



Flexera Service Gateway 2

Installation and Administration Guide



Legal Information

Book Name: Flexera Service Gateway 2 Installation and Administration Guide

Part Number: FSG2-0200-IG05

Product Release Date: May 2018

Copyright Notice

Copyright © 2018 Flexera

This publication contains proprietary and confidential information and creative works owned by Flexera and its licensors, if any. Any use, copying, publication, distribution, display, modification, or transmission of such publication in whole or in part in any form or by any means without the prior express written permission of Flexera is strictly prohibited. Except where expressly provided by Flexera in writing, possession of this publication shall not be construed to confer any license or rights under any Flexera intellectual property rights, whether by estoppel, implication, or otherwise.

All copies of the technology and related information, if allowed by Flexera, must display this notice of copyright and ownership in full.

Intellectual Property

For a list of trademarks and patents that are owned by Flexera, see <https://www.flexera.com/producer/company/about/intellectual-property/>. All other brand and product names mentioned in Flexera products, product documentation, and marketing materials are the trademarks and registered trademarks of their respective owners.

Restricted Rights Legend

The Software is commercial computer software. If the user or licensee of the Software is an agency, department, or other entity of the United States Government, the use, duplication, reproduction, release, modification, disclosure, or transfer of the Software, or any related documentation of any kind, including technical data and manuals, is restricted by a license agreement or by the terms of this Agreement in accordance with Federal Acquisition Regulation 12.212 for civilian purposes and Defense Federal Acquisition Regulation Supplement 227.7202 for military purposes. The Software was developed fully at private expense. All other use is prohibited.

Contents

1 Flexera Service Gateway 2 Installation and Administration Guide	5
System Requirements	6
What's New in Flexera Service Gateway 2	7
Contact Us	7
2 Installing Flexera Service Gateway 2	9
Changing the Port Number of an Existing Installation of Flexera Service Gateway	10
Running the Flexera Service Gateway 2 Installer.....	14
3 Configuring and Using Flexera Service Gateway 2	19
Flexera Service Gateway 2 Binaries	19
Verifying Flexera Service Gateway 2	20
Reviewing the FSGService Task in Windows Task Scheduler	20
Viewing Startup Error Information	21
Opening the Flexera Service Gateway 2 Host Interface	22
Connecting Applications to Flexera Service Gateway 2	24
Importing Data From Existing Flexera Service Gateway Installation.....	24
Viewing Certificate Binding With Communication Port	26
Troubleshooting	26
Frequently Asked Questions	27
Known Issues in Flexera Service Gateway 2.....	27
Troubleshooting Tips.....	28
Index	29

1

Flexera Service Gateway 2 Installation and Administration Guide

Flexera Service Gateway 2 is a component that enables AdminStudio, App Portal, Workflow Manager, and FlexNet Manager Suite / FlexNet Manager Platform to communicate.

Information about installing and using Flexera Service Gateway 2 is presented in the following sections.

Table 1-1 • Flexera Service Gateway 2 Installation and Administration Guide

Topic	Content
System Requirements	Lists the system requirements for installing and using Flexera Service Gateway 2.
What's New in Flexera Service Gateway 2	Lists the new features of Flexera Service Gateway 2.
Installing Flexera Service Gateway 2	Explains how to run the Flexera Service Gateway 2 installer.
Configuring and Using Flexera Service Gateway 2	Explains how to configure and use Flexera Service Gateway 2.

System Requirements

The following table lists the recommended software and hardware configuration for a machine running Flexera Service Gateway 2:

Table 1-2 • Flexera Service Gateway 2 System Requirements

Requirement	Description
Operating System	Windows 2008 R2 Server, Windows 2012 Server, or Windows 2016 Server
Processor	2 GHz Multicore processor
RAM	8 GB
Microsoft .NET Framework	4.6.1
Disk Space	250 MB
Ports to Open in Firewall	Clients access Flexera Service Gateway 2 on ports 9443 and 8280 by default.
User Account Permissions	User running the Flexera Service Gateway 2 installer needs local Admin permissions.
Protocol	Flexera Service Gateway 2 uses a Windows Communication Foundation (WCF) service, and by default it runs on https protocol.

What's New in Flexera Service Gateway 2

Flexera Service Gateway 2 includes the following new features and enhancements.

- Security Enhancements
- New User Interface for Host Service
- New FsgService Task
- Issues Logged in Windows Event Viewer
- Installer Installs .NET Framework 4.6.1
- Import Tool Can Import Registered Service Data from Same System

Security Enhancements

Flexera Service Gateway 2 implements TLS (Transport Security Layer) to address a known issue in OpenSSL. For more details, see [CVE-2014-3566](#) for more details.

New User Interface for Host Service

Flexera Service Gateway 2 includes a new user interface for the Host Service, which includes **View Services**, **Refresh Services**, and **FSG EndPoints** buttons which you can use to view and refresh the service and to view the FSG Service endpoints.

New FsgService Task

A new task, FsgService, is created in Windows Task Scheduler with the **At system startup** trigger option.

- The task will be triggered automatically when a system restarts.
- If the service needs to be stopped or started, it can be done using Windows Task Manager.

Issues Logged in Windows Event Viewer

Any issue related to creating or running a task will be logged in the Windows Event Viewer.

Installer Installs .NET Framework 4.6.1

If the target system does not have the required .NET Framework 4.6.1 installed, the Flexera Service Gateway 2 installer installs it.

Import Tool Can Import Registered Service Data from Same System

The import tool has the capability to import registered service data from the same system with a different port. For more information, see [Importing Data From Existing Flexera Service Gateway Installation](#)

Contact Us

Flexera Software is headquartered in Itasca, Illinois, and has offices worldwide. To contact us or to learn more about our products, visit our website at:

<http://www.flexerasoftware.com>

2

Installing Flexera Service Gateway 2

This section includes instructions for running the Flexera Service Gateway 2 installer.

If you are installing Flexera Service Gateway 2 on the same server as a previous installation of Flexera Service Gateway, you need to first change the communications port of the existing Flexera Service Gateway installation from 9443 to the next available port, such as 9445, before installing Flexera Service Gateway 2.

If you are not installing Flexera Service Gateway 2 on the same machine as a previous installation of Flexera Service Gateway, you can ignore that section and just perform the steps in [Running the Flexera Service Gateway 2 Installer](#).

- [Changing the Port Number of an Existing Installation of Flexera Service Gateway](#)
- [Running the Flexera Service Gateway 2 Installer](#)

Changing the Port Number of an Existing Installation of Flexera Service Gateway

If you want to install Flexera Service Gateway 2 on the same server where a previous version of Flexera Service Gateway is already installed, you need to change the communications port of the existing Flexera Service Gateway installation from 9443 to the next available port, such as 9445 or 9446. Flexera Service Gateway 2 will use port 9443.



Important • If you are installing Flexera Service Gateway 2 on the same server where a previous version of Flexera Service Gateway is already installed, perform the steps in this section before installing Flexera Service Gateway 2. If you are not installing Flexera Service Gateway 2 on the same server as a previous version of Flexera Service Gateway, you can ignore this section and just perform the steps in [Running the Flexera Service Gateway 2 Installer](#).



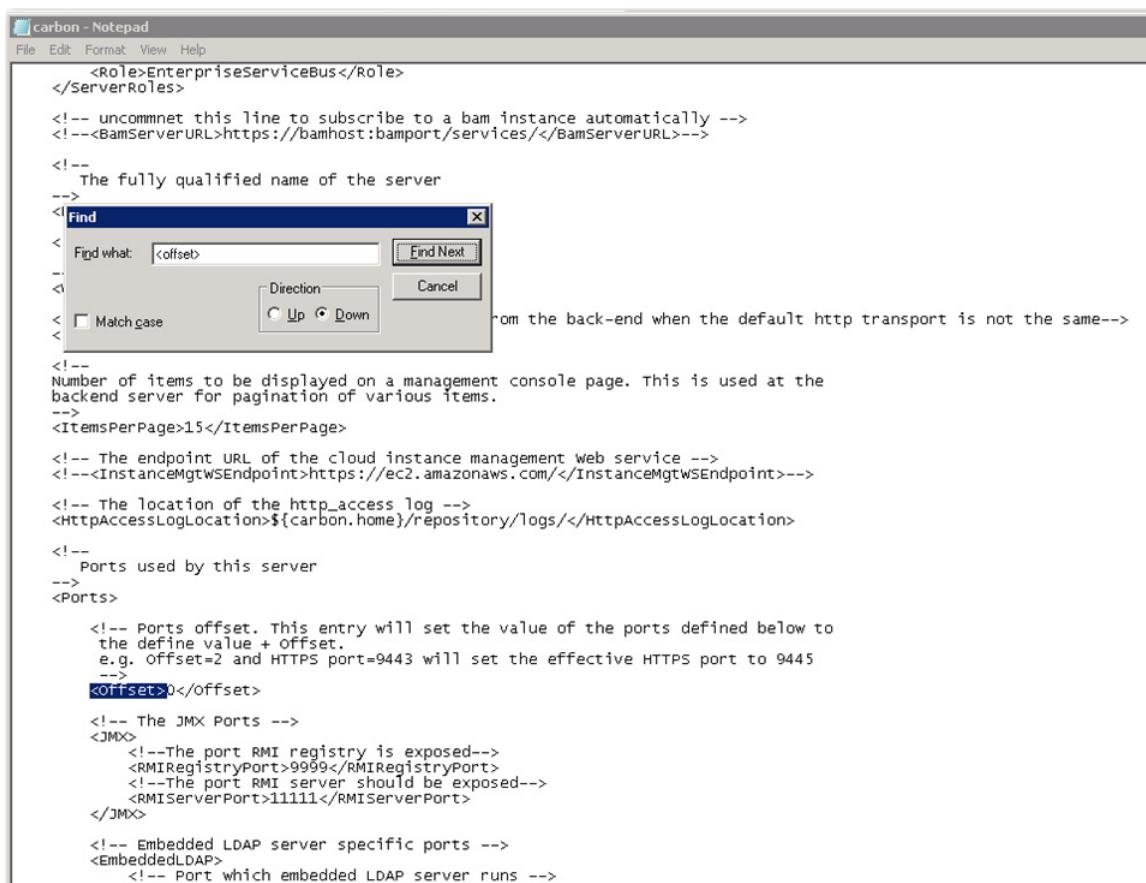
Task

To change the port number of an existing installation of Flexera Service Gateway:

1. Open the installation directory of the previous version of Flexera Service Gateway.
 2. Open the following file in a text editor:

[PreviousVersionElexeraServiceGatewayInstallDirectory]\repository\conf\carbon.xml

- 3** Locate <offset>0</offset> in the carbon.xml file:



4. Change the <offset> value from 0 to one of the following:

- If you are changing the port to 9445, change the <offset> value to 2.
- If you are changing the port to 9446, change the <offset> value to 3.



Note • *Changing the <offset> value to 2 will move the port to 9445 ($9443 + 2 = 9445$), changing the <offset> value to 3 will move the port to 9446 ($9443 + 3 = 9446$), and so on.*

5. Save the carbon.xml file.

6. On the target system, open the following URL in a browser window:

`https://CURRENT_FSG_SERVER:9443/carbon/admin/index.jsp`

7. You will be prompted to login.

8. Login using the following credentials:

- **User Name:** admin
- **Password:** admin

9. In the left navigation bar, click **Shutdown/Restart**.

Chapter 2 Installing Flexera Service Gateway 2

Changing the Port Number of an Existing Installation of Flexera Service Gateway

The screenshot shows the WSO2 Enterprise Service Bus Management Console. The left sidebar has tabs for Main, Monitor, Configure, and Tools. Under Tools, the 'Shutdown/Restart' option is highlighted with a red box. The main panel displays the 'WSO2 ESB Home' screen with various system information fields.

Server
Host
Server URL
Server Start Time
System Up Time
Version
Repository Location
Operating System
OS Name
OS Version
Operating System User
Country
Home
Name
Timezone
Java VM
Java Home
Java Runtime Name
Java Version
Java Vendor
Java VM Version

The **Shutdown/Restart Server** screen opens.

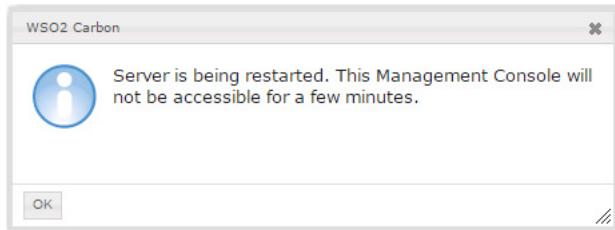
The screenshot shows the 'Shutdown/Restart Server' screen. It contains two main sections: 'Shutdown' and 'Restart'. In the 'Shutdown' section, 'Graceful Shutdown' is selected. In the 'Restart' section, 'Graceful Restart' is selected.

Shutdown	
Graceful Shutdown	Forced Shutdown
Stop accepting new requests, continue to process already received requests, and then shutdown the server.	Discard any requests currently being processed and immediately shutdown the server.
<input checked="" type="radio"/> Graceful Shutdown	<input type="radio"/> Forced Shutdown
Restart	
Graceful Restart	Forced Restart
Stop accepting new requests, continue to process already received requests, and then restart the server.	Discard any requests currently being processed and immediately restart the server.
<input checked="" type="radio"/> Graceful Restart	<input type="radio"/> Forced Restart

10. Click **Forced Restart**. You will be prompted to confirm the restart.



11. Click **Yes**. A notification message will open.



12. Click **OK**.
13. Wait for five minutes while the changes are applied and the server is rebooted.
14. Verify that the changes have been made by opening the new URL (using the new port number) in a browser window:
`https://CURRENT_FSG_SERVER:NEW_PORT_NUMBER/carbon/admin/index.jsp`
15. If you want to import existing data from the previous version of Flexera Service Gateway to Flexera Service Gateway 2, first perform the steps in [Installing Flexera Service Gateway 2](#), and then perform the steps in [Importing Data From Existing Flexera Service Gateway Installation](#).

Running the Flexera Service Gateway 2 Installer

To install Flexera Service Gateway 2, perform the following steps.



Note • By default, Flexera Service Gateway 2 is installed on the C drive. To install it to an alternate drive, you need to launch the installer using a command line, as described in Step 3 below.



Note • The default user name and password to connect to the Flexera Service Gateway 2 server are admin/admin. For more information, see [Frequently Asked Questions](#).



Task

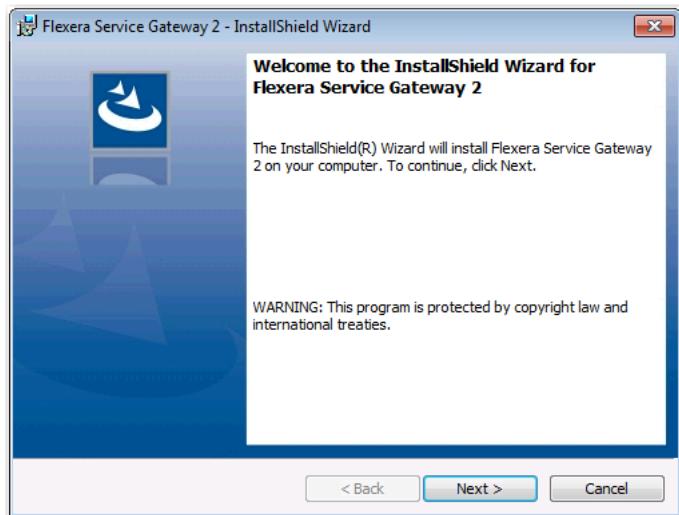
To install Flexera Service Gateway 2:

1. Make sure that your server meets the requirements listed in [System Requirements](#).
2. Download the Flexera Service Gateway 2 installer from the Flexera Software Product & License Center.
3. Launch the installer in one of the following ways:
 - **To install Flexera Service Gateway 2 to the default directory**, which is your Program Files (x86) directory, double-click the FlexeraServiceGateway2.exe file.
 - **To install Flexera Service Gateway 2 to an alternate directory or drive**, use the following command line syntax to launch the installer:

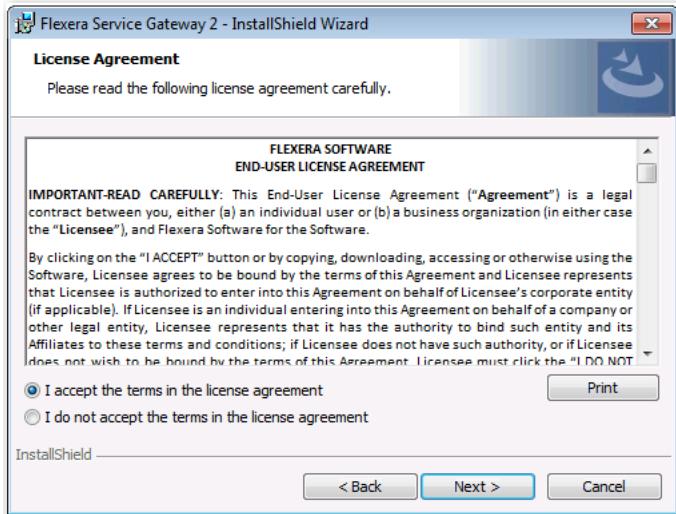
```
FlexeraServiceGateway2.exe /V"INSTALLDIR=E:\MYDIRECTORY"
```

where E:\MYDIRECTORY is the desired installation location.

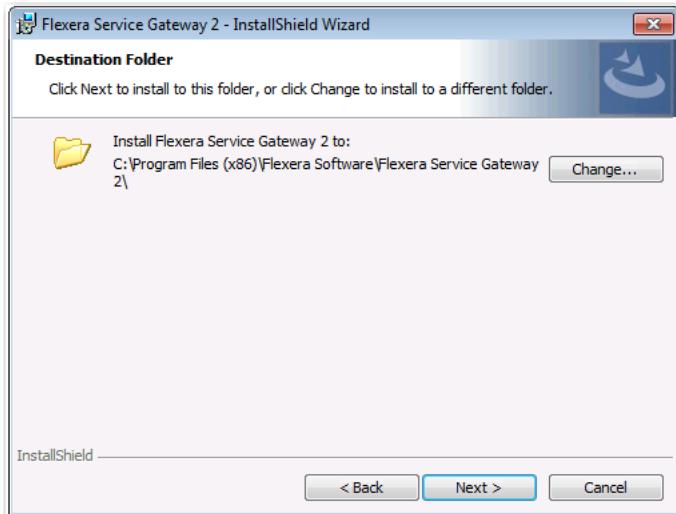
The **Welcome** panel of the Flexera Service Gateway 2 installer opens.



4. Click **Next**. The **License Agreement** panel opens.



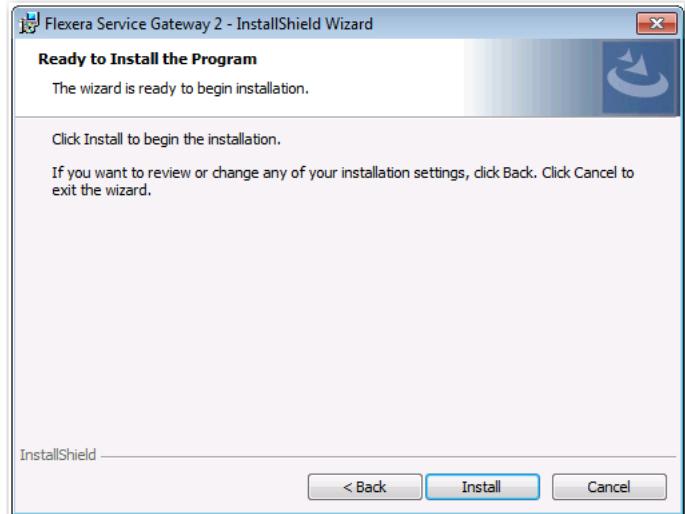
5. Accept the license agreement and click **Next**. The **Destination Folder** panel opens.



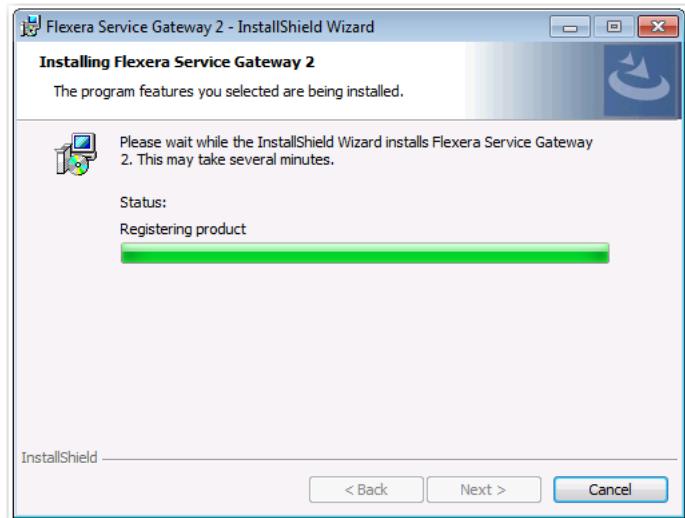
6. If you want to install Flexera Service Gateway 2 in the specified directory, click **Next**. If you want to select a different directory, click **Change**, select a new directory, and then click **Next**. The **Ready to Install the Program** panel opens.
7. The **Ready to Install the Program** panel opens.

Chapter 2 Installing Flexera Service Gateway 2

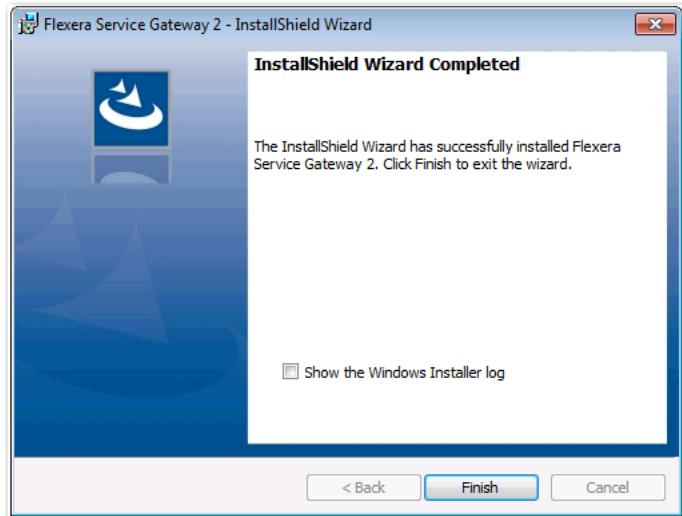
Running the Flexera Service Gateway 2 Installer



8. Click **Install**. The **Installing Flexera Service Gateway 2** panel opens.



When installation is complete, the **InstallShield Wizard Completed** panel opens.



9. Click **Finish**.
10. Proceed with the steps in [Configuring and Using Flexera Service Gateway 2](#).

Chapter 2 Installing Flexera Service Gateway 2

Running the Flexera Service Gateway 2 Installer

3

Configuring and Using Flexera Service Gateway 2

This chapter explains how to configure and use Flexera Service Gateway 2, Version 2.0.

- [Flexera Service Gateway 2 Binaries](#)
- [Verifying Flexera Service Gateway 2](#)
- [Importing Data From Existing Flexera Service Gateway Installation](#)
- [Viewing Certificate Binding With Communication Port](#)
- [Troubleshooting](#)

Flexera Service Gateway 2 Binaries

After Flexera Service Gateway 2 is installed, there are three main binaries located in the installation directory:

Table 3-1 • Flexera Service Gateway 2 Binary Files

File	Description
BindCertToPort.exe	Used to create a self-signed certificate for the machine and bind it to Port 9443. Without running this, <code>FlexeraServiceGatewayHost</code> will not get any authorized requests.
FlexeraServiceGatewayHost.exe	This is the service executable itself that enables communication between different Flexera Software products.
FSGImportTool.exe	This tool is used to transfer settings and connection information from older Flexera Service Gateway versions to Flexera Service Gateway 2. See Importing Data From Existing Flexera Service Gateway Installation for more information.

Verifying Flexera Service Gateway 2

After installing Flexera Service Gateway 2, as described in [Installing Flexera Service Gateway 2](#), proceed with the steps in this section to verify that it is working properly.

- [Reviewing the FSGService Task in Windows Task Scheduler](#)
- [Viewing Startup Error Information](#)
- [Opening the Flexera Service Gateway 2 Host Interface](#)

Reviewing the FSGService Task in Windows Task Scheduler

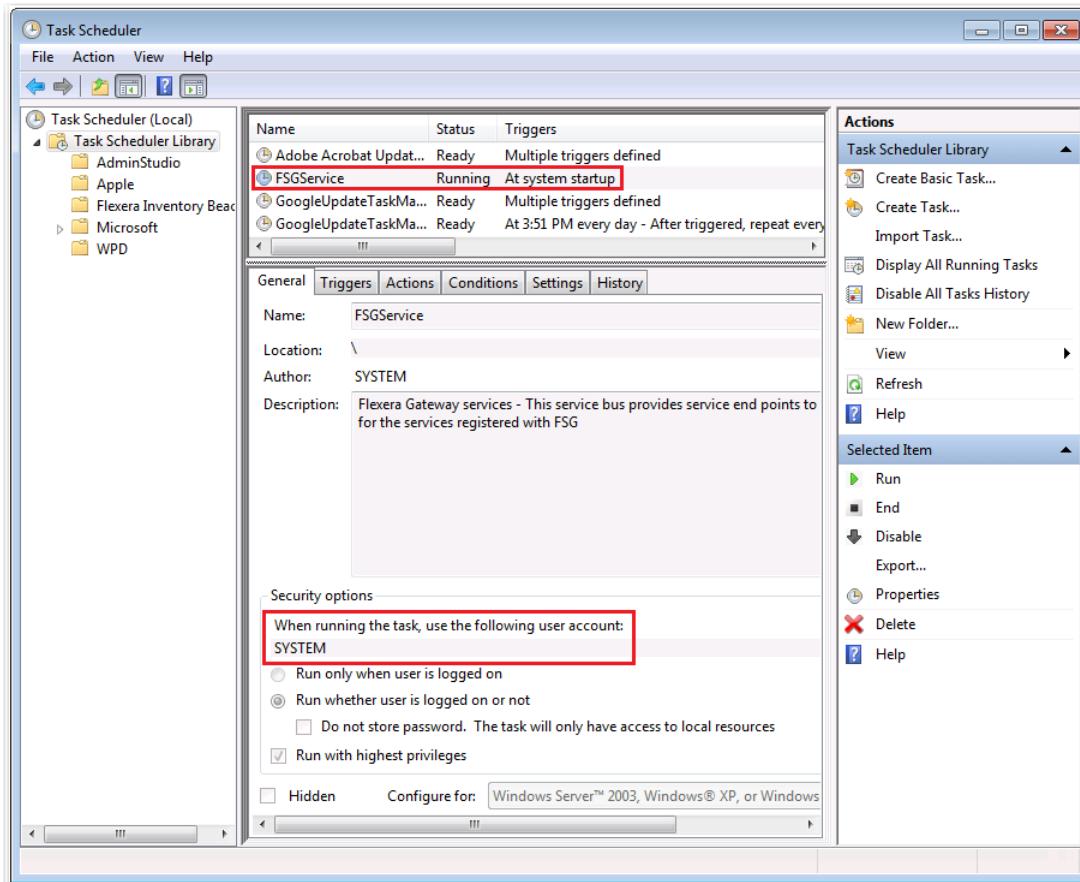
To review that the **FSGService** task is configured properly in Windows Task Scheduler, perform the following steps.



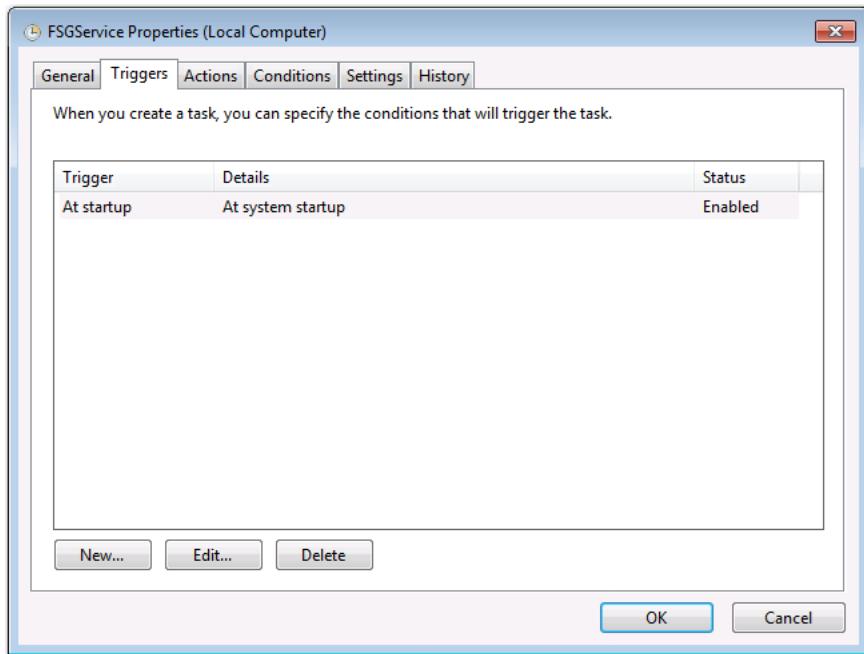
Task

To configure Flexera Service Gateway 2:

1. On the server where Flexera Service Gateway 2 is installed, open the Windows Task Scheduler. The Windows Task Scheduler console opens. A task named **FSGService** should be listed, have a **Status** of **Running**, and should be running under the **SYSTEM** account.



2. To confirm that this task is set to trigger the service whenever the system is restarted, right-click on **FSGService** in the list and select **Properties**. The **FSGService Properties** dialog box opens.
3. Open the **Triggers** tab.

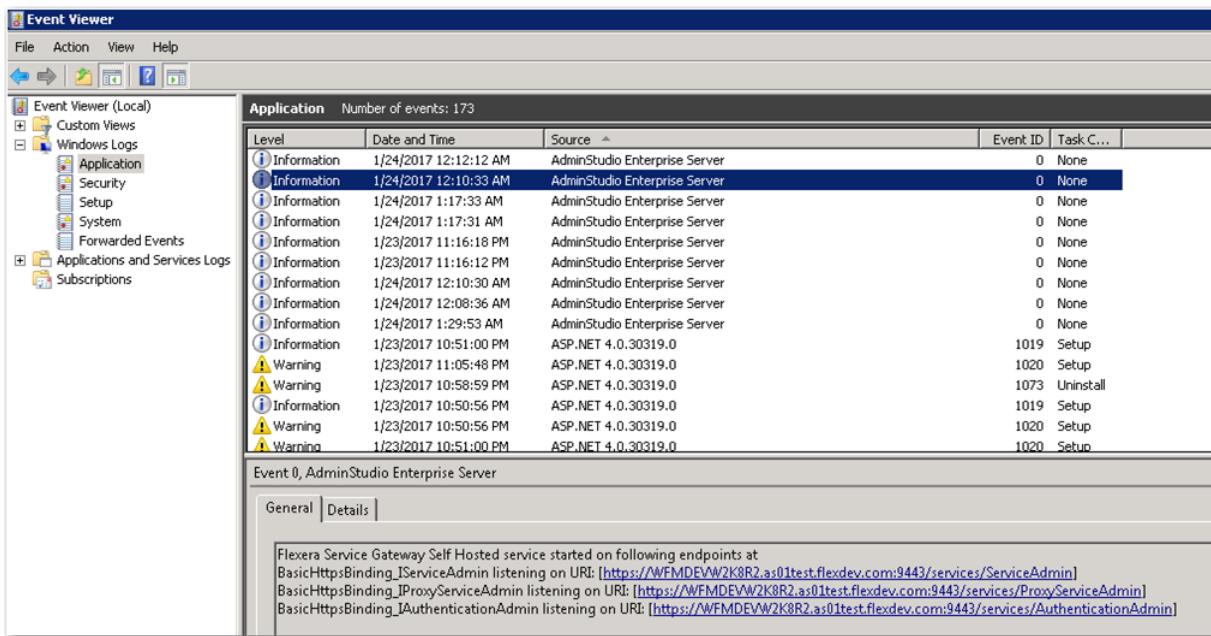


4. Confirm that **At startup** is listed in the **Trigger** column. This setting will cause the action to be triggered whenever the system is restarted.

Viewing Startup Error Information

Any error information that occurs during the start of Flexera Service Gateway 2 will be logged in the Windows Event Viewer registry.

The following image of the Windows Event Viewer shows an event registered when the service was triggered and running. This event logs service information into the event registry. Similarly, errors will also be logged into event viewer under the source column as **AdminStudio Enterprise Server**.

**Figure 3-1:** Windows Event Viewer

Opening the Flexera Service Gateway 2 Host Interface

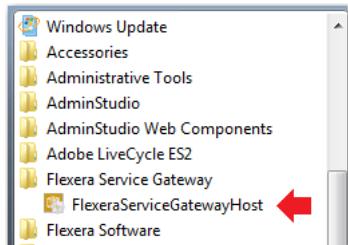
You can open the Flexera Service Gateway 2 Host interface to monitor the service.



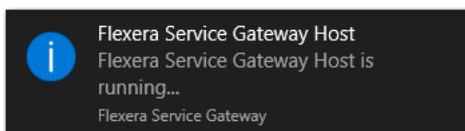
Task

To open the Flexera Service Gateway 2 Host interface:

- On the Windows Start menu, select **Flexera Service Gateway > FlexeraServiceGatewayHost**.



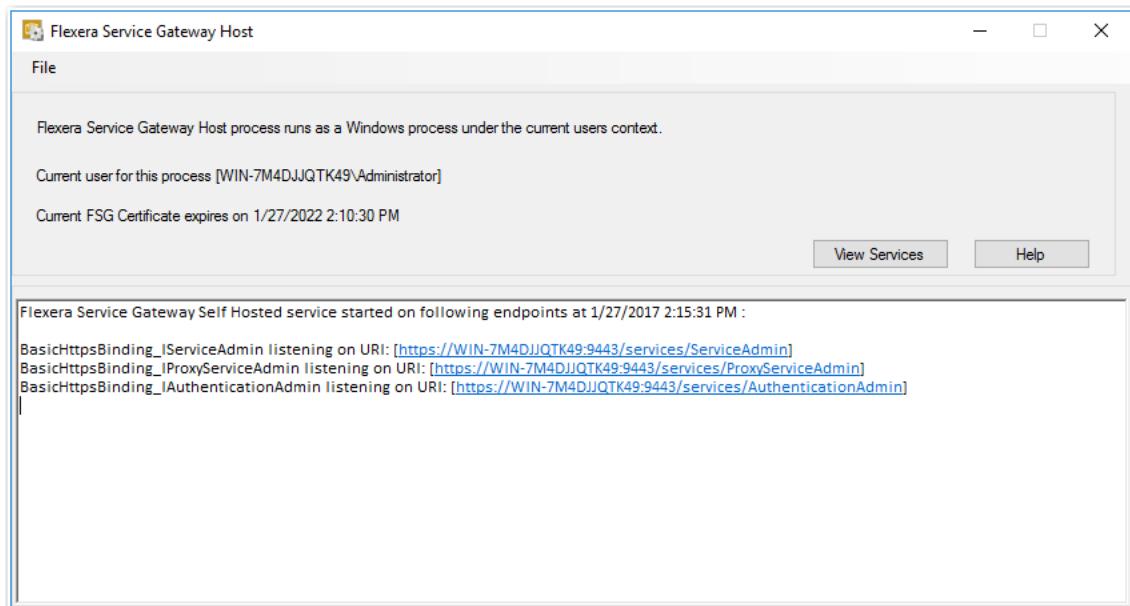
A message will appear stating that the Flexera Service Gateway Host is running.



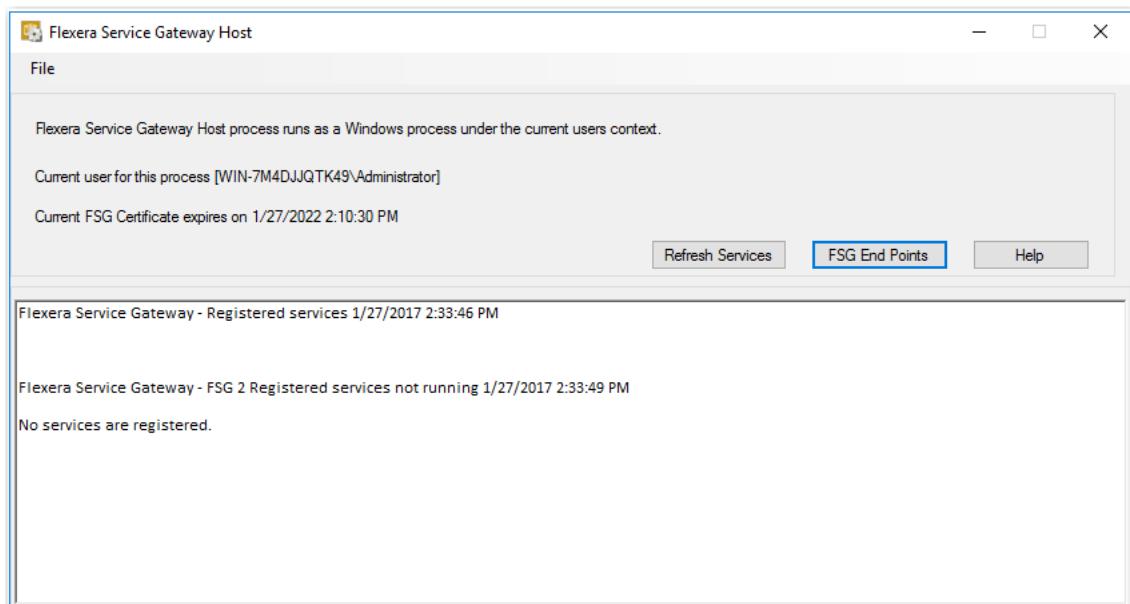
- Locate the Flexera Service Gateway icon in the notification area of the Windows task bar, right-click on it, and select **Show**.



The Flexera Service Gateway Host dialog box opens. Note that the expiration date of the FSG Certificate is listed (which is the installation date plus five years).



- Click **View Services**. Services registered with Flexera Service Gateway will be listed. Initially, no records will be shown.



Flexera Service Gateway 2 is now available for connection and registration to the clients. For new registrations, the client system can be connected now and registered with Flexera Service Gateway 2.

Connecting Applications to Flexera Service Gateway 2

To connect Flexera Software applications to Flexera Service Gateway 2, open each application and enter the name of the server where Flexera Service Gateway 2 is installed. For instructions, see:

- [Connecting FlexNet Manager Suite On Premises to the Flexera Service Gateway](#)
- [Connecting App Portal to the Flexera Service Gateway](#)
- [Connecting AdminStudio to the Flexera Service Gateway](#)
- [Connecting Workflow Manager to the Flexera Service Gateway](#)

Importing Data From Existing Flexera Service Gateway Installation

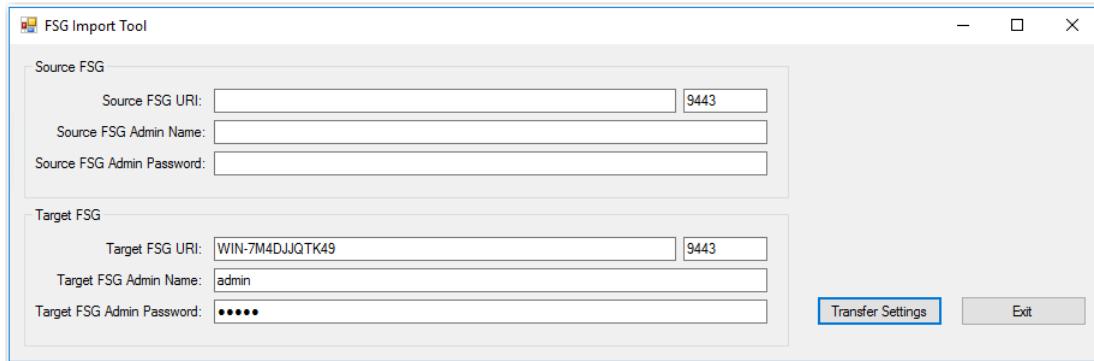
To import registered services from an existing installation of Flexera Service Gateway to Flexera Service Gateway 2, you can use the `FSGImportTool.exe` tool that is installed with the product.



Task

To import data from existing version of Flexera Service Gateway:

1. Open the Flexera Service Gateway 2 installation directory and locate the `FSGImportTool.exe` file.
2. Double-click the `FSGImportTool.exe` to launch it. The **FSG Import Tool** opens.

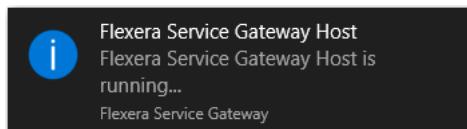


In the **Source FSG** section, you specify from where you want to import the registered service information. In the **Target FSG** section, you specify the location of the Flexera Service Gateway 2 service. Both are the same server and communicate over different ports.

3. Copy the value from the **TargetFSG URI** field to the **Source FSG URI** field.
4. Enter `admin` in the **Source FSG Admin Name** field.
5. Enter `admin` in **Source FSG Admin Password** field.
6. Click **Transfer Settings**. A warning message is displayed stating that existing data will be overwritten and prompting you to confirm the transfer.

7. Click **OK**. A **Transfer Operation completed** message is displayed.
8. Click **OK** to close the message and click **Exit** to exit the **FSG Import Tool**.
9. To verify that the data has been successfully imported, launch the Flexera Service Gateway Host interface by opening the Windows Start menu, and selecting **Flexera Service Gateway > FlexeraServiceGatewayHost**.

A message will appear stating that the Flexera Service Gateway Host is running.

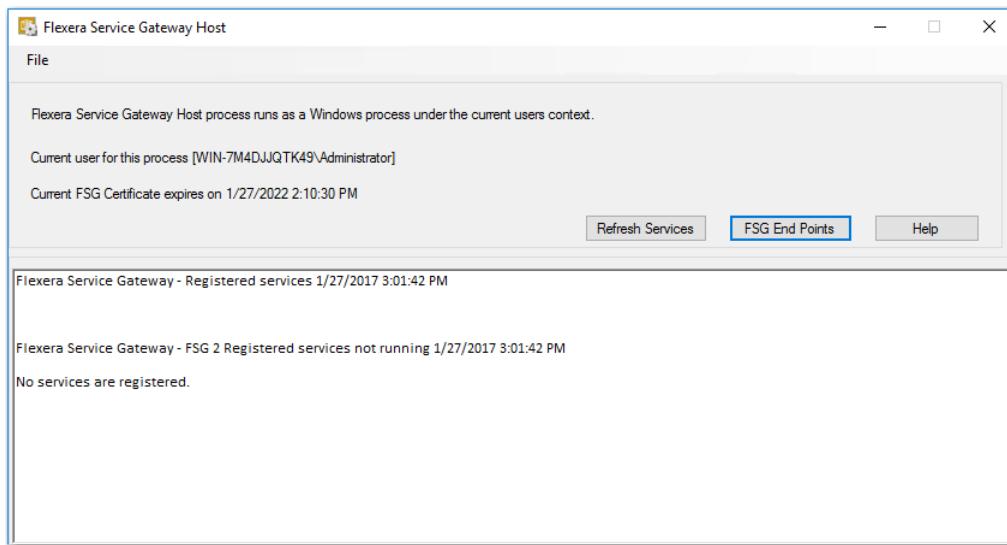


10. Locate the Flexera Service Gateway icon in the notification area of the Windows task bar, right-click on it, and select **Show**.



The Flexera Service Gateway Host interface opens.

11. Click the **View Services** button. All services available with Flexera Service Gateway 2 will be listed (if any).



12. If necessary, continue with the steps in [Connecting Applications to Flexera Service Gateway 2](#).

Flexera Service Gateway 2 Data File

The settings for Flexera Service Gateway 2 are stored in a local data file called `fsg.db3`, which can be found in the following directory:

`[FlexeraServiceGateway2InstallDirectory]/App_Data`

This file is a standalone SQLite file which can be opened using a standard SQLite tool, such as **DB Browser for SQLite** (<http://sqlitebrowser.org>). However, most of the settings are encrypted and cannot be read using such a tool.

The database is portable from one machine to another.

Viewing Certificate Binding With Communication Port

To check if the Flexera Service Gateway 2 certificate is bound to the port, perform the following steps.



Task

To check if the Flexera Service Gateway 2 certificate is bound to the port:

1. Open the Administrator Command Prompt and run the following command:

```
netsh http show sslcert ipport=0.0.0.0:9443
```

The following is displayed:

```
Administrator: Command Prompt
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\system32>netsh http show sslcert ipport=0.0.0.0:9443
SSL Certificate bindings:

IP:port          : 0.0.0.0:9443
Certificate Hash : 88de83678518b711a59343daf2504fb1278a0bb5
Application ID   : {32d87179-012e-457e-8c33-87218276e736}
Certificate Store Name : <null>
Verify Client Certificate Revocation : Enabled
Verify Revocation Using Cached Client Certificate Only : Disabled
Usage Check      : Enabled
Revocation Freshness Time   : 0
URL Retrieval Timeout       : 0
Ctl Identifier           : <null>
Ctl Store Name           : <null>
DS Mapper Usage          : Disabled
Negotiate Client Certificate : Disabled

C:\Windows\system32>
```

2. If necessary, use the following command to clean up the certificate:

```
netsh http delete sslcert ipport=0.0.0.0:9443
```

Troubleshooting

This section provides information helpful to troubleshooting Flexera Service Gateway 2.

- [Frequently Asked Questions](#)
- [Troubleshooting Tips](#)
- [Known Issues in Flexera Service Gateway 2](#)

Frequently Asked Questions

The following is a list of frequently asked questions regarding Flexera Service Gateway 2.

What is Flexera Service Gateway 2?

Flexera Service Gateway 2 is a fast, lightweight, open source Enterprise Service Bus implementation. It supports message routing, inter-mediation, transformation, logging, load balancing, fail over routing, task scheduling, eventing and much more.

Flexera Service Gateway 2 is a Microsoft .NET-based solution for enabling communication between Flexera Software products. This application stores the communication details of the various products and provides those details to the client products requesting them.

What are the technologies used underneath Flexera Service Gateway 2?

Flexera Service Gateway 2 was developed using Microsoft .NET Framework 4.6.1 on Windows Communication Foundation (WCF). Currently, the Flexera Service Gateway 2 product is running based on WCF self-hosting with the help of Windows Task Manager.

What is an Endpoint?

Endpoint is a target or collection of targets that a message can deliver.

Which Flexera Software products currently register endpoints with Flexera Service Gateway 2?

App Portal, AdminStudio, Workflow Manager, and FlexNet Manager Suite / FlexNet Manager Platform currently register endpoints with Flexera Service Gateway 2.

What is the database management system used in Flexera Service Gateway 2?

Flexera Service Gateway 2 ships with an embedded SQLite database.

What is the default user name and password for Flexera Service Gateway 2?

The default user name and password for Flexera Service Gateway 2 are admin/admin. You are not required to use any other user ID or password.

How do I change the default user name and password for Flexera Service Gateway 2?

You are not able to change the default user name and password for Flexera Service Gateway 2, and you are not able to add and delete users.



Important • In previous releases of Flexera Service Gateway, you were able to add and delete users, and reset a user's password. In Flexera Service Gateway 2, this functionality is not supported.

Known Issues in Flexera Service Gateway 2

Flexera Service Gateway 2 has the following known issues:

AdminStudio and Workflow Manager Products Must Incorporate Updated DLL

The AdminStudio and Workflow Manager products must incorporate the `Flexera.Integration.FSG.dll` into their installation directory in order for them to communicate with Flexera Service Gateway 2. This `.dll` file, which can be found in the installation directory of Flexera Service Gateway 2, needs to be copied into the AdminStudio and Workflow Manager installation directories in the locations listed in the following table.

Table 3-2 • AdminStudio and Workflow Manager Installation Directory Location for `Flexera.Integration.FSG.dll`

Application	Installation Directory Location to Copy <code>Flexera.Integration.FSG.dll</code>
AdminStudio	Common
Workflow Manager	Service\Plugins Support\Config wwwroot\bin

Troubleshooting Tips

When troubleshooting Flexera Service Gateway 2 issues, note the following tips:

- **Review logs in Event Viewer**—Any issues related to task start or stop will be logged in the Event Viewer.
- **Review logs in Log folder**—Flexera Service Gateway 2 errors are logged in the Log folder of the installation directory. Reviewing these log files may be helpful when troubleshooting the service.

Index

F

Flexera Service Gateway
 changing the default user name and password [27](#)
 connecting other applications to [24](#)
 database management system [27](#)
 default user name and password [27](#)
 downloading the installer [14](#)
 embedded SQLite database [27](#)
 frequently asked questions [27](#)
 installing [14](#)
 installing to an alternate drive [14](#)
 system requirements [6](#)
 technologies used [27](#)
 user account permissions [6](#)
 WCF [27](#)

M

Microsoft .NET Framework 4.6.1 on WCF [27](#)

S

SQLite database [27](#)

W

WCF self-hosting [27](#)

