CenTran 5 Getting Started Guide KABA MAS

Kaba Mas Welcome

Kaba Mas, part of the world-wide Kaba group, is the world's leading manufacturer and supplier of high security, electronic safe locks. Its complete line of self powered, battery, and mechanical locks meets virtually every safe lock requirement. Kaba Mas is dedicated to satisfying end-user needs for security, safety, and convenience. We welcome you to the world of Kaba Mas security and the Cencon lock.

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Manual Conventions

This CenTran Getting Started Guide contains information on the installation and set up of the hardware and software required to manage locks. Some conventions that are followed are:

- The Smart Keys needed for a particular operation will be shown beside the flowcharts that describe the operation.
- Input to the PC will be shown in **bold type**.
- The screen samples may not look exactly as they do on your system depending on which version of the Windows operating system you are using.
- · Highlighted items:

Note

Indicates a point to consider.

Helpful Hint

Indicates a technique or method that works well.

Caution

Indicates the need for care and caution to be observed during a procedure or process.

Warning

Indicates the possibility of loss of data or system integrity.

Before reading the CenTran Getting Started Guide, you should be familiar with basic Windows concepts and techniques. For detailed information, refer to your Windows documentation.

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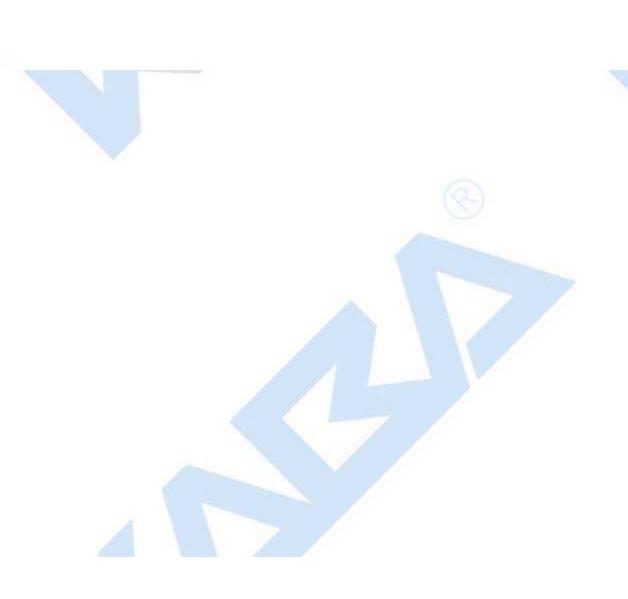
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CenTran 5 Getting Started Guide

The CenTran Version 5 Package

The CenTran 5 implementation package includes:

- The CenTran Version 5 Install source (DVD, USB drive, or download)
- CenTran 5 Getting Started Guide
- CenTran 5 XML Programming Manual Included on install source (DVD, USB drive, or download) in electronic format
- CenTran 2 Programming Guide Included for legacy CenTran use on install source (DVD, USB drive, or download) in electronic format

If you are missing any of the above items, contact Kaba Mas Customer Service at 1(800) 950-4744

CenTran 5 System Requirements

To use the CenTran program, the following minimum hardware and software requirements must be met:

• IBM compatible PC that is capable of running the Windows OS's listed below and has an available USB port for the Kaba Mas USB Key Box.

Note

The Cencon Key Box requires a fully compliant USB 2.0 connection. Some computers, especially laptops and notebooks, may not provide sufficient power for the Cencon Key Box. In these cases it may be necessary to use a powered USB hub to attach the Cencon Key Box. On laptops or notebooks with "power saving" features that turn off USB power, the computer's Operating System (OS) could disconnect from the Cencon Key Box. In this instance, after awakening the computer and CenTran 5 software, unplug and re-plug the USB cable between the computer and the Cencon Key Box.

- 4 GB RAM Minimum (8 GB RAM or higher is recommended.)
- If your install source is a DVD, a DVD Drive is needed. The install source can be a DVD, USB drive, or download.
- Hard Disk Drive with at least 50 megabytes disk space free
- Please note that systems running more than 25,000 locks should run at higher than 4 GB RAM to ensure optimal system performance. (Please refer to Appendix D of the Cencon Reference Manual for more information.)

Important Note

If you are upgrading from a previous version of Cencon and CenTran, you should also allow ample disk space for database growth.

- Windows 7 32/64-bit, Windows 8, Windows 2008 Server 64-bit or Windows 2008 R2 Server 64-bit.
 - You must be logged into Windows with Admin authority
- An installed Database Management System (DBMS) Microsoft SQL Server SQL 2008 R2 or 2012 (including the SQL Server Express, Standard, or Enterprise Editions) or Oracle 12c or higher.
 - The DBMS installation does not have to be on the same computer as CenTran. You will need to have a valid ODBC connection to the DBMS for CenTran to use.
 - The above computer requirements do not include the requirements for the DBMS. If the DBMS is being run on the

same computer as CenTran, then the total requirements will be the requirements of CenTran plus those of the DBMS.

• The requirements of the DBMS installation will vary depending on the number of locks and users being used by Cencon and CenTran and the number of Cencon and CenTran installations connected to that DBMS.

Note

If you do not have an existing Microsoft SQL Server database, you can download a free copy of the latest Microsoft SQL Server Express Edition from the Microsoft web site at http://www.microsoft.com/express/sql/default.aspx You should also download and install the SQL Server Management Studio.

Be sure to read the related Microsoft information on system requirements and prerequisites for these components. Contact Kaba Mas Technical Support for additional information.

Note - The screens shown in the CenTran Software manuals were captured on a Windows 7 system. Your screens may look slightly different.

Important Note

CenTran 5 also requires an operational Cencon 5 system and associated database, either locally or on a network accessible computer. It is not compatible with previous versions of Cencon System 2000 software.

PC Hardware Installation

Note

The Cencon Key Box is not included with the CenTran 5 program package and must be purchased separately if not already installed on your PC system. See the Cencon 5 Getting Started Guide for Key Box installation instructions.

Important Note

Running the Cencon 5 software and the CenTran 5 software concurrently on a PC system is not recommended.

Before Installing the CenTran 5 Software

Warning

If you have not already contacted Kaba Mas Customer Service at 1(800) 950-4744 in preparation for your installation of CenTran 5, you must do so at this time to review minimum system requirements and database setup for your installation of CenTran 5, and to perform data validity checks on any current Cencon data.

Warning

During the CenTran 5 configuration process, you will be required to enter a unique four digit Company Number/ID. If you are a branch of a larger company, this ID must be identical to that used for all other Cencon and CenTran installations by your company. It is helpful to determine what the four-digit number is before you begin the installation process.

CenTran Version 5 Getting Started Guide

Cencon ATM Cash Vault Security System Product Overview

The Challenge

While the front of ATMs are accessed by customers with individual cards and PINs, the back of the ATM is often accessed by service personnel from multiple companies all using the same lock combination. Bank employees, cash replenishers, technical service reps, repair personnel all using the same combination to open an ATM safe poses a significant security risk.

The Solution

The Cencon ATM Cash Vault Security System from Kaba Mas is designed to combat insider theft from ATMs through the combined use of lock hardware, systems software and Smart Keys. The Cencon system offers total access control and accountability with its One Time Combination feature. The One Time Combination is dispatched from a central location and cannot be reused at a later date, thus eliminating temptation.

The Cencon ATM Cash Vault Security System allows locks located anywhere in the world to be controlled and monitored from one central location.

The central location consists of

- A database describing locks, lock administration personnel, lock service personnel, lock access details and history.
- Kaba Mas software that
 - Manages the creation and distribution of One Time Combinations(OTC).
 - Tracks the status of each lock and user.
 - Provides audit capability.
 - Can be used interactively by a human Dispatcher or programmatically by customer applications such as IVR or Web base interfaces.

The software provided by Kaba Mas consists of

- Cencon Interactive Application: Interactive Central Point of Control
 - Used to create, distribute, manage One Time Combinations (OTC).
- CenTran Service: Background Central Point of Control
 - Used by customer, 3rd party applications to create, distribute and manage OTCs.
- CenTran Web Services: Used by customer web applications to communicate with CenTran Service.
- CenTran Agent
 - Remote lock management: Allows CenTran Service to communicate with ATM lock, streamlining lock administration.
- · Key Box Agent
 - Remote key management: Allows CenTran Service to communicate with remote key boxes, supporting decentralized lock personnel.

The Cencon ATM Cash Vault Security System supports three Modes of Operation:

FLM Mode

Designed for First Line Maintenance (FLM) personnel such as cash replenishers, technical service reps, repair personnel, the FLM mode of the Cencon lock permits the dispatch center to give a One Time Combination (OTC) for ATM lock access to a technician "on the fly." FLM personnel are each issued a Smart Key and call their dispatch center to request a One Time Combination. Once used, this combination will not function again, thus ensuring absolute access control. Once the Cencon unit is locked, a Close Seal code is displayed on the lock's LCD. Entering this Close Seal into the dispatch center's computer documents that the Cencon lock is locked and secure.

Route Mode

While permitting the same access control as FLM Mode, Route Mode additionally permits pre-defined routes for armored cash replenishers. Route personnel are each issued a Smart Key. A route of locks, along with an OTC for each lock on the route, may be assigned by a dispatch center permitting route personnel to access a series of locks without contacting their dispatch center at

each individual lock. Route personnel can either call their dispatch center at the end of the shift to report the Close Seals, or the Close Seals can be read from the Smart Key by the Cencon software.

Bank Mode

Bank Mode is designed for bank personnel who may need access to the Cencon system lock but do not wish to operate through a dispatch center. Smart Keys and combinations are issued to bank personnel who may unlock the Cencon lock at any time. An internal audit trail tracks all activity of bank personnel just as it does for FLM and Route personnel. Kaba Mas Cencon software permits bank administrators to manage Bank Mode on site. Bank users may be added or deleted and audit trails may be downloaded from the lock.

High Level Overview of Cencon ATM Cash Vault Security System Component Architecture

The Cencon ATM Cash Vault Security System consists of several components whose method of use will vary depending on the business model of the supported enterprise. Presented here is a brief high level overview of the Cencon ATM Cash Vault Security System components.

Cencon Database:

- Defines locks to be controlled, monitored and audited.
- · Defines personnel allowed to access locks.
- Defines Personnel allowed to control access to locks.
- Contains access history for each lock.

Cencon Application:

- Interactive, graphical Windows application used to manage the Cencon Database contents.
- Requires a Cencon Key Box be attached to a USB port of the same computer.

CenTran Service:

- Available for use by customer applications to manage the Cencon Database contents.
- Applications communicate with the service via files or HTTP / Web Services.
- · Runs in background as a Windows Service.

CenTran Web Services:

• Available for use by web applications to manage Cencon Database contents.

Customer Application Using CenTran Service Command File:

- The CenTran Service performs actions against the Cencon Database per commands imbedded in files.
- Results of those actions are reported in output files created by the CenTran Service.

Customer Application Using CenTran Web Services:

 The CenTran Service performs actions against the Cencon database per commands received via the CenTran Web Services. • Results of those actions are reported to the customer application via the CenTran Web Services.

CenTran Agent:

- Allows CenTran Service to monitor lock in a real time manner.
- · Runs on the ATM in the background as a Windows Service.

Key Box Agent:

- Allows CenTran Service access to Cencon Key Boxes on remote systems.
- Runs on remote Web Client systems in background as a Windows Service.

Customer Web Client:

- Customer developed web browser based user interface used to manage Cencon Database contents as well as Cencon Smart Keys via the CenTran Web Services.
- Can be located remotely.

Cencon ATM Cash Vault Security System Components and Business Processes

Examples of Business Processes Supported by Cencon ATM Cash Vault Security System Components:

- 1. FLM (First Line Maintenance) Operations with human Dispatcher:
 - 1. FLM personnel reaches ATM and contacts Dispatcher requesting OTC.
 - 2. Dispatcher generates OTC via Cencon interactive application, gives OTC to FLM personnel.
 - 3. FLM personnel opens and closes lock, recording the Close Seal.
 - 4. FLM personnel gives Close Seal to Dispatcher who enters it into Cencon database via Cencon interactive application.
- 2. Route Operations with human Dispatcher:
 - 1. Before starting route, Route personnel contacts Dispatcher and requests OTCs for each lock on route.
 - 2. Dispatcher generates OTCs via Cencon interactive application, gives OTCs to Route personnel.
 - 3. Route personnel opens and closes each lock on route, recording Close Seals.
 - 4. When the Route has been completed, the Close Seals are given to the Dispatcher who enters them into the Cencon database via Cencon interactive application.
- 3. FLM Operations with IVR (Interactive Voice Response) system:
 - 1. FLM personnel reaches ATM, calls IVR system and requests OTC.
 - 2. IVR system generates OTC via CenTran Command File interface and reports OTC to FLM person.
 - 3. FLM personnel opens and closes lock, recording the Close Seal.
 - 4. FLM personnel calls IVR system and enters Close Seal.
 - 5. IVR system records Close Seal in Cencon database via CenTran Command File interface.

Though business processes will vary between companies there are core lock management tasks that will be used in every enterprise such as:

- Create User and Initialize Smart Key
- Delete User
- Dispatch Lock
- Open / Close physical lock

Close Lock in Cencon database

- Reassign Lock
- Audit Lock
- Audit Key
- · Audit Cencon Database

The following lists describe for a few of the core lock management tasks one possible flow of control through the Cencon ATM Cash Vault Security System components.

Create User and Initialize Smart Key:

- · Dispatcher ->
- Customer Web Client ->
- CenTran Web Services ->
- CenTran Service ->
- CenTran Web Services ->
- Key Box Agent (writes KEY) ->
- CenTran Service ->
- CenTran Web Services ->
- Customer Web Client

Note:

- Customer Web Client & Key Box Agent will probably be on same location but do not have to be
- Customer Web Client does NOT require a Keybox on the same system

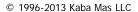
Dispatch Lock(s):

- · Dispatcher ->
- Customer Web Client ->
- CenTran Web Services ->
- CenTran Service ->
- Cencon Database ->
- CenTran Service ->
- CenTran Web Services ->
- Customer Web Client ->
- Dispatcher receives OTC
- Dispatcher transmits OTC to FLM/Route personnel

Lock is physically opened and closed:

• Service personnel calls Close Seal in to the Dispatcher who "Closes Lock" in the Cencon Database. The component flow is the same as that described for Dispatch Lock(s).

- OR
- CenTran Agent Service on ATM uses CenTran Web Services to report Closure to CenTran Service and "Closes Lock" in the Cencon Database programmatically:
 - Lock is closed ->
 - CenTran Agent ->
 - CenTran Web Services ->
 - CenTran Service ->
 - Cencon Database ->
 - CenTran Service ->
 - CenTran Web Services ->
 - CenTran Agent



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Software Installation and Setup

Complete the following steps to install the software:

- 1. Check the PC Date and Time Properties (date, time, time zone, DST adjustment setting) from the Control Panel to ensure accuracy. Adjust, if necessary, before proceeding.
- 2. Ensure that no other programs are running.
- 3. If you have a previous version of Cencon installed, you should ensure that data has been archived in accordance with the customer archive requirements and then backup the current Cencon database.
- 4. If your install source is a DVD, insert the Cencon 5 Install DVD in the appropriate drive. The install source can be a DVD, USB drive, or download. If you have autorun enabled on your system, the Cencon 5 Installation screen will be displayed. Otherwise, double click **Autorun.exe** from the CenTran 5 install source (DVD, USB drive, or download) root directory, and the CenTran 5 Installation screen will be displayed.

The CenTran Version 5 Software Installation dialog is loaded and the Main Menu is displayed:



- 5. From the Main Menu, click on the Install button.
- 6. Depending on your operating system, either the 32 or 64-bit CenTran install page is displayed:



You will now need to install the SQL 2008 R2 ODBC Driver for CenTran. Click on the SQL ODBC Driver button.

7. Next, click on the CenTran button on the CenTran install page.

Note

CenTran 5 only supports the Cencon Key Box.

Operating System Root Certificate Authority Certificates

If your operating system is very old, such as Server 2003, or is not up to date with the Microsoft operating system updates, you may have to install updated operating system Root Certificate Authority Certificates for the Cencon USB Keybox driver installation to run correctly. An install of these certificates is provided in the **TrustedRootCAUpdates** directory on the install source (DVD, USB drive, or download).

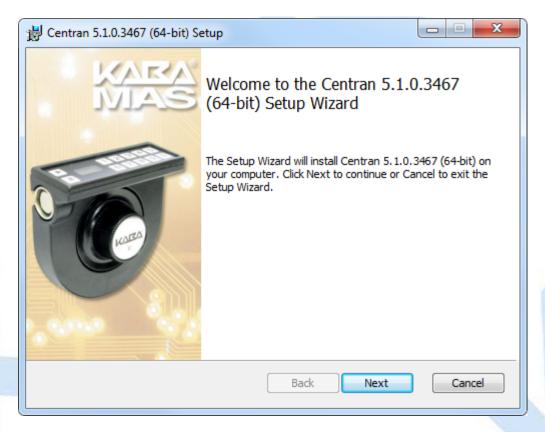
Windows Installer Service (MSIEXEC) version for Windows XP

If your operating system is very old, such as Server XP, or is not up to date with the Microsoft operating system updates, you may have to install an updated version of the Windows Installer Service. The CenTran installation requires at least version 4.5 of the Windows Installer Service.

To determine the version of the Windows Installer Service, run the following from the command line: msiexec /?

You can find various installs to update the Windows Installer Service in the following directory of the install image: Install\WindowsInstaller4_5

The "Welcome to the CenTran Setup Wizard" screen is displayed. The installer is a Windows program that will take you through the rest of the setup process:



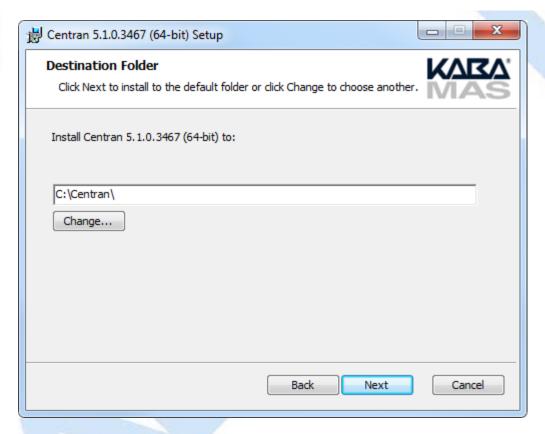
Click on Next> to continue with the installation.

8. The Software License Agreement acceptance screen is displayed.



Read the Software License Agreement and then click the I accept the terms in the License Agreement button followed by the Next> button.

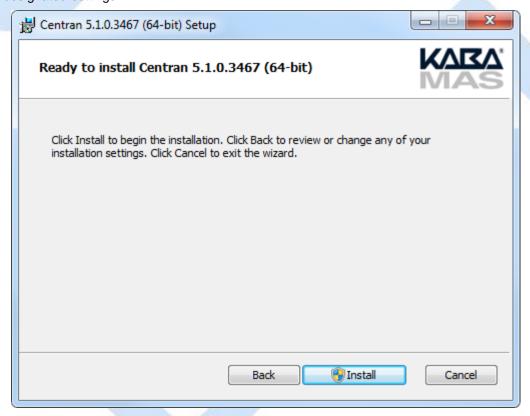
9. The Destination Folder window is displayed to allow you to select the program folder to which the CenTran 5 program will be added.



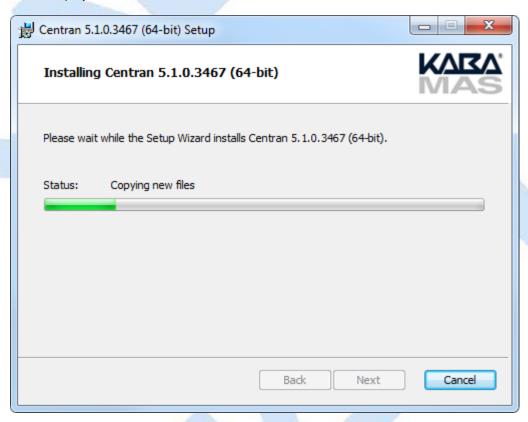
Note: The default installation directory is shown. If CenTran 5 is already installed on your system, it is recommended that you install CenTran 5 to a new directory. If you want the CenTran 5 software installed in another directory, click on the Browse button and select the new path.

Click on the Next> button to add the programs to the designated folder.

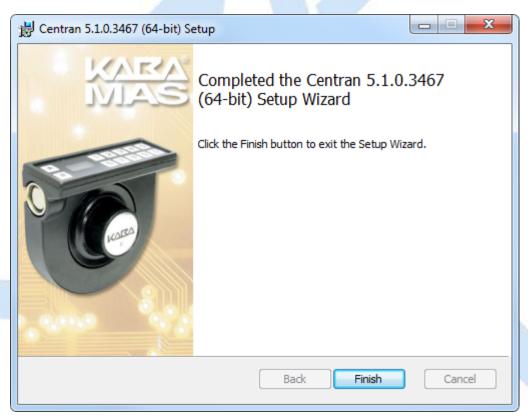
10. Confirm Installation - If there is anything you wish to change, click on the **<Back** button. Otherwise, click **Next>** to install the program with the designated settings.



The Setup Status screen displays the status of the installation.



The installation Complete screen is then displayed indicating that the CenTran 5 service has been successfully installed.



Click Finish to complete the installation process.

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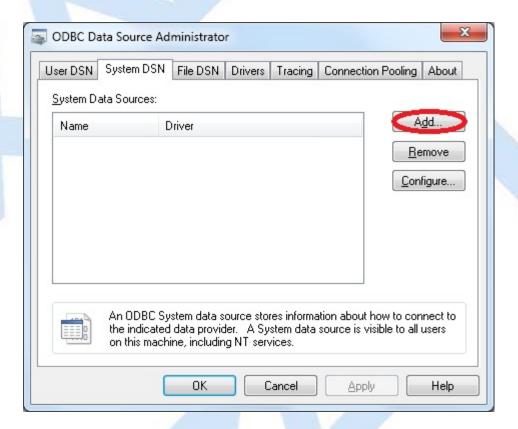
ODBC Connection Creation for SQL Server

Note

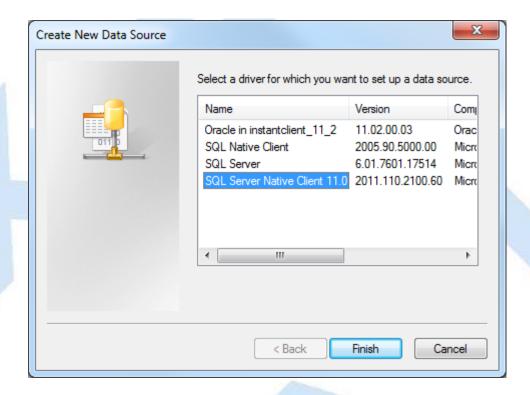
ODBC (Open Database Connectivity) is a standard C interface for accessing database management systems (DBMS). The designers of ODBC aimed to make it independent of database systems and operating systems. An application can use ODBC to guery data from a DBMS, regardless of the operating system or DBMS it uses.

ODBC accomplishes DBMS independence by using an *ODBC driver* as a translation layer between the application and the DBMS. The application uses ODBC functions through an *ODBC driver manager* with which it is linked, and the driver passes the query to the DBMS.

- 1. Go to Control Panel/Administration Tools/Data Sources.
- 2. Select the System DSN tab and click Add.



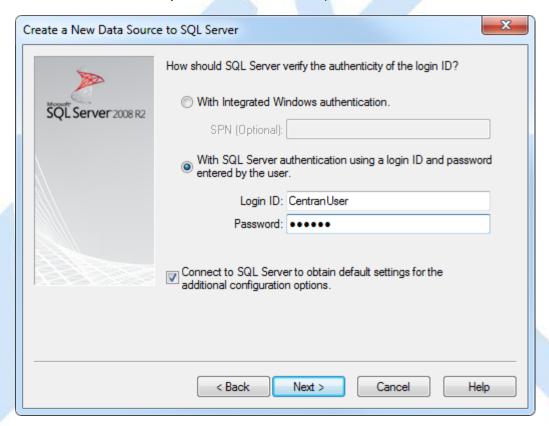
3. Select the driver and click Finish.



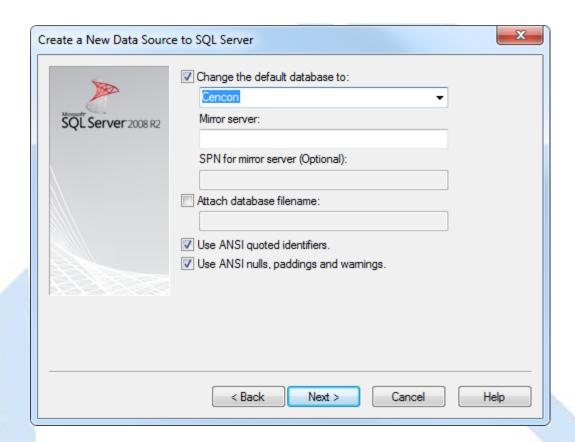
- 4. Type a name and type or use the drop down to select the server and instance.
- 5. Click Next.



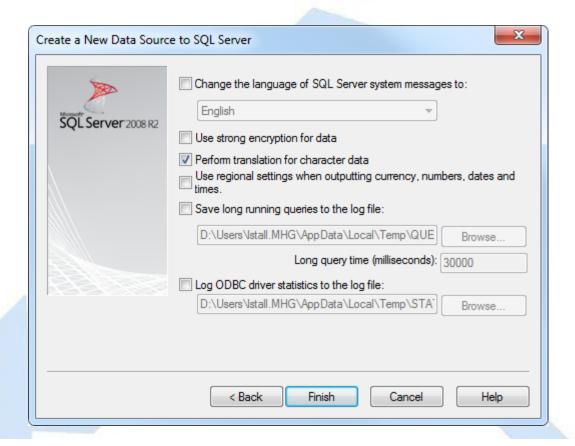
6. Select SQL Server Authentication, and enter your SQL user name and password. Click Next.



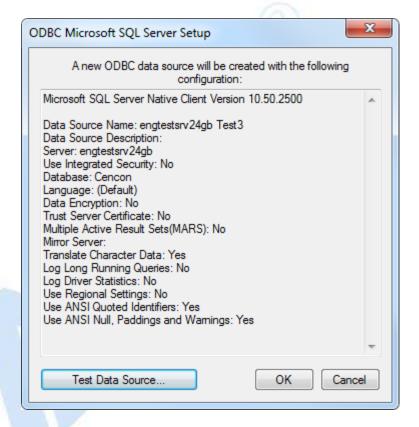
6. Make sure the database schema containing the Cencon database set set as default. Click Next.



7. Click Finish.



8. Click OK



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Oracle Configuration

You will need to install and configure an Oracle database. You will also need to download and install the Oracle client software for each client system accessing the Oracle database.

The following is some common considerations for the installation and configuration of these components. Note: You may not have to do any of the following configuration items for your Oracle installation. The Oracle configuration will vary depending on your requirements.

Note

Oracle 12c supports a new multitenant architecture of sub databases hosted by a single container database. The container database is called the **Multitenant Container Database (CDB)**.

The sub databases are called **Pluggable Database (PDB)**. To client applications, **PDB** operate exactly like the non-multitenant architecture databases used by previous versions of Oracle.

For Oracle database deployment planning, it is intended that a PDB be used to hold a single application backend.

The given recommended Cencon database schema permissions is for restricted access to a single schema under a single Oracle **PDB**. Cencon, CenTran, and the CenconDBSetupUtility do not require access to the Oracle **CDB**. Cencon, CenTran, and the CenconDBSetupUtility only require access to a single Oracle database schema on a **PDB**. They do not require access to anything outside of the assigned Oracle database schema on a **PDB**.

Install the Cencon database under a single schema on a dedicated PDB.

Oracle Database Configuration - tnsnames.ora

The Oracle **tnsnames.ora** file determines service names and system identifiers used by the Oracle database. Note that Oracle has two methods of identifying Oracle databases: Service Names and SID (Oracle System Identifier)

SID are an older method of identifying Oracle databases. For pre-release Oracle 8.1 databases, SID is used to identify the database.

The Oracle **tnsnames.ora** file will be located in the following directory:

install drive letter:\app\your install name\product\12.1.0\dbhome 1\NETWORK\ADMIN\tnsnames.ora

You **may** need to modify your **tnsnames.ora** file to identify the **PDB** intended to contain your Cencon schema. The following is an example of an entry to add to your **tnsnames.ora** file.

```
CENCON_PDB_NAME =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
  (CONNECT_DATA =
     (SERVER = DEDICATED)
     (SERVICE_NAME = cencon_pdb_name)
  )
)
```

Oracle Database Configuration - listener.ora

The Oracle listener.ora file determines network services and associated databases provided by the Oracle database.

The Oracle listener.ora file will be located in the following directory:

install_drive_letter:\app\your_install_name\product\12.1.0\dbhome_1\NETWORK\ADMIN\listener.ora

You **may** need to modify your **listener.ora** file to identify the **PDB** intended to contain your Cencon schema. The following is an example of an entry to add to your **listener.ora** file.

```
(SID_DESC =
   (SID_NAME = CENCON_PDB_NAME)
   (ORACLE_HOME = D:\app\test\product\12.1.0\dbhome_1)
)
```

An example of the entire Oracle **listener.ora** file is as follows:

```
SID LIST LISTENER =
  (SID_LIST =
    (SID DESC =
      (SID NAME = CLRExtProc)
      (ORACLE_HOME = D:\app\test\product\12.1.0\dbhome_1)
      (PROGRAM = extproc)
      (ENVS = "EXTPROC_DLLS=ONLY:D:\app\test\product\12.1.0\dbhome_1\bin\oraclr12.dll")
    (SID DESC =
      (SID_NAME = CENCON_PDB_NAME)
      (ORACLE_HOME = D:\app\test\product\12.1.0\dbhome_1)
LISTENER =
  (DESCRIPTION LIST =
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))
      (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
  )
```

Connecting using SQL*Plus to the Oracle CDB:

To manage your Oracle CDB, you can connect SQL*Plus to it in the following manner:

```
sqlplus sys@orcl AS sysdba
Enter password: your_password_here
```

Ensuring that the Oracle PDB is open at database server startup or reboot:

The Oracle **PDB** do not automatically start up when the Oracle **CDB** starts. You will probably need to set up a trigger with your Oracle **CDB** to ensure that the Oracle **PDB** containing the Cencon schema starts up when your Oracle database starts.

An example SQL script to create a trigger to start any mounted Oracle PDB is as follows:

```
CREATE OR REPLACE TRIGGER open_pdbs
```

```
AFTER STARTUP ON DATABASE
BEGIN
EXECUTE IMMEDIATE 'ALTER PLUGGABLE DATABASE ALL OPEN';
END open_pdbs;
/
```

You will need to execute the SQL script from either Oracle SQL Developer or SQL*Plus while connected to your Oracle CDB. To execute a file named pdb_auto_start.sql with an SQL script from SQL*Plus, you will need to enter something similar to the following:

SQL> @c:\pdb_auto_start.sql

Connecting using SQL*Plus to the Oracle PDB:

To manage your Oracle PDB, you can connect SQL*Plus to it in the following manner:

sqlplus sys@cencon_pdb_name AS sysdba
Enter password: your_password_here

To start your Oracle PDB, you will need to enter the following:

SQL> startup

To display available pluggable databases (PDB), you will need to enter the following:

SQL> show pdbs

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ODBC Connection Creation For Oracle

Note

ODBC (Open Database Connectivity) is a standard C interface for accessing database management systems (DBMS). The designers of ODBC aimed to make it independent of database systems and operating systems. An application can use ODBC to query data from a DBMS, regardless of the operating system or DBMS it uses.

ODBC accomplishes DBMS independence by using an *ODBC driver* as a translation layer between the application and the DBMS. The application uses ODBC functions through an *ODBC driver manager* with which it is linked, and the driver passes the query to the DBMS.

Note

Oracle 12c supports a new multitenant architecture of sub databases hosted by a single container database. The container database is called the **Multitenant Container Database (CDB)**.

The sub databases are called **Pluggable Database (PDB)**. To client applications, **PDB** operate exactly like the non-multitenant architecture databases used by previous versions of Oracle.

For Oracle database deployment planning, it is intended that a PDB be used to hold a single application backend.

Your ODBC driver connection will need to specify the Oracle **PDB** to connect to. For example, if your **PDB** is named CENCONPDB, then you would need to set up your ODBC connection to specify CENCONPDB for the instance to connect to.

Install the Cencon database under a single schema on a dedicated PDB.

Important Note

Install the current Oracle ODBC Client software for 12c instant client or higher.

http://www.oracle.com/technetwork/database/enterprise-edition/downloads/database12c-win64-download-1968077.html

You will need to run the Oracle **Net Configuration Assistant** to set up Oracle client access. This can be found under the Windows Start menu under Oracle - Configuration and Migration Tools.

Select Local Net Server Name configuration, and click Next.



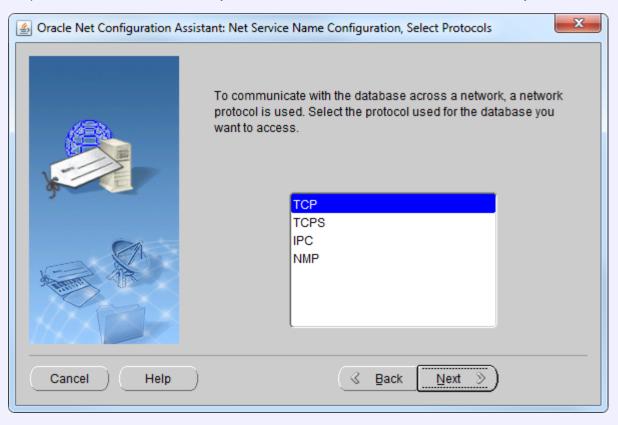
Select the Add operation, and click Next.



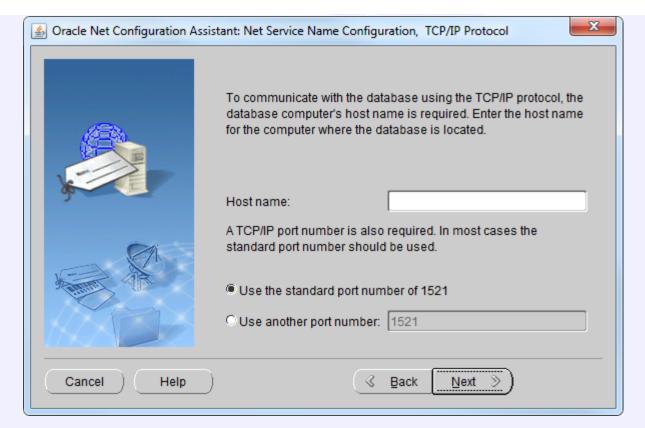
Enter the service name for the Oracle **PDB** containing the Cencon schema, and click **Next**. The default **PDB** service name installed with Oracle is pdborcl.



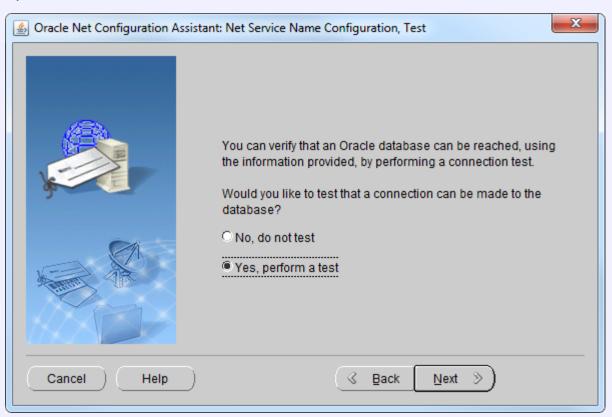
Select the protocol used to communicate with your Oracle database, and click Next. This will most likely be TCP.



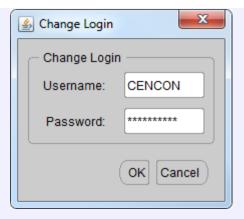
Enter the server network host name for your Oracle database. This will be either an TCP/IP address or a fully qualified computer name if you are on a network with a domain name server. The Oracle listener port will most likely be left with the default value of 1521. Select **Next**.



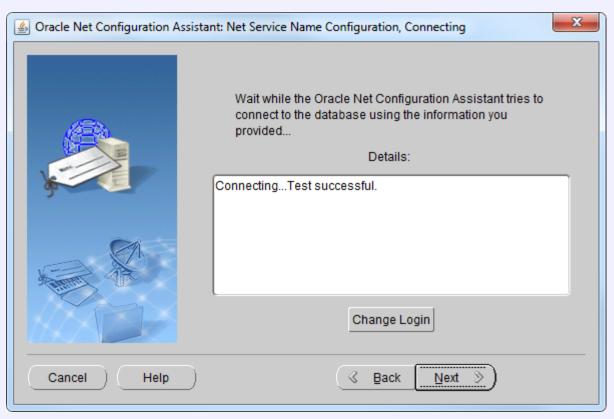
Select if you want to test the connection. It is recommended to test. Select Next.



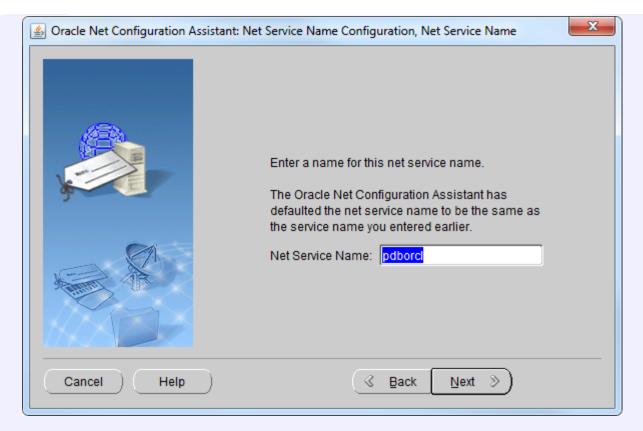
Check the details of the test result. Select **Change Login** or select **Back** as needed to ensure that the settings are correct. For the login will enter the schema name you created to contain the Cencon data, along with the password you selected. Select **Next** when you have a successful test.



Select Next when you have a successful test.



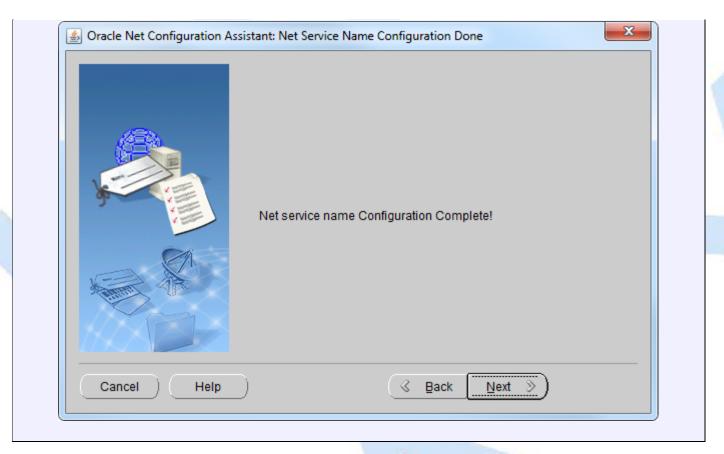
Enter the name you want to use for the configured network service name for the Oracle **PDB**. By default this is the same as the service name. Select **Next** when you have entered a name or left the default as desired.



Select if you want to configure another network service name. If you are done, select No. Select Next.



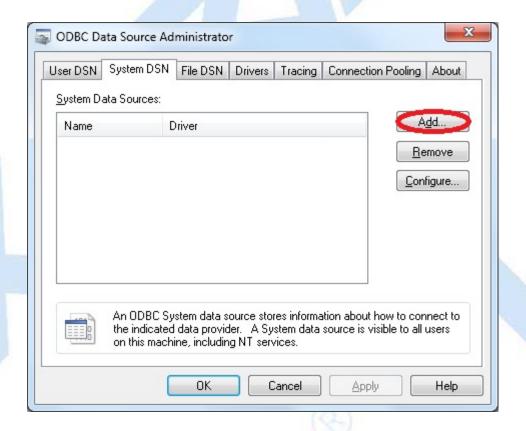
You should see name configuration complete.



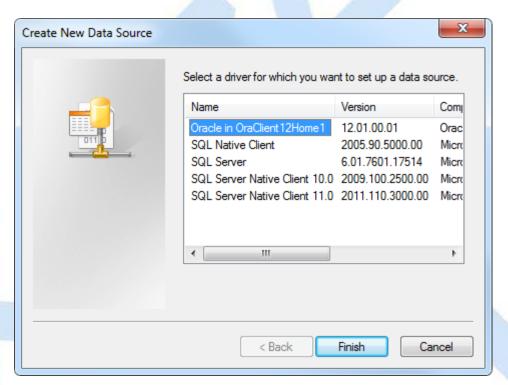
1. Go to Control Panel/Administration Tools/Data Sources (ODBC):

Note: You may have to right click on Data Sources (ODBC) and select Run as administrator.

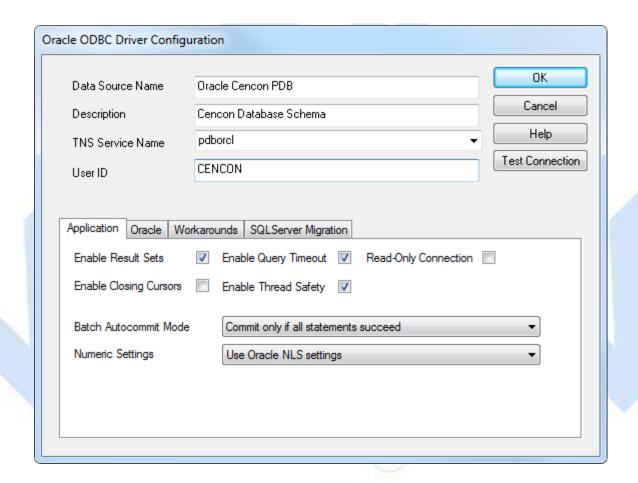
2. Select the System DSN tab and click Add.



3. Select the Oracle ODBC driver you have installed and click **Finish**. This will match the Oracle home for the client you have installed.

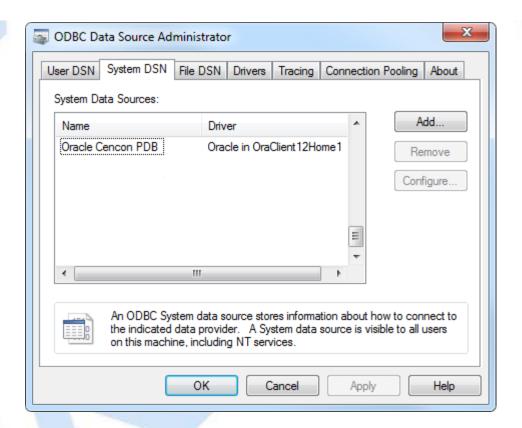


- 4. Set up the ODBC driver configuration to connect to your Oracle database instance:
 - Enter the desired Data Source Name and description.
 - Enter the configured network service name created using the Oracle Net Configuration Assistant.
 - Enter database schema name used to contain the Cencon data. The schema name must be the user set up to host the Cencon database, with the appropriate permissions set.
 - Click OK.



- You will be prompted for a password to authenticate your database connection.
- Enter your selected password and click OK.





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Configure the CenTran Service

The CenTran service has some settings that are manually set in the CenTran service configuration file. This file is named **Centran.exe.config**. Depending on your system settings, the file extension may be hidden.

You can edit the **Centran.exe.config** file by double clicking on it, and a default editor will be opened. You can also edit it with the Notepad application. The file is an XML formatted text file.

The **Centran.exe.config** file contains various configuration settings. If you change settings in the CenTran service configuration file, you will need to restart the CenTran service for the settings to take effect.

There are example **Centran.exe.config** files installed with CenTran. These are contained in the **Configuration Files** directory installed within the application directory. There is one example file for using Windows authentication with the CenTran web service and one example file for using user ID / password authentication with the CenTran web service.

To use one of the example **Centran.exe.config** files, copy the file to the CenTran application directory. Any changes to the **Centran.exe.config** file must be made before starting the CenTran service. If you make changes to the **Centran.exe.config** file while the CenTran service is already running, the changes will not be read until next time the CenTran service is started.

appSettings Section

These settings are specific to the CenTran service. Some of these settings are configured manually. A link to an overview of these settings is provided below.

system.serviceModel Section Group

These settings are related to the web service communications provided by CenTran. These entries are defined by the Microsoft Windows Communication Foundation. Detailed information about how these settings are used is beyond the scope of this manual. You can look up Microsoft Windows Communication Foundation documentation for more information. Additional documentation is available at: Windows Communication Foundation Configuration Schema

Links to overviews of these settings is provided below.

Configuration File Section Descriptions:

The following sections can be edited within the CenTran configuration file:

- Configuration File appSettings Section
- Configuration File system.serviceModel / bindings Section
- Configuration File system.serviceModel / services Section
- Configuration File system.serviceModel / behaviors Section
- Configuration File system.diagnostics Section

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Configuration File - appSettings Section

The **appSettings** section contains settings used by the CenTran service for it's internal operations, such as method of database access and security settings. The **appSettings** section has the following entries that you can adjust manually:

1. HTTP_Management_Directory:

This setting contains the directory to be used by the CenTran service for files related to the web browser CenTran Management interface. This directory can be copied and translated as needed to customize CenTran for a different language. The default value is the **CentranManagement** directory in the CenTran service installation directory.

2. HTTP_Management_User_Name:

This is the name used to log onto the web browser CenTran Management interface. The default value is admin.

3. HTTP_Management_Password:

This is the password used to log onto the web browser CenTran Management interface. The default value is password.

4. HTTP Management URL:

This is the url endpoint used to host the web browser CenTran Management interface. The default value is https://+:443/CentranManagement/.

5. HTTP_Management_Certificate_Thumbprint:

This is the certificate thumbprint used to look up the certificate for encrypting the web browser CenTran Management interface. This value can be set to thumbprint of the certificate you want to use with the web browser CenTran Management interface. You can also select a certificate and save its thumbprint to the CenTran configuration file using the CenTran Configuration Manager.

6. EventLogLimit:

This is the maximum number of log entries that CenTran is to keep in the CenTran event log. The default value is 5000000.

7. EventLogLimitGranularity:

This is the granularity used for checking if the current number of log entries needs to be reduced. The default value is 1000. This affects how often CenTran checks the size of the event log audit table it maintains internally. Decreasing this value causes CenTran to check more often. Increasing this value causes CenTran to check less often, but allows the event log to grow more between checks.

Any other entries appearing within this section are maintained internally by CenTran, or set by use of the CenTran web management interface.

Configuration File - system.serviceModel / bindings Section

The **bindings** section is part of the system.serviceModel section group used to configure Windows Communication Foundation (WCF) settings. This section defines the various communications settings to be used by the web service endpoints provided by CenTran. The following is a brief overview of this section.

· webHttpBinding:

This subsection contains settings for REST model of web service communications. Each **binding** listed within this section defines how a web service endpoint does it's communications across HTTP or HTTPS, using standard HTTP GET and POST operations.

This type of web service communications is easily accessed from web browsers and web sites. It does not have the flexibility of operations that SOAP web service communications has.

The **security** section under each **binding** defines the type of encryption and user authentication to be used with the web service endpoint.

· wsHttpBinding:

This subsection contains settings for SOAP web service communications. Each **binding** listed within this section defines how a web service endpoint does it's communications using SOAP (Simple Object Access Protocol).

This type of web service communications is not easily accessible from web browsers and web sites. However, it has a much greater degree of flexiblity and possible options than REST web service communications. An example of these options provided by SOAP is WS-ReliableMessaging, which allows support for handling network failures.

The **security** section under each **binding** defines the type of encryption and user authentication to be used with the web service endpoint.

There are many other types of web service communication bindings available. These two are given as defaults for use by CenTran, but others could potentially be used.

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Configuration File - system.serviceModel / services Section

The **services** section is part of the system.serviceModel section group used to configure Windows Communication Foundation (WCF) settings. It is used to define the specific web service endpoints provided by CenTran. The following is a brief overview of this section.

service:

Each **service** section defines the web service endpoints provided for a service from CenTran. Within a **service** section is a set of **endpoint** entries. Each **endpoint** entry defines a web service URI and method of communications provided by CenTran.

The service names can be one of the following:

Centran.CentranService

This is the main web service implemented by CenTran. Any access to operations of this web service contract must have some form of user authentication, otherwise access will be refused (except for the Version and Hello operations). The default behavior used with this web service is **centran_service_behavior** already defined in the example CenTran configuration files.

Centran.CentranFeedsService

This is the RSS feeds web service implemented by CenTran. The operations provided by this web service contract are intended to support web RSS feeds to query alert information from CenTran. Encryption and user authentication are not needed for this web service contract. Encryption is recommended, however. The default behavior used with this web service is **centran feeds service behavior** already defined in the example CenTran configuration files.

Centran.CentranAgentService

This is the web service for operations supporting the CenTran Agent Service running on ATM console systems for remote access to Cencon locks. The operations provided by this web service contract are used to update status of locks in response to lock events detected by the CenTran Agent Service. Encryption and user authentication are not needed for this web service contract. Encryption is recommended, however. The default behavior used with this web service is **centran_agent_service_behavior** already defined in the example CenTran configuration files.

Each **endpoint** entry has the following items that it defines:

address

This is the address or URI that is provided by the web service. It can specify localhost to default to the current host server base address or can define a different address. This can also be used to define a different TCP port for the address.

binding

This is the type of binding used to define the communications used for the web service endpoint. The defaults for CenTran are **webHttpBinding** or **wsHttpBinding**.

bindingConfiguration

This is the specific configuration of binding that is being used by the web service endpoint. This name must match one of the names defined from the matching **binding** section. This is used to define the encryption and user authentication used for the web service endpoint.

contract

This is the name of the web service contract implementation calls within CenTran that is to be made accessable through the web service endpoint. The contracts that CenTran provides can be one of the following:

Centran.ICentran

This is the main web service contract implemented by CenTran. It defines access to the Centran.CentranService web service.

Centran.ICentranFeeds

This is the RSS feeds web service contract implemented by CenTran. It defines access to the Centran.CentranFeedsService web service.

Centran.lCentranAgent

This is the web service contract for operations supporting the CenTran Agent Service running on ATM console systems for remote access to Cencon locks. It defines access to the Centran.CentranAgentService web service.

behaviorConfiguration

This specifies what additional settings are to be used by the web service endpoint. These additional settings are defined by **behavior** entries under the **behaviors / endpointBehaviors** section. Default settings for endpoint behaviors are already defined in the example CenTran configuration files.

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Configuration File - system.serviceModel / behaviors Section

The **behaviors** section is part of the system.serviceModel section group used to configure Windows Communication Foundation (WCF) settings. It is used to define additional settings for the web service endpoints provided by CenTran.

The following is a brief overview of this section.

endpointBehaviors

This section defines endpoint behaviors used by the web service endpoints. This includes if help support is to be generated for a specific endpoint.

serviceBehaviors

This section defines the web service behaviors for each web service provided by CenTran. This includes what certificate is used for encryption with a web service provided by CenTran, under the **serviceCredentials** section. The **serviceCredentials** section has two entries:

serviceCertificate

This section defines what certificate is used by the web service for communications encryption. It is composed of the following entries:

findValue

This is the unique value used to find the certificate in the indicated certificate store. The way this value is used is determined by the **x509FindType** that is set. In the case of **FindByThumbprint**, this value will be composed of a unique hexadecimal thumbprint value associated with the desired certificate.

storeLocation

This specifies if the certificate is stored associated with the current user account or with a system account. For the CenTran service to access the certificate, this must be set to **LocalMachine** to indicate a system account.

storeName

This specifies the store name that the certificate is in. For the CenTran service, this must be **My** to indicate the certificate store for personal certificates.

x509FindType

This indicates how the certificate is to be uniquely identifies, based off of various values associated with the certificate. The recommended default is **FindByThumbprint**.

The CenTran Configuration Manager has support for creating self signed certificates for use by the CenTran service. You can also use a server certificate as provided by your network certificate authority server. Using a certificate as provided by your network certificate authority server is the preferrable way to set up your network security.

Whatever the source of your CenTran server certificate, you can specify the certificate within the configuration file manually, or you can set it using the CenTran Configuration Manager.

The CenTran server certificate must have a name matching the way you are going to address the CenTran web service. If it is by server name, then the certificate name must match the server name. If it is by IP address, then the certificate name must match the IP address.

userNameAuthentication

This section defines the internal method of support for user names and passwords implemented by CenTran. The default settings for this entry should not be changed from what is provided with the example CenTran configuration files.

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Configuration File - system.diagnostics Section

The **system.diagnostics** section is used to configure Windows Communication Foundation (WCF) diagnostic output for tracing operations. This is useful to troubleshoot issues with communications with the CenTran web service.

The default entry in the example CenTran configuration files for the **system.diagnostics** section has diagnostic output enabled. If you wish to disable diagnostic output for performance reasons, you can comment out this section and Windows Communiction Foundation (WCF) diagnostic output will be disabled.

Additional information is available in the Windows Communication Foundation (WCF) diagnostic output set up from the CenTran configuration file. The default settings from the CenTran configuration file creates a diagnostic output file for Windows Communication Foundation (WCF) events, named **WcfServiceTrace.svclog**. This file will be created within the application directory the CenTran service is installed to. This file can be viewed using the Microsoft Service Trace Viewer (SvcTraceViewer.exe). Double clicking on the file will automatically open the file under the Microsoft Service Trace Viewer.

The Microsoft Service Trace Viewer is available as a free download within the Windows Platform SDK.

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Set Up CenTran Server Certificates

For a web service to make use of encryption or user authentication, it requires a server certificate to be configured for use by that web service. The operation and concepts behind certificates and the Transport Layer Security Protocol (TLS) are beyond the scope of this manual. The following is a link to describe some of these concepts:

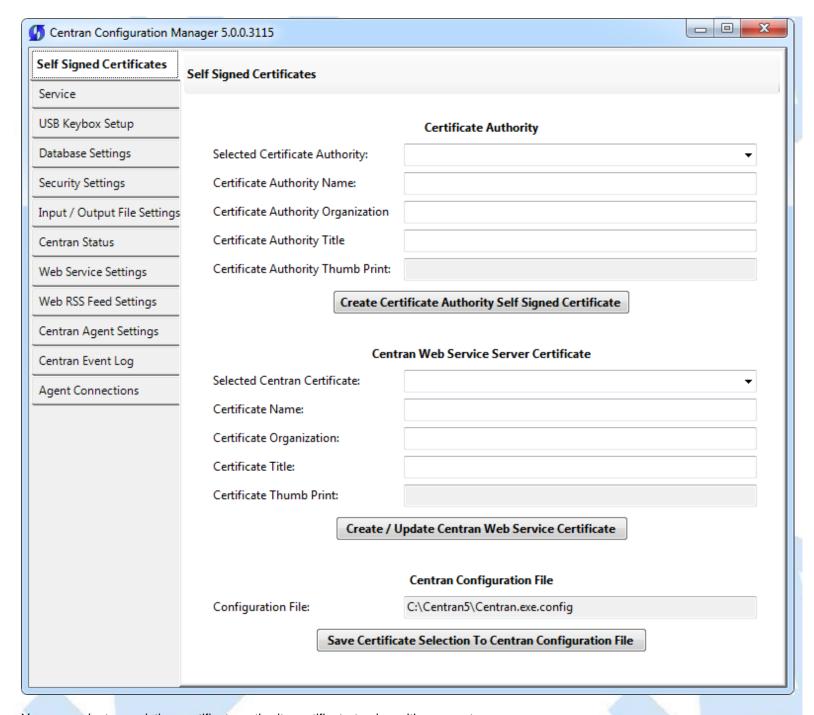
SSL/TLS Strong Encryption: An Introduction

Ideally, your organization will have a server configured to be a certificate authority for managing the security of communications on your network. If you do not have support for managing certificates on your network, you can set up a self signed certificate and distribute it manually to the systems that are going to be accessing the CenTran web service.

To assist with this process, the CenTran Configuration Manager has support for creating certificates and configuring them in the CenTran configuration file for you.

The CenTran Configuration Manager supports the creation of a self signed certificate authority (CA) certificate. It can then use this CA certificate to create a signed CenTran Web Service Server certificate. The CenTran Configuration Manager can then be used to update the CenTran configuration file with information describing the signed CenTran Web Service Server certificate.





You can select an existing certificate authority certificate to sign with, or create a new one.

To use an existing CA certificate select any certificate in the local machine root authority store that you have a private key for from the dropdown menu labeled **Selected Certificate Authority**.

To create a new CA certificate complete the Certificate Authority Name, Certificate Authority Organization and Certificate Authority Title fields with the desired data and select Create Certificate Authority Self Signed Certificate.

A new certificate authority (CA) certificate will be created. The **Selected Certificate Authority** pulldown and the **Certificate Authority Thumb Print** fields will be filled in. The new CA certificate will also be placed in the local machine trusted root certification authorities store.

Self Signed Certificates Self Signed Certificates					
Service					
USB Keybox Setup		Certificate Authority			
Database Settings	Selected Certificate Authority:	My Certificate Authority ▼			
Security Settings	Certificate Authority Name:	My Certificate Authority			
Input / Output File Settings	Certificate Authority Organization	Kaba Mas LLC			
Centran Status	Certificate Authority Title	My Title			
Web Service Settings	Certificate Authority Thumb Print:	861EFD939CD6DA032446B30C4931DCA24620E2EC			
Web RSS Feed Settings	Create Certificate Authority Self Signed Certificate				
Centran Agent Settings					
Centran Event Log	Centran Web Service Server Certificate				
Agent Connections	Selected Centran Certificate:				
	Certificate Name:				
	Certificate Organization:				
	Certificate Title:				
	Certificate Thumb Print:				
	Create / Update Centran Web Service Certificate				
		Centran Configuration File			
	Configuration File:	C:\Centran5\Centran.exe.config			
		_			
	Save Certificate Selection To Centran Configuration File				
			_		

An existing signed certificate can be used as the CenTran Web Service Server Certificate or a new signed certificate can be created using the selected certificate authority (CA) certificate.

To use an existing signed CenTran Web Service Server Certificate select from the **Selected CenTran Certificate** pulldown the desired certificate. All fields, including those in the **Certificate Authority** section, will be completed with the appropriate data for the selected certificate.

To create a new signed CenTran Web Service Server Certificate first enter the name you will use to access CenTran in the Certificate Name field.

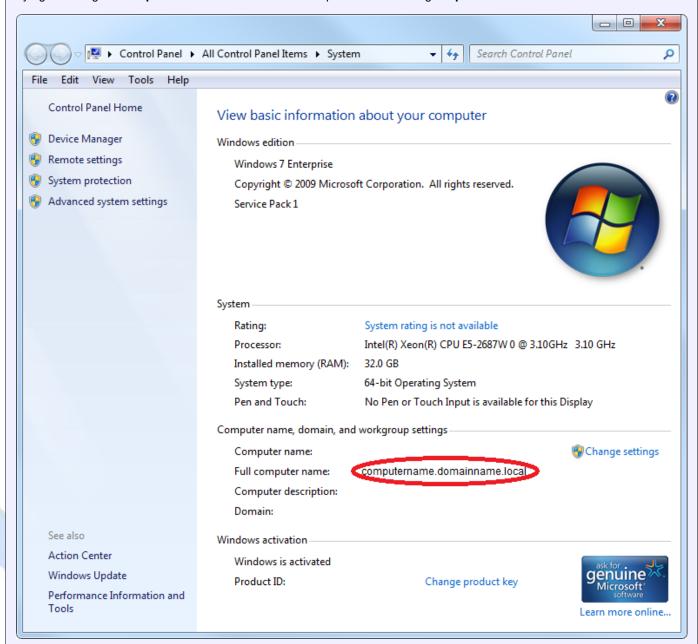
Important Note - CenTran Server Network Address

It is very important that this name matches how you are going to address CenTran in a browser. If this is by server name, then the server name needs to be the name of the certificate. If it is by IP address, then the IP address needs to be the name of the certificate.

If you are accessing the CenTran web service on a company intranet using Windows Active Directory and a Domain Name Server (DNS), it is recommended to use the fully qualified server name for the certificate. This will look like the following: computername.domainname.local

If you are accessing the CenTran web service on a company intranet using Windows Active Directory and a Domain Name Server (DNS) and you do not use the fully qualified computer name, then your proxy server may block network access.

You can find the CenTran server full computer name under the Windows computer properties dialog. This can be accessed by right clicking on **Computer** in the Start Menu or File Explorer and selecting **Properties** from the context menu.



If you are going to be accessing the CenTran web service on a network without a Domain Name Server, then you will use the IP address of the CenTran web service. For IPv4 this will look like the following: **192.168.0.111**

You can find the CenTran server IP address by opening a command prompt and entering the following command: ipconfig

Look for IPv4 Address in the text returned for the CenTran server address.

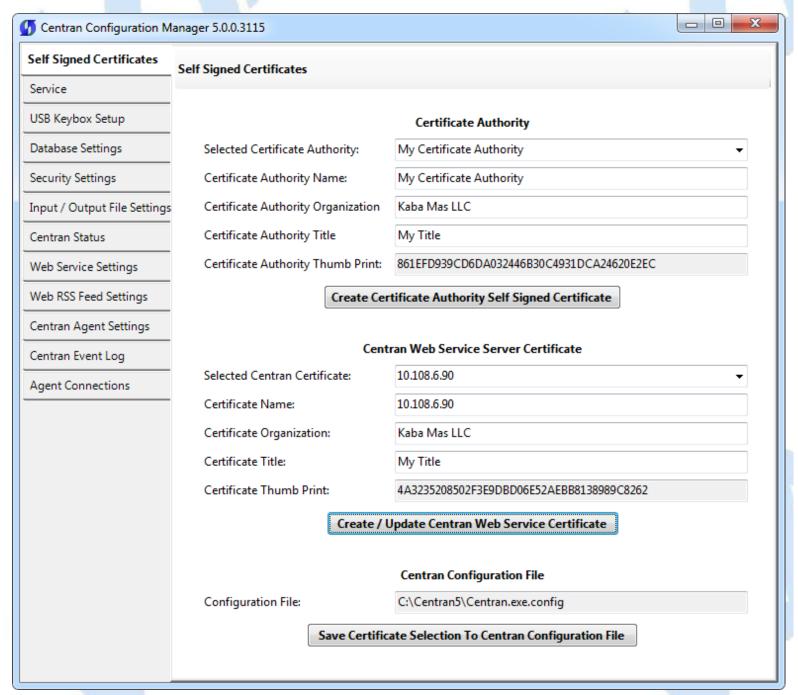
If you are accessing the CenTran web service exposed to the internet, then the security certificate used and the name of the certificate will be the same as your web site. Consult with your IT department for the proper certificate configuration in this case.

Important Note - CenTran Server Firewall

If your CenTran server is running either the Windows network firewall software or an antivirus vendor network firewall software, then the following ports (depending on the configuration that you have set) must be made available:

Default Port	Usage	Setting Location
80	Web Service HTTP	Configuration File: <system.servicemodel><services><service><endpoint> address property</endpoint></service></services></system.servicemodel>
443	Web Service HTTPS	Configuration File: <system.servicemodel><services><service><endpoint> address property</endpoint></service></services></system.servicemodel>
53004	Centran Agent Persistent Connections	Configuration File: <appsettings><add> key="PersistentAgentConnectionsPort" value="port number"</add></appsettings>

Enter the organization name and title as desired, and select Create / Update CenTran Web Service Cerficate. The certificate will be created, and selected in the dropdown menu labeled Selected CenTran Certificate.



Lastly, you can have the CenTran Configuration Manager set up the selected certificate in the CenTran configuration file. Select the **Save Certificate Selection To CenTran Configuration File**. This will update the CenTran configuration file with information for your selected server certificate.

Any systems that are required to trust the CenTran web service through browser access will need to have the selected certificate

authority (CA) certificate (not including private key) imported into the systems' local computer trusted root certification authorities store. A set of example steps of one method for accomplishing this on Windows 7 is as follows:

Export the selected certificate authority (CA) certificate:

- 1. Open Microsoft Management Console (Start -> Run -> mmc.exe).
- 2. Choose File -> Add/Remove Snap-in.
- 3. Choose the Certificates snap-in, and click Add.
- 4. In the wizard, choose the Computer Account, and then choose Local Computer.
- 5. Press Finish followed by OK to end the wizard.
- 6. Navigate to Certificates (Local Computer).
- 7. Select Trusted Root Certification Authorities.
- 8. Expand Certificates.
- 9. Right click the CA certificate specified in CenTran Configuration Manager.
- 10. Select All Tasks --> Export and follow the prompts; Do NOT export the private key; Record the specified target file name.

Import the selected certificate authority (CA) certificate to a system that needs to trust the CenTran Web Services:

- 1. Logon to the system that is to trust the CenTran Web Services.
- 2. Copy the file containing the exported CA certificate onto this system.
- 3. Open Microsoft Management Console (Start -> Run -> mmc.exe).
- 4. Choose File -> Add/Remove Snap-in.
- 5. Choose the Certificates snap-in, and click Add.
- 6. In the wizard, choose the Computer Account, and then choose Local Computer.
- 7. Press Finish followed by OK to end the wizard.
- 8. Navigate to Certificates (Local Computer).
- 9. Right click Trusted Root Certification Authorities.
- 10. Select All Tasks --> Import and follow the prompts; Provide the name of the file containing the exported CA certificate.

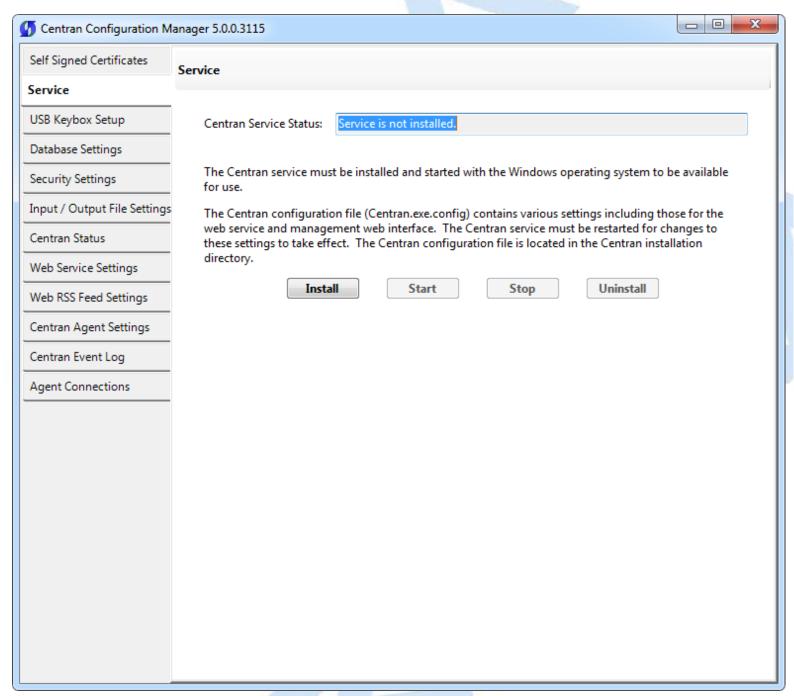
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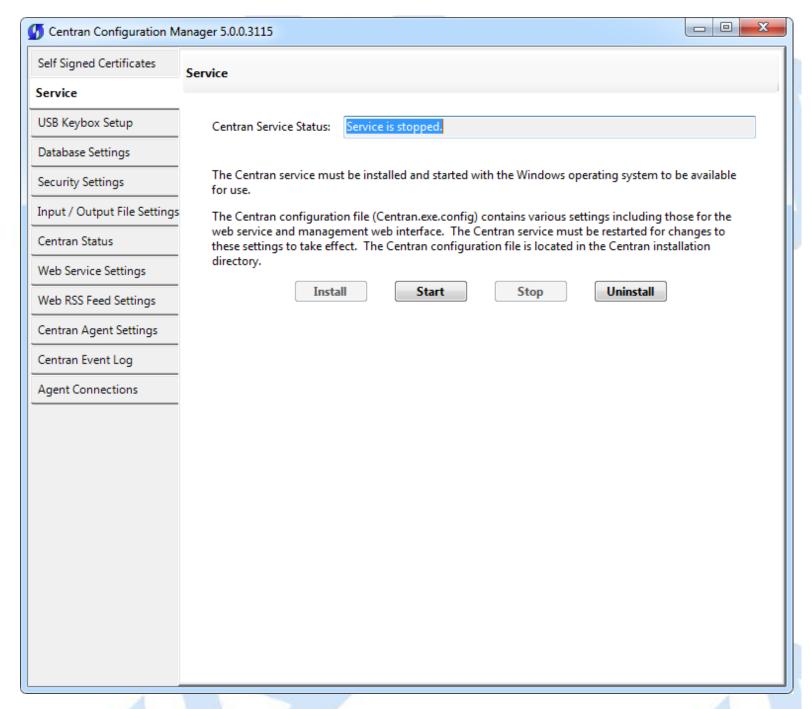
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Install / Start the CenTran Service

To install and start the CenTran service, select **CenTran Configuration Manager** from the CenTran entry under the Windows Start menu. Click on the **Service** tab. You should see the following tab page:

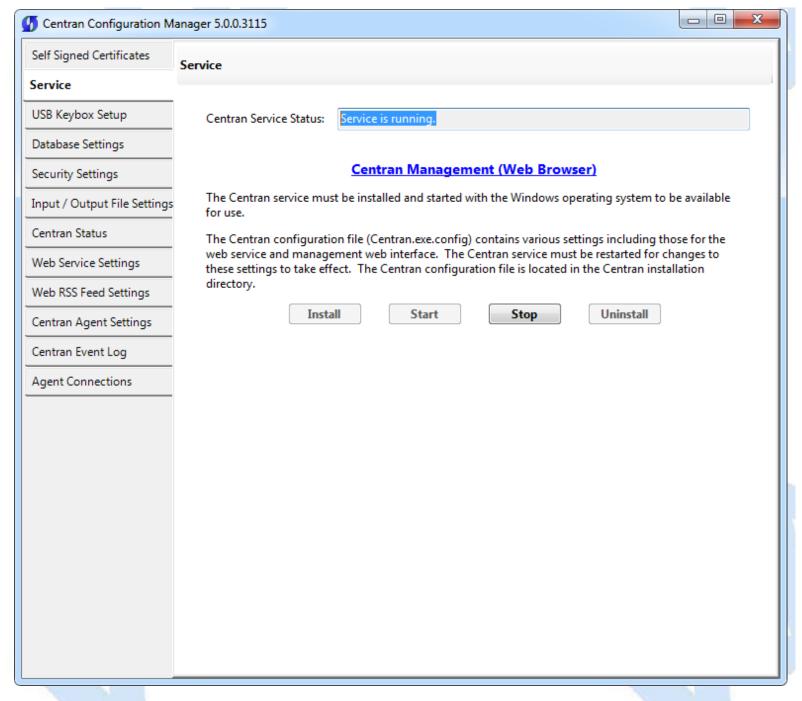


Select the Install button to install the CenTran service with the operating system.



Make sure you have completed any changes to the CenTran service configuration file. Select the **Start** button to start the CenTran service with the operating system.





You will now have a link available to open the CenTran Management interface in your default web browser. Your web browser must support HTML5 and CSS3. This includes the following browsers:

- 1. Internet Explorer 9 or higher
- 2. Firefox 10 or higher
- 3. Google Chrome 16 or higher
- 4. Apple Safari 5 or higher

If you are using Internet Explorer, you must have compatibility mode for intranet sites turned off under the Tools menu. Press Alt-T to open the tools menu in Internet Explorer to get to this setting.

You can now manage CenTran settings either directly through the CenTran Configuration Manager or through the web browser CenTran Management interface. You will now need to set up the CenTran settings using one of these two methods, and then you can start processing lock transactions using CenTran.

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Configure the CenTran Service using CenTran Configuration Manager

The CenTran Configuration Manager supports directly managing a running CenTran service on the same computer. It does not support managing a CenTran service running on a different computer. To manage a running CenTran service, you must have already set up the appropriate CenTran configuration file settings and certificates. You must have also installed and started the CenTran service.

Managing the CenTran service:

The following sections describe setting up and managing the CenTran service using the CenTran Configuration Manager:

- Setup Keybox
- Select ODBC Database Connection
- Set Company Number
- Set File Settings
- Start Transaction Processing
- View Web Service Settings
- View Web RSS Feed Settings
- View CenTran Agent Settings
- View CenTran Event Log
- <u>View CenTran Agent Persistent Connections</u>
- Stop Transaction Processing



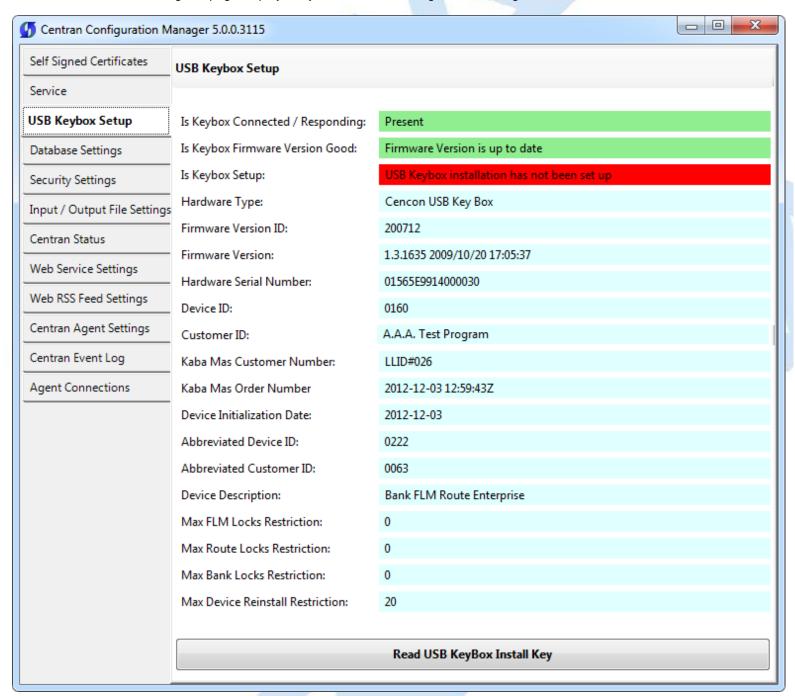
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CenTran 5 Getting Started Guide Setup Keybox

Click on the USB Keybox Setup tab on the CenTran Configuration Manager:

You should see the following tab page displayed by the CenTran Configuration Manager:



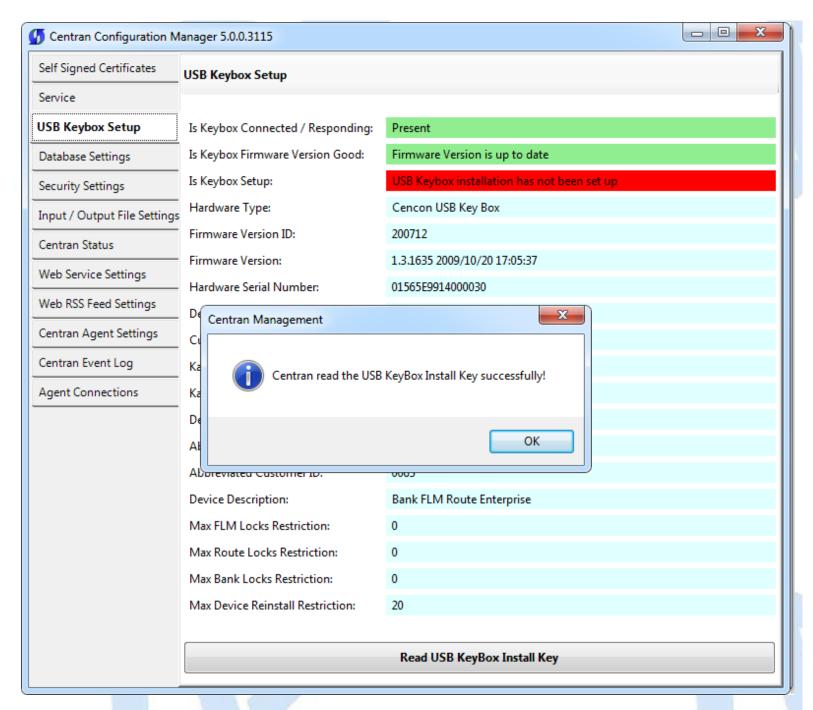
Place your Keybox install key in the first port of the keybox: (This will be the port farthest away from the USB connection.)



Click on the Read USB Keybox Install Key button on the USB Keybox Setup tab page.

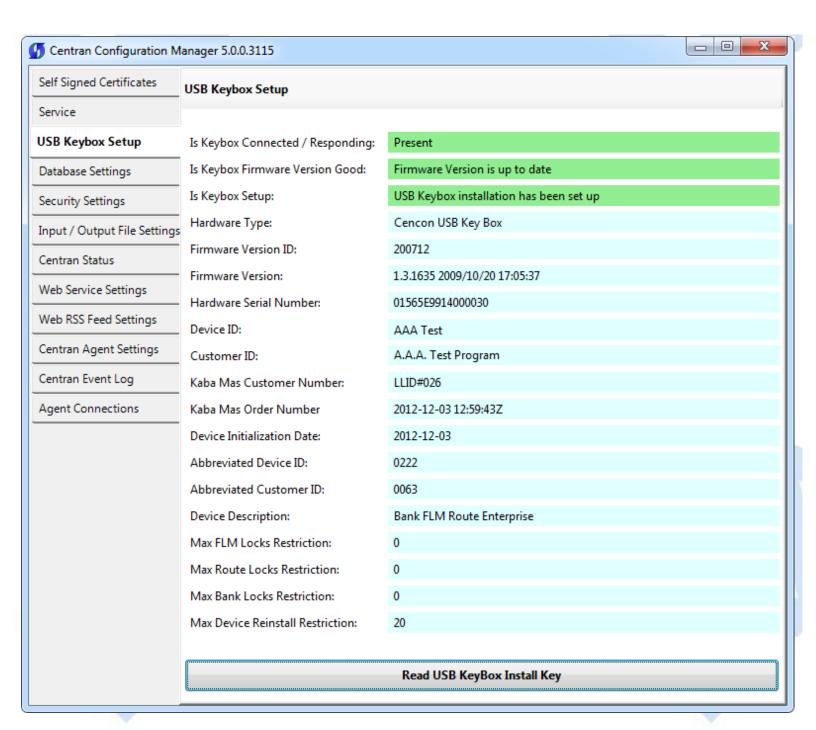
You should see the following in the USB Keybox Setup tab page.





Click on the **OK** button on message box.

You should see the following in the USB Keybox Setup tab page.





CenTran 5 Getting Started Guide

Select ODBC Database Connection

Important Note

CenTran no longer runs under the permissions of the logged on user. It has been changed to run as a background service on the host server you install it on, and is independent of who is logged on. The CenTran service will run in the background even if no one is logged onto the host server.

By default, the CenTran service runs logged on under a **Local System** account. This gives it access to resources and settings on the host server you install it on. However, the **Local System** account only has access to the host server, not to resources on your network.

If the CenTran service is configured to run logged onto the default **Local System** account, you will need to use SQL authentication for CenTran to access the SQL Server or Oracle database.

If the CenTran service is configured to run logged onto an account configured for it on your network domain, then that account must have administrative privileges on the host server CenTran is on.

If you use Windows authentication for CenTran's database authentication, then the account CenTran is logged onto must be a network domain account and have authorization to access the SQL Server or Oracle database.

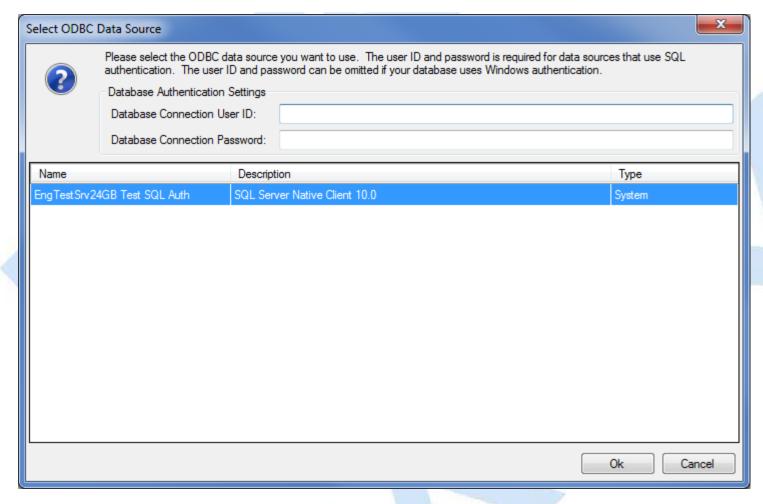
You can view and edit the CenTran service settings from the Microsoft Management Console:

- Open the Start Menu.
- Right click on Computer.
- Select Manage from the displayed context menu. You must have administrative privileges.
- The Computer Management console will be displayed. Expand the Services and Applications section
 on the left side.
- Select Services from the Services and Applications section.
- Locate Centran from the list of services. Right click on Centran and select Properties from the context menu.
- A service Properties dialog will be displayed. Select the Log On tab to examine the account the service is set up to log on as.

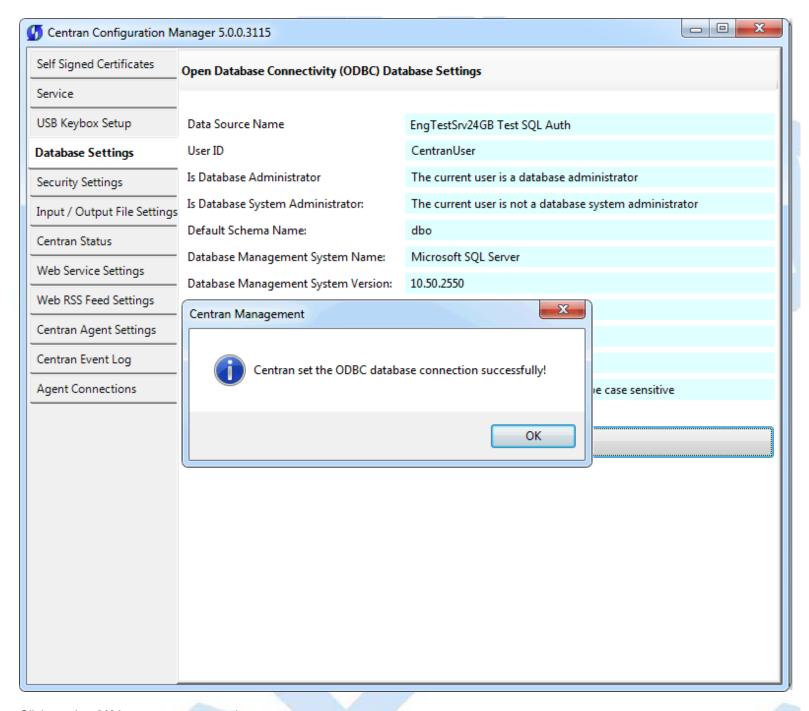
Click on the **Database Settings** tab on the CenTran Configuration Manager:

Self Signed Certificates	Open Database Connectivity (ODBC) Database Settings				
Service					
USB Keybox Setup	Data Source Name				
Database Settings	User ID				
Security Settings	Is Database Administrator				
Input / Output File Settings	Is Database System Administrator:				
Centran Status	Default Schema Name:				
Web Service Settings	Database Management System Name:				
Web RSS Feed Settings	Database Management System Version:				
Centran Agent Settings	Server Name:				
	Database Name:				
Centran Event Log	Instance Name				
Agent Connections	Is Case Sensitive:				
	Select ODBC Data Source				

You will need to have set up an ODBC database connection specifying the database you want to use. The ODBC database connection will need to be configured to use SQL authentication. Click on the **Select ODBC Data Source** button. You should see the following dialog displayed:

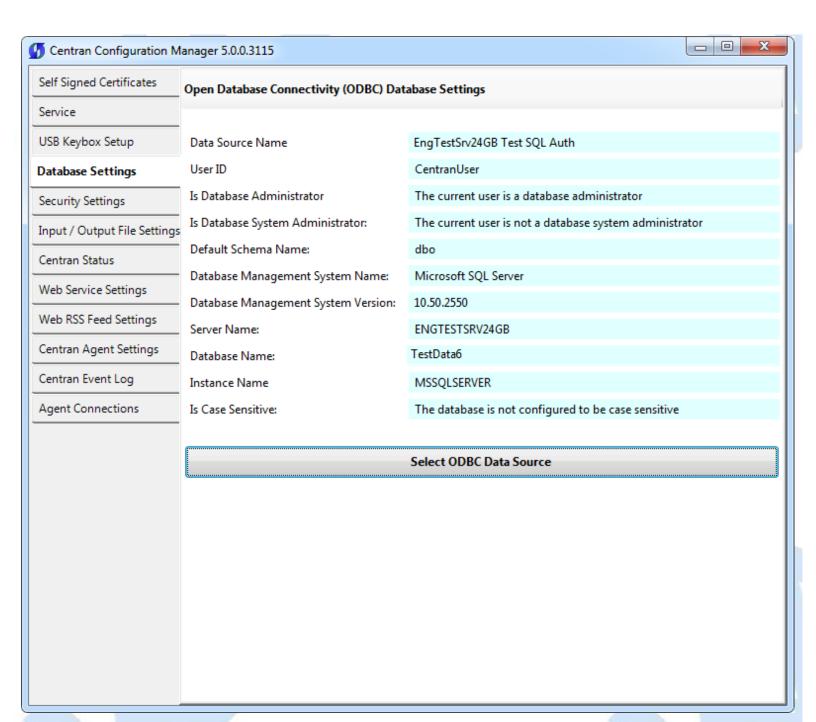


Select the ODBC database connection you want to use. For SQL authentication, you will also need to enter a user name and password for the CenTran service to use with the database connection.



Click on the **OK** button on message box.

You should see something similar to the following tab page displayed by the CenTran Configuration Manager, depending on your database configuration:

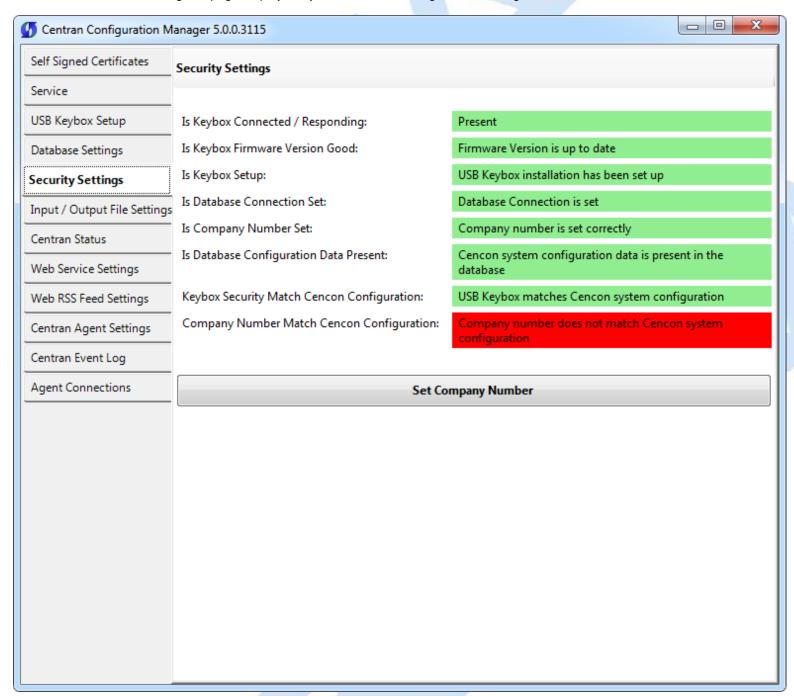


CenTran 5 Getting Started Guide

Set Company Number

Click on the Security Settings tab on the CenTran Configuration Manager:

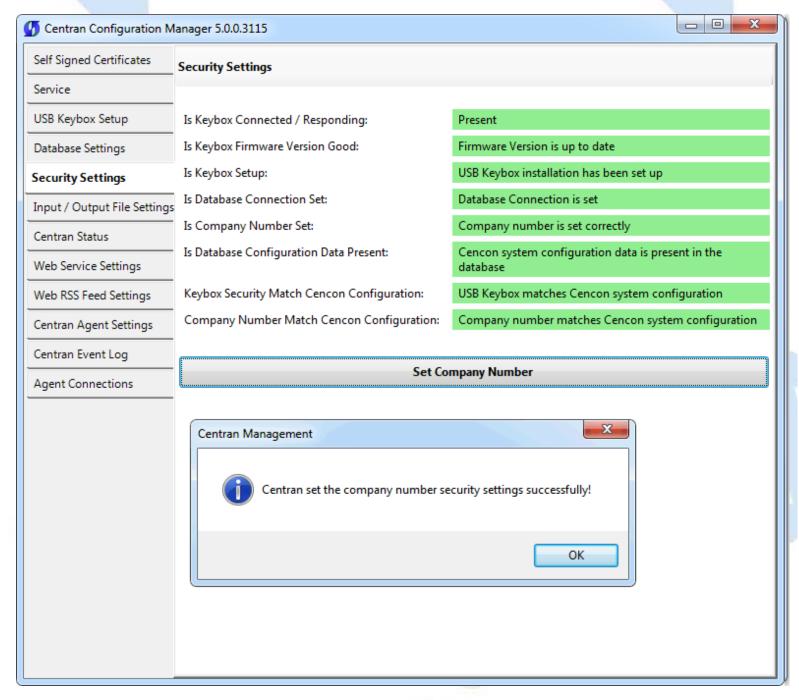
You should see the following tab page displayed by the CenTran Configuration Manager:



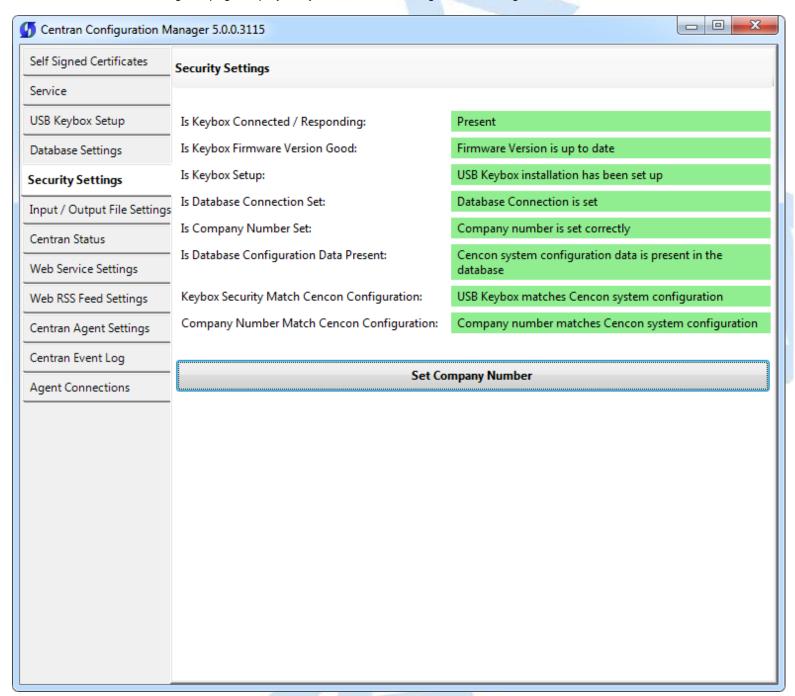
Click on the **Set Company Number** button. You should see the following dialog displayed:



Enter the 4 digit company number you are using with Cencon. This is a sensitive piece of security information that is part your security with the Cencon system. You should record it and keep it in a secure place. The company number you enter for use by the CenTran service must match the one you are using with Cencon.



Click on the **OK** button on message box.



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Set File Settings

Important Note

CenTran no longer runs under the permissions of the logged on user. It has been changed to run as a background service on the host server you install it on, and is independent of who is logged on. The CenTran service will run in the background even if no one is logged onto the host server.

By default, the CenTran service runs logged on under a **Local System** account. This gives it access to resources and settings on the host server you install it on. However, the **Local System** account only has access to the host server, not to resources on your network.

If you are configuring CenTran to access a shared file location on your network, not on the host server, then you will need to set up CenTran with a network domain account.

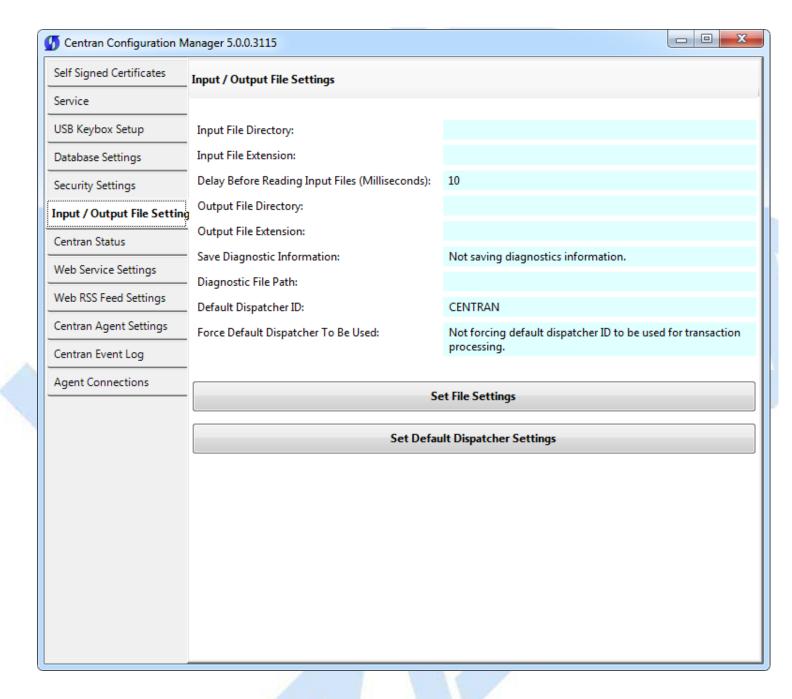
The account you set up CenTran to run logged onto must have administrative privileges on the host server CenTran is on. It must also have read / write access to the directories you are using for file input / output.

In this case, the file directories must be identified by UNC (Universal Naming Convention) paths: "\server\share\path\"

You can not use mapped drive letters for network paths for a service. Mapped drive letters for network paths are specific to an account. They are not accessable from other accounts. If you set up a mapped drive letter for your logged on account, that does not mean that CenTran can access it from its account.

You can view and edit the CenTran service settings from the Microsoft Management Console:

- Open the Start Menu.
- Right click on Computer.
- Select Manage from the displayed context menu. You must have administrative privileges.
- The Computer Management console will be displayed. Expand the Services and Applications section
 on the left side.
- Select Services from the Services and Applications section.
- Locate Centran from the list of services. Right click on Centran and select Properties from the context menu.
- A service **Properties** dialog will be displayed. Select the **Log On** tab to examine the account the service is set up to log on as.
- 1. Click on the Input / Output File Settings tab on the CenTran Configuration Manager:



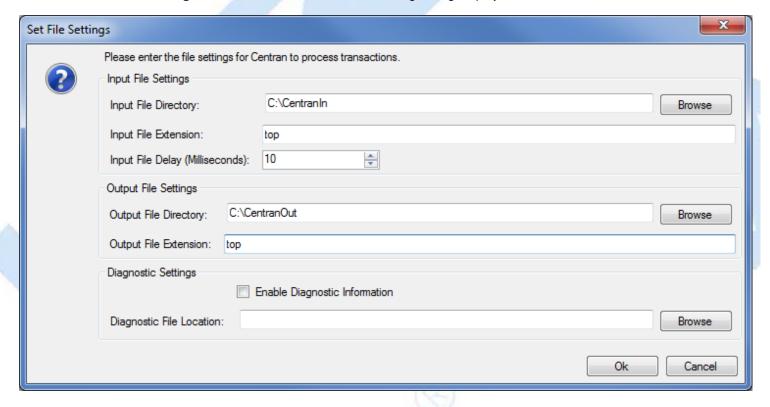
- 2. You will need to setup an input directory and an output directory for CenTran to receive file transactions and return the response.
 - **Input Directory** The input directory is the directory where CenTran reads transactions being sent to it. It looks in this directory for files representing lock transactions to be processed. You will need to create an input directory that you want to use for CenTran to listen for incoming file transactions.
 - Input File Extension The input file extension defined here is the file extension CenTran looks for when attempting to find transaction input files in the input directory that has been identified. If an input file extension is not set, then the CenTran service will attempt to read any file placed in the input directory.
 - Input File Delay The delay before reading next input transaction file setting is intended to allow a delay after detecting a file and before reading it. It is possible for an error in reading the input file to occur if it has not been completely written to the input directory yet. This delay allows the write of the input file to complete before the CenTran service reads the file. This delay begins when a transaction file is detected in the input directory by CenTran.

- Output Directory The output directory is the directory where CenTran places the output files containing the results of processed transactions. This directory can be the same directory as the one used to contain input files. If the two directories are the same, then the files must have different extensions assigned. You will need to create an output directory that you want to use for CenTran to write output files to.
- Output File Extension The output file extension is the file extension placed by CenTran at the end of output file names. The file names will be the same as the input file names, except for the file extension. If an output file extension is set, then that extension will be placed at the end of output files produced by CenTran.

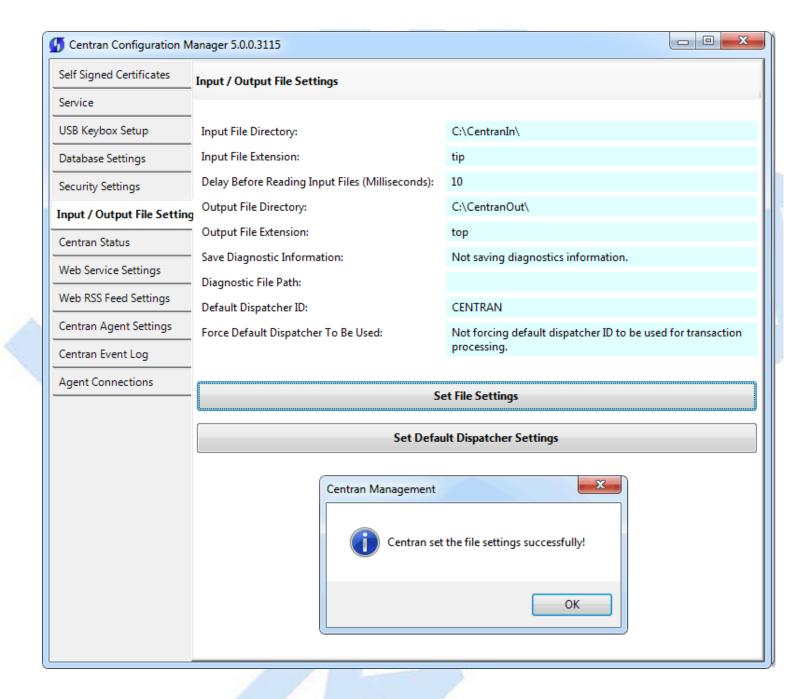
Note

CenTran has been validated against the SuperSpeed RamDisk Plus software. This software allows you to use a ram disk as the file location used for transferring CenTran transaction files. This improves performance and speed of transferring CenTran transaction files, and eliminates hard drive wear from transferring CenTran transaction files. This software is available at http://www.superspeed.com/desktop/ramdisk.php. SuperSpeed RamDisk is a Microsoft Certified software.

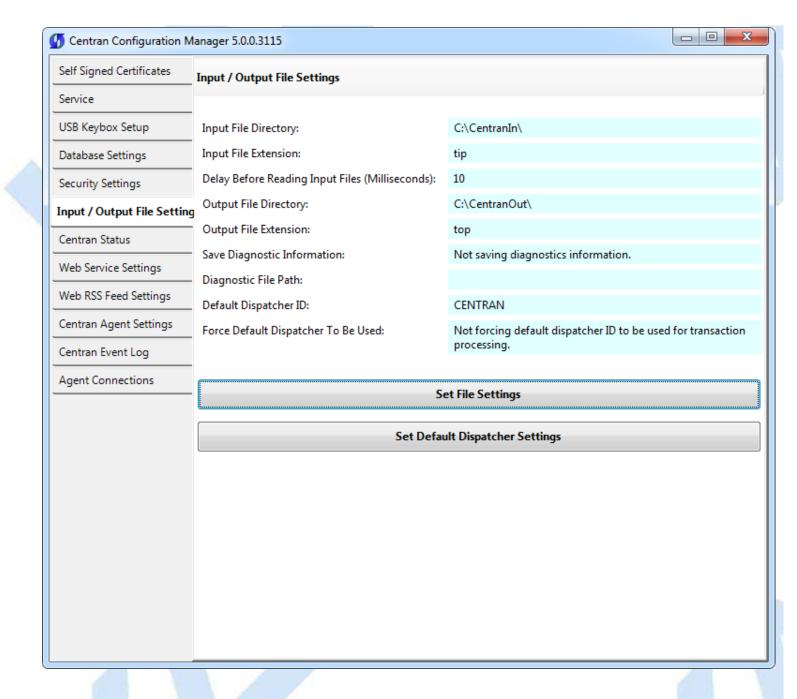
3. Click on the Set File Settings button. You should see the following dialog displayed:



4. Enter the input and output directories and extensions for the CenTran service to process files. Optionally, you can enable CenTran to record diagnostic output to a file, but this slows down performance. Once you have entered the settings you want to use, click on the **OK** button.

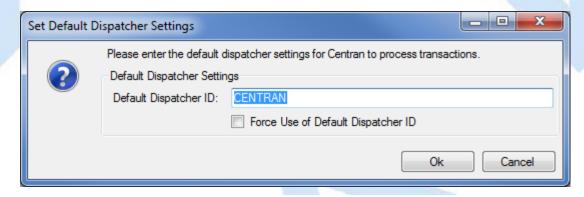


5. Click on the **OK** button on message box.

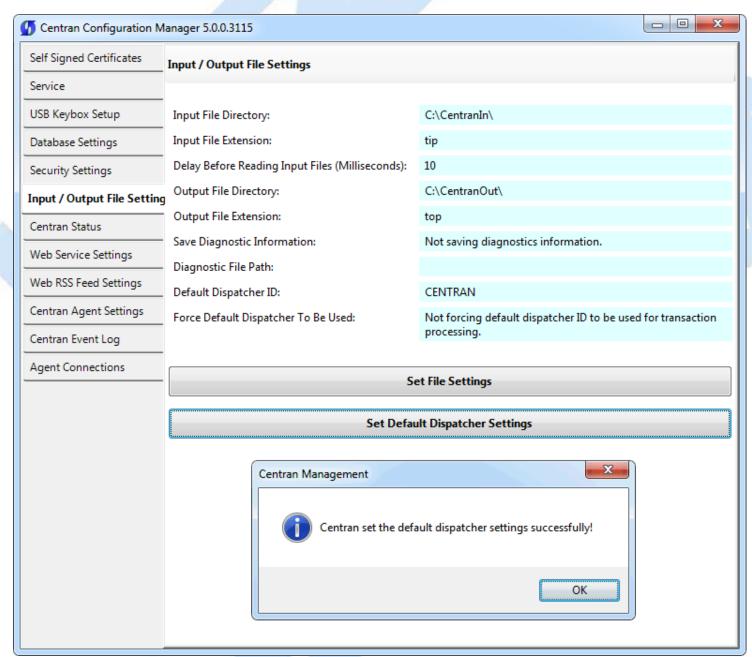


6. You will also need to set the default dispatcher ID to be used for the CenTran service when a dispatcher ID is not available for a transaction being processed. Optionally, you can force this dispatcher ID to be used instead of the dispather ID associated with a transaction. Click on the **Set Default Dispatcher Settings** button. You should see the following dialog displayed:

You should see the following dialog displayed:



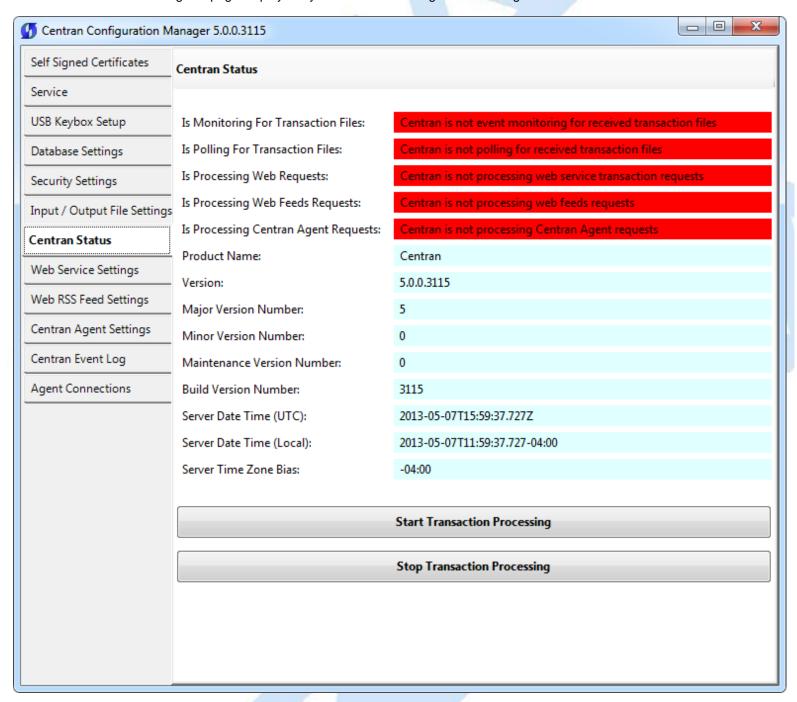
7. Enter the default dispatcher ID you want to use. This default dispatcher ID must have been already set up under Cencon, and be present in the database. The role that the default dispatcher is assigned to will effect what authorizations the default dispatcher has. Once you have entered the default dispatcher ID you want to use, click on the **OK** button.



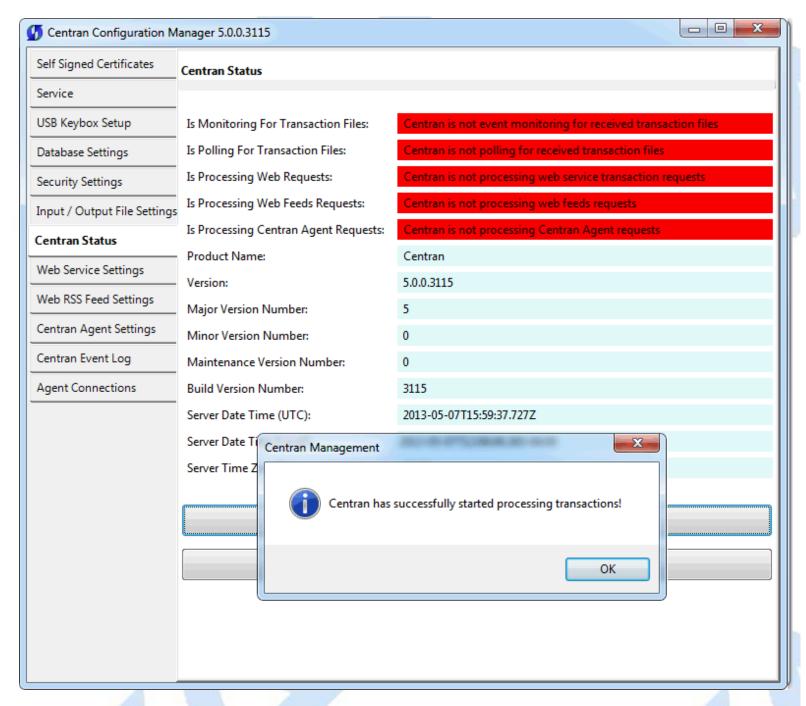
Start Transaction Processing

Click on the CenTran Status tab on the CenTran Configuration Manager:

You should see the following tab page displayed by the CenTran Configuration Manager:

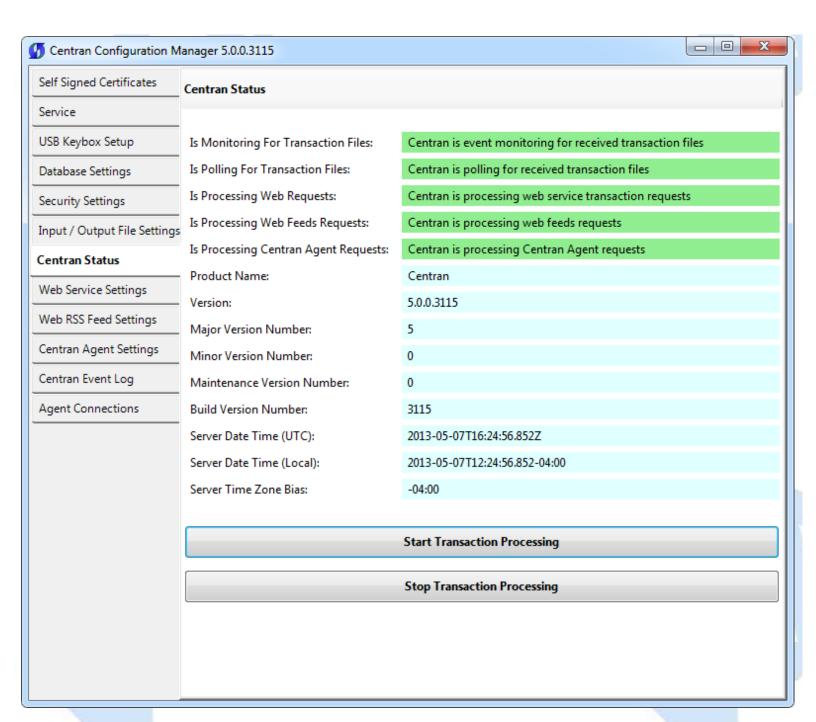


Click on the Start Transaction Processing button. You should see the following message dialog displayed:



Click on the message dialog **OK** button.

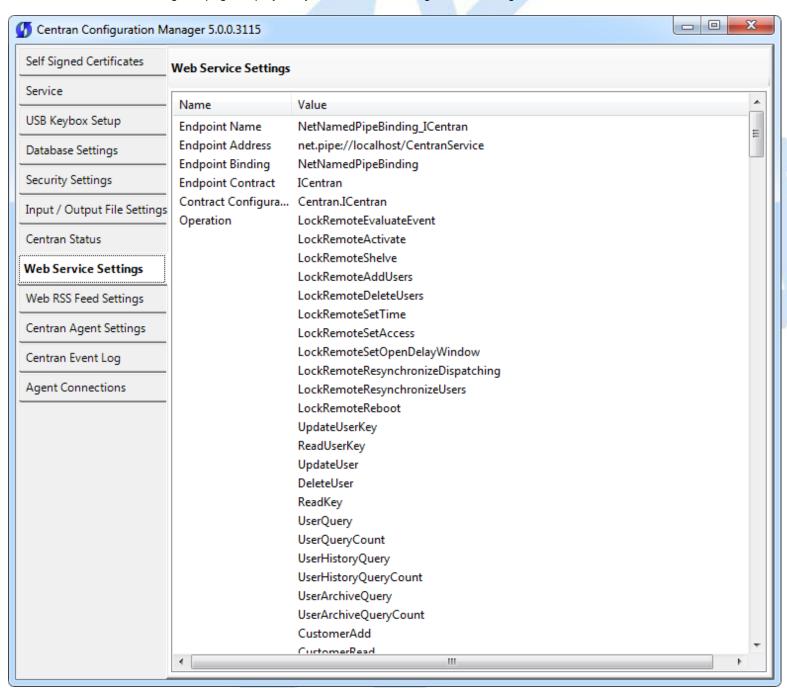




View Web Service Settings

The web service settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web service based on the settings can be viewed while the CenTran service is processing transactions.

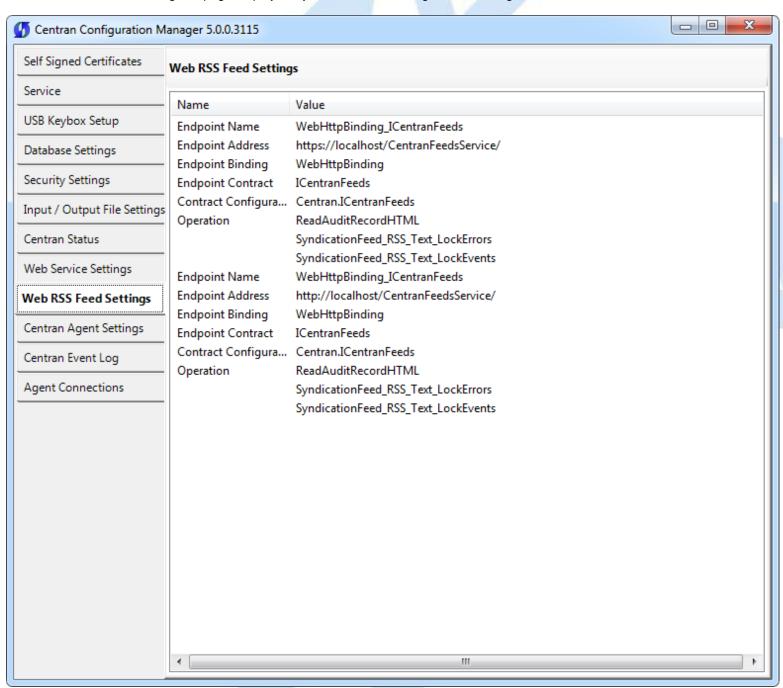
Click on the Web Service Settings tab on the CenTran Configuration Manager:



View Web RSS Feed Settings

The web rss feed settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web rss feeds based on the settings can be viewed while the CenTran service is processing transactions.

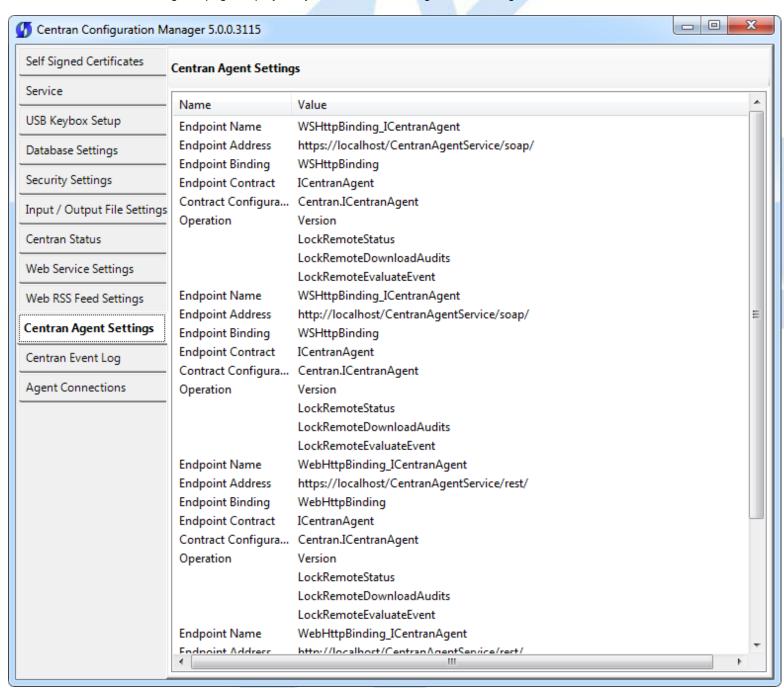
Click on the Web RSS Feed Settings tab on the CenTran Configuration Manager:



View CenTran Agent Settings

The CenTran Agent settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web service based on the settings can be viewed while the CenTran service is processing transactions.

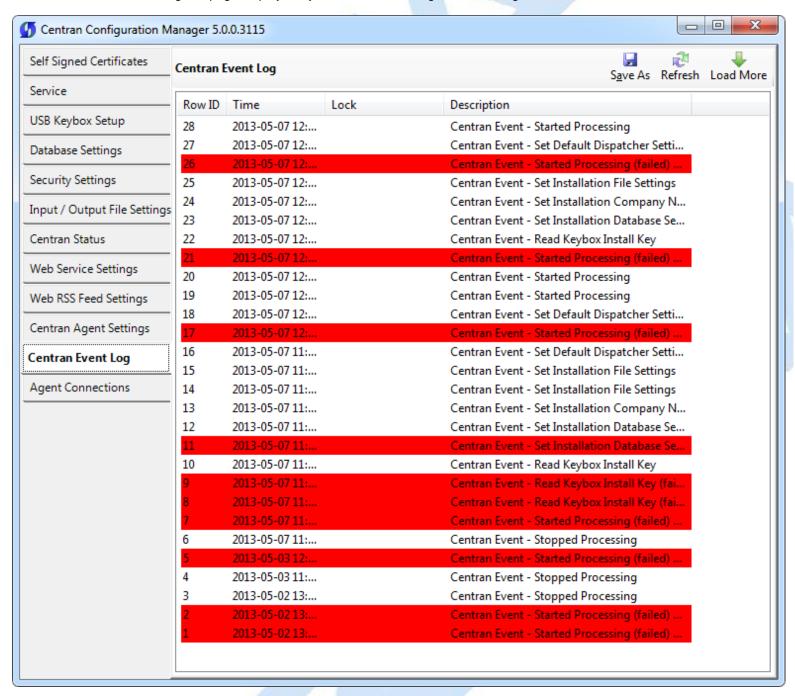
Click on the CenTran Agent Settings tab on the CenTran Configuration Manager:



View Event Log

Click on the CenTran Event Log tab on the CenTran Configuration Manager:

You should see the following tab page displayed by the CenTran Configuration Manager:



The CenTran Management interface loads event log audits 100 at a time. To load additional audits for viewing, click on the **Load More** button.

You can also save the CenTran event log to an HTML file. Click on the **Save As** button to save the event log. This will display a save file dialog to allow you to choose the file to save to. The entire event log will be saved to the file.

The CenTran event log is limited in size based on the settings you made in the CenTran service configuration file. Once the event log reaches the limit you set, it will delete the oldest audits to remain within the limit when new audits are added. This occurrs based off of the granularity you set in the configuration file. The event log will be allowed to grow slightly larger than the set limit based off of the granularity size used to regulate how often the check is made.

Additional information is available in the CenTran event log registered with the operating system. Service start and stop events are recorded there. Additionally, if internal errors occur within CenTran, the description of the error is recorded there also. This can be accessed by opening the administrative tools section of the control panel for your computer. Under that is an item labled **Event Viewer**. Open the **Event Viewer**, and you will see a CenTran event log under the application and services event logs section.

Also, additional information is available in the Windows Communiction Foundation (WCF) diagnostic output set up from the CenTran configuration file. The default settings from the CenTran configuration file creates a diagnostic output file for Windows Communication Foundation (WCF) events, named **WcfServiceTrace.svclog**. This file will be created within the application directory the CenTran service is installed to. This file can be viewed using the Microsoft Service Trace Viewer (SvcTraceViewer.exe). Double clicking on the file will automatically open the file under the Microsoft Service Trace Viewer.

The Microsoft Service Trace Viewer is available as a free download within the Windows Platform SDK.

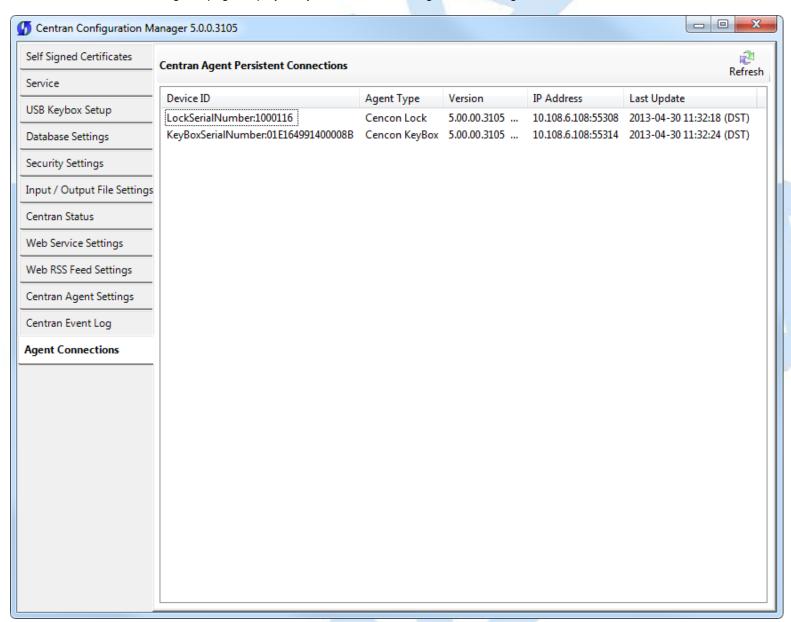
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View CenTran Agent Persistent Connections

Click on the Agent Connections tab on the CenTran Configuration Manager:

You should see the following tab page displayed by the CenTran Configuration Manager:



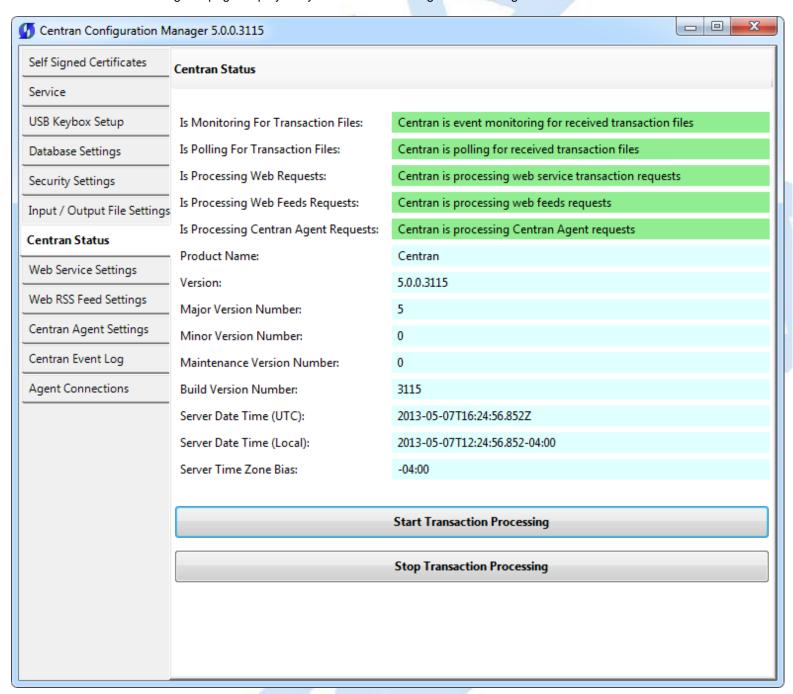
The CenTran agents use persistent connections from each agent to CenTran to avoid issues with network firewalls. Connections from client systems to a server are generally permitted by firewalls, however connections initiated from outside the firewall are denied. To allow CenTran to do network operations with an agent service, the agent services set up persistent connections that are identified by the lock or keybox. CenTran can be commanded to do an operation with a lock or keybox using these identifiers.

If you are not running any firewalls between your client systems (either ATMs or Host PCs) and CenTran, then the CenTran address does not have to be configured with the client system agent services. In this case, the agent services will default to using a direct network address for operations.

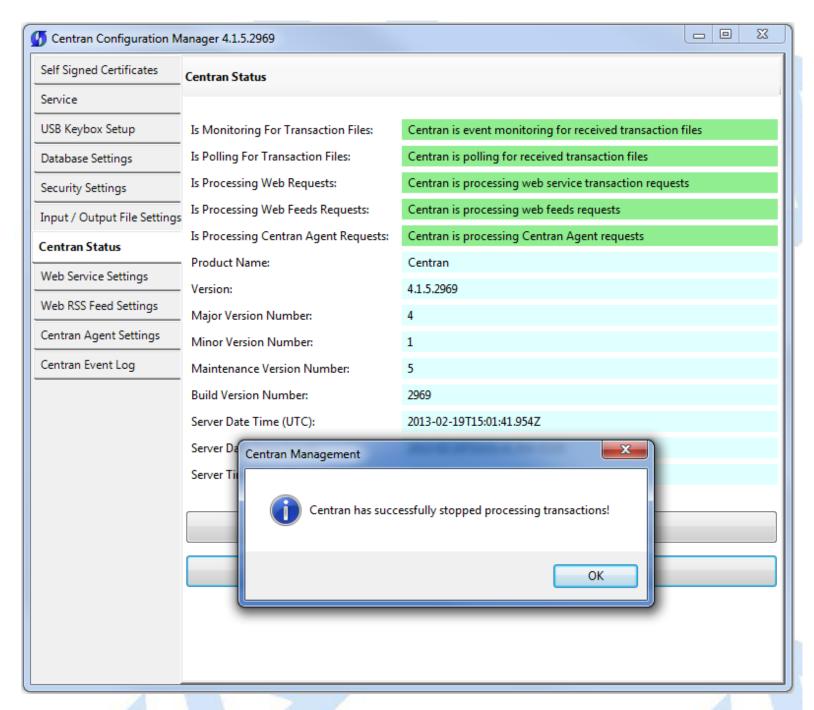
Stop Transaction Processing

Click on the CenTran Status tab on the CenTran Configuration Manager:

You should see the following tab page displayed by the CenTran Configuration Manager:

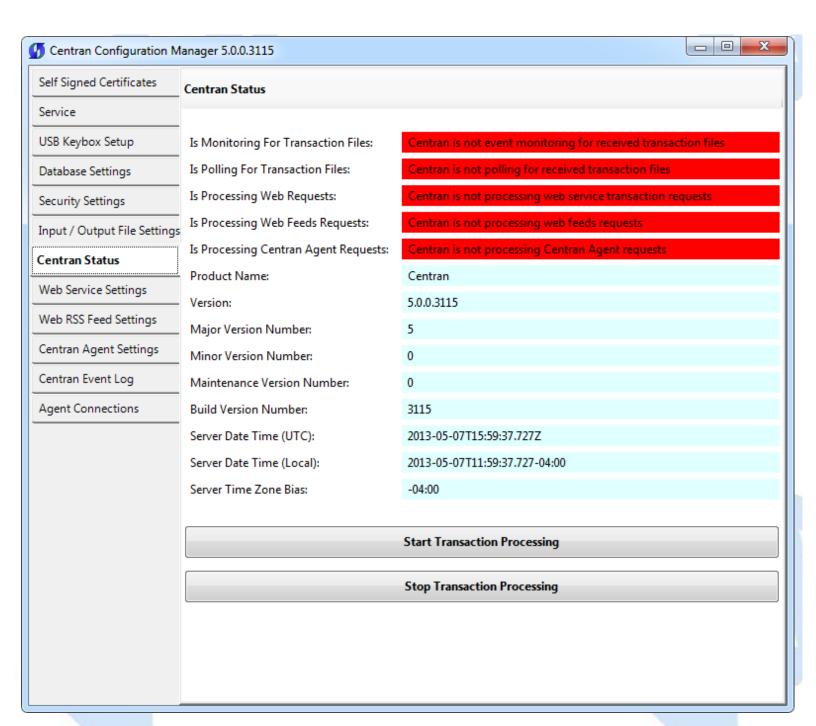


Click on the Stop Transaction Processing button. You should see the following message dialog displayed:



Click on the message dialog OK button.





Configure the CenTran Service using Web Management Interface

The web browser CenTran Management interface supports remotely managing a running CenTran service. To manage a running CenTran service, you must have already set up the appropriate CenTran configuration file settings and certificates. You must have also installed and started the CenTran service.

Managing the CenTran service:

The following sections describe setting up and managing the CenTran service using the web browser CenTran Management interface:

- Log on to CenTran Management
- Setup Keybox
- Select ODBC Database Connection
- Set Company Number
- Set File Settings
- Start Transaction Processing
- <u>View Web Service Settings</u>
- View Web RSS Feed Settings
- View CenTran Agent Settings
- View CenTran Event Log
- Stop Transaction Processing



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Log on to CenTran Management

Note: To access the CenTran Management interface in a web browser, the CenTran service must be installed and started.

Your web browser must support HTML5 and CSS3. This includes the following browsers:

- 1. Internet Explorer 9 or higher
- 2. Firefox 10 or higher
- 3. Google Chrome 16 or higher
- 4. Apple Safari 5 or higher

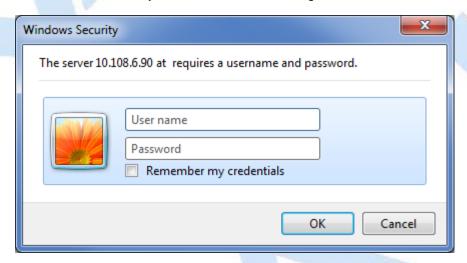
If you are using Internet Explorer, you must have compatibility mode for intranet sites turned off under the Tools menu. Press Alt-T to open the tools menu in Internet Explorer to get to this setting.

The URL of the CenTran web management interface is of the form:

https://10.108.6.90/CentranManagement/index.htm

You will need to replace the **10.108.6.90** in the URL with the name you gave the CenTran Web Service Certificate you created earlier.

Open the URL in your preferred web browser, and you should see the following:



Enter the user name and password you set in the CenTran service configuration file, and select **OK**. The default user name is **admin**. The default password is **password**.



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CenTran 5 Getting Started Guide Setup Keybox

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the **USB Keybox Setup** tab on the left side:

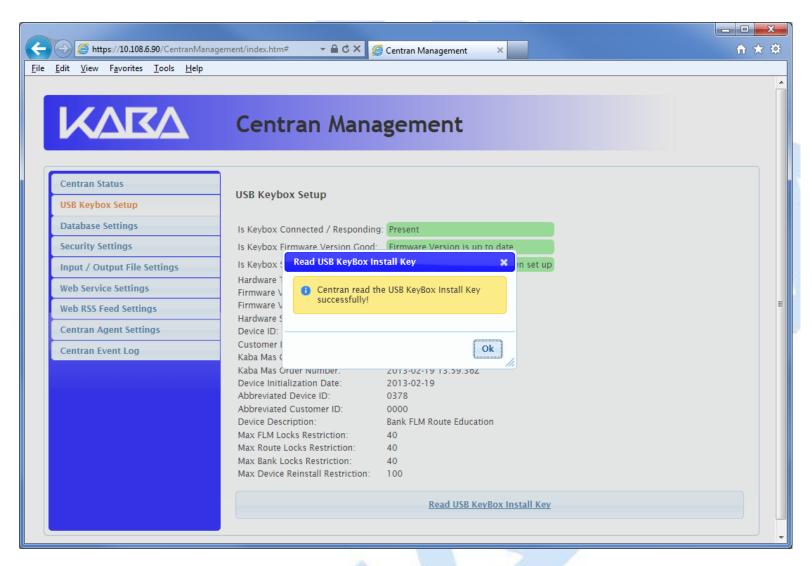
You should see the following in your web browser:



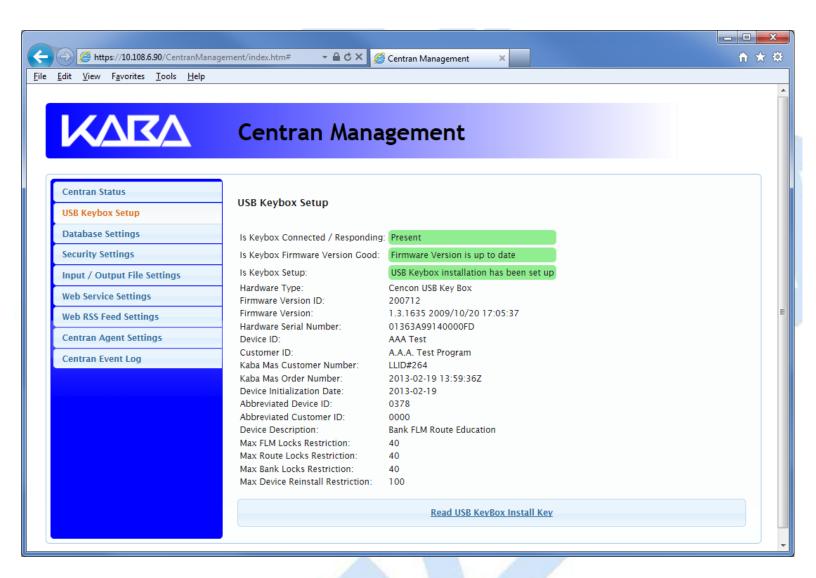
Place your Keybox install key in the first port of the keybox: (This will be the port farthest away from the USB connection.)



Click on the Read USB Keybox Install Key button on the USB Keybox Setup web page.



Click on the **OK** button on message box.



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Select ODBC Database Connection

Important Note

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By default, the CenTran service runs logged on under a **Local System** account. This gives it access to resources and settings on the host server you install it on. However, the **Local System** account only has access to the host server, not to resources on your network.

If the CenTran service is configured to run logged onto the default **Local System** account, you will need to use SQL authentication for CenTran to access the SQL Server or Oracle database.

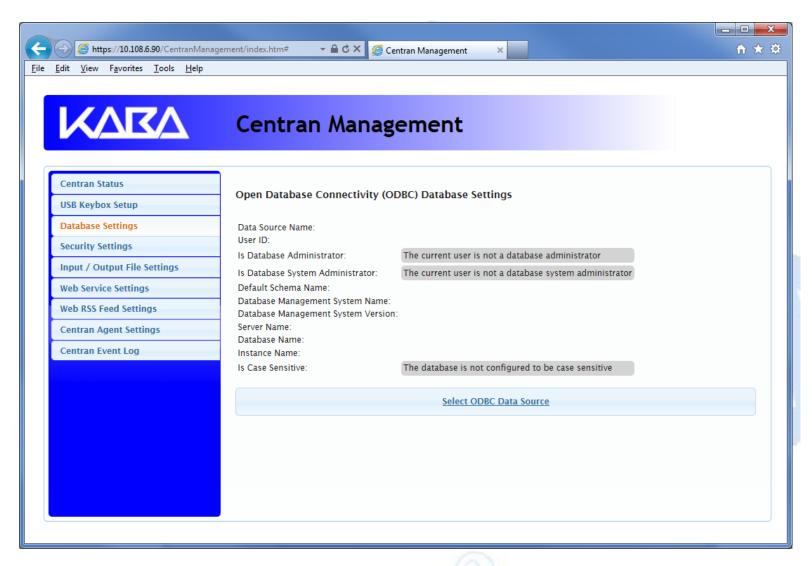
If the CenTran service is configured to run logged onto an account configured for it on your network domain, then that account must have administrative privileges on the host server CenTran is on.

If you use Windows authentication for CenTran's database authentication, then the account CenTran is logged onto must be a network domain account and have authorization to access the SQL Server or Oracle database.

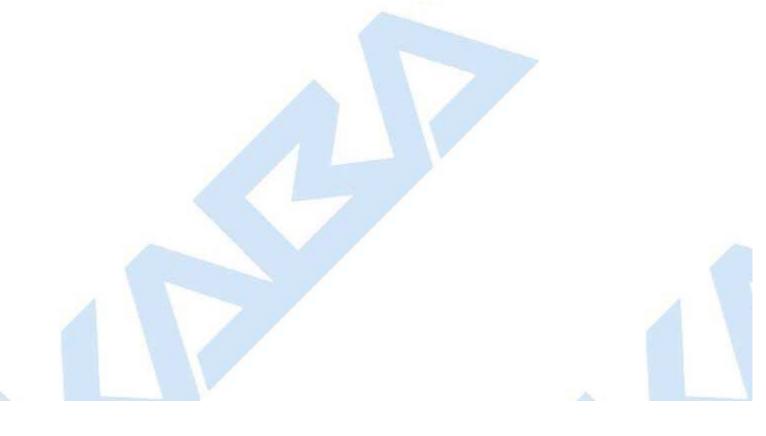
You can view and edit the CenTran service settings from the Microsoft Management Console:

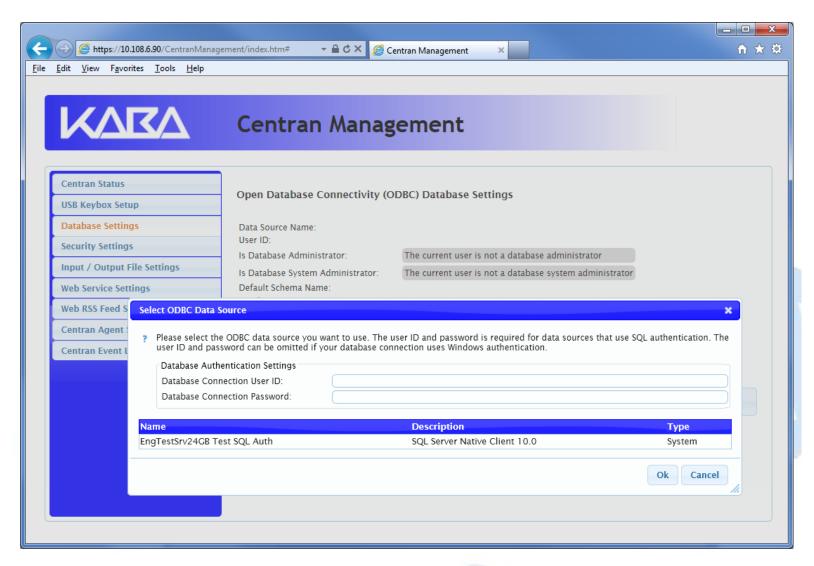
- Open the Start Menu.
- Right click on Computer.
- Select Manage from the displayed context menu. You must have administrative privileges.
- The Computer Management console will be displayed. Expand the Services and Applications section on the left side.
- Select Services from the Services and Applications section.
- Locate Centran from the list of services. Right click on Centran and select Properties from the context menu.
- A service **Properties** dialog will be displayed. Select the **Log On** tab to examine the account the service is set up to log on as.

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the **Database Settings** tab on the left side:

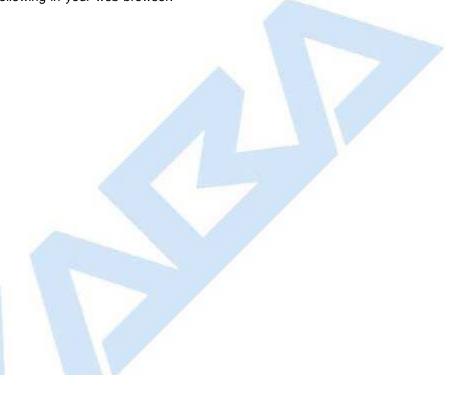


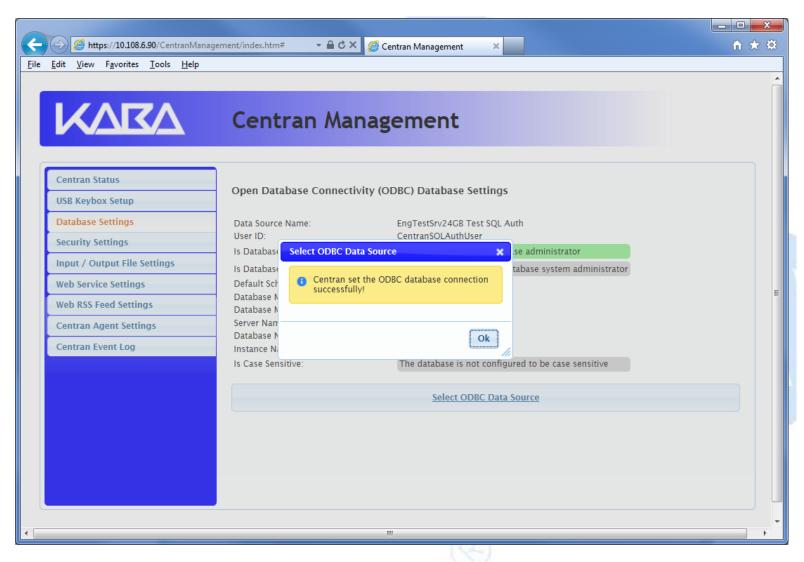
Click on the Select ODBC Data Source button. You should see the following dialog displayed:



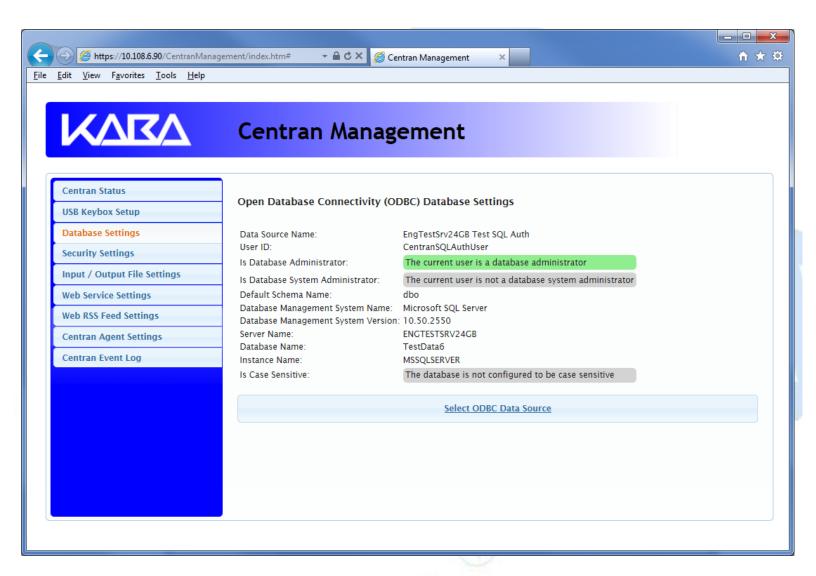


Select the ODBC database connection you want to use. If you are using SQL authentication, you will also need to enter a user name and password for the CenTran service to use with the database connection.





Click on the **OK** button on message box.



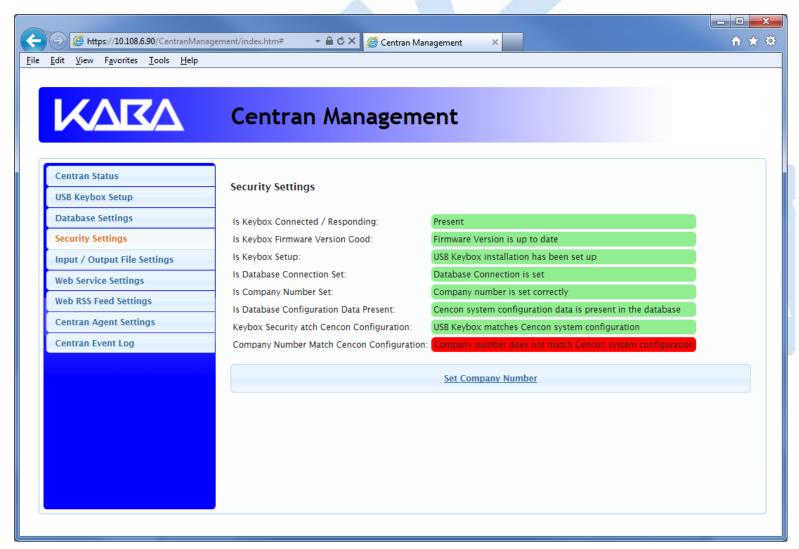
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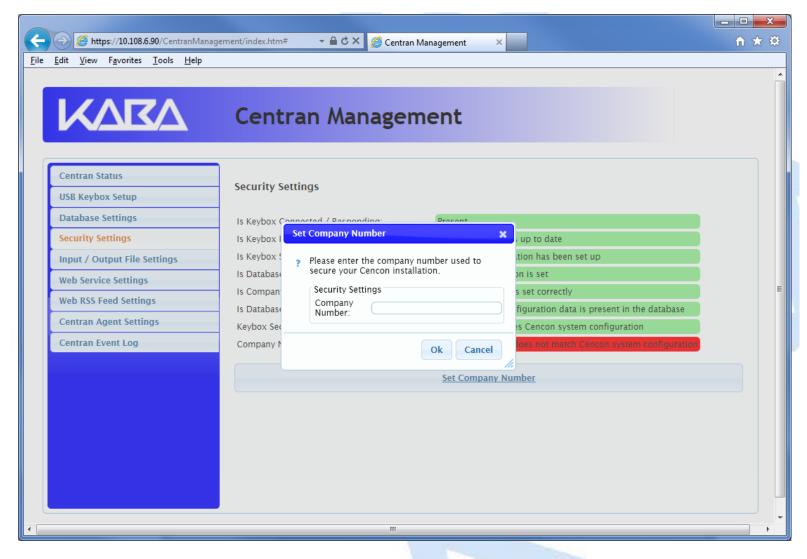
Set Company Number

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the **Security Settings** tab on the left side:

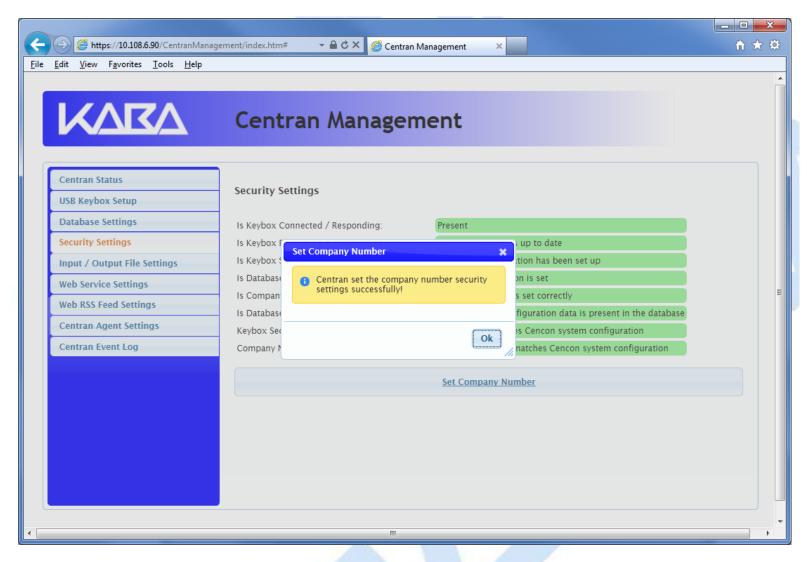
You should see the following in your web browser:



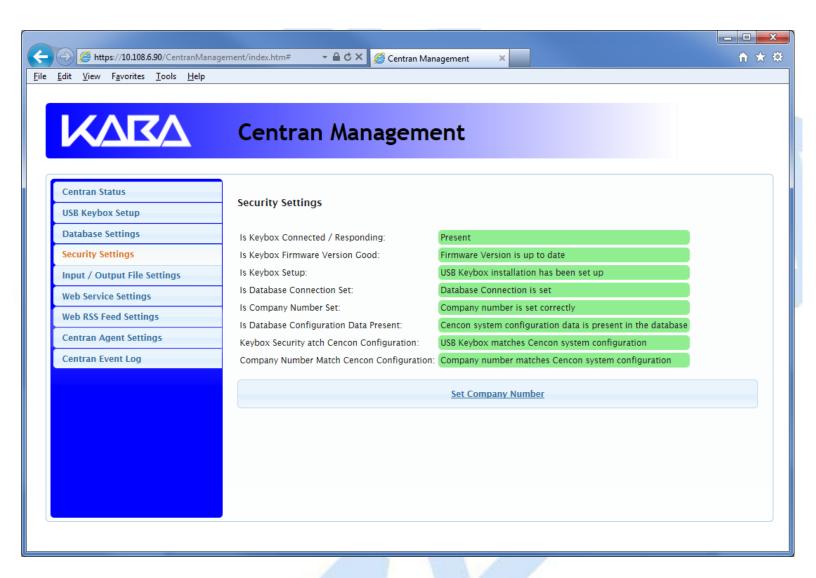
Click on the Set Company Number button. You should see the following dialog displayed:



Enter the 4 digit company number you are using with Cencon. This is a sensitive piece of security information that is part your security with the Cencon system. You should record it and keep it in a secure place. The company number you enter for use by the CenTran service must match the one you are using with Cencon.



Click on the **OK** button on message box.



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Set File Settings

Important Note

CenTran no longer runs under the permissions of the logged on user. It has been changed to run as a background service on the host server you install it on, and is independent of who is logged on. The CenTran service will run in the background even if no one is logged onto the host server.

By default, the CenTran service runs logged on under a **Local System** account. This gives it access to resources and settings on the host server you install it on. However, the **Local System** account only has access to the host server, not to resources on your network.

If you are configuring CenTran to access a shared file location on your network, not on the host server, then you will need to set up CenTran with a network domain account.

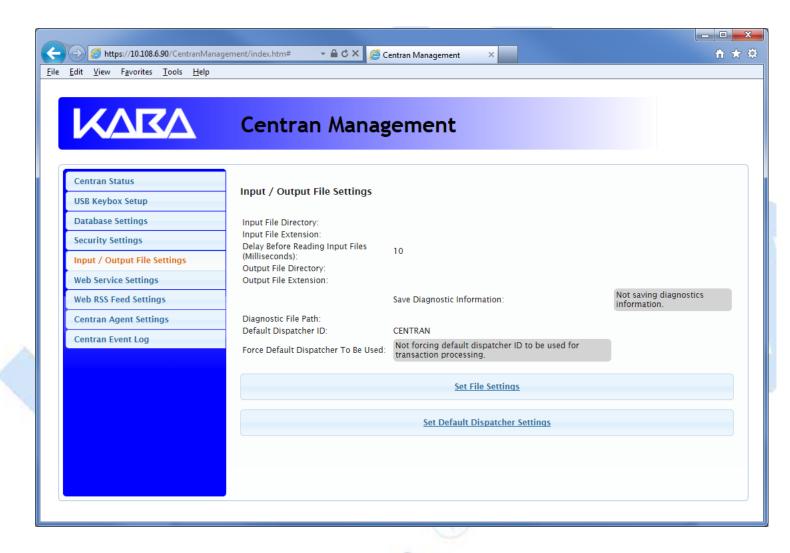
The account you set up CenTran to run logged onto must have administrative privileges on the host server CenTran is on. It must also have read / write access to the directories you are using for file input / output.

In this case, the file directories must be identified by UNC (Universal Naming Convention) paths: "\server\share\path\"

You can not use mapped drive letters for network paths for a service. Mapped drive letters for network paths are specific to an account. They are not accessable from other accounts. If you set up a mapped drive letter for your logged on account, that does not mean that CenTran can access it from its account.

You can view and edit the CenTran service settings from the Microsoft Management Console:

- Open the Start Menu.
- Right click on Computer.
- Select Manage from the displayed context menu. You must have administrative privileges.
- The Computer Management console will be displayed. Expand the Services and Applications section
 on the left side.
- Select Services from the Services and Applications section.
- Locate Centran from the list of services. Right click on Centran and select Properties from the context menu.
- A service **Properties** dialog will be displayed. Select the **Log On** tab to examine the account the service is set up to log on as.
- You will need to have already logged onto the CenTran Management interface in your web browser. Click on the Input / Output File Settings tab on the left side:

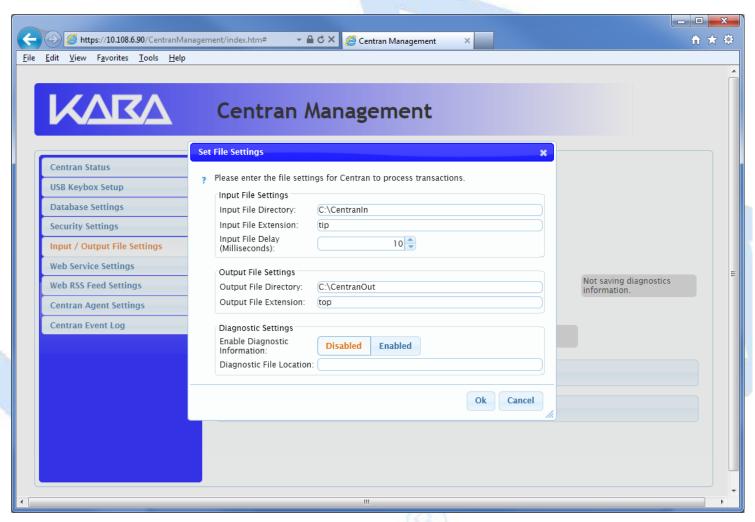


- 2. You will need to setup an input directory and an output directory for CenTran to receive file transactions and return the response.
 - Input Directory The input directory is the directory where CenTran reads transactions being sent to it. It looks in this directory for files representing lock transactions to be processed. You will need to create an input directory that you want to use for CenTran to listen for incoming file transactions.
 - Input File Extension The input file extension defined here is the file extension CenTran looks for when attempting to find transaction input files in the input directory that has been identified. If an input file extension is not set, then the CenTran service will attempt to read any file placed in the input directory.
 - Input File Delay The delay before reading next input transaction file setting is intended to allow a delay after detecting a file and before reading it. It is possible for an error in reading the input file to occur if it has not been completely written to the input directory yet. This delay allows the write of the input file to complete before the CenTran service reads the file. This delay begins when a transaction file is detected in the input directory by CenTran.
 - Output Directory The output directory is the directory where CenTran places the output files containing the results of processed transactions. This directory can be the same directory as the one used to contain input files. If the two directories are the same, then the files must have different extensions assigned. You will need to create an output directory that you want to use for CenTran to write output files to.
 - Output File Extension The output file extension is the file extension placed by CenTran at the end of output file names. The file names will be the same as the input file names, except for the file extension. If an output file extension is set, then that extension will be placed at the end of output files produced by CenTran.

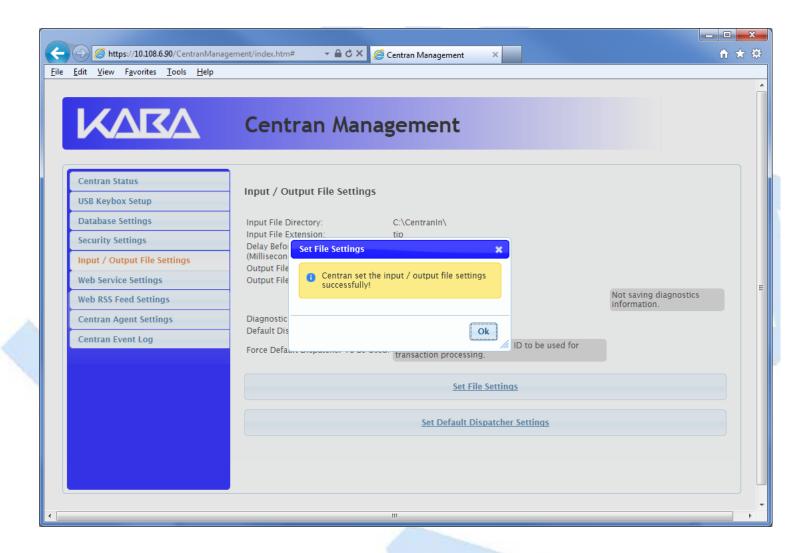
Note

CenTran has been validated against the SuperSpeed RamDisk Plus software. This software allows you to use a ram disk as the file location used for transferring CenTran transaction files. This improves performance and speed of transferring CenTran transaction files, and eliminates hard drive wear from transferring CenTran transaction files. This software is available at http://www.superspeed.com/desktop/ramdisk.php. SuperSpeed RamDisk is a Microsoft Certified software.

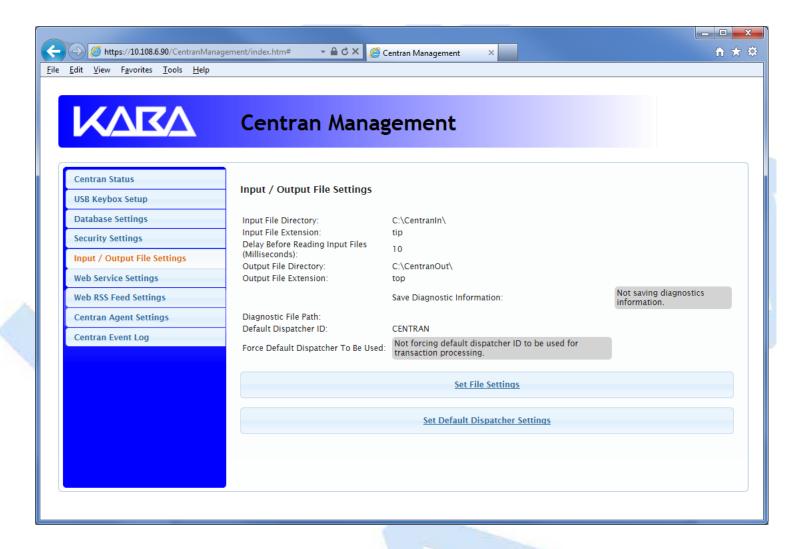
3. Click on the Set File Settings button. You should see the following dialog displayed:



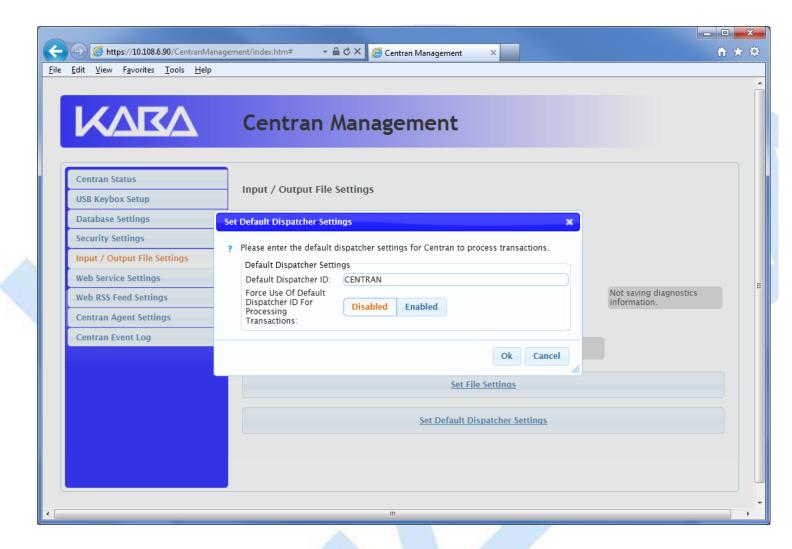
4. Enter the input and output directories and extensions for the CenTran service to process files. Optionally, you can enable CenTran to record diagnostic output to a file, but this slows down performance. Once you have entered the settings you want to use, click on the **OK** button.



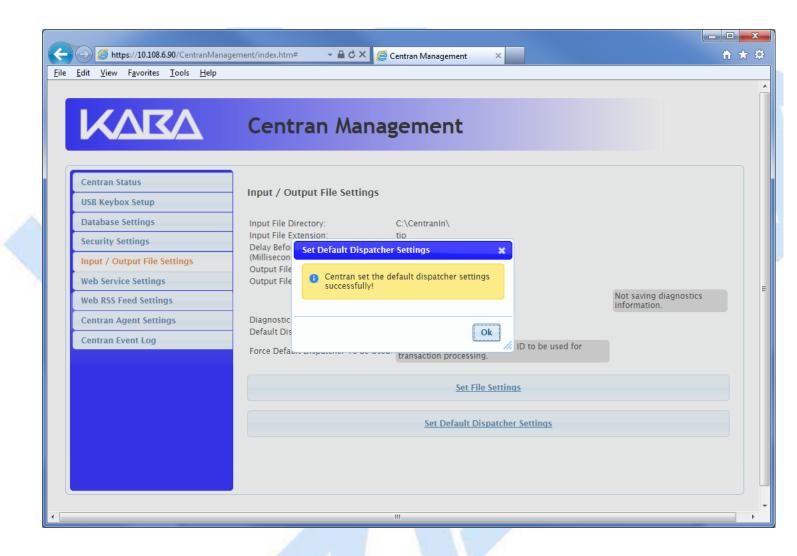
5. Click on the **OK** button on message box.



6. You will also need to set the default dispatcher ID to be used for the CenTran service when a dispatcher ID is not available for a transaction being processed. Optionally, you can force this dispatcher ID to be used instead of the dispatcher ID associated with a transaction.



7. Enter the default dispatcher ID you want to use. This default dispatcher ID must have been already set up under Cencon, and be present in the database. The role that the default dispatcher is assigned to will effect what authorizations the default dispatcher has. Once you have entered the default dispatcher ID you want to use, click on the **OK** button.

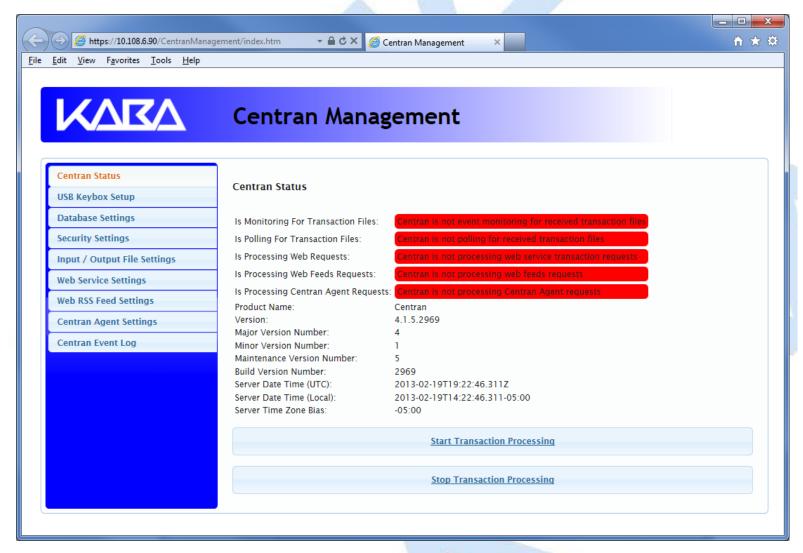


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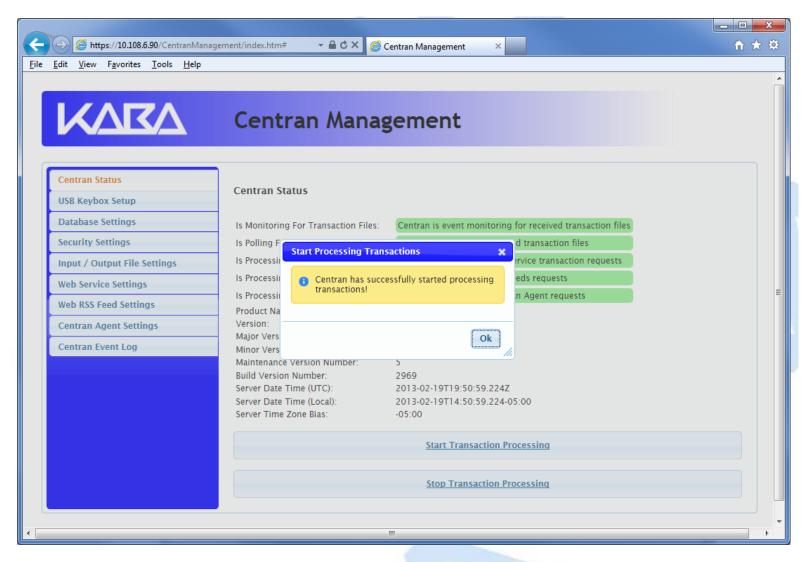
Start Transaction Processing

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the CenTran Status tab on the left side:

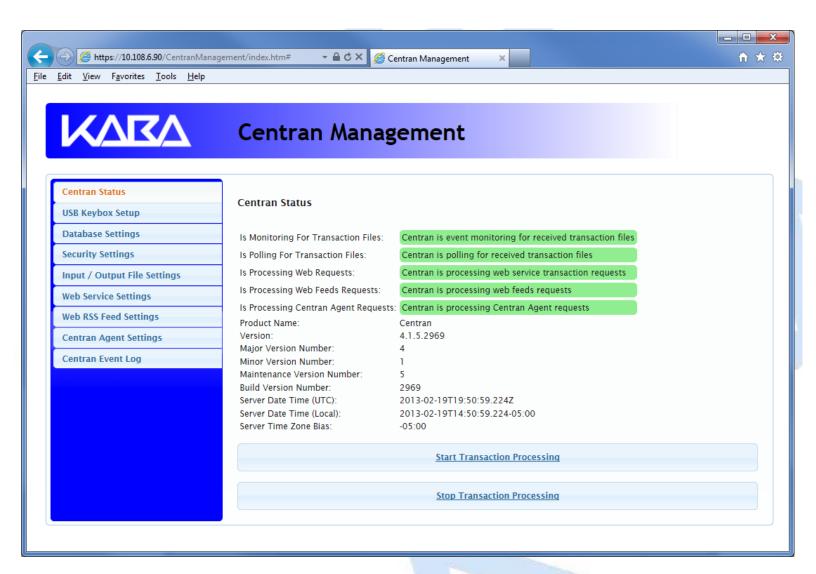
You should see the following in your web browser:



Click on the Start Transaction Processing button. You should see the following message dialog displayed:



Click on the message dialog **OK** button.



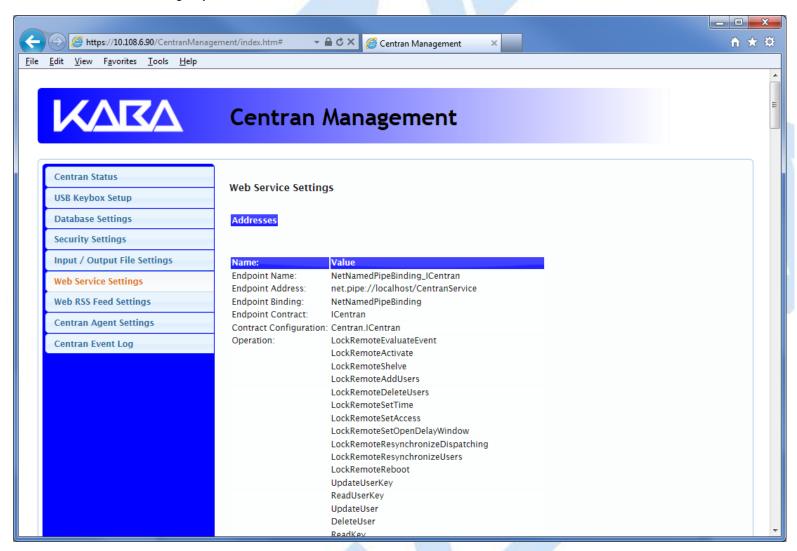
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View Web Service Settings

The web service settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web service based on the settings can be viewed while the CenTran service is processing transactions.

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the **Web Service Settings** tab on the left side:

You should see the following in your web browser:



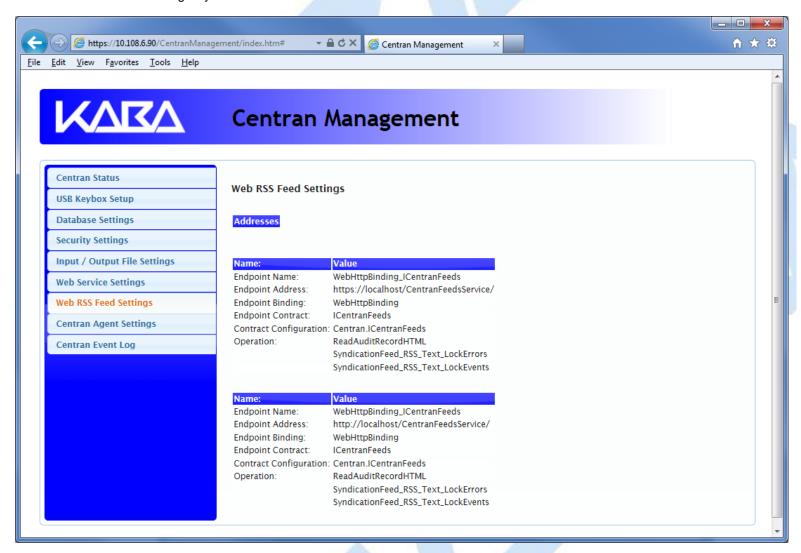
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View Web RSS Feed Settings

The web rss feed settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web rss feeds based on the settings can be viewed while the CenTran service is processing transactions.

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the **Web RSS Feed Settings** tab on the left side:

You should see the following in your web browser:



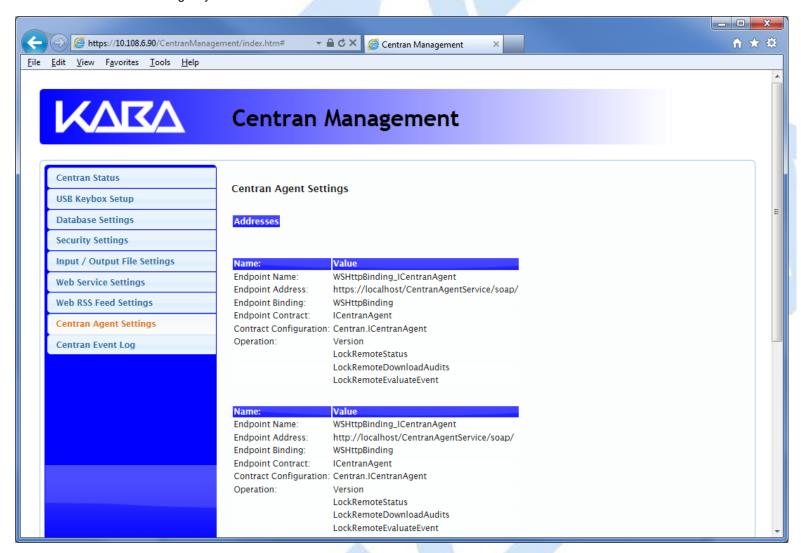
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View CenTran Agent Settings

The CenTran Agent settings are configured in the **sytem.serviceModel** section of the CenTran service configuration file. The resultant web service based on the settings can be viewed while the CenTran service is processing transactions.

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the CenTran Agent Settings tab on the left side:

You should see the following in your web browser:

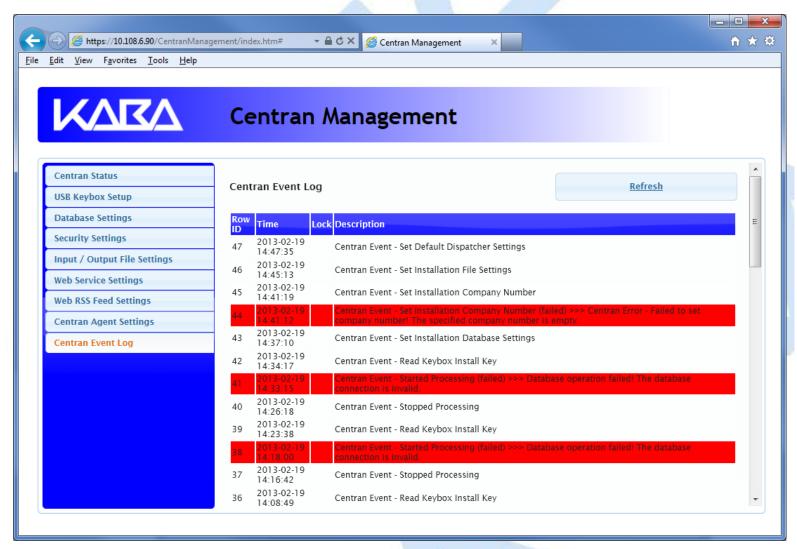


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View Event Log

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the CenTran Event Log tab on the left side:

You should see the following in your web browser:



The CenTran Management interface loads event log audits 100 at a time. To load additional audits for viewing, scroll to the bottom of the current audits. Additional audits will be loaded automatically, and the scroll position will be moved up.

The CenTran event log is limited in size based on the settings you made in the CenTran service configuration file. Once the event log reaches the limit you set, it will delete the oldest audits to remain within the limit when new audits are added. This occurrs based off of the granularity you set in the configuration file. The event log will be allowed to grow slightly larger than the set limit based off of the granularity size used to regulate how often the check is made.

Additional information is available in the CenTran event log registered with the operating system. Service start and stop events are recorded there. Additionally, if internal errors occur within CenTran, the description of the error is recorded there also. This can be accessed by opening the administrative tools section of the control panel for your computer. Under that is an item labled **Event Viewer**. Open the **Event Viewer**, and you will see a CenTran event log under the application and services event logs section.

Also, additional information is available in the Windows Communiction Foundation (WCF) diagnostic output set up from the CenTran configuration file. The default settings from the CenTran configuration file creates a diagnostic output file for Windows Communication Foundation (WCF) events, named **WcfServiceTrace.svclog**. This file will be created within the application directory the CenTran service is installed to. This file can be viewed using the Microsoft Service Trace Viewer (SvcTraceViewer.exe). Double clicking on the file will automatically open the file under the Microsoft Service Trace Viewer.

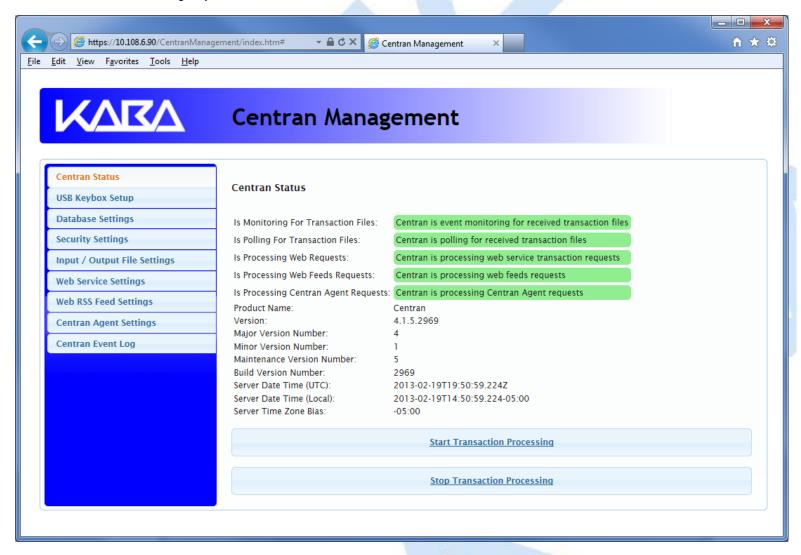
The Microsoft Service Trace Viewer is available as a free download within the Windows Platform SDK.

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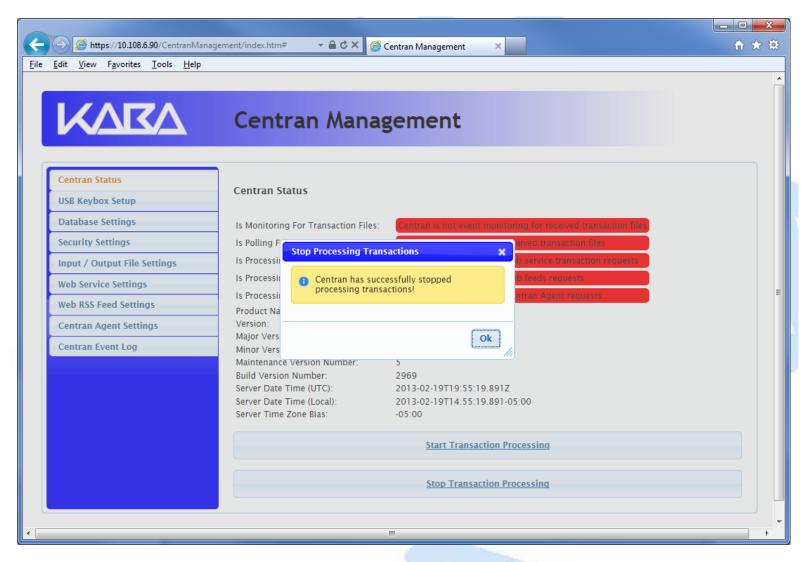
Stop Transaction Processing

You will need to have already logged onto the CenTran Management interface in your web browser. Click on the CenTran Status tab on the left side:

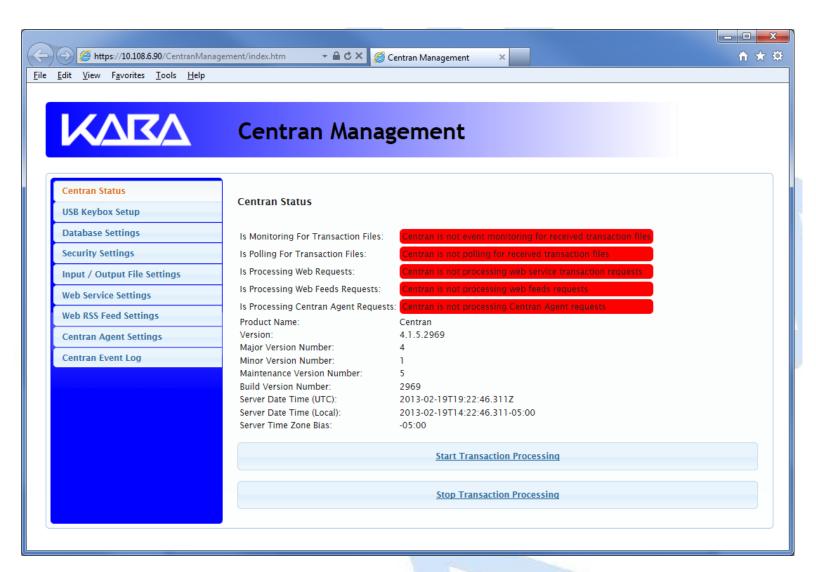
You should see the following in your web browser:



Click on the Stop Transaction Processing button. You should see the following message dialog displayed:



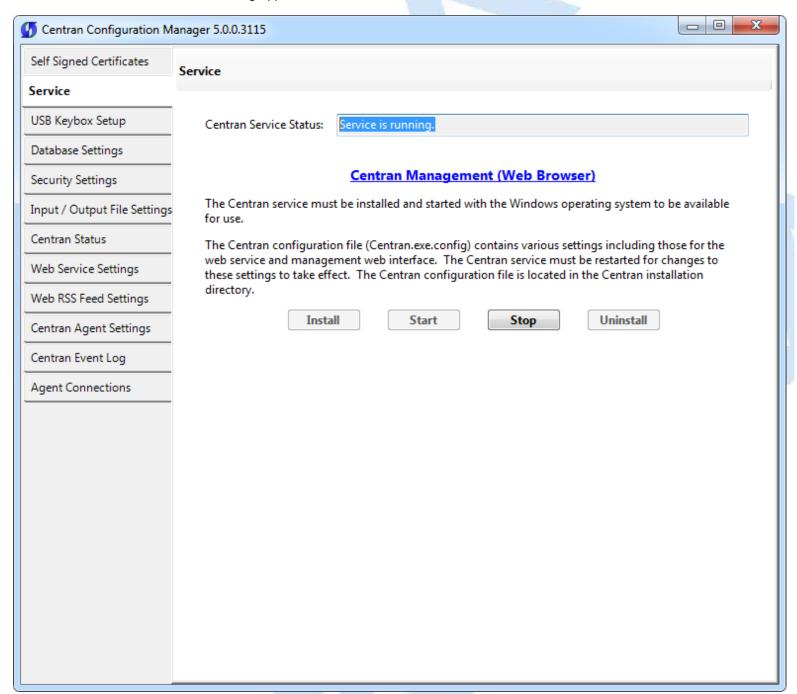
Click on the message dialog **OK** button.



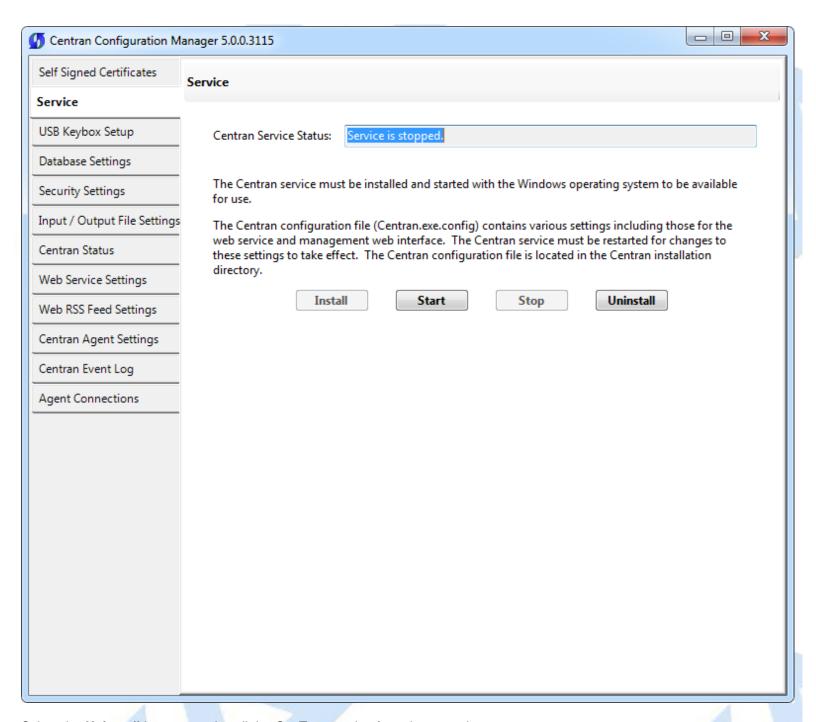
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Stop / Uninstall the CenTran Service

To stop and uninstall the CenTran service, select **CenTran Configuration Manager** from the CenTran entry under the Windows Start menu. You should see the following application:

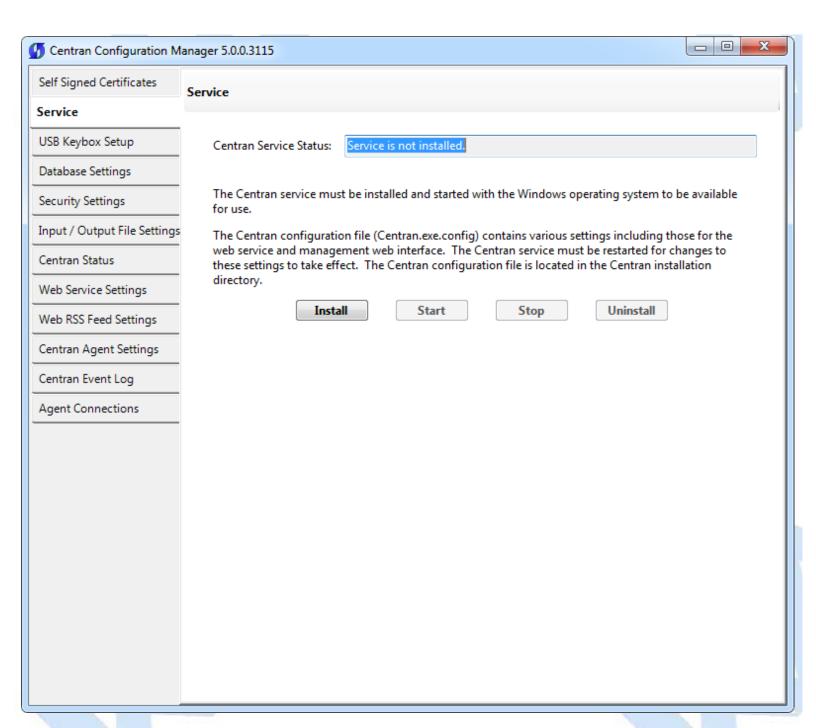


Select the **Stop** button to stop the CenTran service with the operating system.



Select the **Uninstall** button to uninstall the CenTran service from the operating system.





Appendix A - Beta Expiration

The beta versions of CenTran, the ATM Agents and the Keybox Agents will be assigned an initial expiration date of 180 days after the date of creation by Kaba Mas.

When CenTran or an agent is within 60 days of its expiration date entries will be posted to the database audit log documenting the situation. CenTran and the agents will continue to function.

When CenTran expires an entry will be posted to the database audit log identifying the event. An expired CenTran will not process transaction requests but will return an error condition to the transaction requestor. An entry will be posted to the database audit log documenting the transaction that failed due to an expired CenTran.

In a future Beta release the customer will be provided with the ability to reset the expiration date, and the date on which the warnings begin, for CenTran and the Agents with help from Kaba Mas Technical Support.

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Appendix B - Troubleshooting: Check Certificates

The following items can be checked for CenTran Certificates:

CenTran Configuration File:

The CenTran configuration file section for **behaviors** >> **serviceBehaviors** >> **serviceCertificate**. has the entries for what certificate is going to be used by CenTran. See <u>serviceCertificate of serviceCredentials</u> for a detailed description of these values.

The certificate can be identified by name or by thumbprint. By default it is set up by the CenTran Configuration Manager by thumbprint.

• CenTran Configuration Manager:

Open the CenTran Configuration Manager.

Check the Self Signed Certificates tab.

The **CenTran Web Service Server Certificate** will show a certificate name. This name must exactly match how the web browser is being used to access CenTran, or the certificate will not match.

Certificate Source:

The certificate can be self signed, or from a certificate authority. If the certificate for the CenTran web service is from a network certificate authority, any clients will automatically trust the CenTran certificate.

If the certificate is self signed, then to establish a chain of trust, that certificate or certificate authority must be installed manually with client systems.

If the certificate is self signed and created on Windows Server 2003, the level and size of the encryption of the certificates do not match the requirement for SSL. To do SSL off of Windows Server 2003, you will need to generate proper certificates from a system running Windows 7 or higher, or get certificates from a network certificate authority.

Exporting CenTran Certificate:

From the start menu, select Accessories and right click on Command Prompt. Select Run as administrator.

The command prompt should have the title **Administrator**: **Command Prompt**.

Type **mmc** at the administrator command prompt.

You should see a window that says Console1 - [Console Root]

Click File >> Add / Remove Snap In.... A dialog labeled Add or Remove Snap-ins should be displayed.

Select **Certificates** and click **Add**. Select **Computer account** and then **Local Computer** from the dialogs that are displayed. Click **Finished**.

Click **OK** in the **Add or Remove Snap-ins** dialog.

Under Certificates (Local Computer), expand Trusted Root Certification Authorities, and expand Certificates.

Select the certificate matching the Certificate Authority used to generate the self signed certificate used for CenTran. Right click on the certificate and select **All Tasks** >> **Export...**.

The Certificate Export Wizard is displayed. Export the certificate without the private key. Use the default settings to export the certificate to a .CER file.

Client System Self Signed Certificate Install:

Open up a console with the Certificates snap in as administrator as described above, on the client computer system that is

going to be accessing the CenTran web service.

Under Certificates (Local Computer), expand Trusted Root Certification Authorities, and expand Certificates.

Right click on Certificates and select All Tasks >> Import....

Import the certificate .CER file you exported from the CenTran server.

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Appendix C - Troubleshooting: Check Run Time Error

The following places can be checked to determine the nature of a run time error from a transaction with CenTran:

• CenTran Configuration Manager:

Open the CenTran Configuration Manager.

Check if the CenTran service is installed and running under the **Service** tab. If the service is not installed and running, go to the Getting Started Guide to set up CenTran.

Check if the CenTran service is processing transactions under the **CenTran Status** tab. If CenTran is properly set up but processing has stopped, attempt stopping and restarting the service.

Check the **CenTran Event Log** for indications of the nature of the error.

• System Event Log:

Open Control Panel >> Adminstrative Tools.

Select Event Viewer, right click and select Run as administrator.

Look for the section labeled **Summary of Administrative Events**. Expand the category that called **Error**. Look for for an entry with a **Source** labeled **CenTran Service**, and double click it.

Examine the errors list there. If CenTran has had internal exceptions, the details should be listed as entries here.

Windows Communications Foundation (WCF) Trace Log:

Open the CenTran install directory. Look for a file named **WcfServiceTrace.svclog**. Double click on this file to open it using the Microsoft Service Trace Viewer.

See <u>Service Trace Viewer Tool (SvcTraceViewer.exe)</u> on the Microsoft web site for details. This tool is available with the Microsoft SDK install.

Examine the trace for errors. This will let you know if CenTran received a web service request and what processing occurred. If the web service request was not received, then a browser or network configuration issue is blocking the requests.

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