

# EcoStruxure Building Operation

Oracle Opera Integration

SmartConnector

Installation & User Guide

04-20018-02-en  
July 2024



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# Contents

1	Functional Overview .....	6
2	Restrictions & Limitations .....	7
2.1	SmartConnector Service Version.....	7
2.2	EWS Supported Systems .....	7
2.3	Oracle Opera Supported System.....	7
3	Installation .....	8
4	Configuration & Settings.....	9
4.1	Processor Configuration .....	9
4.2	Adding the Custom Assembly to the Service .....	10
5	Revision History .....	17
6	References.....	18

# 1

## Functional Overview

The Oracle Opera PMS system interface is a middleware application that enables communication between Oracle Opera applications with EcoStruxure Building Operation via EcoStruxure Web Services (EWS). Each room in the PMS is represented in the EcoStruxure Building Operation model of the PMS. PMS attributes configured in the interface may be used to implement custom sequences. A multi-state value indicates the number of persons checked into a room as well as information for the guest name, language and expected departure date. The interface can fully represent items in the PMS system with data synchronisation between the two systems. This ensures the SmartConnector database is maintained and kept up to date without any user intervention.

The processor leverages the SmartConnector Service framework and details of the application (release history, installation notes etc.) are available separately and are not covered in this manual.

The SmartConnector application is licensed on a single server basis but may also be configured to connect to both Automation Server (AS-P) devices as well as Enterprise Servers (ES).

## 2 Restrictions & Limitations

### 2.1 SmartConnector Service Version

The processors have been configured to operate with the SmartConnector version 2.5, use with any other version of the SmartConnector framework is not supported.

### 2.2 EWS Supported Systems

The processors can support EcoStruxure systems operating with the EcoStruxure Web Services (EWS) protocol v1.1 and v1.2.

### 2.3 Oracle Opera Supported System





























The SmartConnector has been tested and validated against the Fidelio Interface Application Specification v2.20.3

Other versions may cause issues and are not supported. Please check with your supplier.

# 3 Installation

Please refer to the SmartConnector Installation and Configuration Guide.pdf for guidance on SmartConnector installation.

To deploy the Oracle Opera assembly copy the following files into the service installation directory. Normally “C:\Program Files (x86)\Schneider Electric\SmartConnector”

-  AMS.Profile.dll
-  BoDi.dll
-  BouncyCastle.Crypto.dll
-  Cucumber.Messages.dll
-  Gherkin.dll
-  Google.Protobuf.dll
-  ISC.FiasProtocol.dll
-  ISC.Micros.dll
-  ISC.PmsSql.dll
-  Microsoft.Rest.ClientRuntime.dll
-  Microsoft.SqlServer.ConnectionInfo.dll
-  Microsoft.SqlServer.Dmf.dll
-  Microsoft.SqlServer.Management.Sdk.Sfc.dll
-  Microsoft.SqlServer.ServiceBrokerEnum.dll
-  Microsoft.SqlServer.Smo.dll
-  Microsoft.SqlServer.SqlEnum.dll
-  NCrontab.Signed.dll
-  Newtonsoft.Json.Bson.dll
-  NLog.Targets.Syslog.dll
-  SmartConnector.Utilities.dll
-  System Buffers.dll
-  System.Memory.dll
-  System.Numerics.Vectors.dll
-  System.Runtime.CompilerServices.Unsafe.dll
-  System.Threading.Tasks.Extensions.dll
-  System.Web.Http.WebHost.dll
-  TechTalk.SpecFlow.dll
-  Utf8Json.dll

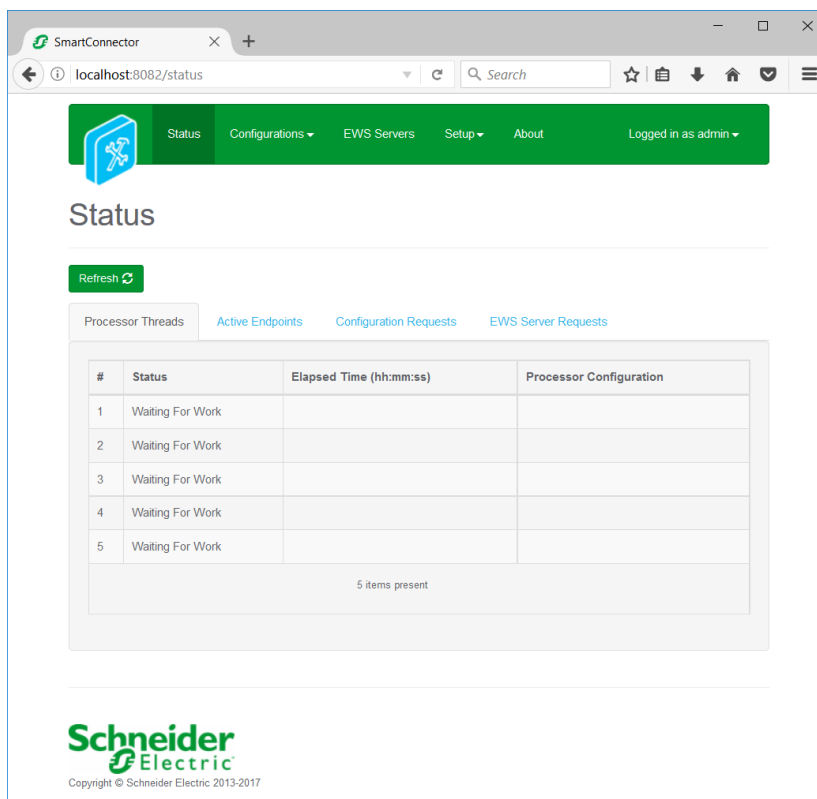


# 4 Configuration & Settings

## 4.1 Processor Configuration

With a default installation of SmartConnector, the configuration pages for the server can be reached at the following address on the server the service has been installed on:

<http://localhost:8082/>



The screenshot shows a web browser window with the URL `localhost:8082/status`. The page has a green navigation bar with the following items: Status, Configurations, EWS Servers, Setup, About, and Logged in as admin. Below the navigation bar, the page title is "Status". There is a "Refresh" button with a circular arrow icon. Below the refresh button, there are four tabs: "Processor Threads" (selected), "Active Endpoints", "Configuration Requests", and "EWS Server Requests". The "Processor Threads" tab displays a table with the following data:

#	Status	Elapsed Time (hh:mm:ss)	Processor Configuration
1	Waiting For Work		
2	Waiting For Work		
3	Waiting For Work		
4	Waiting For Work		
5	Waiting For Work		

Below the table, it says "5 items present". At the bottom of the page, there is the Schneider Electric logo and the text "Copyright © Schneider Electric 2013-2017".

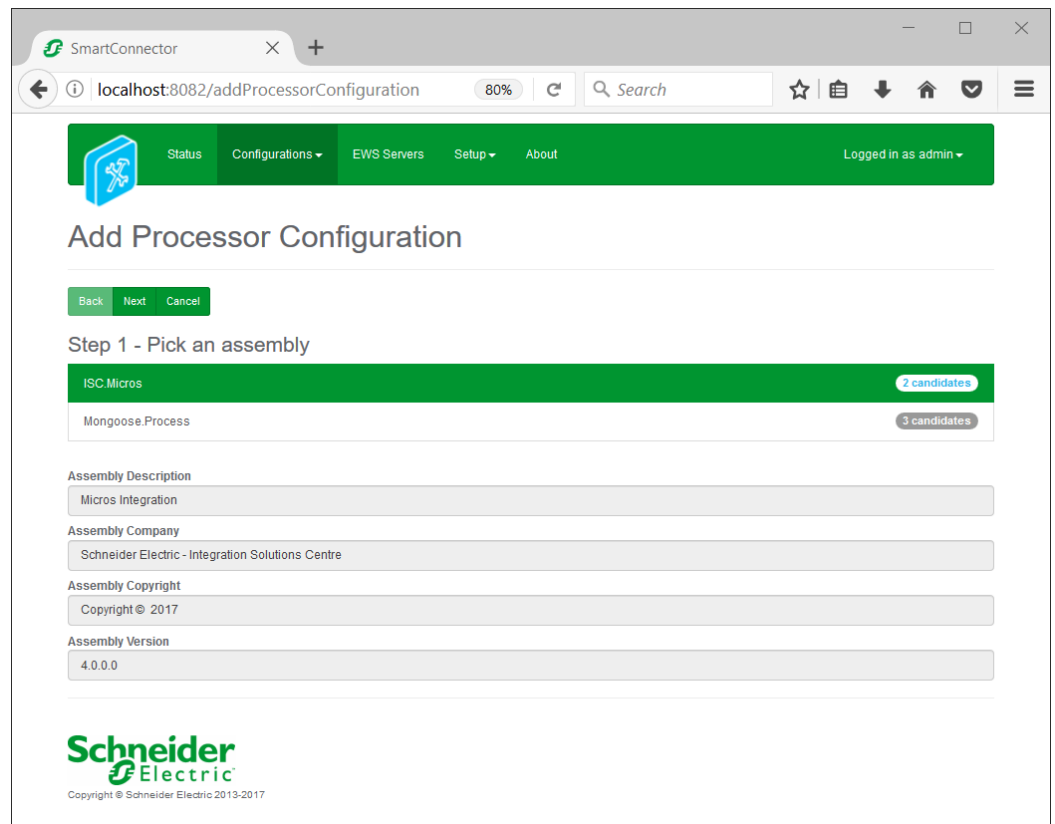
## 4.2

# Adding the Custom Assembly to the Service

Switch to the Configurations tab and select Add New +



At the Add Configuration window, Step 1 – Pick an assembly, select the reference to ISC.Micros (this will be highlighted green when selected)



Select Next and proceed to Step 2 Choose a Class

Ensure the class ISC.Micros.InterfaceProcessor is selected first



Select Next and proceed to Step 3 Name Configuration

Enter a meaningful name and description for the Processor which will enable you to identify this process in the configuration window later.

Select Finish and proceed to the Configuration screen.

SmartConnector

localhost:8082/processorConfiguration?id=4

Status Configurations EWS Servers Setup About

Logged in as admin

## Processor Configuration

Edit All Start Validate Reset Counter Reset Timer

Name: Micros Interface Processor Is Active: True

Description: Create connection with PMS to request and receive data. Send heartbeat and Update last connection time.

Processor Details Control History Schedule

Class Name: ISC.Micros.InterfaceProcessor

Assembly File: ISC.Micros.dll

Assembly Description: Micros Integration

Assembly Company: Schneider Electric - Integration Solutions Centre

Assembly Copyright: Copyright © 2017

Assembly Version: 4.0.0.0

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In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.

### **IP Address and Port Number**

These properties should be set to Server's IP Address and Port Number respectively to establish connection with Micros server.

### **Read Write Time Out**

This property is to set amount of time (in milliseconds) that Read and Write operations block waiting for Data.

### **Heartbeat Mins**

This property is to set the interval (in minutes) between Heartbeat messages.

### **Cache Message Expiry Duration Minutes**

This property is to set the duration of a message held in Cache before it expires.

### **Cache Write Sleep Time**

This property is to set the time interval (in milliseconds) that Cache waits before processing the next message.

### **PMS Connection Retry Interval**

This property is to set the time interval (in seconds) between connection retries to PMS.

In the configuration window select the Control Tab, you will then be presented with several options to define the Processor's default behavior. It is recommended to set the following;

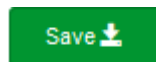
Runs On Start – Yes (To enable the Processor to automatically start with the machine)

Runs On Schedule – Yes (Although this processor should never terminate, attaching a short cycling schedule will ensure that if it stops unexpectedly, it will attempt to auto restart on the schedule.)

Manually Startable – Yes (To allow a user to start through the configuration window)

Manually Stoppable - Yes

The Save Button allows the process configuration to be saved to the database.



A complete configuration will appear as follows:

Expand All Collapse All

Details

Port Number \*  
5040

Ip Address \*  
127.0.0.1

Read Write Time Out \*  
2000

Heartbeat Mins \*  
1

Cache Message Expiry Duration Minutes \*  
30

Cache Write Sleep Time \*  
1

Pms Connection Retry Interval \*  
5

Follow the same procedure to configure the second Processor.

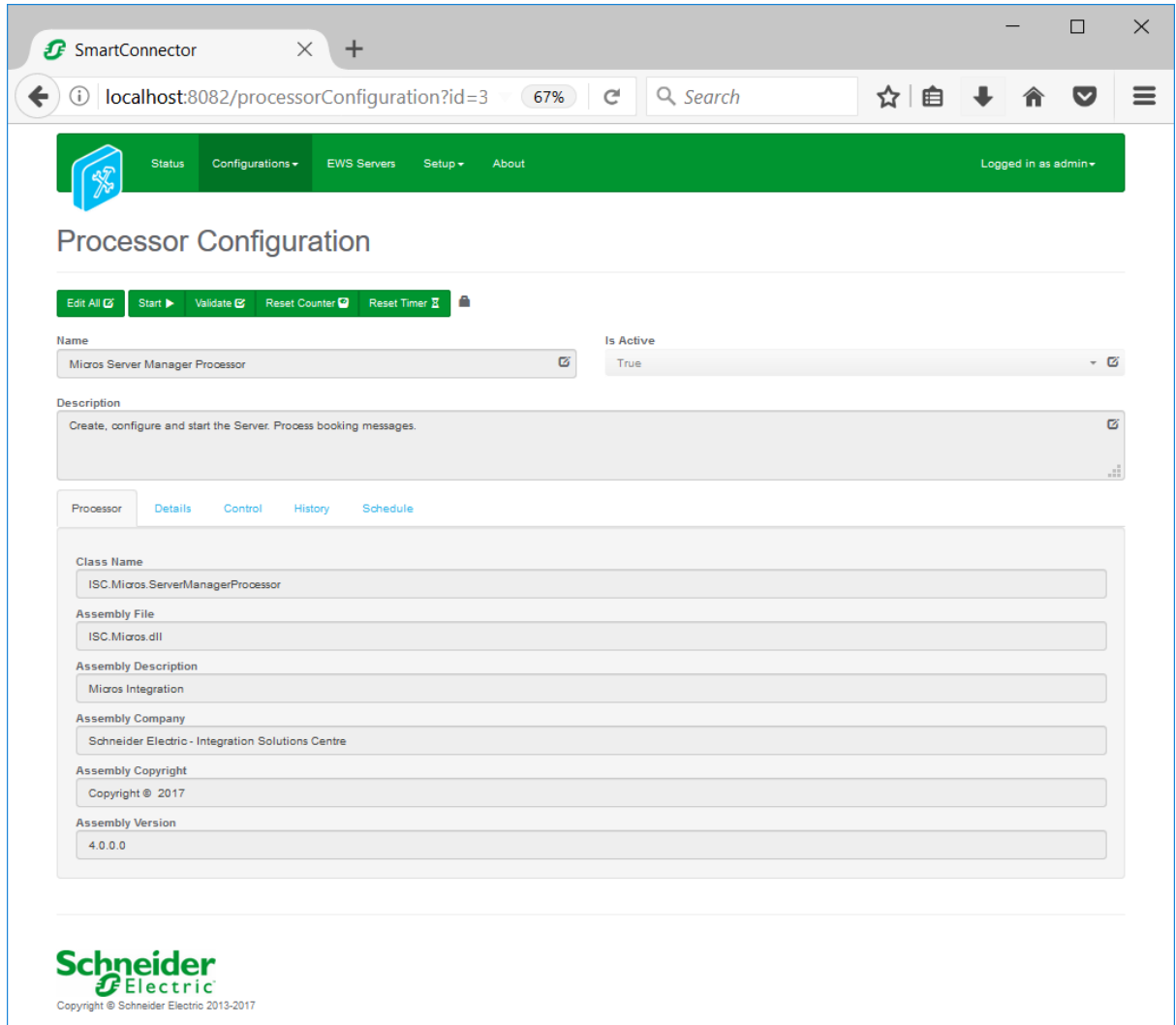
Ensure the class `ISC.Micros.ServerManagerProcessor` is selected

`ISC.Micros.ServerManagerProcessor`

Select Next and proceed to Step 3 Name Configuration

Enter a meaningful name and description for the Processor which will enable you to identify this process in the configuration window later.

Select Finish and proceed to the Configuration screen.



In the configuration window select the Details Tab, you will then be presented with the screen to enter the configuration information. Much of the configuration has default options however they should be checked and validated for the installation. Edit the applicable fields as follows.

### **User Name**

This property is required to allow the EWS server connection to be authenticated.

### **Password**

As above, this is the password related to the user credentials.

### **Server Address**

This property should be set to the full address required to access the EWS Server being hosted. This is normally in the case of a StruxureWare ES or AS device as follows:

[http://<IPADDRESS>:<PORT\(8093\)>/EcoStruxure/DataExchange](http://<IPADDRESS>:<PORT(8093)>/EcoStruxure/DataExchange)

**\*Note that the address is case sensitive!**

### **Server Name**

This property is just a friendly text name field to allow you to easily identify the specific Endpoint you are configuring.

### **Checkout Time**

This property is just a default Date Time field to allow you to specify a checkout Time of your preference.

### **Room Text**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

### **Occupied**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

### **Departure Date**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

### **Guest Name**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

### **Guest Language**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

### **Folder Text**

This property is just a friendly text name field to allow you to identify the specific property you are configuring.

In the configuration window select the Control Tab, you will then be presented with several options to define the Processor's default behavior. It is recommended to set the following:

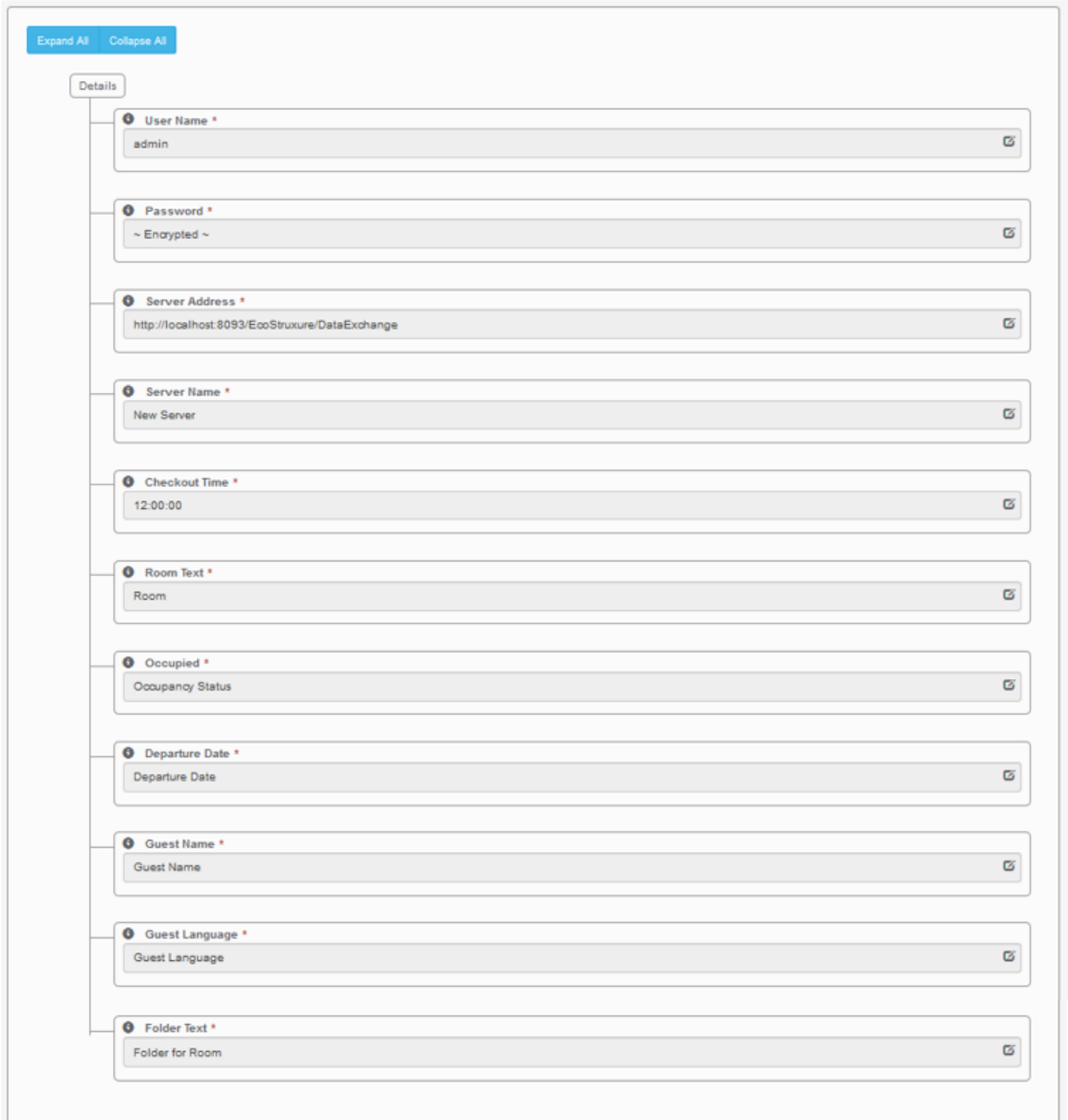
Runs On Start – Yes (To enable the Processor to automatically start with the machine)

Runs On Schedule – Yes (Define a schedule that determines how often the server is updated with messages received from the PMS – Suggested value would be 15 seconds)

Manually Startable – Yes (To allow a user to start through the configuration window)  
Manually Stoppable – Yes  
The Save Button allows the process configuration to be saved to the database.



A complete configuration will appear as follows:



The screenshot shows a configuration form with a 'Details' tab. At the top, there are two buttons: 'Expand All' and 'Collapse All'. The form contains the following fields:

- User Name \***: admin
- Password \***: ~ Encrypted ~
- Server Address \***: http://localhost:8093/EcoStruxure/DataExchange
- Server Name \***: New Server
- Checkout Time \***: 12:00:00
- Room Text \***: Room
- Occupied \***: Occupancy Status
- Departure Date \***: Departure Date
- Guest Name \***: Guest Name
- Guest Language \***: Guest Language
- Folder Text \***: Folder for Room



Once the SmartConnector EWS Server Interface has been hosted in EcoStruxure Building Operation, rooms will be displayed as follows:





























The screenshot displays the EcoStruxure Building Operation interface. On the left, the 'System Tree' pane shows a hierarchical structure: 'Micros' > 'Micros Fidelio Server' > 'Room 30', 'Room 31', 'Room 32', and 'Room 33'. Under 'Room 33', sub-items 'RoomED', 'RoomGL', and 'RoomGN' are visible. On the right, the 'Room 33' properties pane is active, showing a 'List View' of properties. The table below represents the data shown in this view:

Name	Description
RoomED	Unoccupancy Date
RoomGL	Guest Language
RoomGN	Guest Name
RoomOCC	Occupied

# 5 Revision History

Version	Assembly File Details	Date
4.0.2.7	ISC.FiasProtocol.dll	26 <sup>th</sup> July 2024
4.0.2.7	ISC.Micros.dll	26 <sup>th</sup> July 2024
4.0.2.7	ISC.PmsSql.dll	26 <sup>th</sup> July 2024

## Assembly files required:

-  AMS.Profile.dll
-  BoDi.dll
-  BouncyCastle.Crypto.dll
-  Cucumber.Messages.dll
-  Gherkin.dll
-  Google.Protobuf.dll
-  ISC.FiasProtocol.dll
-  ISC.Micros.dll
-  ISC.PmsSql.dll
-  Microsoft.Rest.ClientRuntime.dll
-  Microsoft.SqlServer.ConnectionInfo.dll
-  Microsoft.SqlServer.Dmf.dll
-  Microsoft.SqlServer.Management.Sdk.Sfc.dll
-  Microsoft.SqlServer.ServiceBrokerEnum.dll
-  Microsoft.SqlServer.Smo.dll
-  Microsoft.SqlServer.SqlEnum.dll
-  NCrontab.Signed.dll
-  Newtonsoft.Json.Bson.dll
-  NLog.Targets.Syslog.dll
-  SmartConnector.Utilities.dll
-  System Buffers.dll
-  System.Memory.dll
-  System.Numerics.Vectors.dll
-  System.Runtime.CompilerServices.Unsafe.dll
-  System.Threading.Tasks.Extensions.dll
-  System.Web.Http.WebHost.dll
-  TechTalk.SpecFlow.dll
-  Utf8Json.dll

# 6 References

SmartConnector Installation and Configuration Guide.pdf  
(TDS-M-INSTALLCONFIG-US.BU.N.EN.12.2017.2.30.CC)

SmartConnector Version 2.2 Release Notes.pdf  
(TDS-M-RELEASENOTES-US.BU.N.EN.12.2017.2.30.CC)

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