



# /SecureFileTransfer Automation

DataBridge Server Install Guide

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FileTransfer DataBridge Server Install Guide

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## ABOUT THIS GUIDE

### INTRODUCTION

Welcome to the DataMotion DataBridge Server Install Guide. The purpose of this guide is to provide the information necessary install the local DataBridge Server.

DataBridge is cost effective, easy to install and quick to implement. DataBridge provides an easy to use tool for regular, planned file transfers user-to-server and server-to-server.

To simplify locating information and answering questions about functionality, each chapter in this guide is focused on a specific task or type of information.

The remainder of this section contains important general information about this guide.

### INTENDED AUDIENCE

This guide is intended primarily for administrators who will install and configure the DataBridge Server.

Users of this guide are not expected to be security experts, but knowledge of file transfer is helpful.

It is expected that the reader is familiar with accessing and navigating the DataMotion Portal.

### OTHER REFERENCES

The following documentation provides more information about other aspects of DataBridge:

- *DataBridge Administrator Guide* – configuration of the DataBridge Server through the DataMotion Portal.
- *SecureMail Administrator Guide* – management of SecureMail user accounts.
- *SecureMail FileTransfer User Guide* – documents how an end user can interface with the SecureMail File Transfer services.

### EXAMPLE REFERENCES

For easier reading with examples, a fictitious company called Galactic Seats is used for reference. This company has been setup with a Cobrand.

## DATABRIDGE SERVER REQUIREMENTS

### REQUIREMENTS INTRODUCTION

DataBridge is designed to be scalable, supporting both small to large enterprise installations organizations needing an easy to manage file transfer solution. This means that while the server can run on fairly low-end server hardware, it can also scale up to high-end clusters for high availability, mission critical deployments.

It is recommended that DataBridge be installed on its own server. This can be either a physical server or a virtual one, as long as it meets the requirements specified below. The specific placement of the required SQL Server is dependent on the level of availability necessary for the local service.

### OPERATING SYSTEM REQUIREMENTS

The DataBridge Server requires on of the following operating systems:

- Microsoft Windows Server 2008 64-bit
- Microsoft Windows Server 2008 R2 64-bit

**NOTE: The DataBridge Server should be set to automatically synchronize with a Network Time Server. The NTS can be internal or external, but to ensure proper transport and accuracy the time should be set to automatically sync.**

- Application Server Role with .NET Framework 3.5.1 installed (no other Application Server Role components are necessary for DataBridge)
- Microsoft .NET Framework 4.0

### SOFTWARE REQUIREMENTS

The following software must be installed and configured to install and run the DataBridge Server:

- Microsoft SQL Server Compact 3.5 SP2 Runtime – 32-bit
- Microsoft SQL Server Compact 3.5 SP2 Runtime – 64-bit

**NOTE: The SQL Server Compact Runtimes are provided as part of the installation package and are used solely during installation and upgrades.**

## DATABASE REQUIREMENTS

DataBridge uses a database to maintain information about file routing as well as statistics about the files being transferred. DataBridge can be connected either to a standalone database or to a shared database with another server.

DataBridge requires one of the following databases to be available:

- Microsoft SQL Server 2008 Standard or Enterprise
- Microsoft SQL Server 2008 R2 Standard or Enterprise

DataBridge itself only requires the installation of the SQL Services. Other components may be installed as necessary to support your environment.

## HARDWARE REQUIREMENTS

While software is fairly fixed in terms of requirements, hardware is entirely different. The level of hardware required is highly dependent on the load placed on the server, with a higher load requiring better hardware. The levels listed here provide a guide to the amount of use that can be done successfully on the listed amount of hardware.

### Minimum Hardware Requirements

- 64-bit Dual Core processor
- 8GB of RAM
- 500GB of disk space

### Recommended Hardware Requirements

- 64-bit Quad Core processor
- 16GB of RAM
- 1TB of disk space

**NOTE: The disk space is a guideline for large file transfers. This number is highly dependent on the size and amount of file transfers performed at one time.**

### High Availability

Contact DataMotion Support for specific high availability configurations, including clustering and virtualization.

## STORAGE RECOMMENDATIONS

The actual amount of storage required by DataBridge Server is dependent on the number and size of the payload files being delivered by the system. The DataBridge Server does not maintain files once they have been successfully delivered, but depending on the volume of traffic and the speed of delivery, the amount of disk space needed at any one time can fluctuate widely.

The following are recommendations about the storage system:

- Control file and transfer folders should be located on the drive
- Control file and transfer folders should be located on a separate drive from OS and SQL
- Control file and transfer folders should be sized to at least 3X the monthly transfer size

The DataBridge Server is capable of spawning up to 100 threaded processes for simultaneous file transfers. To maintain this level of throughput requires a high-speed storage system.

Contact DataMotion Support for specific recommendations about storage systems.

## FOLDER CONFIGURATIONS

The DataBridge configuration contains options for three folder locations:

- Control File Directory – the location where incoming control files will be scanned to initiate jobs
- Workflow Temporary Directory – the working folder where jobs are processed
- Processed Control File Location – a folder where control files can be copied to after the job has been processed

The first two folders are required and should be created according to the storage recommendations above before installing DataBridge. These folders must be specified in the Modules tab in the DataMotion Portal, and if they are incorrect or do not exist, the server will not be able to process jobs.

The Processed Control File Location is an optional setting which creates an archive of control files once a job has been processed.



## DATABRIDGE ARCHITECTURE PLANNING

### INTRODUCTION

DataMotion DataBridge provides simplified managed file transfer capabilities for organizations that need to integrate the delivery of files between systems and users. Designed to easily fit into existing workflows, DataBridge leverages standards-based technology such as SSL, TLS, SSH and AES encryption to ensure compatibility with how you work while providing maximum security and tracking.

### DATABRIDGE OVERVIEW

The DataBridge Server provides managed file workflow between two points. Complementary to DataMotion SecureMail, the DataBridge Server creates a hybrid cloud service, bridging your internal network and the Internet in a secure fashion to enable secure file transfers both internally within your organization as well as anywhere on the Internet.

Using DataBridge for file transfer enables an organization to push the file transfer directly to the end user in a simple, uncomplicated manner while still allowing an organization to publish dedicated workflows with internal, highly secure systems. Files can be transferred using a web browser for end users (both send and receive) as well as more traditional SFTP support for advanced users or scripting.

The DataBridge solution is designed specifically for predefined workflows. For a file to be sent through the DataBridge, a workflow must be configured with a defined source and destination (along with other settings). Ad hoc transfers are not supported in the DataBridge solution, but can be handled separately through the complimentary SecureMail product. Contact DataMotion Sales for more information about adding ad hoc file transfer capabilities.

### DATABRIDGE WORKFLOWS

Within the DataBridge file transfer system there are three types of workflows which can be performed. Each of these workflows has its own configuration requirements but all are supported at the same time.

#### Client to Server Workflow

The Client to Server workflow starts with an external entity needing to send a file to an internal server. This user would initiate the connection through the DataMotion Portal, either by uploading the file through a web browser or SFTP client. This file would be downloaded by DataBridge and then delivered to the destination server. Generally the destination would be an internal server, but DataBridge can deliver it to any server it can reach.

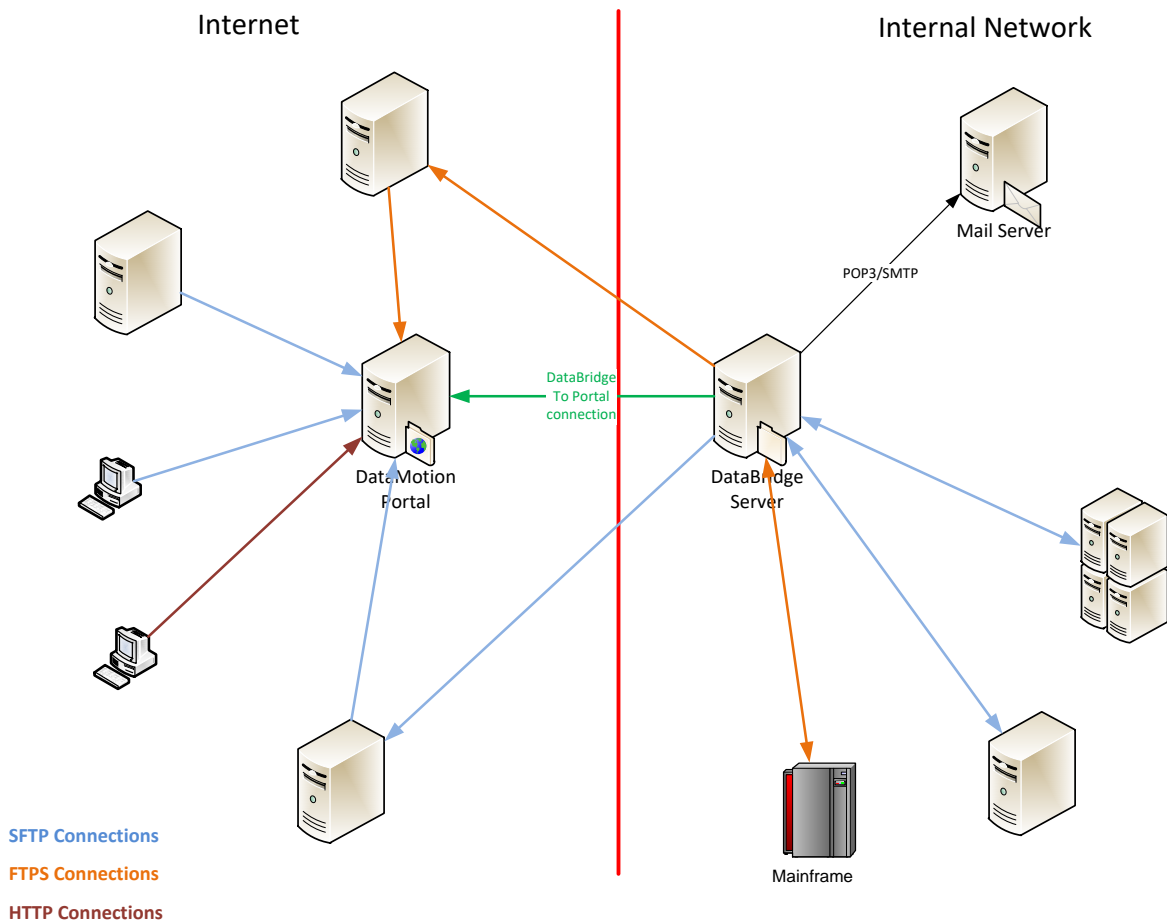
### Server to Client Workflow

The Server to Client workflow is the opposite of the Client to Server flow. The source is usually an internal server that is sending a file to an external entity. The file is delivered to DataBridge which then uploads it to the Portal for delivery to the external entity. The external entity can download the file from the Portal by web browser or SFTP client.

### Server to Server Workflow

This workflow is similar to the Server to Client Workflow with the key difference here being that DataBridge delivers the file directly to the destination server without going through the Portal.

The illustration below provides an example of how the DataBridge Server and the DataMotion Portal fit together and the connectivity to other systems. The arrows show the direction of the connection (the arrow points to the server being connected to).



Within the administration of DataBridge, any workflow is defined as a route. A route contains a source endpoint, a destination endpoint, and any necessary information to make the file translate from one to the other. For example, if a user on a PC needs to send a file to a UNIX system, a route would define the source endpoint as the user, the destination as the UNIX system and convert the file from DOS to UNIX type. Each route contains this information and enables custom routes to be defined for any relationship of endpoints and file to be transferred between them.

## INITIATING A WORKFLOW

A workflow can be initiated in one of three ways depending on the source endpoint. Each method will produce the same outcome of delivering a file.

### File Upload to the DataMotion Portal

For external entities needing to send files to your internal network, the simplest method to start a workflow is to login to the DataMotion Portal and upload the payload file with the associated Business File Name. By choosing to upload the payload file, the process of initiating the workflow is started automatically.

### Deliver a Control File to the DataBridge Server

For internal systems (or users) it is possible to initiate a workflow by delivering a control file to the DataBridge Server. The DataBridge Server specifies a control file path wherein any control file placed into that directory tree will be picked up and initiates the workflow.

A control file contains the name of the payload file to be delivered via the workflow as well as the name of the workflow to send the payload file on. Optionally the payload file itself can also be placed into the directory along with the control file. If the payload file is not included the DataBridge Server will retrieve it from the source location specified in the workflow.

### Send a Control File to a Special Email Address

Another method for initiating a workflow is to send the control file to a special email address. The email address can be checked by POP3 and when a control file is found in the account the workflow would be initiated using the information specified.

In the case of an email-initiated workflow, the DataBridge Server will always contact the source server to download the payload file.

The DataBridge Server does not provide a specific method for accessing the control file directory on the internal network. Some examples of how this can be done include:

- Sharing the path on the Windows network
- Installing and configuring the IIS FTP/FTPS Service and pointing the home directory to the control file path

For more information about enabling access to the control file path contact DataMotion Support.

## DATABRIDGE NETWORK ACCESS

The DataBridge Server is designed to enable an organization to move away from providing incoming network access from external systems to allow inbound file transfers. The DataBridge Server is paired with the SecureMail Portal, which allows external systems (whether users or computers) to send files to the Portal and have them delivered securely to DataBridge without any need for the organization to allow direct access to any system within your network (not even in the DMZ).

The DataBridge Server further does not require an explicit inbound port from the SecureMail Portal as it acts as a client, polling the Portal at a defined interval to both download incoming files and upload outgoing files back up to the Portal. This minimizes the external network security measures that must be considered since no inbound ports are necessary to provide the ability to deliver files in either direction.

## DATABRIDGE INSTALLATION

### PREREQUISITE SOFTWARE INSTALLATION

Before DataBridge can be installed, the prerequisite software must first be installed. If this has not already been done, they must be completed before proceeding further.

**NOTE: All installation steps will be listed for Windows Server 2008 R2.**

The prerequisite installation should follow this order (this assumes the operating system and database are already configured):

1. Add the Application Server Role and add the Role Service .NET Framework 3.5.1
2. Install Microsoft .NET Framework 4.0
3. Extract the `DataBridge_vXX.zip` file where XX is the version number
  - » This file will contain a prerequisites folder with the two SQL Server Compact Runtime installers
4. Install Microsoft SQL Server Compact 3.5 SP2 32-bit Runtime
  - » This installation does not provide any configuration options to select
5. Install Microsoft SQL Server Compact 3.5 SP2 64-bit Runtime
  - a. This installation does not provide any configuration options to select

Once these are complete the installation is ready to proceed.

### SQL SERVER DATABASE CONNECTIVITY

Since the SQL Server database could be located on any server, it is necessary to ensure that the SQL Server is configured to allow TCP/IP connectivity with the SQL Server Browser Service enabled. This is necessary whether the SQL Server is remote or local to the DataBridge Server.

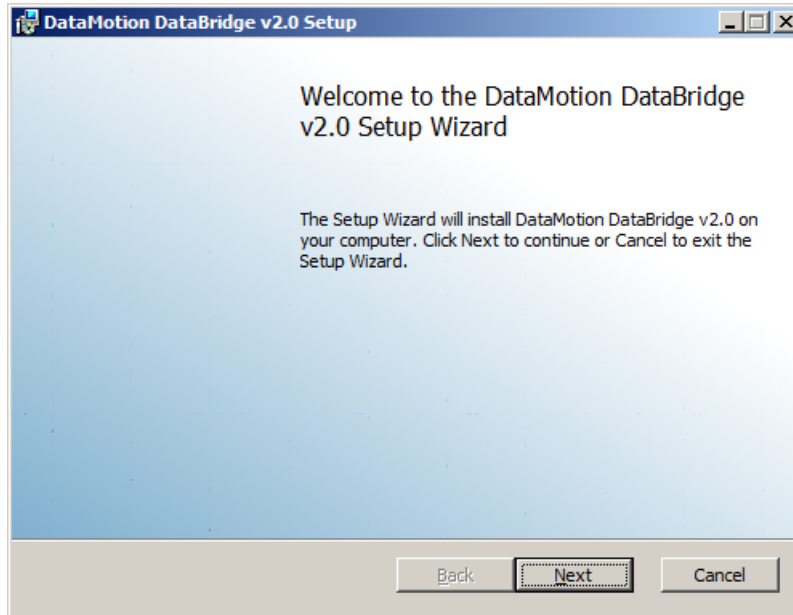
### DATABRIDGE INSTALLATION

Once all the prerequisite steps have been completed, you are ready to install the DataBridge Server.

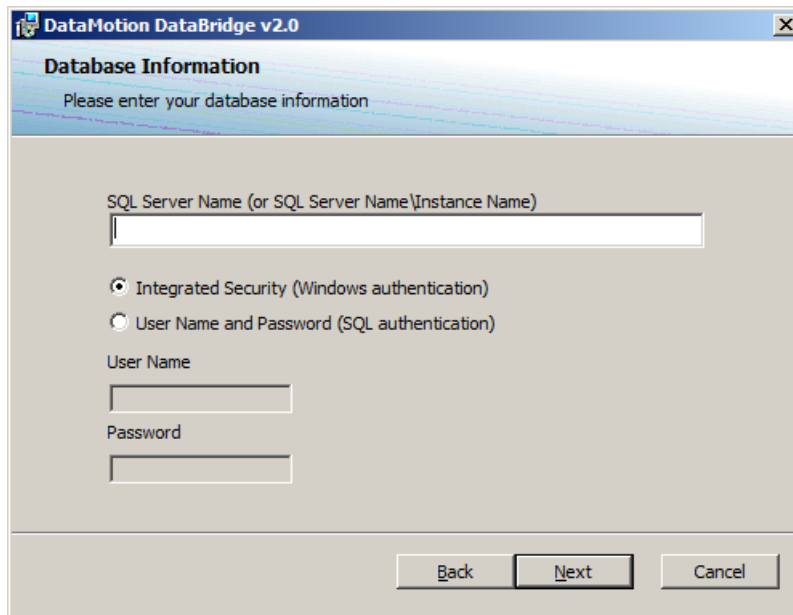
1. Open a Command Prompt as an Administrator.
2. Change to the folder where you extracted the contents of the `DataBridge_vXX.zip` file.

- Execute the following command to launch the installation:

```
msiexec /I DataBridge_Setup.msi
```



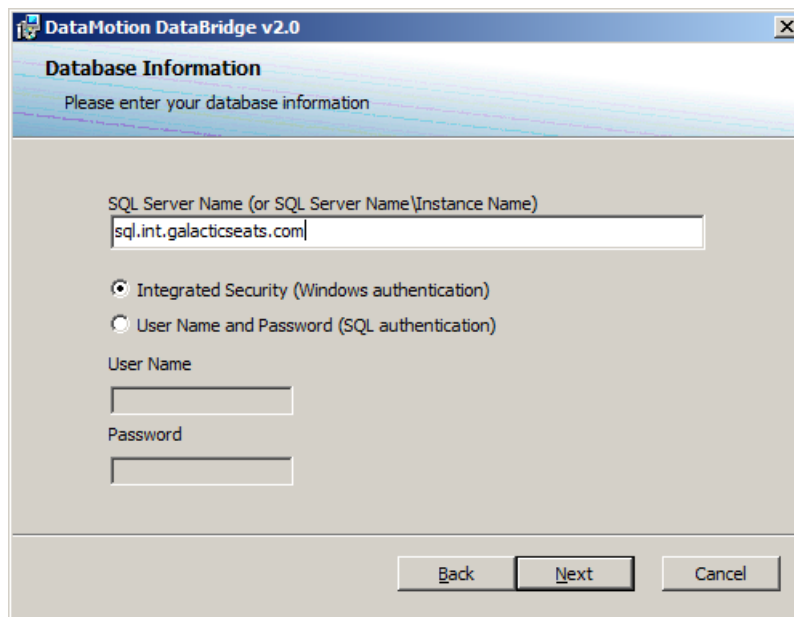
- Click **Next** to continue.



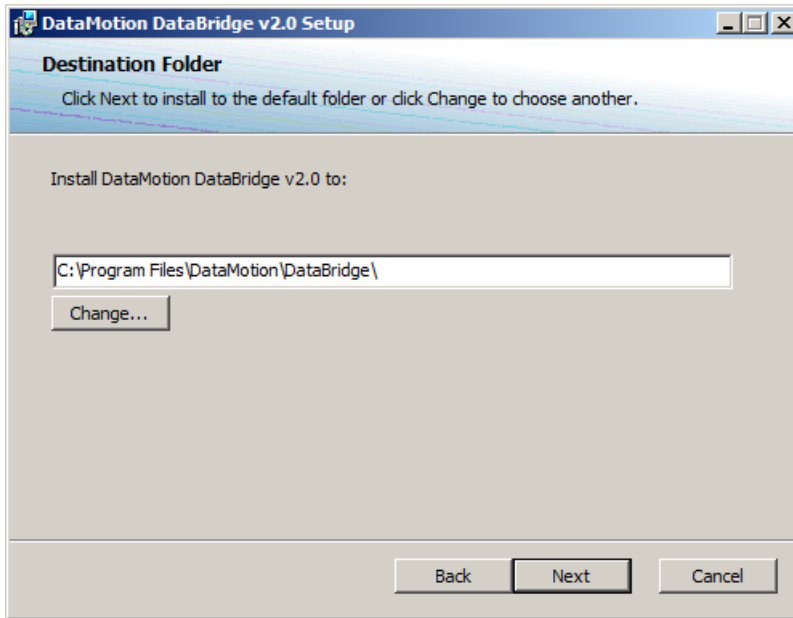
- Enter the address of your SQL Server in the **SQL Server Name** field.
- Supply the necessary account information to access the SQL Server to create the

DataBridge database.

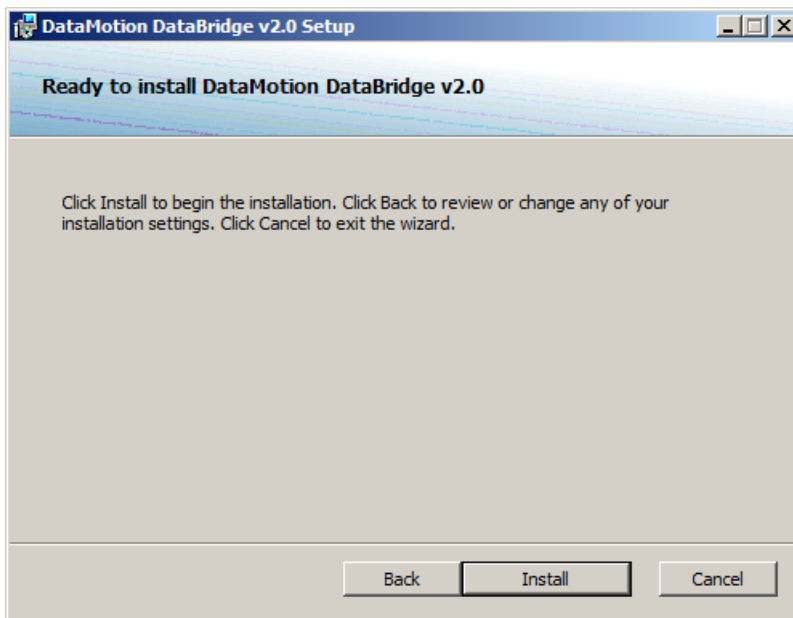
**NOTE:** The installation of DataBridge assumes that the user performing the installation has the necessary rights in SQL Server to create the DataBridge database. By default with SQL Server 2008 this is done with Windows Authentication, so the Windows user account should have administrator rights inside the SQL Server to complete the installation. If SQL Authentication will be used for the installation, then the necessary account information must be known.



7. Click **Next** to continue.

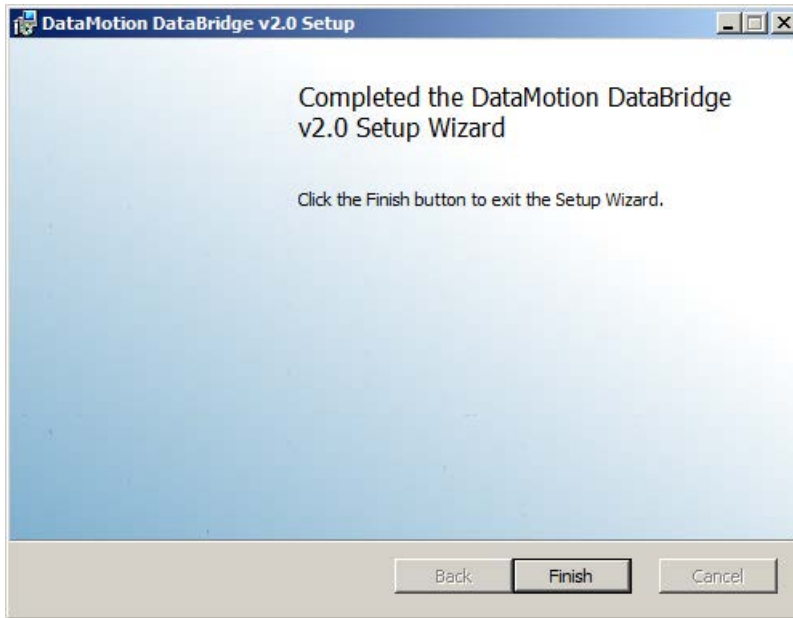


8. If necessary, change the install path for the DataBridge file by clicking the **Change...** button. Once this has been set, click **Next** to continue.



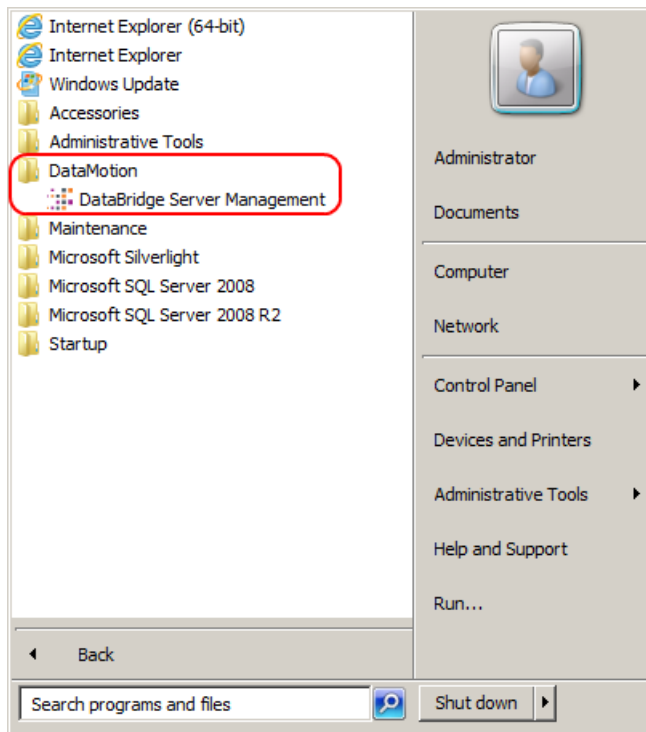
9. Click **Install** to begin the installation process.





10. Click **Finish** to complete the setup.

The DataBridge Server Management icon will now be available under DataMotion in the Start Menu.



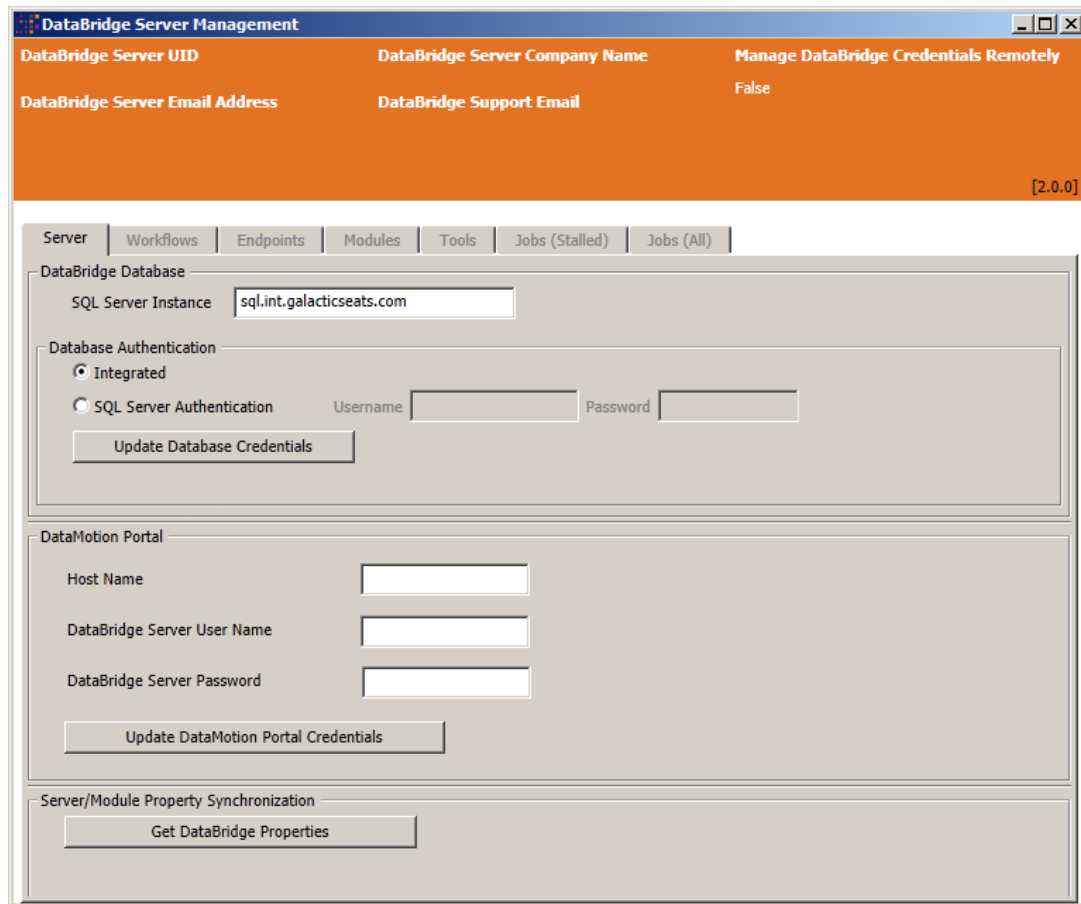
## FIRST STARTUP OF DATABRIDGE & INITIAL CONFIGURATION

Once the DataBridge Server has been installed, it needs some initial configuration to begin working. Once the initial configuration is complete, the service is ready to begin transferring files.

### CONNECTING THE DATABRIDGE SERVER TO THE DATAMOTION PORTAL

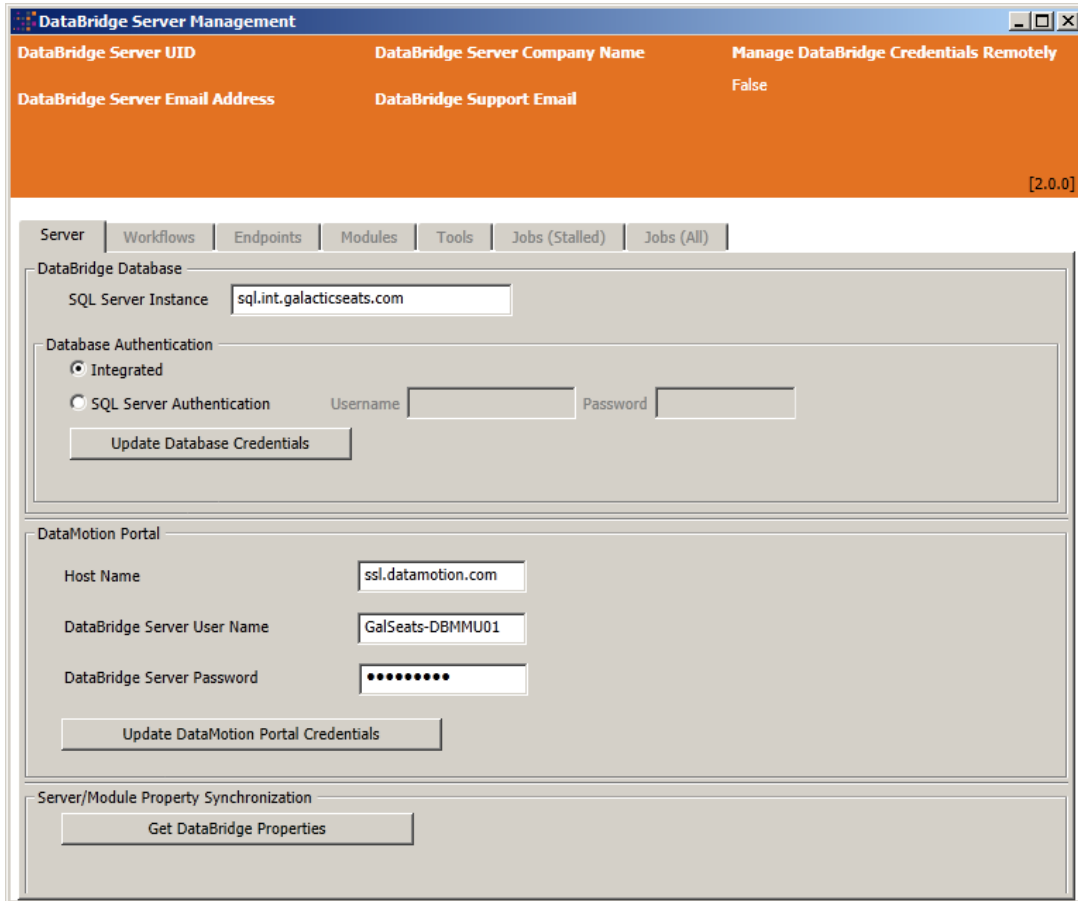
On the initial startup of the DataBridge Server Management application all the settings except the SQL Server Instance are blank (this field was configured during installation). The DataBridge Server must be connected to the DataMotion Portal before it can perform any file transfers.

1. Launch the DataBridge Server Management application



2. Under **Secure Message Platform** enter:
  - » Host Name – ssl.datamotion.com

- » DataBridge Server User Name – the name of the server account provided by DataMotion Support
- » DataBridge Server Password – the password for the server account provided by DataMotion Support



3. Click the **Update Secure Message Platform Credentials** button.

The connection will show **Done** once the credentials have been updated successfully.

## UPDATING THE DATABRIDGE PROPERTIES

Once the account information has been set, the DataBridge Module properties must be downloaded. These settings are configured on the DataMotion Portal and then downloaded to the DataBridge Server.

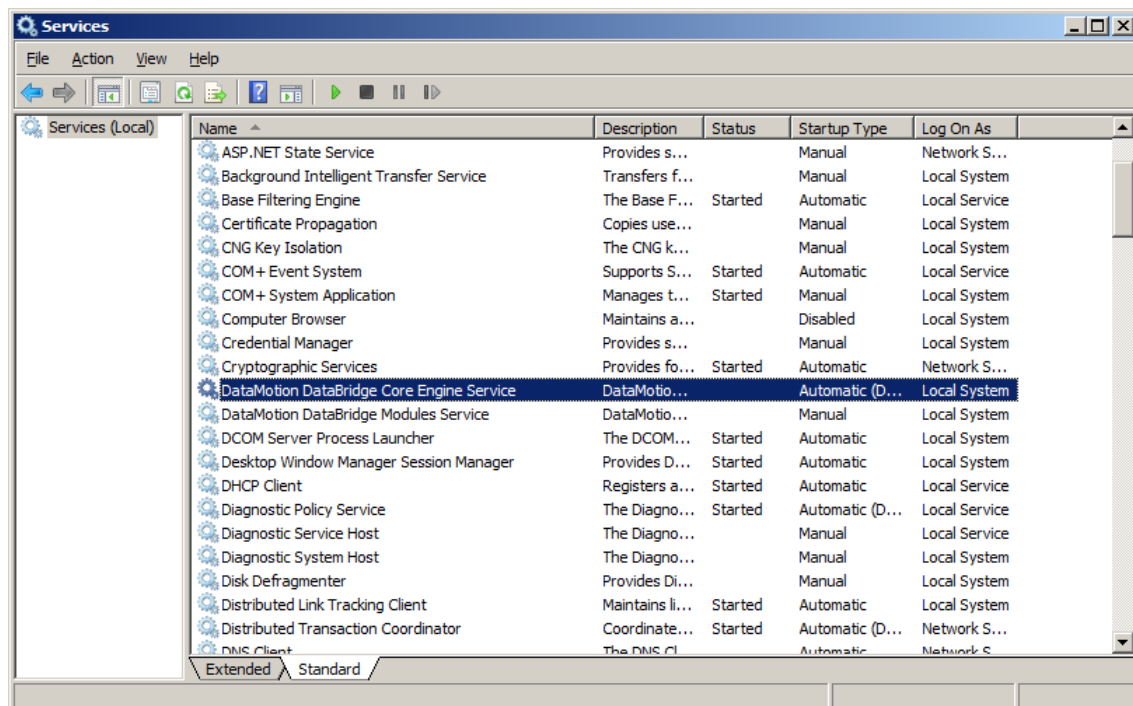
Click the **Get DataBridge Properties** button to download the configuration information from the Portal. Once this information has been downloaded, and the services started the remaining tabs will activate and the DataBridge Server is fully ready for use.

**NOTE: It may take several minutes for the tabs to activate depending on the update settings that were made on the Portal.**

## STARTING THE DATABRIDGE SERVER

Once the DataBridge properties have been downloaded to the server, the DataBridge Server can be started. This can be achieved either by restarting the server or by manually starting the service.

To start the service manually, open the Services administrative console and find the **DataMotion DataBridge Core Engine Service**. Start this service to start the DataBridge Server. This service is set to start automatically (hence the reason a reboot will also start the service). Starting this service will also start the **DataMotion DataBridge Modules Service**.



The service is now running and ready for use.