KnowledgeSync™

V10 Installation Manual

1   Welcome to KnowledgeSync!

Welcome to KnowledgeSync ("KS"), the industry's leading Business Activity Monitoring (BAM) technology.

This guide helps you install KnowledgeSync version 10 according to the needs of your organization. We hope you enjoy working with KnowledgeSync and encourage you to contact us with your feedback. Now let's get started with KnowledgeSync!

2   Requirements

2.1   Technical Requirements

The following instructions assume a certain level of computer and software experience and understanding. While the directions are intended to be as user-friendly as possible, if you are not comfortable with the following Windows administrative functions, please refer to your local IT resources for assistance:

- Creating and Sharing Directories
- Activating Windows Components
- Modifying Windows Service properties
- Browsing and modifying the Windows Registry
- Windows user creation
- Adjusting Windows UAC settings
- Knowing your SQL Server Name and Instance Name (if applicable) as well as the name of the database for your Manufacturing software

2.2   System Requirements

2.2.1   Support Platforms

The supported platforms for the KnowledgeSync Server are shown. These are installed by the end user:

- Windows Server 2012 R2, 2016, 2019, or 2022; Windows Workstation 8, 8.1, 10, or 11 (A Server OS is recommended)
- Web server: IIS
- Database Server: Microsoft SQL Server 2012 SP1 or higher, 2014, 2016, 2017, or 2019 (Express, Standard, and Enterprise editions)
- Web Browser: Chrome (version 45 or higher), Microsoft Edge
- Clients (KnowledgeSync users) will access KnowledgeSync via a web browser from their workstations. Supported web browsers are Google Chrome (version 45 or higher) and Microsoft Edge.

These are installed by KnowledgeSync:

- Crystal Reports: Crystal Reports Runtime 13.0.31
- Node.js
- WinWrap Basic

2.2.2 IIS

The IIS components listed below satisfy the minimum requirements to run the KnowledgeSync web application. If other IIS components are enabled, they do not need to be removed.

Web Server	Management Tools

▪ Common HTTP Features
  o Default Document
  o Static Content
▪ Security
  o Request Filtering
  o Basic Authentication
  o Windows Authentication
▪ Application Development
  o .NET Extensibility, up to version 4.7
  o .NET Extensibility
  o ASP.NET, up to version 4.7
  o ASP.NET
  o ISAPI Extensions
  o ISAPI Filters
	▪ IIS Management Console
	▪ IIS 6 Management Compatibility
	  o IIS 6 Metabase
	▪ IIS Management Scripts and Tools
	▪ Management Service

2.2.3 SQL Server

You must have access to Microsoft SQL Server on either your local computer, network, or hosted service.

If using a separate web server (machine hosting IIS) and application server (machine where KnowledgeSync service is installed), both must have the SQL Server Client installed.

2.2.4 Crystal Reports

KnowledgeSync V10 will detect the Crystal Reports Runtime version on your machine and use it to render Crystal Reports. If there is no version of Crystal Reports runtime on the machine, the KnowledgeSync installer will prompt to install version 13.0.33.

2.2.5 Win Wrap

WinWrap is the scripting engine used by KnowledgeSync V10. This product uses WinWrap® Basic, Copyright 1993-2024 Polar Engineering, Inc., http://www.winwrap.com/.

3 Upgrading

Upgrading adds a few steps as shown below. After completing these steps, you must complete the remaining installation steps in this guide.

3.1 From Version 9.x or Older

Before upgrading from a previous version to v10, you must:

- Be running version 8.x or 9.x of KnowledgeSync
- Migrate your KnowledgeSync installation to a SQL Server database. (In v8/v9, open the KnowledgeSync Programs Group and select the option to "Migrate Database to SQL Server".)
- Stop the V9 (or V8) Windows Service.

During the installation process:

- Your existing KnowledgeSync settings database will be backed up.

- All your existing KnowledgeSync data (queries, events, subscribers, etc.) will be carried over to the installation of v10.

After installing version 10, please uninstall the earlier version.

3.2   From Version 10.x

If KS V10.0 has been installed, you must uninstall it before installing KS V10.1.0 or newer versions. Databases will remain intact and all data will be upgraded in place.

If KS V10.1 or later has been installed, you can upgrade by running the latest installer, and the installer will upgrade the older version.

In most cases, after installation you must clear your browser cache (Ctrl-F5 in the browser) for each client browser accessing KnowledgeSync to see the user interface updates for the newer version.

4   Configuring Required Components

4.1   IIS

KnowledgeSync uses a web component requiring that IIS be enabled and that specific IIS components be enabled in Windows. The installation will not be successful if IIS is not detected, and if specific IIS components are not enabled.

To enable IIS and its required components (e.g., on Windows Server 2016), follow these steps:

1. Open Server Manager and click Manage, Add Roles, and Features. Click **Next**.
2. Select role-based or feature-based installation and click **Next**.
3. Select the appropriate server. The local server is selected by default. Click **Next**.
4. Enable Web Server (IIS) and click **Next**.
5. No additional features are necessary to install the Web Adaptor, so click **Next**.
6. On the Web Server Role (IIS) dialog box, click **Next**.
7. On the Select role services dialog box, verify that the web server components listed below are enabled. Click **Next**.
8. Verify that your settings are correct and click Install.
9. When the installation is complete, click **Close** to exit the wizard.

The IIS components listed in section 6.1 satisfy the minimum requirements to run the KnowledgeSync web application. If other IIS components are enabled, they do not need to be removed.

4.2   SQL Server

You must have access to Microsoft SQL Server on either your local computer, network, or hosted service. Before beginning the installation, you must have:

- The network name or address of the SQL Server instance, and
- The username and password of the SQL Server user with read and write permissions to the server so the KnowledgeSync installer can create its databases.

5   Download KnowledgeSync

The first step is to download KnowledgeSync as instructed in your welcome email, or if you are an ECI ERP customer, from your ECI ServiceCloud account.

The installation is password-protected, and you will be emailed the corresponding password upon your submission of the download form. If you did not receive such an email, check your spam, or junk mail folders, or contact KnowledgeSync Support or call 1-800-850-8055.

This guide provides basic instructions that will quickly get you up and running with ECI KnowledgeSync. If you would like to view the detailed installation instructions, you may refer to the KnowledgeSync Manual (see link below under Printed Resources).

This guide provides a listing of the technical and security requirements for installation, a list of resources available to KnowledgeSync Users, and instructions for installing ECI KnowledgeSync Version 10 including the importing of the ECI-provided EventPak. It also includes the necessary steps to configure the installed software. Upon completion, the system should be fully capable of utilizing the ECI-provided Events and will be ready to begin modifying those Events as well as developing Events of unique design.

These instructions assume a single-server setup, where all components of the KnowledgeSync Server will be running on the same machine. If you wish to do a multi-server setup, you may refer to the KnowledgeSync Manual for instructions specific to that configuration.

6 Installation

6.1 Configure IIS Web Server

IIS is a component of Microsoft Windows that may or may not be active on the machine intended for the KnowledgeSync Server. When going through the steps below, the settings mentioned may be active on your system already. This is nothing to be concerned about if another product running on the server has already required these settings.

Each Windows Operating System has a slightly different interface for modifying Windows Components. window To access the window, follow these steps:

1) Hold down the Windows Key on the keyboard and press the letter R. This opens a **Run** prompt.
2) Type **appwiz.cpl** into the Run prompt and press **Enter**.
3) This opens the **Programs and Features** control panel. From there, click the **Turn Windows features on or off** link on the left-hand side.
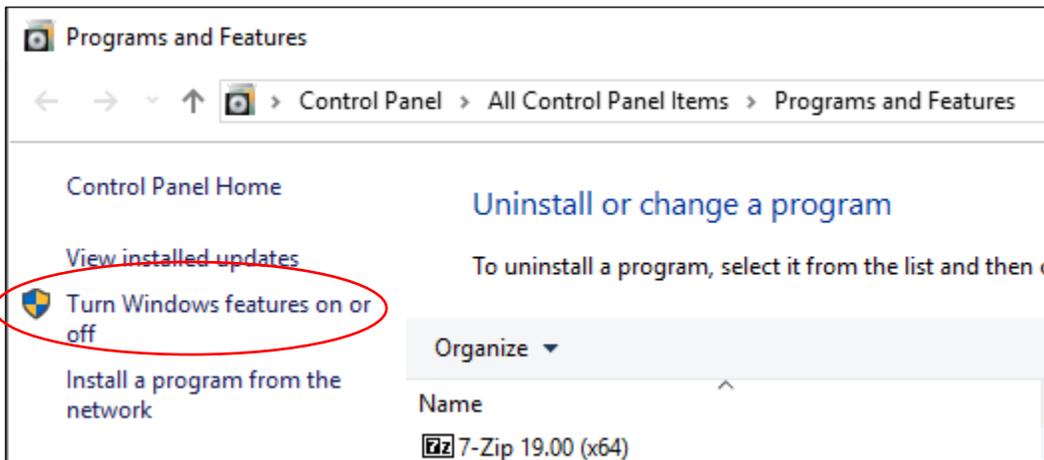
4) Another interface opens where the installed Windows features may be adjusted. Continue until the point of selecting the IIS (Internet Information Services) modules . Once there, ensure the following options under IIS are selected.

Note: *Other selected items are not a problem - listed below are the minimum requirements.*

Web Server	Management Tools
• Common HTTP Features o Default Document	• IIS Management Console • IIS 6 Management Compatibility

o Static Content
• Security
   o Request Filtering
   o Basic Authentication
   o Windows Authentication
• Application Development
   o .NET Extensibility, up to version 4.7
   o .NET Extensibility
   o ASP.NET, up to version 4.7
   o ASP.NET
   o ISAPI Extensions
   o ISAPI Filters
	o IIS 6 Metabase Compatibility
	• IIS Management Scripts and Tools
	• Management Service

5) Once all are selected, click **OK**. The installation of those features begins. Occasionally Windows requests a reboot after the features installation. If this is the case, please reboot before proceeding with the KnowledgeSync Installation.

Troubleshooting Tip: If the Windows features fail on installation, ensure the machine is up to date with all High Priority and Critical Windows Updates, including all reboots requested and then, attempt to add the features again.

6.2   Install KnowledgeSync

1. Download the KS installer to the Downloads folder.
2. Create a folder under the Downloads folder named **Install Files**.
3. Move the downloaded ECI KnowledgeSync setup files into the Install Files directory.
4. Open the file **KSSetup_V10.03.00_Release.zip** file and extract all the files into the Install Files directory.
5. Double-click on **setup.exe**.
6. Once the KnowledgeSync installation begins, a password prompt. This password is (case-sensitive):
   knowledgesync
   Enter it and click **OK**.
7. There are up to four supporting software packages that may need to be installed before KnowledgeSync installs. These include:
   - SQL Server Client
   - WinWrap Basic
   - Node JS
   - Crystal Reports Runtime

If presented with any of these preliminary packages, install the packages using the default options for installation. Any windows that remain open post-installation can be closed.

Note: If a software package, like an ERP for example, is installed on the server that uses Crystal Runtime, prompts for this installation do not appear.

8. Once the supporting installations are completed, the KnowledgeSync installation begins. On the License Agreement window, select the radio button that says, **I accept the terms of the license agreement** and then click **Next**.
9. On the **Setup Type** window, ensure **Complete** radio button is selected, and click **Next**.
10. If the IIS pre-requisites listed in section 6.1 are not installed on the machine, the installation will not continue. The installer will show a popup listing the missing settings, along with the instructions from section 6.1.
    Cancel the installation, update the pre-requisites, and restart the installation.
11. In the Web Site Required Information window, in the TCP Port field, specify the port number to use for the KnowledgeSync web service. It is recommended to use 8082 or a different UNUSED port. Do not use the same

port as the default web site (80) or another port used for a different web application. Please consult local IT resources with any questions regarding this selection.

12. In the Server(s): field, the server where the KS installation will occur is listed. Adjust this only if a multiple server setup is planned where the portal (web server) could run on a different machine than the engine (Windows service). In this case, the server's names should be separated by commas. If performing a single-server setup (most common - and the setup these instructions support), do not change the content of this field and click **Next**.

13. On the Database Server window, enter the SQL Server Name\Instance in the **Database server that you are installing to:** field. This may be something like MyServer or MyServer\SQLExpress. Please consult local IT resources if the server name is unknown.

14. If logged into a Windows account in the **Connect using:** area where there is a SYSADMIN on the designated SQL Server, select **Windows authentication**. If not, or using SQL Authentication is preferred, then select the second radio button and enter the SQL Login credentials for a SQL account with SYSADMIN rights on the designated SQL Server. Then, click **Next**.

15. On the **Ready to Install the Program** window, click **Install**.

16. When presented with the **InstallShield Wizard Complete** window, click **Finish**.

   Note: If upgrading from a previous V10 version, make sure to refresh the cache on all browsers where KS has been launched previously.

17. Open the KS Portal Login screen by using the desktop icon or by navigating to the website.

18. Press **Ctrl + F5** to perform a hard reload of the page.

6.3   The KnowledgeSync Service

KnowledgeSync uses a Windows Service for various functions of the software. Starting with V10.3, the KnowledgeSync Service can be run under the Local System account, no changes should be needed to the logon settings for the service.

6.4   Configuring Firewall Exceptions

If accessing the KnowledgeSync Portal from computers other than the server on which it's installed, ensure that the Windows Firewall on the server permits access. On the KnowledgeSync Server:

1. Hold down the **Windows Key and press the letter R**. The **Run** prompt opens..
2. Type: **wf.msc** and press **Enter**. The Windows Defender Firewall with Advanced Security window opens.
3. If the Windows Firewall is inactive on this machine, the following screen opens:
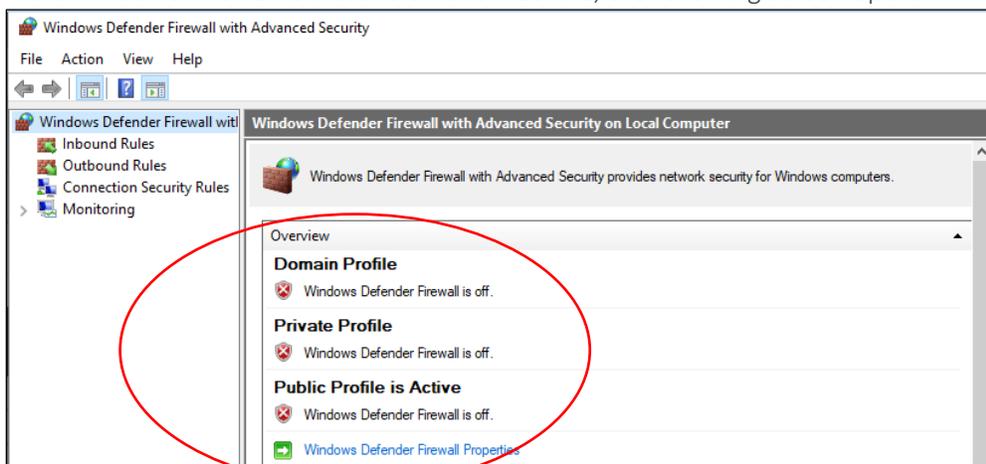
   Technically, no further action if this window opens.
4. If the Windows Firewall is active, the following screen opens:
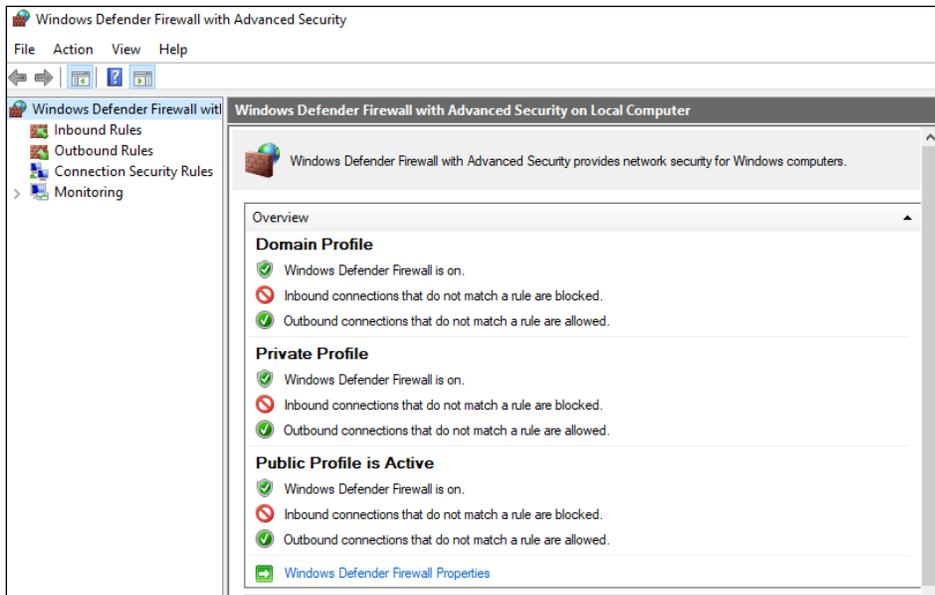
If this window opens, further action is required on this server.

Note: Only a portion of profiles may be turned on in the firewall settings window, but if any of them are, make sure to add an exception. **Users may choose to add the exception if the Windows Firewall is turned off, because occasionally Windows Updates turns the Firewall Profiles back on without warning.**

6.4.1 To add a Windows Firewall Exception

1. In the Windows Defender with Advanced Security window, click **Inbound Rules** on the left.
2. On the right, click **New Rule…**
3. In the New Inbound Rule Wizard window, select the radio button for **Port**, then click **Next**.
4. Select the **TCP** and **Specific local ports:** radio buttons.
5. In the Specific local ports: field, enter 8082, *or whichever port that was defined during the KnowledgeSync installation.* Then, click **Next**.
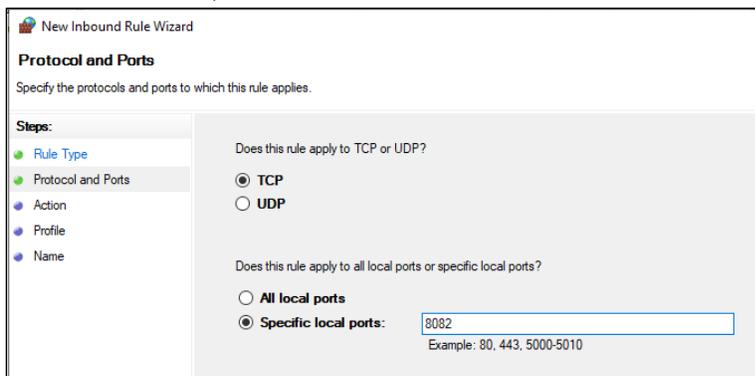
6. Select the radio button for **Allow the connection.** Click **Next**.
7. Check all three boxes for which profiles the exception applies. Click **Next**.
8. For the Rule name, enter: **KS - TCP Port 8082 for KnowledgeSync Web Service** (modifying the name if a different Port was defined for the KnowledgeSync web service). Click **Finish**.

A new Inbound rule now appears in the roles list excepting connections to the defined port for KnowledgeSync.

6.5   Accessing KnowledgeSync

6.5.1   From the KnowledgeSync Server

Once the KnowledgeSync installation is complete, icon appears on the desktop labeled Portal with a KnowledgeSync logo on it. To access KnowledgeSync, double-click this icon which executes a web browser opening the KnowledgeSync web interface. A prompt for a username and password opens. By default, these values are:

- Username (not case-sensitive): Admin
- Password (case-sensitive): password

This password can also be changed after the initial login by clicking on the admin icon in the upper right side of the window and selecting **Profile**.

> Note: Microsoft Edge or Google Chrome web browsers must be used to access the KnowledgeSync Portal.

6.5.1.1   Encrypt KS Connection Strings

To ensure security, customers are encouraged to encrypt their KnowledgeSync connection strings. (The default is unencrypted.)

Portal:

1. Right-click on the KS *Portal* icon on the desktop.
2. Select **Open File Location** and click on the **KSPortal** folder.
3. Right-click on the *Web.config* **file and** open with Notepad (Run as Administrator) or Notepad++.
4. Change the flag **<add key="EncryptConnectionString" value="false" />** to **<add key="EncryptConnectionString" value="true" />** and save.
5. Close the browser and open the portal in browser to login again. The change takes effect after logging in again.

Desktop Service:

1. Right-click on the *Desktop Service* icon on the desktop.
2. Select **Open File Location** and click on **KSService** folder.
3. Right-click on *KSService.exe.config* file and open with Notepad (Run as Administrator) or Notepad++.
4. Change the flag **<add key="EncryptConnectionString" value="false" />** to **<add key="EncryptConnectionString" value="true" />**
   The change takes effect when restarting the service.

6.5.2   From Network Clients

The KnowledgeSync web application can be accessed from any machine on the network that can browse to the web service on the server. Open the desired web browser, and in the address line enter the following:

```
http://XXX:8082
```

Substitute the network name or IP Address of the KnowledgeSync server for XXX.
If a port other than 8082 was specified during the installation, substitute that port number for 8082 in the URL.

7   Apply Your KnowledgeSync License

Upon logging in to the KnowledgeSync Portal, a reminder to update the license opens. Tenant admins should receive an e-mail with an attached .txt file that includes license information. If this information is not available, contact the organization's Sales Rep to have it re-sent.
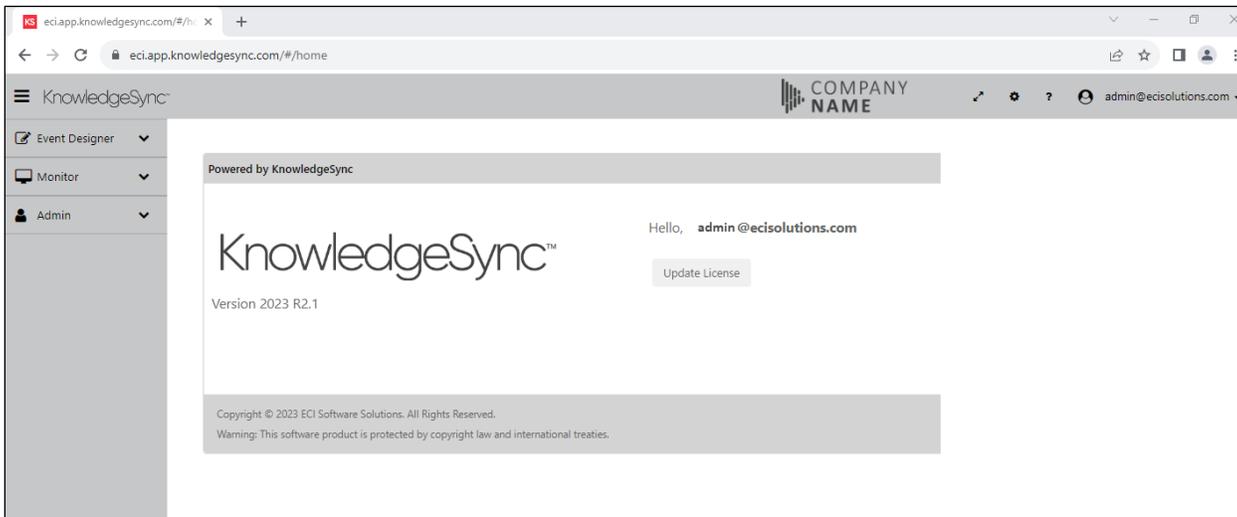
1) Click the **Update License** button in the middle of the workspace.
2) In the Update license window enter the information into the fields EXACTLY as listed in the License text file received.

   The License Code is tied to the Licensed Server Name. If an incorrect server name was provided to generate the license, it will need to be re-generated with the correct server name. Contact the Sales Rep if this is the case.

3) Click the **Save** button. The Home screen now reflects the tenant's license information.
4) Restart the KnowledgeSync Service.
5) Hold down the Windows Key and press the letter R.
6) Type: **Services.msc** in the Run Prompt.
7) Press **Enter.**
8) Find the **ECI KnowledgeSync** service, right-click on it and then, select **Restart**.

8   Configuration

The installation of ECI KnowledgeSync is complete. The next step is configuration. See the KnowledgeSync User Manual Section 1: Configuration.

9 Appendix: Moving Your Server

If you are moving your KnowledgeSync software to a new server, please complete the following steps. These steps apply only if moving the software and using the same version on both servers. If moving the server and upgrading, first upgrade the existing server, and then use these steps to move.

9.1 Maintenance and Support Agreement

ECI provides new license keys and migration support to users with a current maintenance and support or subscription agreement.

9.2 Install KnowledgeSync on the New Server

Preconfigure the new server. Use the KnowledgeSync installer to install the software on the new server.

9.3 Database

If the SQL Server databases are on the same server and need to be moved, create a backup of the KnowledgeSync databases in SQL Server. Restore those databases on the new server.

9.4 Configuration Files

Move the configuration files.

9.5 License

Contact ECI to get a new license key. The license key is specific to the organization's server name, so please provide the computer name in the request.

10 Appendix: KnowledgeSync Backups and Maintenance

10.1 Backups

Users need to configure the backup and maintenance of their KnowledgeSync databases. The three new databases to address are called **KS_Inbox, KS_Object** and **KS_EPak**. If needing assistance configuring these backups, a consultant may be contracted to assist from the consulting team assigned to the contracted Manufacturing package.

These backups as well as *the entire KnowledgeSync folder where the application was installed* should be backed up off server the same way other files are backed up for off server storage and disaster recovery.

10.2 Logging Guidance

During the normal course of operation and execution of events, KnowledgeSync can create a lot of updates in the KS_Object database which can cause SQL database logs to grow.

ECI recommends customers review the SQL Server guidance with respect to recovery models and use the settings that are appropriate for their environment, and as recommended by their DBAs and IT departments.

If log space is an issue, the KnowledgeSync databases can be set to Simple recovery model. This eliminates log backups. ECI recommends periodic manual backups to protect the data in these databases.

Reference: Recovery Models (SQL Server)

10.2.1 Scripts to Update Recovery Model to Simple

Download and extract the scripts in the following link. Run the scripts in SQL Server Management Studio to set the recovery model to Simple and truncate existing logs.

UpdateKSRecoveryModel.zip

Refer to SQL Server documentation for more information on recovery models and how to set them through SQL Server Management Studio.

10.3 Maintenance

KnowledgeSync can monitor itself using a free tool called the Event WatchDog EventPak. This EventPak does not require a license connection. The WatchDog monitors for such items as:

- Event errors
- Alert delivery errors (e.g., an invalid pager PIN)
- Too many alerts
- Too many alerts to one person
- Form, document, or report generation errors
- Workflow errors
- Alerts or actions pending for more than 'x' minutes

11 Appendix: Helpful Resources

There are several resources available to you for your endeavors into KnowledgeSync.

- [KnowledgeSync Resources](#)
- [KnowledgeSync Support](#)
- [KnowledgeSync Documentation Assets](#)