



# DataZen Installation

The universal, out-of-band data replication and Change Data Capture engine.

*This documentation provides installation and first-time configuration settings of the DataZen Manager application and a **Self-Hosted** DataZen Agent.*

Last Updated On: January 31<sup>st</sup> 2025

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## Pre-Requisites

To successfully install and configure DataZen you will need the following:

- A windows server running 2019 or higher
- .NET 4.7.2 framework installed
- SQL Server 2019 or higher (express edition is sufficient for most implementations)

**NOTE: You may need additional ODBC drivers depending on the data sources you will be accessing.**

## DataZen Manager Installation

To Install DataZen Manager the first time, follow these instructions.

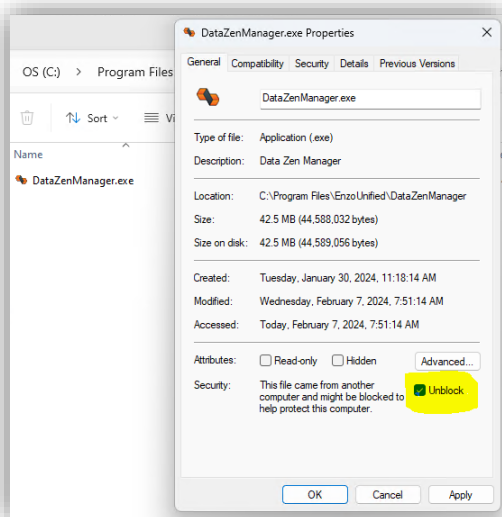
<https://www.enzounified.com/downloads/releases/datazen/v3/datazenmanager.exe>

Download the DataZen Manager EXE file

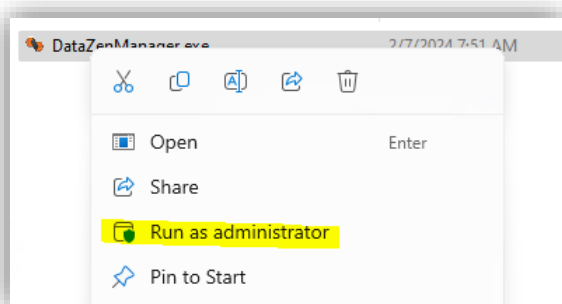
For example:

**C:\Program Files\EnzoUnified\DataZenManager\**

Create a Directory where the manager will be installed



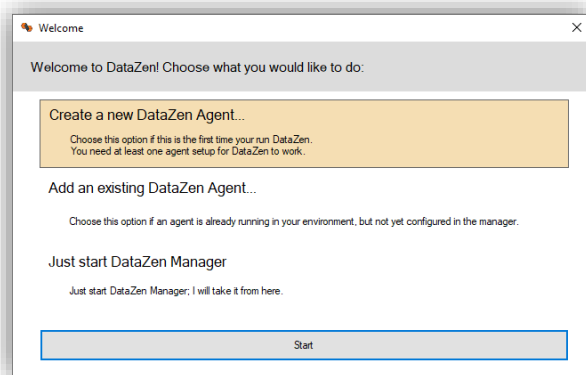
Unblock the DataZenManager.exe file



Start the DataZenManager.exe as an administrator to allow the application to download its dependencies.

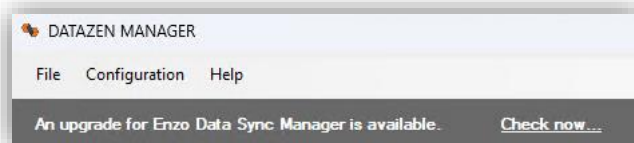
If or when prompted by Windows, click OK and/or Allow to enable the application to start and download files.

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If this is the first time you run the Manager on this machine, you will be prompted the following screen.

Select **Just Start DataZen Manager** and click Start.



If a message indicating an update is available for DataZen Manager, it is highly recommended to perform the update before proceeding.

***After the upgrade, you may need to restart DataZen Manager manually with administrative privileges to continue.***

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Create the following folders (you can name them differently; they will be used in the next step)

**C:\tmp\DATASYNC\  
C:\tmp\DLQ**

- The DataSync folder will be used as the default location for change logs
- The DLQ (Dead Letter Queue) path specifies the default location for failed change logs, if used by a job

Create three folders

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Enter the folders created above in the three paths provided.

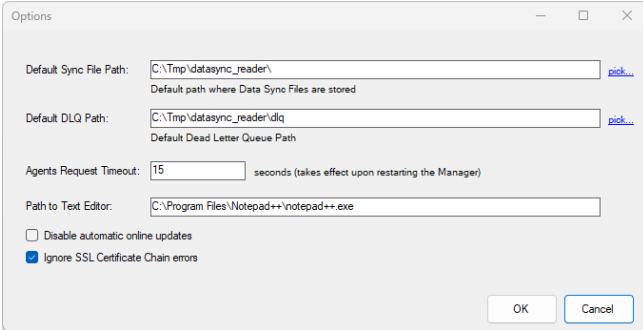
If desired, enter a Request Timeout in seconds if agents are located remotely; for most installations, leave this field blank.

You can also specify a default text editor which is available when evaluating HTTP payload responses.

Open the **Configuration -> Options** screen

To prevent DataZen from detecting automatic updates and using cloud-based HTTP/S job definitions, check the **Disable Automatic Online Updates** box.

**NOTE: Checking this box will disable certain features of DataZen.**



You are now ready to proceed to the agent deployment and configuration.

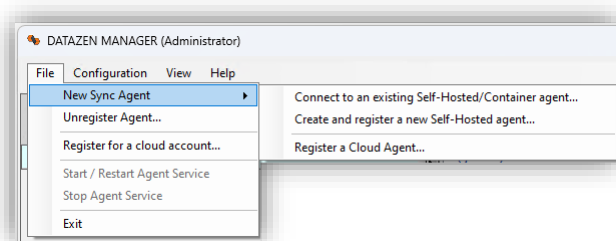
# DataZen Agent Deployment

## Installing and Configuring a New DataZen Agent

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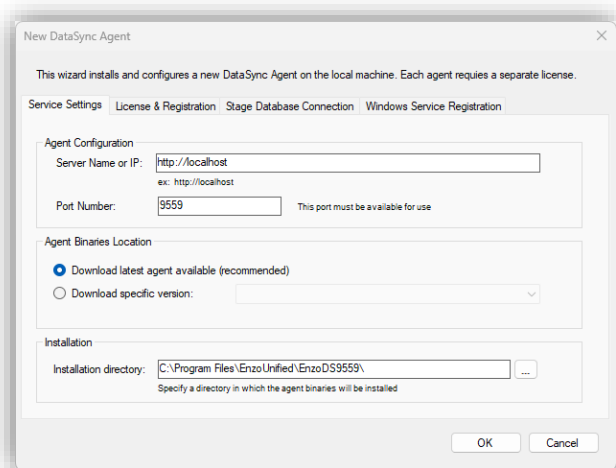
*Although DataZen Manager allows you to monitor and upgrade agents remotely (on other machines), installing a new agent requires using DataZen Manager on the machine where the agent is being installed.*

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Select **File -> New Sync Agent -> Create and register a new Self-Hosted agent**.

A new window will become visible, allowing you to install and configure an agent on the same machine where DataZen Manager has been installed.



The Service Settings tab allows you to specify how the service will start and which port it will use.

**Server Name or IP:** The URL DataZen Manager will use to connect to the agent

**Port Number:** The TCP Port the agent will bind to

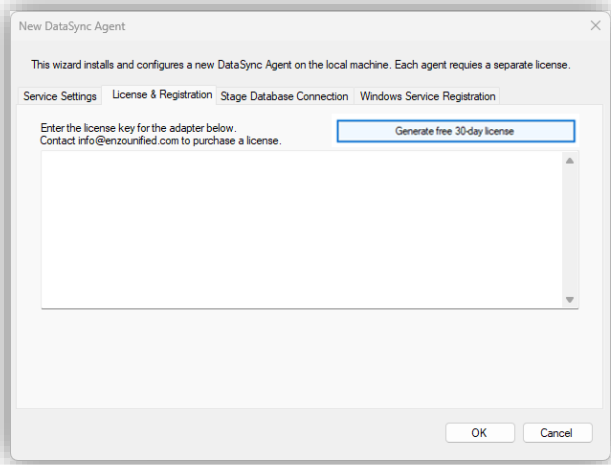
**Agent Binary Location:** The version of the agent to install

**Installation Directory:** the path where the agent binaries will be installed

Although optional, a good practice is to use the port number as part of the folder name of the DataZen agent; this is particularly useful if multiple agents will be deployed on the same machine.

For this example, this folder indicates the agent is listening on port 9559.

**C:\Program Files\EnzoUnified\EnzoDS9559\**



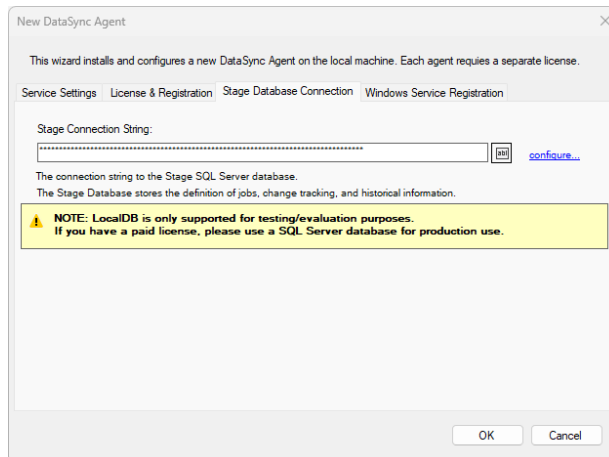
Enter your license key on the License & Registration tab.

**To purchase a license, please contact [info@enzounified.com](mailto:info@enzounified.com).**

*If you are trying DataZen for the first time, click on the **Generate a free 30-day License** button. Doing so will show another screen asking you to fill out your email, name and other details. Once you have entered this information, a 30-day Enterprise evaluation license key will be generated and filled out automatically on this screen.*

**NOTE:** An email will be sent to the email address provided with a copy of your license key.

**NOTE:** The 30-day trial edition requires the use of SQL Server LocalDB



Select the Stage Database Connection tab.

**By default, a LocalDB connection string will be specified.**

If you are using a paid license, click on the **configure...** link

**The Stage Database must be SQL Server 2019 or higher, any edition, and should preferably be located on the same server where the agent is being installed for best performance. The database size may grow significantly depending on the use of Change Data Capture and the amount of data being captured. As a result, while SQL Server Express edition is supported, it may not be sufficient for situations where large data sets are being replicated with Change Data Capture engaged.**

**Contact Enzo Support for further information.**

Database Connection

Enter connection string settings below and click OK

System: SQL Server (Native Provider) ▼

Port: 1433 (leave empty for default port)

Database Server: localhost

Authentication: Windows Authentication ▼

User Id:

Password:

Connect Timeout: 15

Database Name: datazen\_9559 ▼

☐ Create the database if it doesn't exist

In the Database Connection screen, enter the following information.

**Database Server:** The database server name and optionally the instance name to connect to

**Authentication:** Database credentials to use (use Windows Authentication if possible)

**Database Name:** Enter the name of a database to create (it will be created later automatically if needed)

Click OK to close the Database Connection screen and fill out the connection string.

New DataSync Agent

This wizard installs and configures a new DataSync Agent on the local machine. Each agent requires a separate license.

Service Settings | License & Registration | Stage Database Connection | Windows Service Registration

☒ Register this agent as a Windows Service

If not registered as a Windows Service, this agent may need to be started manually

Service Name Suffix: EnzoDS\_9559

Spaces will be removed and special characters are not allowed.

In the Windows Service Registration tab, check the **Register this agent as a Windows Service**. This setting is optional; however, if this agent is not registered as a service, it will not start automatically when the machine restarts. To start the agent manually, simply run the **EnzoDS.exe** file in the directory where the agent was installed.

**Service Name Suffix:** Enter a suffix for the windows service name. Using the port number of the agent is generally a good practice.

Once all the information has been filled out, click OK to install the agent. This operation may take a few minutes.

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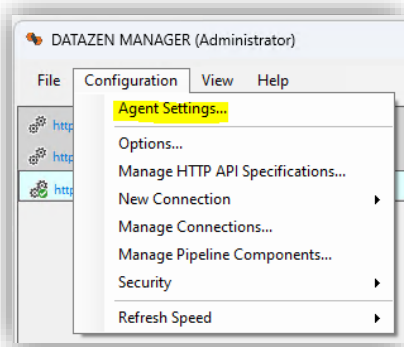
*Installing new agents requires administrative privileges; it is recommended to run the DataZen Manager as an Administrator to ensure a successful installation.*

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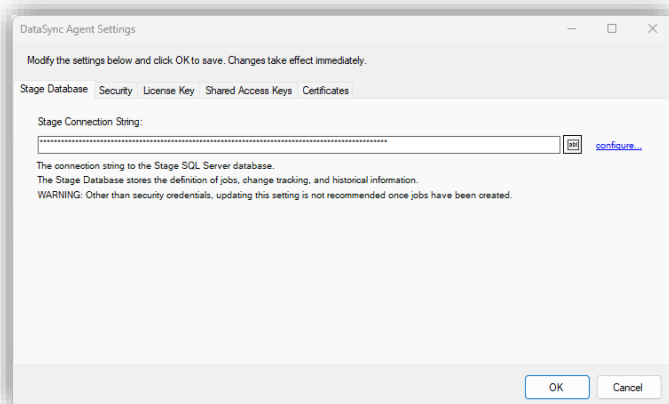
## Finalizing Agent Settings

To edit the configuration of an existing agent or change its default security settings, follow these steps.



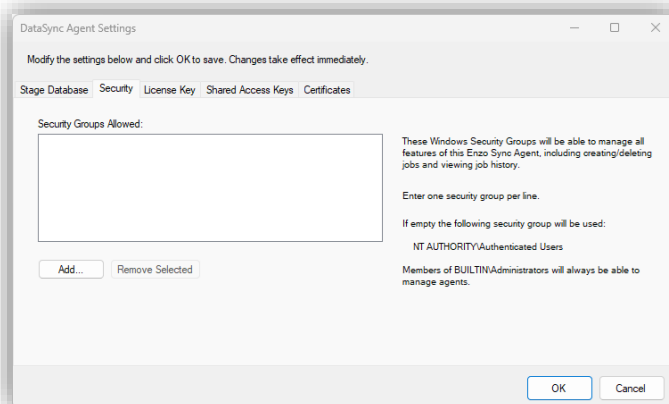


Select the agent to reconfigure, and choose **Configuration -> Agent Settings...**



This screen allows you to change/edit the connection string to the Stage database, change security settings, and change the license key.

**NOTE: Changing the Stage Connection String is not recommended; loss of data is possible. Please contact Enzo for guidance.**

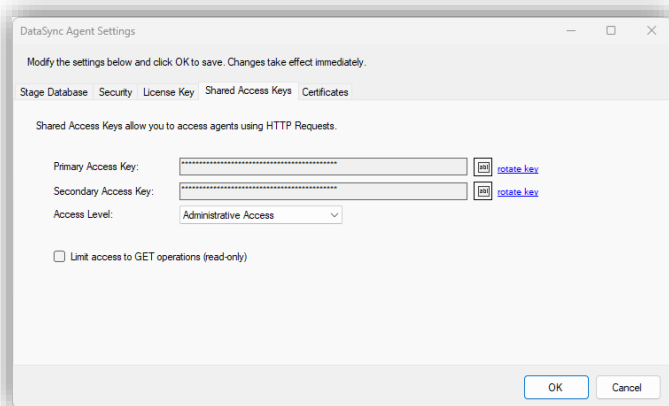


To change access control settings, choose the **Security** tab.

**BUILTIN\Administrators** are always allowed access to the agent.

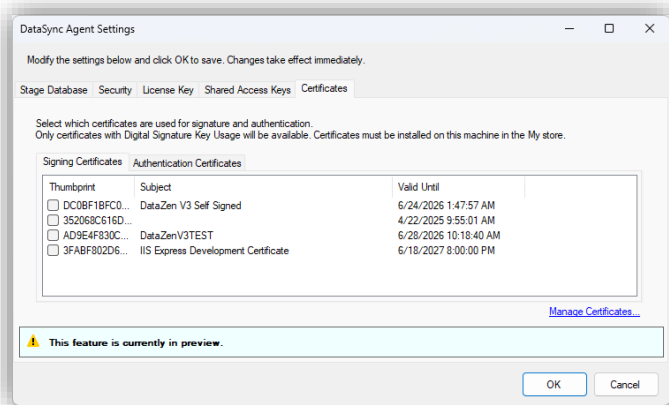
By default, **NT AUTHORITY\Authenticated Users** can administer agents. However, adding specific groups will limit access to the agents as specified.

To change your license key, choose the **License Key** tab and paste it in the license key box.



To enable remote registration of agents from another DataZen Manager, or to enable HTTP/S access using Token-based authentication, change the Access Level specified in the **Shared Access Keys** tab.

See the online documentation for more information about these settings.



If you have registered X.509 certificates with DataZen, you can select which certificates can be used for signature and/or authentication.

*Please note that if at least one certificate is selected under Signing Certificates, all connections using Token-based authentication must be signed.*

## Advanced Agent Configuration

The following configuration settings require manual changes and may cause the agent to stop operating successfully; as a result, it is recommended to reach out to the Enzo support team before making these changes. The settings below require changing settings in the **EnzoDS.Exe.config** file where the agent is installed.

For more detailed instructions and overview of the DataZen Agent configuration settings, visit <https://portal.enzounified.com/docs/datazen/datazen-security> and <https://portal.enzounified.com/docs/agent/Commandline>

### Use HTTP/S for the Agent Listening Port

By default, a DataZen agent listens on port 9559, which is not encrypted. While sensitive data (such as connection string settings) are encrypted by DataZen internally, using an HTTP/S endpoint provides additional security. To use port 443 change the **listenerUrl** setting accordingly.

```
<add key="listenerUrl" value="https://SERVERNAME" />
```

## Specify multiple TCP Ports for an Agent

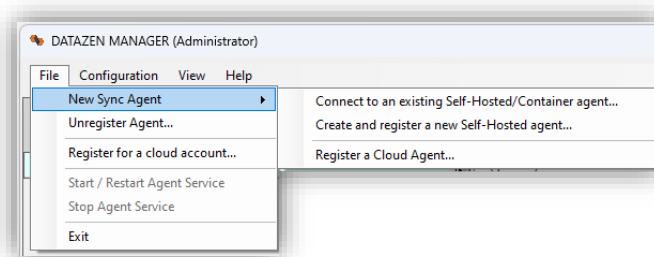
You may configure a DataZen agent to listen on multiple TCP Ports. Although DataZen Manager only communicates on a single port you may choose to enable the agent to use multiple ports to accept HTTP/S requests. For example, the following setting tells the agent to listen on both port 443 (HTTPS) and 9559 (HTTP).

```
<add key="listenerUrl" value="https://SERVERNAME,http://localhost:9559" />
```

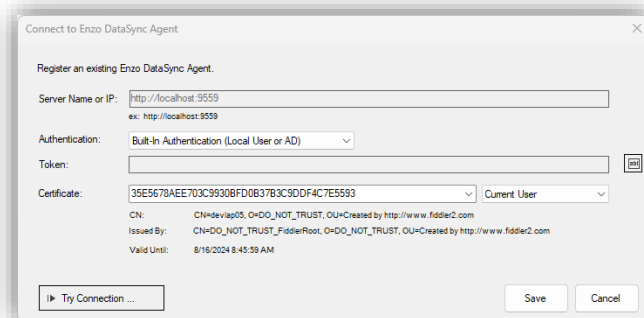
## Configure Remote Monitoring with DataZen Manager

DataZen Manager supports accessing and managing agents remotely; this allows you to manage jobs and agent configuration settings remotely. You can monitor agents remotely using any of the authentication methods provided in the **Authentication Sequence** section below.

*If you use Token-based authentication, the shared keys need to be configured to allow the **Administrative Access Level**.*



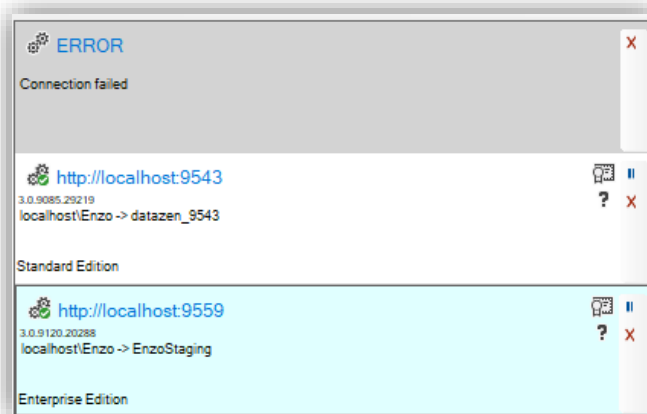
Start DataZen Manager on a remote server and choose **Connect to an existing self-hosted/container agent...**




In the **Server Name** field, enter the URL of the agent. This URL must be accessible from the machine where you are running the DataZen Manager application.

Select Token-Based Authentication and paste the access token of the agent. Alternatively, you can choose an X.509 certificate for authentication (see the X.509 Authentication section for more information).

Click **Save**



Once registered, you will see the agent listed and will be able to manage its jobs remotely.

To edit the registration if this agent, click on the gear icon. 

*NOTE: If the URL or the port of the agent changes, you will need to unregister the agent and re-register it using the new URL.*

Agent Properties	
Agent Type	Self Hosted
Agent URL	http://localhost:9559
Cert Thumbprint	
Version	3.0.9162.14935
Agent Status	Running
Edition	Enterprise
License Active	Yes
Max Connections	(unlimited)
Machine Name	DEVLAP05
Windows Service Name	
Container	No

To view the capabilities of the selected agent, click on the question mark.

## Authentication Sequence

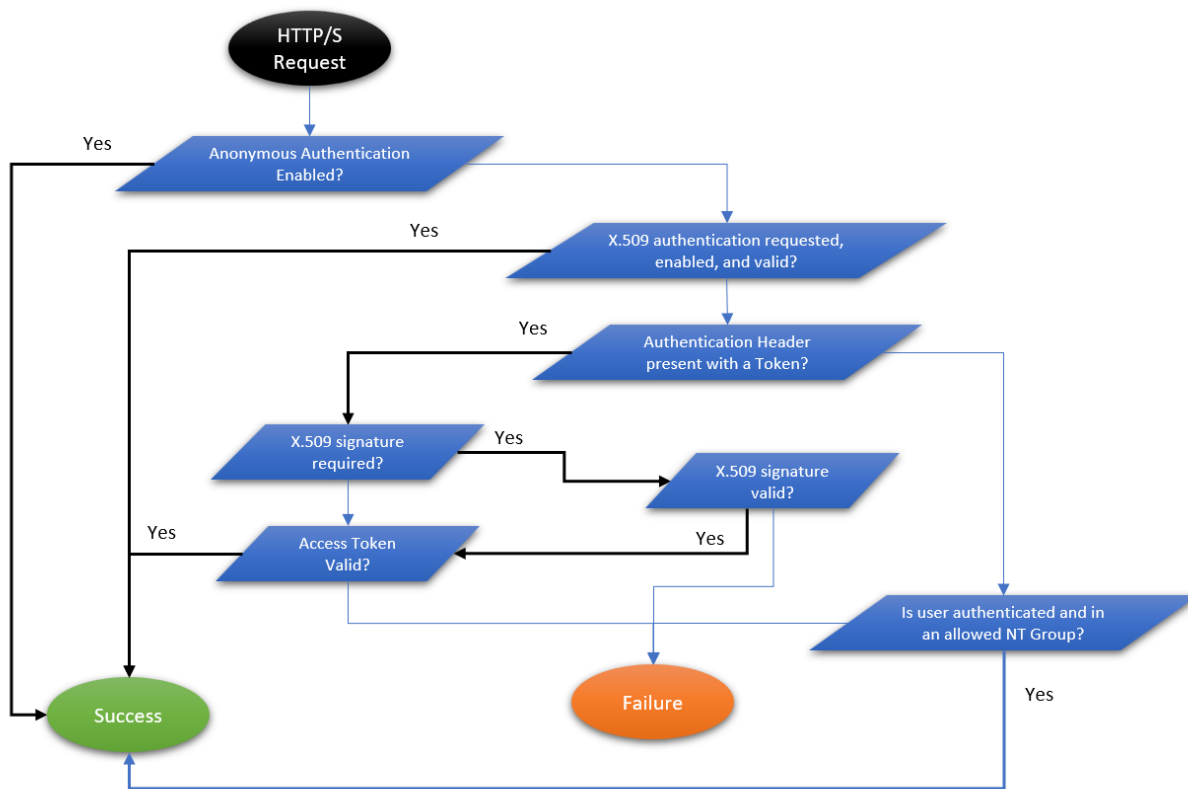
The authentication sequence to a DataZen agent is as follows:

- Anonymous authentication, if enabled on the agent server
- X.509-based authentication (which includes signature verification)
- Token-based authentication, with X.509 signature verification if configured
- NTLM authentication based on NT or AD Group settings

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*To use NTLM authentication with AD Group authorization, no Authentication header should be present in the HTTP request.*

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## Anonymous Authentication

This setting is controlled through a startup parameter of EnzoDS.exe: *-anonymous*

It is recommended to only use this setting for initial configuration, if necessary. See the online help documentation (<https://portal.enzounified.com/docs/agent/Commandline>) for more information about startup parameters.

## X.509 Authentication and Signature

X.509 signing certificates can be used for both authentication and signature purposes. In order for certificates to be used, they must first be registered with the agent using the **Manage Certificates** option in DataZen Manager. This ensures that the agent can access the X.509 certificates.

In addition, the agent must be configured to select which certificates can be used for authentication and/or signature, as described in the **Finalizing Agent Settings** section. Two tabs are available under the Certificates section: **Signing Certificates** and **Authentication Certificates**.

See the online help documentation (<https://portal.enzounified.com/docs/datazen/datazen-security-x509>) for more information.

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*Please note that if at least one certificate is selected under Signing Certificates, all connections using Token-based authentication must be signed.*

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