KABA MAS

CenTran Version 5 Agent Getting Started Guide

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 Cencon®.

Introduction

The CenTran Agent is a background service that runs on the ATM and monitors and provides network access to the Cencon® lock.

Monitoring the lock: When an event occurs at the lock, such as the lock being opened or closed, the agent detects it and transmits a lock event report which can be used by software monitoring the ATM's status. To obtain the information for the lock event report, the agent can contact one or more CentTran servers to evaluate the lock event, or it can simply read and report the status of the lock. Each lock mode can be configured with its own CenTran server, allowing multiple companies to support the lock.

Providing network access to the lock: CenTran and Cencon servers that can directly connect to the ATM can open serial connections to the lock through a TCP port that the agent listens on. The agent also can be configured to open and maintain persistent connections to one or more CenTran servers that may not be able to directly access the ATM because of firewalls.

Manual Conventions

Trademarks

Table Of Contents

Manual Conventions

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

- 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. Some samples in this document are from Windows XP, some are from Windows Vista, and some are from Windows 7.
- 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 Agent 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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- PowerStar Technology
- Smart Key

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CenTran Version 5 Agent 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 ATM Cash Vault Security System Component Architecture
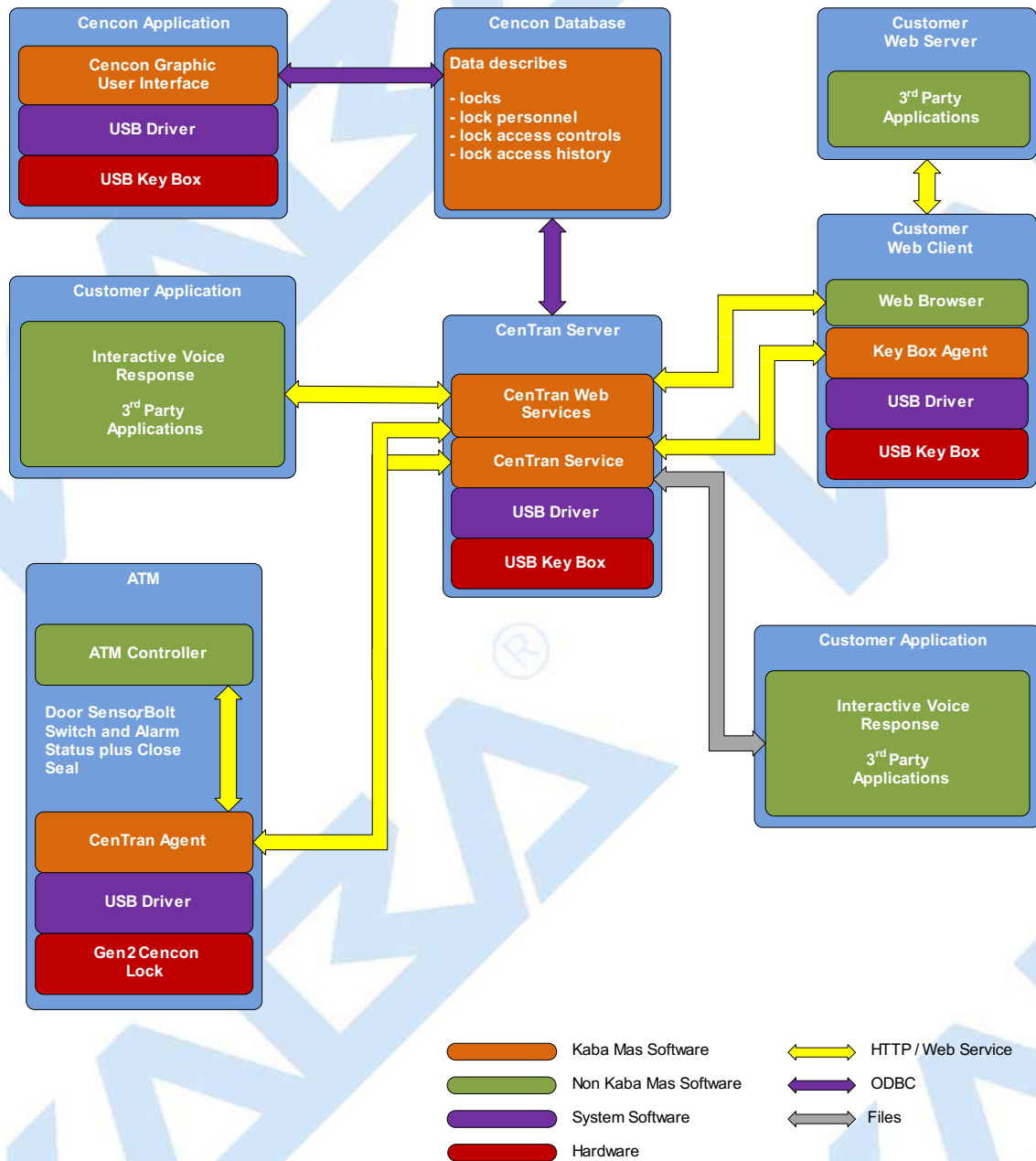
Cencon Database:

- 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

CenTran Agent Network Configurations

The CenTran Agent allows Cencon and CenTran to control and monitor a Cencon Gen 2 lock in real time.

Cencon

The Cencon **Lock Operations with Serial Connect** functions can be executed against Cencon Gen 2 locks on ATMs on which the CenTran Agent has been installed.

The Cencon **Activity Report** will display activity records for events such as opens and closes at remote Cencon Gen 2 locks on ATMs on which the CenTran Agent has been installed. Events occurring at these locks will be recorded in the Cencon database in real time.

CenTran

To make use of the new functions provided by the CenTran Agent via the CenTran File Interface, see the **Remote Lock Management XML Transactions** chapter in the **CenTran Programming Reference Manual** for information on the operations that can be performed against Gen 2 locks on ATMs on which the CenTran Agent has been installed.

To make use of the new functions provided by the CenTran Agent via the CenTran Web Service Interface, see the **Web Service Remote Lock Management** chapter in the **CenTran Programming Reference Manual** for information on the operations that can be performed against Gen 2 locks on ATMs on which the CenTran Agent has been installed.

One CenTran Service Connected to Multiple CenTran Agents

One CenTran Service installation can be connected to multiple CenTran Agents. A CenTran Agent can be on a network readily accessible to the CenTran Service or it can be on a network that resides behind a firewall through which CenTran cannot pass.

When the CenTran Agent resides on the same network as CenTran, the connection between the agent and CenTran can be established in one of two ways.

One method is for the CenTran Service to establish a TCP connection to the agent's pass-through port. This type of connection is established only when one is needed and exists only long enough to perform the desired transaction.

The second method is for the agent to maintain a persistent TCP connection with CenTran. The agent re-establishes this connection as necessary.

When a CenTran Agent resides behind a firewall through which CenTran cannot pass, the agent must be configured to maintain a persistent TCP connection with CenTran. The agent re-establishes this connection as necessary, so that it will be available when Centran needs to connect to the agent.

See section Update Program Configuration File for information on the setup of the CenTran Agent configuration file to handle this situation.

One Lock Supported By Multiple Companies

There are times when the different modes of a given Gen 2 lock are serviced by different companies. Each company may have its own CenTran installation. In such cases, the CenTran agent can be configured to communicate in real time with the CenTran installation associated with each lock mode.

See section Update Program Configuration File for information on the setup of the CenTran Agent configuration file to handle this situation.

CenTran Version 5 Agent Getting Started Guide

The CenTran Version 5 Agent Package

The CenTran 5 Agent implementation package includes:

- The CenTran Version 5 Agent Install CD, Version 4.0.0
- CenTran 5 Agent Getting Started Guide

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

CenTran 5 Agent System Requirements

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

- ATM containing IBM compatible PC that is capable of running Windows and has an available USB port for the Kaba Mas Cencon Lock.

Note
The Cencon Lock requires a fully compliant USB 2.0 connection.

- 768 MB RAM
- Hard Disk Drive with at least 5 megabytes disk space free

- Windows XP 32-bit Professional (Service Pack 3), Windows Vista 32/64-bit (SP 2) or Windows 7 32/64-bit. You must be logged into Windows with Admin authority.

Note - The screens shown in the CenTran Agent Software manuals were captured on a Microsoft Windows XP, Windows Vista, or a Windows 7 system. Your screens may look slightly different.

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

CenTran Version 5 Agent Getting Started Guide

Software Installation and Setup

Silent Software Installation and Setup

To install the software without user input to the default installation folder (C:\CentranAgent5), complete the following steps. The silent installation process will, if necessary, install the .NET Framework 4 and uninstall an existing CenTran Agent installation before installing the version of CenTran Agent that is on the install CD.

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. Insert the CenTran 5 Agent Install CD in your computer CD-ROM / DVD / BluRay drive. Double-click **CentranAgentInstall.cmd** in the CenTran 5 Agent Install CD root directory, and Installation will begin.

> **Note**
>
> If **CentranAgentInstall.cmd** has already been run successfully on this machine, the existing CenTran Agent installation can be updated by double-clicking on **CentranAgentReinstall.cmd** instead of **CentranAgentInstall.cmd**.

3. Check the program output to ensure that the installation succeeded.

Interactive Software Installation and Setup

To install the software interactively, complete the following steps:

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. Insert the CenTran 5 Agent Install CD in your computer CD-ROM / DVD / BluRay drive. If you have autorun enabled on your system, the CenTran 5 Agent Installation screen will be displayed. Otherwise, double click **Autorun.exe** from the CenTran 5 Agent Install CD root directory, and the CenTran 5 Agent Installation screen will be displayed.

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


4. From the Main Menu, click on the **Install** button.

Depending on your operating system, either the 32 or 64-bit CenTran Agent install page is displayed:
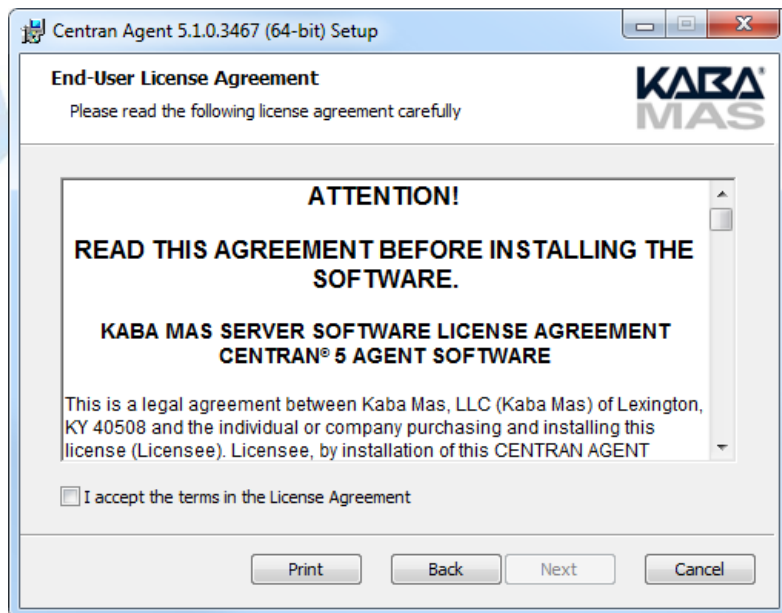
5. Next, click on the **CenTran Agent** button on the CenTran Agent install page.

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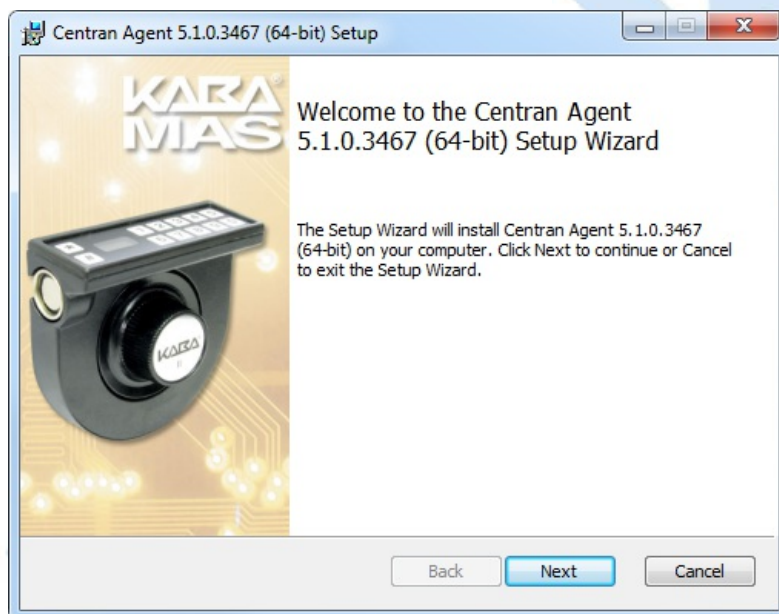

   Click on **Next>** to continue with the installation.

6. 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.

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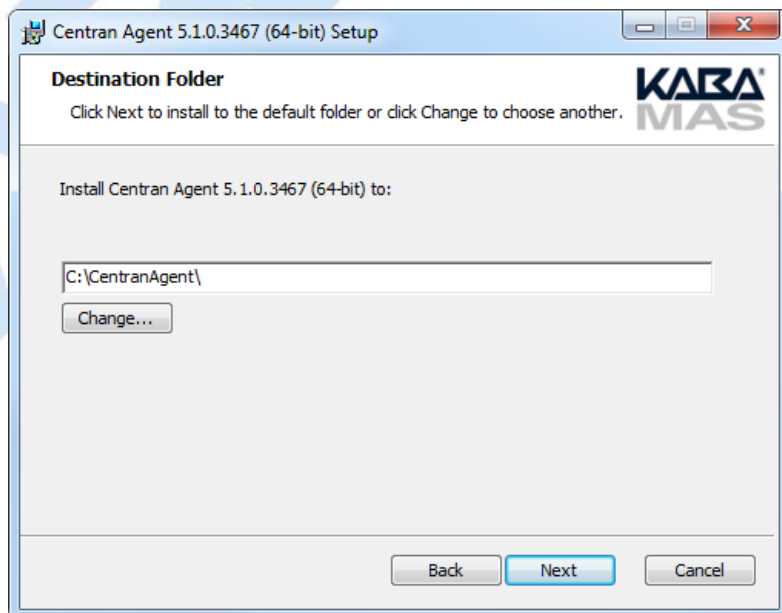

Note
The default installation directory is shown. If the CenTran Agent is already installed on your system, it is recommended that you install the CenTran Agent to a new directory. If you want the CenTran Agent software installed in another directory, click on the Browse button and select the new path.

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

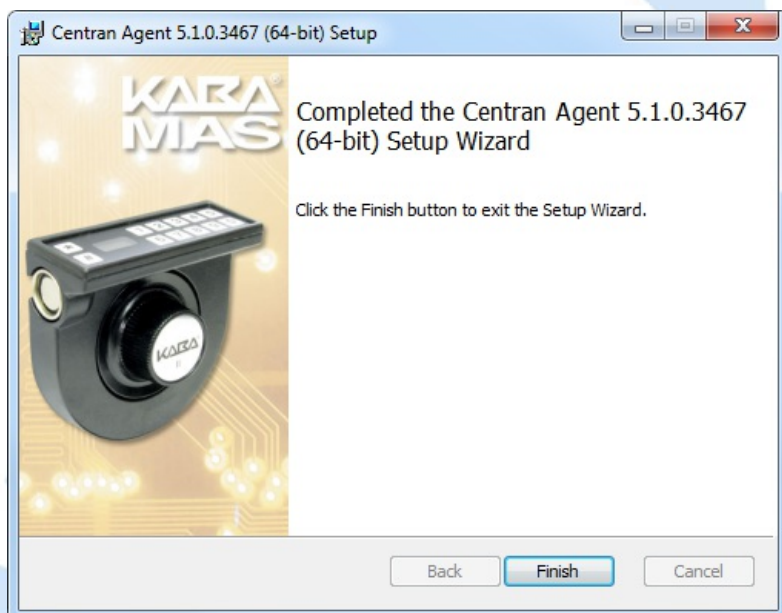8. Confirm Installation - If there is anything you wish to change, click on the **<Back** button. Otherwise, click **Install>** to install the program with the designated settings.
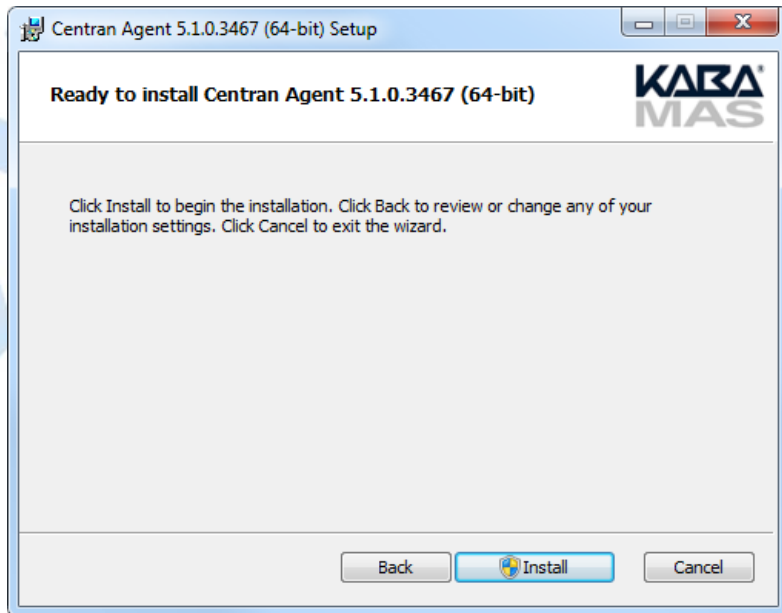
The Setup Status screen displays the status of the installation.
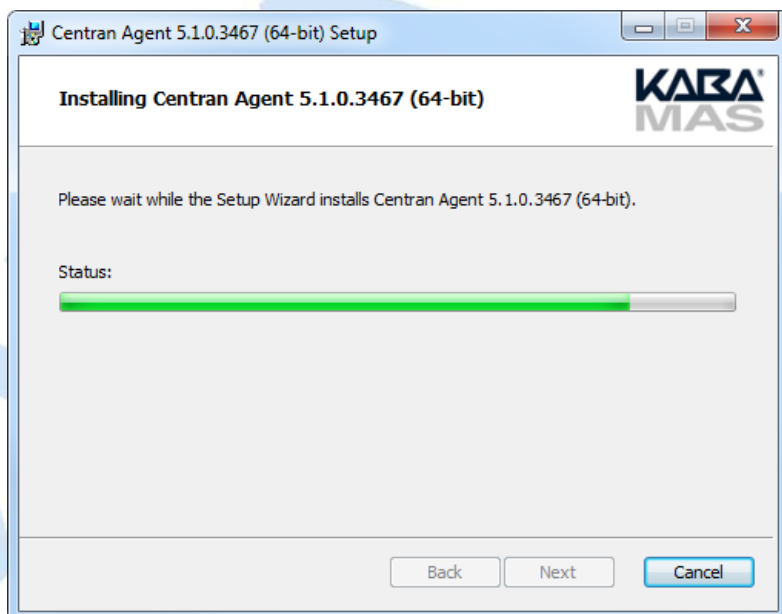
The installation Complete screen is then displayed indicating that the CenTran 5 program has been successfully installed.
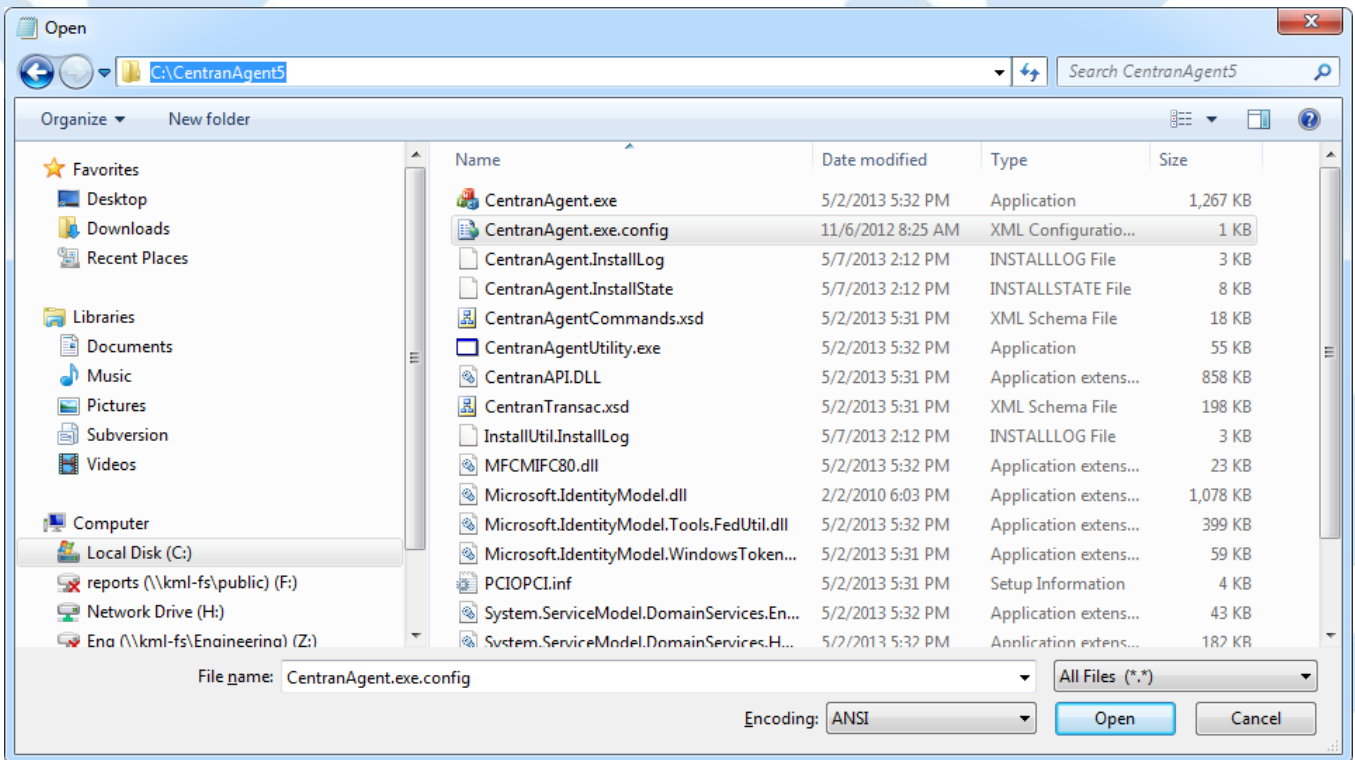

Click **Finish.**

Update Program Configuration File

The CenTran Agent reads its initial settings from a configuration file. You can edit the configuration file to change these values.

1. Use Notepad to open the configuration file placed by the installation process in the directory you chose to install the CenTran Agent in.

2. The configuration specifies the addresses and ports through which the CenTran Agent communicates with the ATM software and with CenTran, as well as the address of the CenTran web service.
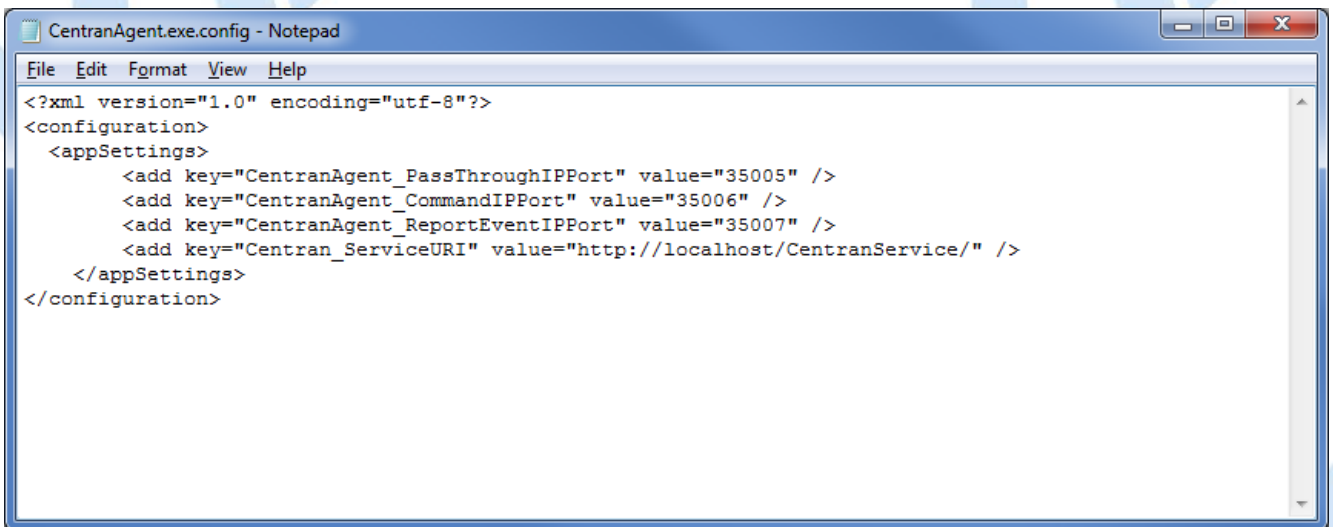
The elements that can be specified are listed below:

- **CentranAgent_EvaluateAtStartUp**:

  This flag indicates whether or not the CenTran Agent should request a lock event evaluation from the Centran server when it starts, in case an event has occurred while it was not running. The value is "true" or "false". The default is "false".

- **CentranAgent_PassThroughIPPort**:

  This is the port on the local machine through which Cencon or CenTran can open a serial connection to the attached Cencon lock. The default is 35005.

- **CentranAgent_CommandIPPort**:

  This is the port on the local machine to which the ATM software can send requests for agent version or lock status. The default is 35006.

- **CentranAgent_ReportEventIPAddress**:

  This is the IP address or DNS host name of the machine to which the CenTran Agent is to send reports of events occurring at the lock. The default is the IP address of the machine on which the agent is running.

- **CentranAgent_ReportEventIPPort**:

  This is the port to which the CenTran Agent is to send lock event reports. The default is 35007.

- **CentranAgent_CentranIPAddress**:

  This is the IP address or DNS host name of a CenTran server to which the CenTran Agent should maintain a persistent connection, through which that server can open serial connections to the attached Cencon Lock . If this entry is not present or its value is blank, no persistent connection will be made (the Cencon lock will still be accessible through the pass-through port).

This element can instead be specified as a flag with a value of "true"; in this case the host specified in the CenTran web service URI is used.
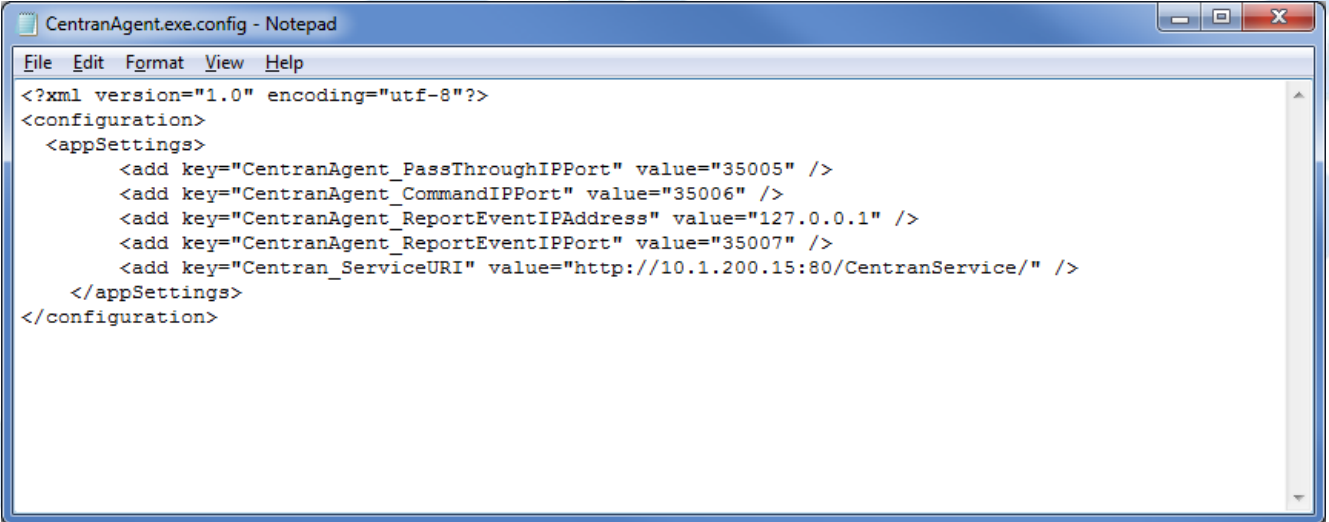
- ○ **CentranAgent_CentranIPPort**:

  This is the port on the CenTran server at which the server accepts Cencon Agent persistent connections. If this is not specified, and a Centran server has been specified using the CentranAgent_CentranIPAddress element, the port defaults to 53004.

- ○ **Centran_ServiceURI**:

  This is the URI of the CenTran web service. You should only need to change the host portion of the URI.

3. Edit the values as needed. An example is shown below:


```
CentranAgent.exe.config - Notepad

File  Edit  Format  View  Help

<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <appSettings>
        <add key="CentranAgent_PassThroughIPPort" value="35005" />
        <add key="CentranAgent_CommandIPPort" value="35006" />
        <add key="CentranAgent_ReportEventIPAddress" value="127.0.0.1" />
        <add key="CentranAgent_ReportEventIPPort" value="35007" />
        <add key="Centran_ServiceURI" value="http://10.1.200.15:80/CentranService/" />
    </appSettings>
</configuration>
```

Configuration elements that are placed, as above, in the **appSettings** configuration section apply to all modes of the lock. However, it is possible to add one or more mode-specific configuration sections to the file, each of which applies to just one of the modes. This allows the CenTran agent to support different companies controlling the different lock modes.

Before adding any mode-specific sections, you must add a **configSections** section where you identify each mode that will have its own configuration sections. You can then add a configuration section for each identified mode after the appSettings section. The name of the mode-specific section is the name of the mode, and its type must be **System.Configuration.AppSettingsSection**.

> **Note**
>
> The following elements are not mode-specific and can only be specified in the **appSettings** section:
> - ○ **CentranAgent_EvaluateAtStartUp**
> - ○ **CentranAgent_PassThroughPort**
> - ○ **CentranAgent_CommandIPPort**

In the following example, a Route mode-specific section is specified. The FLM and Bank modes will use the values specified in the appSettings section, but the Route mode will use a different server and its events will be reported to a different address and port. Also, the CenTran server for FLM and Bank will connect to the lock through the pass-through port on the ATM, while the CenTran server for Route mode will connect through a persistent connection initiated by the CenTran Agent.

```
CentranAgent.exe.config - Notepad
File  Edit  Format  View  Help

<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <configSections>
        <!--
          Each mode with its own section must be identified here in a section element
        -->
        <section name="Route" type="System.Configuration.AppSettingsSection" />
    </configSections>
  <appSettings>
        <!--
          Settings for all modes
        -->
        <add key="CentranAgent_PassThroughIPPort" value="35005" />
        <add key="CentranAgent_CommandIPPort" value="35006" />
        <add key="CentranAgent_ReportEventIPPort" value="35007" />
        <add key="Centran_ServiceURI" value="https://10.1.200.15:80/CentranAgentService/rest/" />
        <add key="CentranAgent_CentranIPAddress" value="false" />
    </appSettings>
  <Route>
        <!--
          Settings for Route mode
          These override the settings in the appSettings section
        -->
        <add key="CentranAgent_ReportEventIPAddress" value="10.1.100.30" />
        <add key="CentranAgent_ReportEventIPPort" value="35008" />
        <add key="Centran_ServiceURI" value="https://10.1.100.25:80/CentranAgentService/rest/" />
        <add key="CentranAgent_CentranIPAddress" value="true" />
    </Route>
</configuration>
```

4. Save and close the edit session.
5. Open Administrative Tools from the Control Panel, and select Services. In the services listing, select CentranAgent, and click **Start the service**. If the service is already running, you will need to click **Stop the service** first.

CenTran Version 5 Agent Getting Started Guide

Start the CenTran Agent Service

The CenTran Agent service is started automatically when the system is rebooted.

To start the CenTran Agent service manually, either type

net start centranagent

at a command prompt, or open Administrative Tools from the Control Panel, and select Services. In the services listing, select CentranAgent, and click **Start the service**.

Stop the CenTran Agent Service

To stop the CenTran Agent service, either type

net stop centranagent

at a command prompt, or open Administrative Tools from the Control Panel, and select Services. In the services listing, select CentranAgent, and click **Stop the service**.
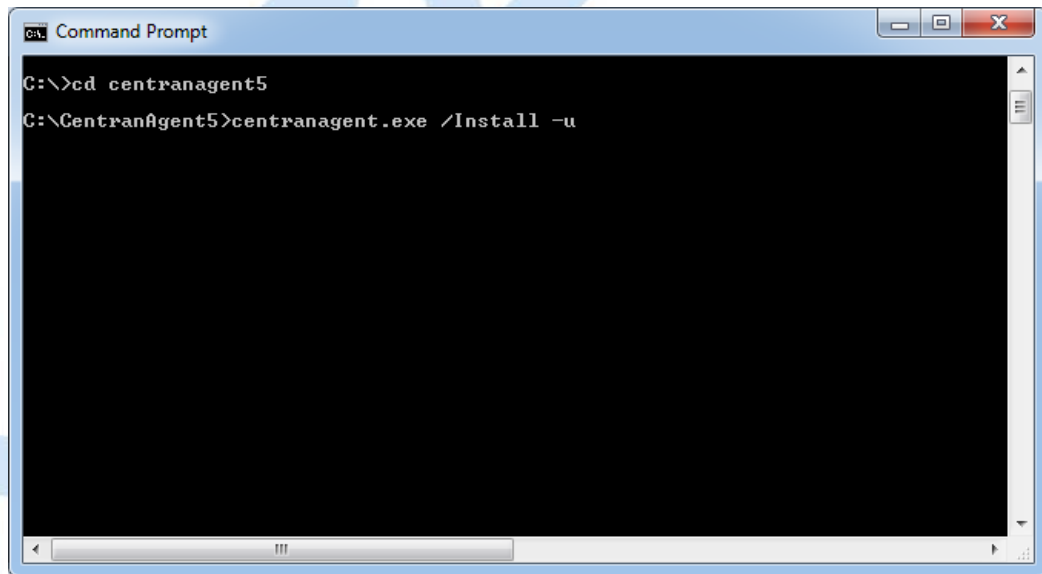
CenTran Version 5 Agent Getting Started Guide

Remove Previous CenTran Agent Software

Uninstallation of the CenTran Agent, like installation, is a two step process. First, you must uninstall the program as a service, then you must uninstall the application.

Complete the following steps to remove the CenTran Agent program:

1. To uninstall the program as a service, open a command prompt, change the current directory to the installation folder, and type centranagent /Install -u.

When the service uninstall process has completed, you can close the command prompt window.

2. To uninstall the application, select the Start icon in the lower left of the Windows screen.
3. Next select the Control Panel icon. The Control Panel Window will be displayed.
4. Click on the Add/Remove Programs icon. The Add/Remove Programs Properties window will be displayed.
5. Select the CenTran Agent software in the Install/Uninstall software list and click on the Remove button.
6. The Windows Installer window will appear with a prompt to make sure that you want to remove the CenTran Agent program.
7. Click on Yes to remove the program. The Maintenance Complete screen will be displayed to indicate the progress of the remove operation.
8. The CenTran Agent software program will be removed from the list.
9. Select Close from the File menu list to close the Control Panel window.