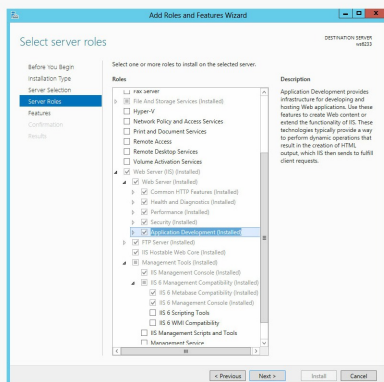
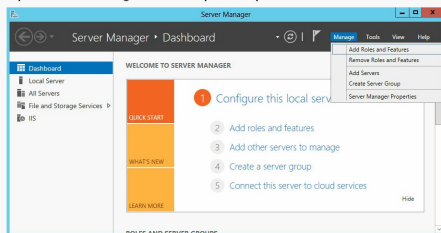
4. Database Instantiation

- Execute the script below in your SQL Server database to set initial values. Replace values within single quotes with your specific details. Note: SMTP settings can be configured later in Axero.

```
EXEC [Dyve_System_InstantiateCommunity]
    @ApplicationName = 'Your_app_name',
    @ApplicationURL = 'http://www.your-application-url.com',
    @VirtualDirectory = '',
    @DefaultEmailAddress = 'email@email.com',
    @SMTPServer = '',
    @SMTPUsername = '',
    @SMTPPassword = '',
    @SMTPPort = 25,
    @AdminUserName = 'admin',
    @AdminPassword = 'Your_Complex_Password'
```

5. Web Server Configuration

- Open Server Manager and set up the required Roles and Features as specified.



6. IIS URL Rewrite

- Install the [IIS URL Rewrite](#) module from Microsoft on your web server.

7. Modify Hosts File

7. Modify hosts file

- Update the hosts file to allow server access to local sites. Add `YOUR_SERVER_IP_ADDRESS yourcommunifireurl.com` to the hosts file at `%SystemRoot%\system32\drivers\etc\hosts`.

8. Setting Up the Site Folder

- Create a folder at `\Websites\Yourwebsite.com\` on any drive other than `C:\` with sufficient space.
- Move all the files from the `\software\` folder in the CommuniFire .zip file to this directory.

9. Configuring Database Connection

- Update the `\CFConnectionStrings.config` file with the correct database credentials.
 - For SQL user authentication:

```
<add name="CommuniFireConnectionString" connectionString="Initial Catalog=[DATABASENAME];Server=[IPADDRESS];User ID=[USERID];Password=[PASSWORD]" />
```

- For Windows AD user authentication:

```
<add name="CommuniFireConnectionString" connectionString="Data Source=[IPADDRESS];Initial Catalog=[DATABASENAME];Integrated Security=SSPI;" providerName="System.Data.SqlClient" />
```

10. Creating Site in IIS

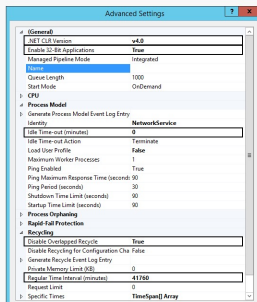
- Create a new site in IIS with the necessary HTTP and HTTPS bindings.

11. Assigning Read/Write Permissions

- Confirm that IIS has been granted Modify permissions on the `/Assets` folder.
- Create the IIS User Account:
 - Navigate to the site's root folder within the file system.
 - Right-click on the folder and select `Properties`.
 - Move to the `Security` tab and click `Add` to introduce a new user.
 - Enter `IIS AppPool\<AppPoolName>` in the selection window, replacing `<AppPoolName>` with your application pool's actual name, to specify the IIS User Account to be created.
- Assign the Required Permissions:
 - Site root folder: Grant `Read` permission to allow the IIS user access to folder contents.
 - Root Folder/Bin/HiQPDF.dep file: Provide `Read` and `Execute` permissions, enabling the IIS user to view and run the file as necessary.

12. Application Pool Settings in IIS

- Configure the application pool in IIS with the following settings:
 - .NET CLR Version: `v4.0`
 - Enable 32-bit applications: `True` (False for large user bases, e.g., 50,000+ users)
 - Idle Time-out: `0`
 - Maximum Worker Processes: `1`
 - Disable Overlapped Recycle: `True`
 - Regular Time Interval: `41760`



- For SQL connections using an AD account, set `Identity` to the AD user and disable ASP.NET Impersonation.

13. Elasticsearch Setup

- Follow the [On-Premise Elasticsearch Installation](#) guide to integrate it with Axero.

14. Starting the Application Pool

- Once the site is running, navigate to the "Manage Your License" page to log in using admin credentials (as set in Step 4) and enter your license key. Contact your Client Success Manager for a valid key.

Completion

Congratulations on successfully installing your Axero site! This marks a significant step in enhancing collaboration and communication within your organization. To ensure that you continue to benefit from a secure and efficient intranet environment, please follow [On-Premise Management](#).

Troubleshooting

1. General Troubleshooting: If you encounter an error when loading your site, switch on Custom Errors for detailed error messages:

1. Go to the `web.config` file in the website folder.
2. Set `CustomErrors` mode to `Off`:

```
<customErrors mode="Off" defaultRedirect="Errors-CF/default.aspx" redirectMode="ResponseRewrite">
```

2. Troubleshooting SQL Connection Issues

- If you cannot connect to SQL, perform a telnet test first.
- If telnet fails to connect, check your firewall settings or ensure TCP/IP is enabled in your SQL settings.

3. License Verification Issues

- Issues may arise if your Internet connection uses a proxy server, preventing license validation with the Axero server.
- To resolve this, add the following to your `web.config` file:

```
<system.net>
  <defaultProxy enabled="true">
    <proxy bypassonlocal="true"
      proxyaddress="http://your proxy address here:8080/" />
  </defaultProxy>
</system.net>
```

4. File Upload Size Limit in IIS

- For large file uploads, if IIS restricts the size, modify the `web.config` file:

- Increase request length and timeout:

```
<system.web>
  <httpRuntime maxRequestLength="2000000" executionTimeout="100000" />
</system.web>
```

- For IIS 7 and above, increase the maximum file size:

```
<security>
  <requestFiltering>
    <requestLimits maxAllowedContentLength="2000000000" />
  </requestFiltering>
</security>
```

- Alternatively, use the `appcmd` command:

- For global setting:

```
C:\Windows\System32\inetsrv\appcmd set config -section:requestFiltering -requestLimits.maxAllowedContentLength:100000000
```

- For specific app setting:

```
%windir%\system32\inetsrv\appcmd set config "Default Web Site/<your app>" -section:requestFiltering -requestLimits.maxAllowedContentLength:10000000
```

5. Optimizing Performance

- In production environments, set `compilation debug="false"` in your `web.config` file for enhanced performance.

6. URL Canonicalization for SEO

- To redirect from `http://www.site.com/default.aspx` to `http://www.site.com/`, refer to IIS7 and IIS6 URL Rewrite module settings.

7. Web Proxy Settings

- If using a Web Proxy on your hosting server, add the following to your `web.config` file:

```
<system.net>
  <defaultProxy useDefaultCredentials="true">
    <proxy usesystemdefault="false" scriptLocation="http://<your_proxy_server>/<pac_file>.pac"/>
  </defaultProxy>
</system.net>
```

8. IIS Log File Management

- Follow the recommendations in [this article](#) for optimizing log files.

9. Forms Authentication Cookie Customization

- For enhanced security, it's recommended to have a custom name for the forms authentication cookie (default name is `.ASPXAuth`). Set the name in the `web.config` file:

```
<authentication mode="Forms">
  <forms loginUrl="login.aspx"
    name=".yourSiteNameASPXAuth"
    domain="yoursite.com" path="/" />
</authentication>
```

Disaster Recovery

Ensuring continuous operation of your intranet services requires a robust on-premise disaster recovery plan. The [On-Premise Disaster Recovery](#) guide provides detailed steps to create a plan for your intranet setup, ensuring resilience and stability.

Sandbox/Development Environment

To ensure smooth and safe updates to your production environment, the [On-Premise Additional Instances](#) guide recommends using a "Sandbox" or "Development" environment. This setup allows for thorough testing of new updates, features, and configurations without risk to your live intranet.

On-Premise Management

The [On-Premise Management](#) guide highlights key security updates and maintenance best practices for Axero's intranet software. It stresses the importance of staying current with Axero's updates and outlines the division of support roles to maintain a secure, efficient intranet.

Upgrading Axero Software

Regular updates are key to maintaining the efficiency and security of your Axero platform. Staying current is essential with a major version released yearly and service versions monthly. The [On-Premise Site Upgrades](#) guide provides comprehensive instructions and advice for upgrading your software.

tags : installation, site-administrator

