Installation Guide

SepioService_24X_IG

Version 1.7 ● December 31, 2019

This Installation Guide provides guidance to those involved in the installation of the application.
This guide assumes that you have some knowledge of Microsoft Windows and the Sepio software suite.

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Sign-Off / Approved By		
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Revision History			
Rev #	Revision Update	Revised By	Date
1.0	Preliminary	Bentsi Ben-Atar	Feb 13th, 2017
1.1	Update	Bentsi Ben-Atar	Apr 19th, 2017
1.2	Update	Iftah Bratspiess	Jul 18th, 2017
1.3	Agent version 1.8X	Iftah Bratspiess	Feb 13th, 2018
1.4	Agent version 1.9X	Iftah Bratspiess	Jun 4th, 2018
1.5	Agent version 1.95	Eran Meshulam	Nov 5th, 2018
1.6	Agent version 1.96	Eran Meshulam	Jan 6th, 2019
1.7	Agent version 2.4.7	Eran Meshulam	Dec 17th, 2019

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About this Guide

This Installation Guide explains how to install the SepioService version 2.4.X. This guide assumes that you have some knowledge of the Windows operating system and the PC environment.

For detailed information regarding features, capabilities, and software introduced with this release, please refer to the documents listed in the "Related Documentation" section.

For the most current version of this document, please visit: http://sepio.systems or contact your sales representative.

Who Should Use It

This Installation Guide provides guidance to System Administrators involved in the installation of the application. It is also for

- System Administrators responsible for installing system and related components

- Deployment Planners plan the deployment of system within your organization

Typographical Conventions

This document uses the following typographical conventions:

Command and option names appear in **bold type** in definitions and examples. The names of directories, files, machines, partitions, and volumes also appear in bold.

Variable information appears in *italic type*. This includes user-supplied information on command lines.

Screen output and code samples appear in `monospace` type.

In addition, the following symbols appear in command syntax definitions.

Square brackets [ ] surround optional items.

Angle brackets < > surround user-supplied values.

The percent sign % represents the regular command shell prompt.

1   Introduction

SepioService is the security agent for providing deep visibility and allowing policy enforcement for USB devices that are connected to the PC.

The SepioService is an independent self-contained software, that can be optionally monitored using the SepioUI component.

SepioService can also be remotely managed by the SepioConsole centralized management application.

1.1   Purpose of this Document

Introduce the system or components to be installed. If applicable, identify any benefits that will arise from this installation, e.g. improved performance, system stability, as well as business, technological, or organizational objectives that may be achieved.

Sample introduction:

This guide covers the installation of SepioService and its related component - SepioUI, including upgrading from older product versions; preparing the system for installation; and troubleshooting information.

1.2   Identification

- SepioService versions 2.4.X.
- SepioUI versions 1.3X.

1.3   Reference Information

- For information regarding SepioConsole please use the separate Installation Guide.

1.4   Points of Contact

- In case of a problem or need for additional information please contact your sales representative or email to support@sepio.systems

2   System Requirements

This chapter includes the following sections:

- Overview of SepioService installation
- Software requirements
- Hardware requirements
- Operating systems and software

2.1   Overview of SepioService Installation

You can install SepioService and SepioUI in one of two ways:

- Locally on each user's computer, as a standalone workstation.
- Using a network deployment tool that is compatible with msi installation packages.

Typically, for a single PC or a small size network the local installation is simpler and easier to deploy. However, larger scales networks that use centralized management and administration tools are usually using network installation with pre-configuring some of the setup parameters.

2.2   Software Requirements

The following software is required to install this application:

- Microsoft Windows Operating System

2.3   Hardware Requirements

The recommended minimum specifications for the workstation include the following:

- Processor - 2GHz or higher
- RAM - 3 GB or more
- Free hard disk space – 1 GB or more

2.4   Operating Systems

SepioService operates on the following operating systems and network software:

- Windows 10
- Windows 8.1
- Windows 7
- Windows Server 2019

- Windows Server 2016
- Windows Server 2012

For detailed operating system version and service pack compatibility information please consult the separate OS Compatibility document.

2.5   Database Support

SepioService does not use a local database.

2.6   Firewall Configuration

SepioService uses several TCP ports for communication between the service and SepioUI and the centralized management console.
In order to support proper operation it is required to allow the following in the firewall:

2.6.1   SepioService to SepioUI

This following socket carries periodic status updated from SepioService to SepioUI:

Source IP	Destination IP	Protocol	Source Port	Destination Port
PC IP address	localhost	TCP	Any	9075

The same socket is also used by SepioUI for sending configuration updates to SepioService

2.6.2   SepioService to Sepio Prime

This following socket carries periodic status reports from SepioService to SepioPrime:

Source IP	Destination IP	Protocol	Source Port	Destination Port
PC IP address	Sepio Prime IP	TCP	Any	80

When the agent is configured to use HTTPS instead of HTTP (see section 3.6 below) the following socket will be in use:

Source IP	Destination IP	Protocol	Source Port	Destination Port
PC IP address	Sepio Prime IP	TCP	Any	443

2.7   Known problems

This section describes known problems and associated resolutions in this version of SepioService.

- Problem when directly upgrading from SepioService 1.69.34 to 1.70.07

DESCRIPTION: When directly upgrading from version 1.69.34 to 1.70.07 on a Windows 10 machine, in some cases the system comes up after Windows restart with a disabled keyboard. This is due to digital signing issues of the driver that is part of SepioService.

RESOLUTION: Use the integrated on-screen keyboard feature of Windows 10 in order to log in. Then uninstall SepioService (via the Add and Remove Programs section in the Control Panel) and reinstall the same version again.

- Problem when directly upgrading from SepioService 1.8X to 1.91 (or above)

DESCRIPTION: When directly upgrading, in some cases the system fails to uninstall the driver part of the previous installation. This is due to a required system reboot to complete the driver removal.

RESOLUTION: When upgrading from 1.8x version, it is recommended to uninstall the existing version (using the msi file or simply from the Windows Control Panel), restart the PC, and then install the new version.

3   Installing the system

Before you start installing the application, make sure you have the necessary resources available to implement the installation.

This chapter describes the procedure for installing system. It includes the following sections:

- Prerequisites
- Preparing to install components
- Upgrading to version 2.4.X
- Starting a local installation
- Network installation
- Uninstalling the system

3.1   Prerequisites

Before you install the system components, you must complete several pre-installation tasks:

- Verify that the Operating System (and Service Pack level as necessary) you intend to install is supported.
- Make sure you have an administrative account privilege on the PC.
- Make sure that you have the proper firewall rules define.
  See section 2.6 above.
- Make sure you know if Centralized Management is planned and required.
  If positive, you need to know the IP address of the management server.
- Make sure you know if Syslog support is planned and required.
  If positive, you need to know the IP address of the Syslog server.

3.1.1   Installation problems

If problems occur, the installation may halt before it completes.

It will then present an installation error log report.

3.2   Preparing to Install the System Components

3.2.1   Components

The following components are provided:

SepioService - The underlying worker service and software driver package.

SepioUI - An optional local user interface application with Windows system tray supports.

3.2.2   64 bit and 32 bit Systems

Please note that there are separate 64bit and 32 bit installation packages of SepioService. It is important to make sure you are deploying the correct one.

For SepioUI there is only one installation package that is compatible with both.

3.3   Upgrading from Version 1.6X

Upgrading the system components from Version 1.6X is straightforward and does not require any special procedures.

Installing Version 1.7X simply replaces the older version while keeping all local configuration information.

3.4   Upgrading from Version 1.7X or Version 1.8X

Base on known problems in several conditions (see section 2.7 above) it is recommended to uninstall the existing version, reboot the machine, and only then install the new version.

3.5   Starting a Local Installation

There are two setup programs that are provided with the system:

- SepioService setup program
- SepioUI setup program (its installation is optional)

3.5.1   Using the Installation Wizard

a.   Insert the installation CD or copy the installation file to the computer.

b.   Double-click on the installation file (for example SepioService_2.4.7.0.msi).

c.   Confirm that you want to perform the installation.

d.   On the next step, you can modify the destination directly. By default, it will install in the Cyber Sepio Systems directory in your Program Files.

e.   On the License Agreement Panel, click I accept the terms in the license agreement, and then click Next.

f.   On the Ready to Install the Program panel, click Install.

g.   The installer will indicate that the installation package is digitally signed by Cyber Sepio Systems Ltd. You need to verify and confirm that and then continue.

h.   On the Wizard Complete panel, click Finish.

3.6   Network Installation

Follow the normal steps according to the documentation of the network installer tool you are using.

As necessary, you can provide installation parameters for SepioService that will configure the way it runs after the installation is complete.
This saves the bothersome process of manually configuring the remote workstations and shorten up the overall setup time.

3.6.1   Network Installation Parameters

SepioService supports the following installation parameters:

Syslog Server Address – A remote server IP address.
If configured, SepioService will automatically send info and alert messages on system events.

Centralized Management Address – The IP address of Sepio Prime - the Sepio centralized management tool.

An example of using both parameters (one line):

```
SepioService_2.4.7.0.msi SYSLOGSERVERADDRESS=212.176.9.35

CENTRALIZEDIP=192.168.100.20
```

It is possible of course to use textual host names and not only numeric IP addresses.

3.6.1.1   Skipping Driver Installation

Starting from version 1.95 it is possible to skip the installation of the Sepio kernel driver that is part of the agent. Make sure you do so only if you understand the circumstances and after consulting with the Sepio support team.

For skipping the driver installation, it is required to add the following command line parameter:

```
DRIVERINSTALL=F
```

3.6.1.2   Using HTTP Instead of HTTPS

By default, the communication between SepioService and Sepio Prime is based on the HTTPS protocol on TCP port 443. In the case that administrators wish to be able to easily monitor this communication it is possible to configure SepioService to use HTTP on TCP port 80 instead.
For configuring the agent to use HTTP and not HTTPs, it is required to add the following command line parameter:

```
HTTPS=F
```

3.7 Installing SepioUI

Follow the same steps from sections 3.4 or 3.5 for installing SepioUI locally or using a network installation tool.

There are no configuration parameters that are needed and supported by SepioUI.

3.8 Uninstalling the System

To uninstall the system, use the Add and Remove programs section in the Control Panel.

SepioUI and SepioService can and should be uninstalled separately.
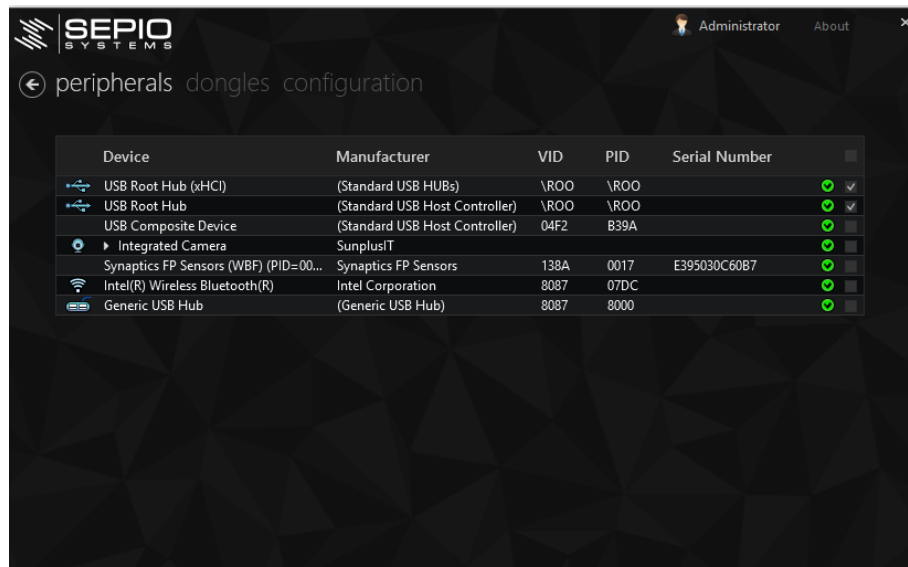
4   Post Installation

This chapter describes activities that you can perform after you install the system.

The below information assumes that the SepioUI package is also installed.

4.1   Verifying the Installation

Click the system tray Sepio icon (diagonal shape of a USB dongle) to open the main window:

When plugging in a new and not approved USB device when the system is in **Free** mode it will appear in yellow:

Please note that at this stage the device inserted (in this case a USB mouse), is presented with an exclamation mark, and yellow colored text to indicate that the device is not approved but still enabled (due to the Free mode settings).

The administrator can change the mode to Armed so that non-approved devices or specific interfaces in approved devices, will be blocked.

Connecting the USB mouse in this case will block the device, as it appears in the following figure:

The USB mouse will now appear with the ⊗ sign and a tool tip which states that the device is not approved and is therefore disabled.
See the following figure:

The user can approve the specific interface or all of them, as a precaution, a USB device that was previously blocked needs to be manually enabled. The user will see the following figure, where the USB device will be marked as approved but not enabled, and colored in yellow.
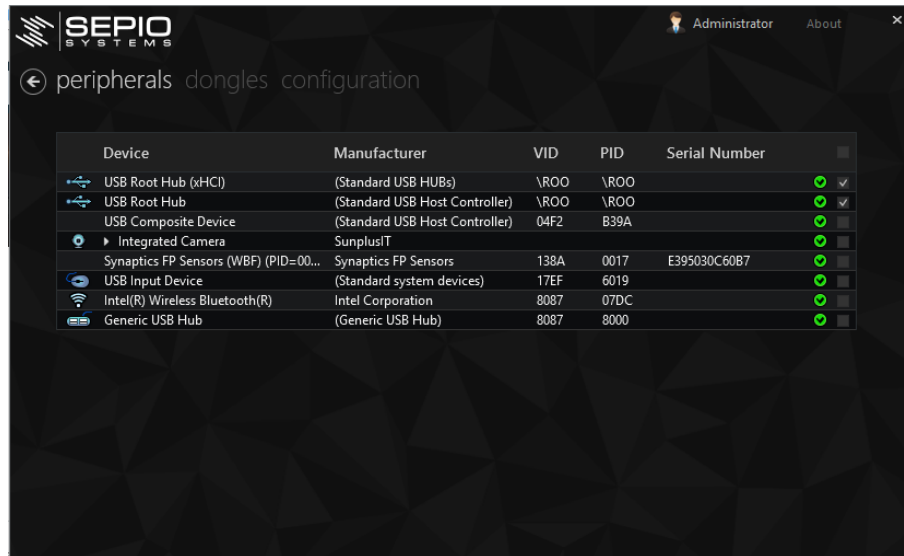

Clicking on the line of the disabled device will allow the user to enable that specific device or all check marked devices as it appears in the following figure:
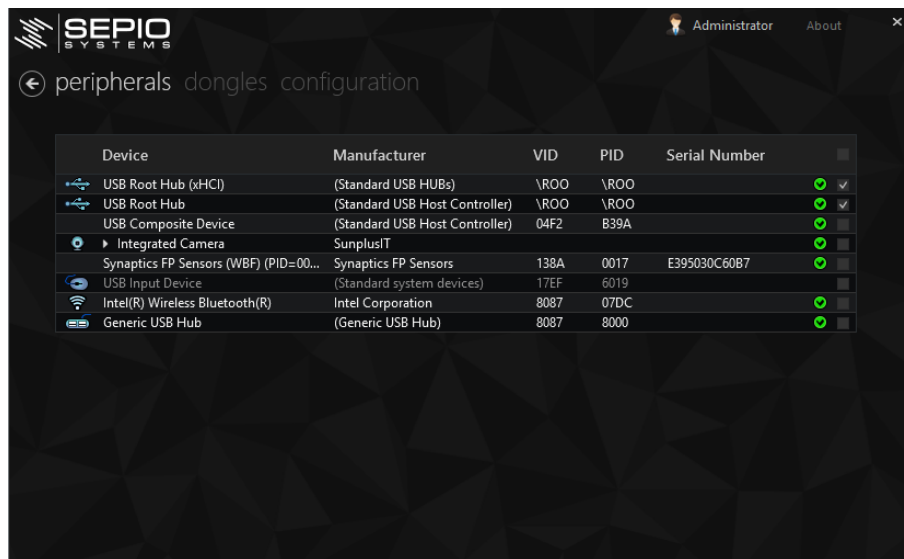

Enabling it will now show that the USB mouse is approved and enabled.

Disconnecting the USB mouse, will leave a grayed-out indication – meant for devices that are approved but not connected and present now:

The user can specify the external interfaces where notifications and events messages are sent upon any change in port status.

4.2   Basic Configuration

The administrator can use the configuration tab to view or set specific system behavior.
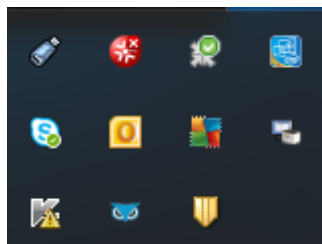

The following parameters can be modified:

- Sepio Prime IP address – main management server managing all deployed agents.
- Syslog server – sends notifications and alerts to a standard syslog server.
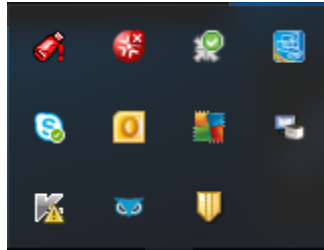- Local logging – specify the folder in which local logs are stored.

4.3   System Tray and Notifications

The Sepio icons, which appear in the icon section in the System Tray follow the status indications illustrated below:
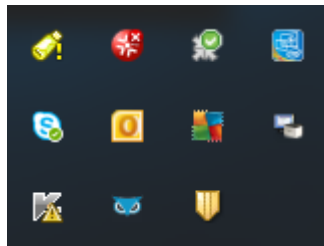
No security exceptions – icon will be colored gray as in the following figure:

When an non-approved device is connected the icon will turn red as in the following figure:

When a device, previously disabled, is now approved and waiting to be enabled, with its status colored in yellow will appear as in the following figure:
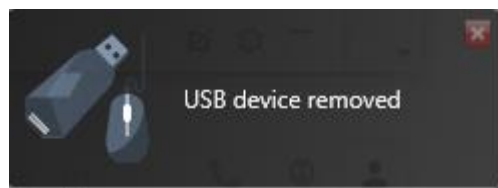

When a USB device is connected to the PC, a momentary pop-up will appear in the task bar indicating to the user of the current security status of the device.

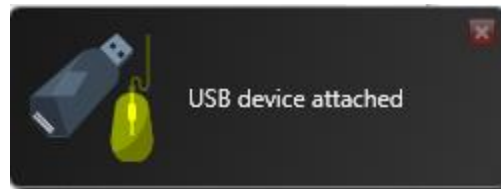When the device is approved and enabled:

When the device is removed the pop-up will appear again with the detach message:

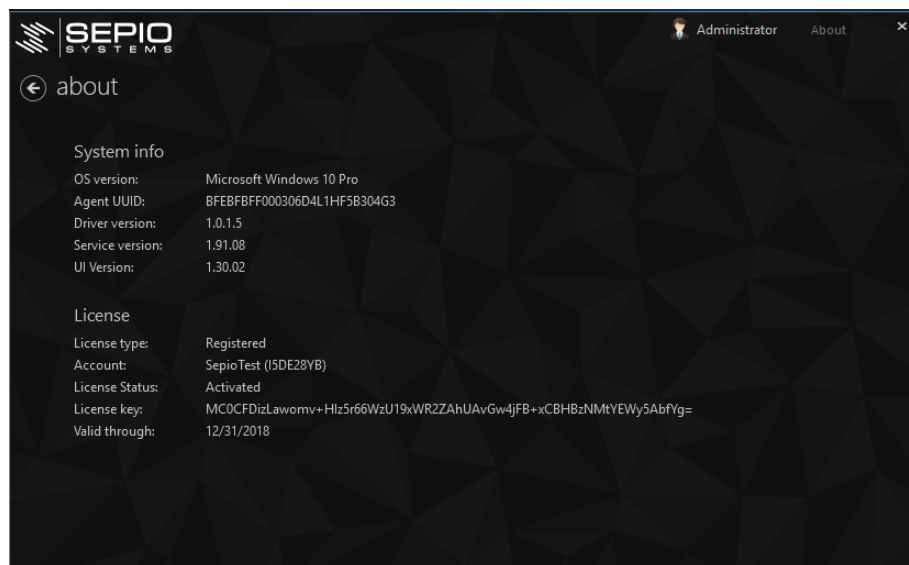A device that will be disabled will appear colored in red:

A device that was previously disabled, and now it is approved will be colored yellow until it will be enabled:

*** Please note that the functionality supported by the **Dongle** tab is relevant when using Sepio USB Uni-directional HID dongle and it is explained in a separate document.

When contacting Sepio Support please be sure to provide the information presented in the **About** tab – as in the following figure:

5 Troubleshooting

If the system is not functioning as expected, please follow the below steps trying to troubleshoot the installation or configuration.

If any of the below steps is not relevant, or if you are unable to find the solution please contact the support team.
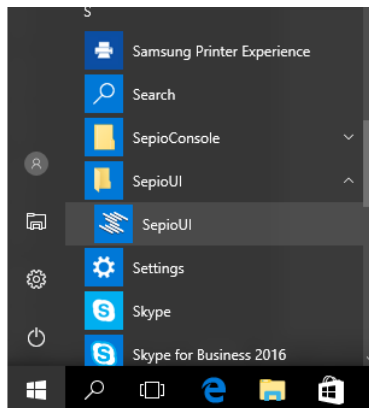
5.1 System Tray Icon Not Present

The SepioUI System tray Icon is not displayed

Problem: SepioUI was not installed.

Solution: Install SepioUI according to instructions in the relevant above section.

Problem: SepioUI was installed but is not running.

Solution: Generally, SepioUI is automatically launched on system startup. In the case it was manually exited you will need to run it again from the Windows menu:
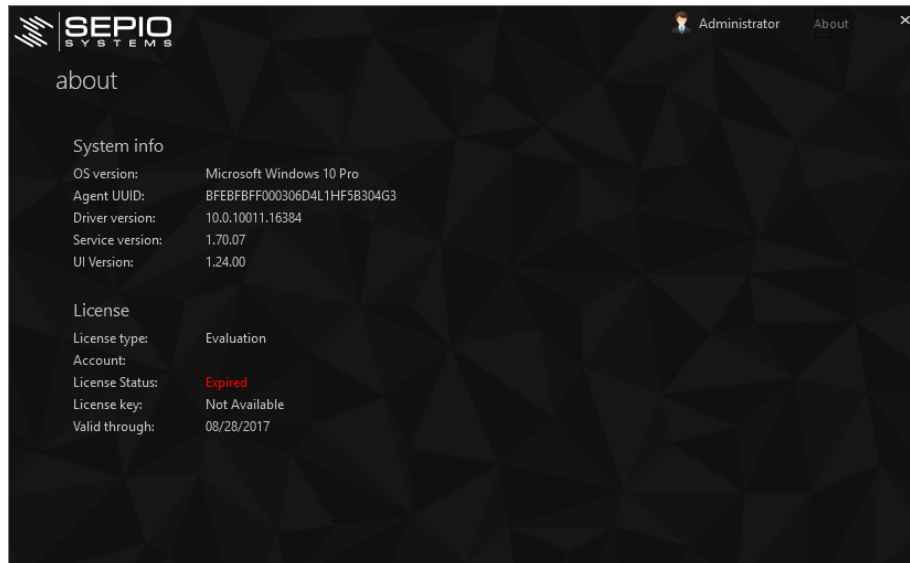

5.2 SepioUI Does Not Show USB Devices

SepioUI is running, but no USB devices are displayed.

Problem: SepioService license has expired.

Solution: Contact your system administrator to renew your subscription license.
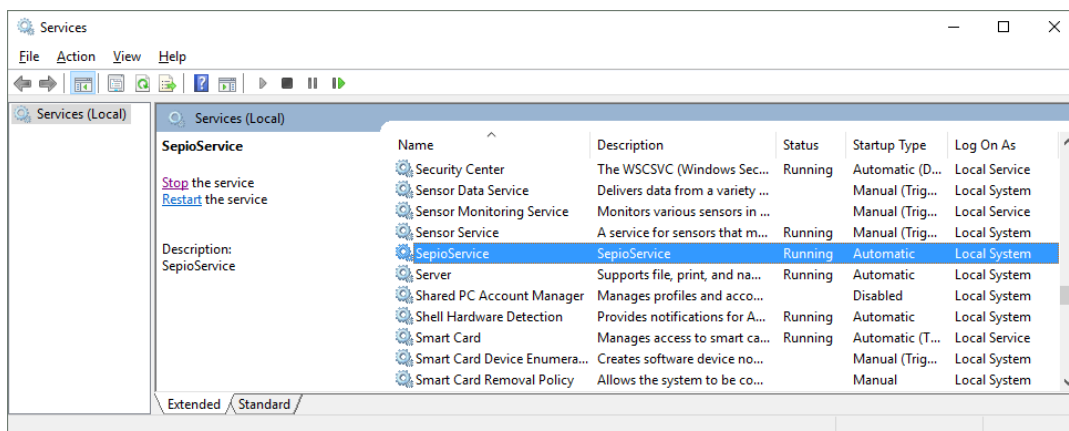
5.3   SepioUI Appears Grayed Out

SepioUI is running, but the display is empty and/or USB devices are not shown.

Problem: SepioService was not installed.

Solution: Install SepioService according to instructions in the relevant above section.

Problem: SepioService was installed but is not running.

Solution: SepioService is a Windows Service, and is therefore automatically launched on system startup. In case it is not running please verify in the Windows Services desktop application that it is configured to start automatically and as necessary use the Start command to run it:
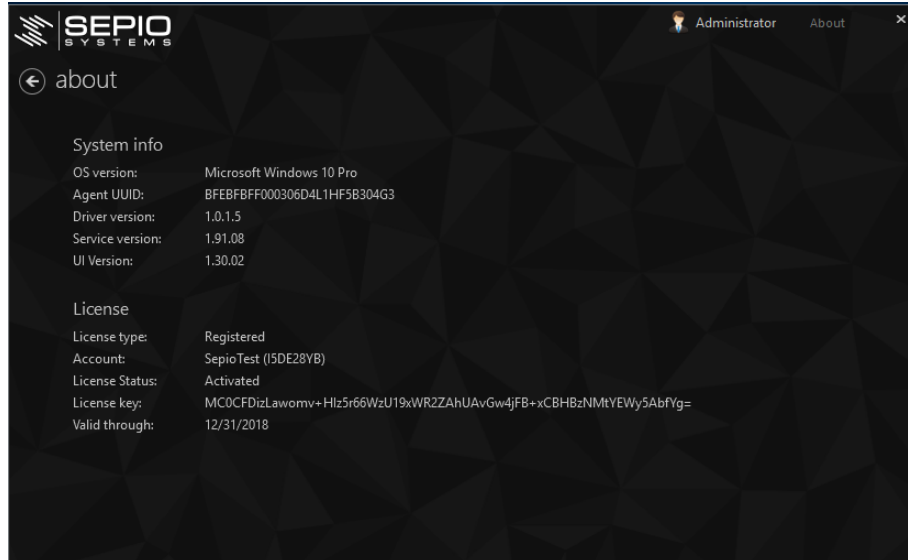

Problem: The firewall is blocking the communications between SepioService and SepioUI.

Solution: Check you firewall logs, and make sure it is properly configured.

5.4   Contacting the Sepio Support Team

When contacting the Sepio support team, please be sure to provide the below identification information:

6   Appendix A: Operating System Compliance

Client OS

Operating System	Service Pack	32 bit	64 bit	CPU / RAM / Disk
Windows 10		X	X	2GHz / 3GB / 1GB
Windows 10 with 1709, 1803, 1909 updates		X	X	2GHz / 3GB / 1GB
Windows 8.1 Update 1		X	X	2GHz / 2GB / 1GB
Windows 8.1		X	X	2GHz / 2GB / 1GB
Windows 8 (Not RT)		X	X	2GHz / 2GB / 1GB
Windows 7	SP1	X	X	1.4GHz / 2GB / 1GB

Server OS

Operating System	64 bit	CPU / RAM / Disk
Windows Server 2016	X	2GHz / 3GB / 1GB
Windows Server 2012 R2 Update 1	X	2GHz / 3GB / 1GB
Windows Server 2012 R2 Essentials, Standard, and Datacenter (including Server Core Mode)	X	2GHz / 3GB / 1GB
Windows Server 2012 Essentials, Standard, and Datacenter (including Server Core Mode)	X	2GHz / 3GB / 1GB