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## **Chapter 1**

## **Upgrade Overview**

### Overview

Use the guide to upgrade the Sterling Integrator software to Version 5.0.05 in a non-cluster (single node) Windows environment. The upgrade impacts the MySQL database. For more information on Patch 5005, see the patch information documentation.

This upgrade does not overwrite your current Sterling Integrator directory structure on disk. Instead, it creates a new installation of Sterling Integrator 5.0 that will point to and upgrade the database (for Oracle, Microsoft MSSQL and DB2) of your current installation of Sterling Integrator. This means your original instance will no longer be operational after performing the upgrade. After the upgrade, you will be starting your Sterling Integrator instance only from the newly created directory structure. If you use the MySQL database you will need to follow the instructions in the *Upgrade MySQL Checklist (External MySQL)* on page 16.

Consider the following before you begin your upgrade:

- Upgrading to 5.0 involves a full installation of Sterling Integrator. You need to prepare for an upgrade the same way that you would prepare for an installation.
- Before the upgrade, you should always make a backup of your production database. If you make a separate copy of your database in order to preserve your existing database, then perform the upgrade on the copy of the production database.
- Thoroughly test this process in a test or development environment prior to implementing in a production environment.
- If you need to patch your system before continuing the upgrade, it is recommended that you fully test the patch prior to performing the upgrade. If you are running a patch less than 4.0.3-5, you **MUST** patch to version 4.0.3-5 or higher before continuing the upgrade.

#### What's in this Guide

This guide provides the following upgrade information:

• Pre-Upgrade Considerations

- Upgrade Path Scenarios
- Upgrade Impacts for MySQL
- Before You Begin the Upgrade
- Upgrade the Software
- Post Upgrade Configuration
- User Documentation
- Troubleshooting Tips

#### Prerequisite Knowledge

Before you being the upgrade, you should be knowledgeable on the following topics:

- Application servers
- Database administration
- VI or another text editor
- System Requirements for this release of Sterling Integrator

#### **Intended Audience**

This document is intended for use by:

- System Administrators
- Installation Engineers
- Database Administrators

### Assumption for this Guide

The procedures in this guide are accurate as of the publication date and are specific to Sterling Integrator 5.0.

## **Pre-Upgrade Considerations**

### Introduction

Before you begin upgrading to Sterling Integrator 5.0, be aware of the following prerequisite tasks and considerations:

- Pre-Upgrade Considerations on page 8
- Verify System and Database Compatibility on page 10
- Back up Sterling Integrator and the Database on page 10
- Database Considerations on page 11
- Copy a Microsoft SQL Server 2000 Database to an SQL Server 2005 Database on page 11

Also, at several points in the upgrade process, you will be asked to download a file from <u>https://support.sterlingcommerce.com</u>. After logging in at this web page, click on the following links to reach the file: **Product Support** > **Gentran Integration Suite** > **Gentran Integration Suite Product Updates/Downloads**.

#### **Pre-Upgrade Considerations**

Before you begin upgrading, be aware of the following standard tasks and considerations:

- 1. You must have a new license file to use the new licensed features of your upgraded installation.
- 2. Read through this entire document so that you have a clear understanding of what the upgrade requires.
- 3. If you use MySQL as your database, see Upgrade MySQL Checklist (External MySQL) on page 16
- 4. Download the following information from the Sterling Integrator 5.0 library page <u>http://www.sterlingcommerce.com/Documentation/SI50/homepage.htm</u>.
  - Release Notes

• System Requirements

With each release, Sterling Commerce introduces leading edge technology to improve and enhance its software. Review the System Requirements to confirm that your system and databases meet the requirements, and also to manage any necessary upgrades or changes before upgrading.

5. Archive and purge any unneeded data before upgrading.

Archived data can only be restored from the same version and patch of Sterling Integrator from which it was archived. If you need to restore archived data that was archived prior to performing the upgrade, then you must have a running instance of Sterling Integrator that matches the version and patch from which the archive was taken.

- 6. Back up your database. Export your business processes, trading partners, maps, etc.
- 7. Review and note the adapters, business processes, and other configurations in your current version. This will help identify any need for updating transport messages, third-party adapters, or configurations to adapters, such as the File System and Command Line Adapters.
- 8. If you have edited a pre-defined business process, be aware that the upgrade process overwrites pre-defined business processes. Your customized business process is preserved in the system, but it is no longer the default process.
- 9. If you have edited any property files (.properties or .properties.in), be aware that the upgrade process overwrites these property files, unless these changes were made using the customer\_overrides.properties file. Your previous property file edits might not be applicable in Sterling Integrator 5.0.
- 10. If you edited any of the following cdinterop files, you must back them up before upgrading. The cdinterop files do not have initialization (\*.in) files. After the upgrade, use the backup version of the files in your upgraded installation.
  - cdinterop-proxy-records.properties
  - cdinterop-spoe-auth.properties
  - cdinterop-spoe-policy.properties
  - cdinterop-user-records.properties
- 11. Review the EDI Sequence Check Queue to ensure that no interchanges are in the queue. The EDI Sequence Check Queue is used for X12 and EDIFACT sequence and duplicate checking.
- 12. You should not perform Sterling Integrator upgrade on a hot fix directly. Please apply the latest build (patch) prior to upgrading Sterling Integrator.
- 13. Always install and test your upgrade in a non-production environment before upgrading your production environment.

## **Supporting Information and Detailed Procedures**

#### Verify System and Database Compatibility

To verify system compatibility and prepare for the upgrade, perform the following tasks:

- 1. Review the Sterling Integrator *Release 5.0 System Requirements*. Your system must meet the minimum requirements that are documented, while your database and JDBC driver versions must match the documented requirements. Complete any necessary upgrades or changes in preparation for the upgrade.
- 2. Collect information on any third-party libraries used for adapter configuration that were added to your current release. You must add each of these libraries to release 5.0 later in the upgrade process.
- 3. Locate any configuration file changes for the JDBC adapter or the Lightweight JDBC adapter in your current release. Later in the upgrade process, you will copy these changes to release 5.0.
- 4. Record your performance tuning configuration. You will restore these settings later in the upgrade process.

#### **Review the EDI Sequence Check Queue**

The EDI Sequence Check Queue is used for X12 and EDIFACT sequence and duplicate checking. Before you begin the upgrade, you should check the contents of the queue through the UI (Trading Partner -> Document Envelopes -> EDI Sequence Check Queue). Any interchanges that are in the queue will not be processed after upgrade because the EDI compliance report serialized format has changed.

After the upgrade, the EDI Post Processor displays the following error:

The compliance report for interchange <interchange document ID> could not be deserialized because the format has changed. The entry for this interchange should be manually removed from the EDI Sequence Check Queue through the UI, and the inbound deenvelope workflow should be rerun (WF ID <wfid>).

If you receive this error, you should follow the instructions in the error message to correct the situation.

#### Back up Sterling Integrator and the Database

Verify your system compatibility as previously described before continuing with this procedure.

1. Back up Sterling Integrator and your current database.

**Caution:** If there are problems with your upgraded system, the only way to ensure that you can roll back to your previous version is to back up Sterling Integrator and your database.

- 2. To avoid upgrade failures in Windows, shut down all software that performs non-system processes, including processes that:
  - Scan files and directories for viruses
  - Back up file systems

- Monitor software (for example, HP OpenView)
- Disable pop-up windows

After you successfully back up Sterling Integrator and your database, you are ready to upgrade the software. Before you begin, see Sterling Integrator *5.0 Release Notes*.

#### **Database Considerations**

Before you begin upgrading:

- If you are using Oracle 8i with Gentran Integration Suite 4.0, upgrade to Oracle 9i before upgrading to Sterling Integrator 5.0.
- If you import Oracle 9 or Oracle 10 database while upgrading to Sterling Integrator 5.0, import the database without the indexes. For example, if you are using the Oracle import (imp) tool, you should use the INDEXES=N option. If you attempt upgrading to Sterling Integrator 5.0 with indexes, the upgrade will fail.

**Note:** If you had created any custom indexes in Oracle database, add them after performing the upgrade as they are not imported.

- If you have LDAP (Lightweight Directory Access Protocol) configuration information in the security.properties file, this information will automatically be moved to the authentication\_policy.properties file.
- If your version of Sterling Integrator is integrated with the JBoss<sup>TM</sup>, WebLogic<sup>®</sup>, or WebSphere<sup>®</sup> application server.

Sterling Integrator version 5.0 is installed without integration to an application server and does not require an application server for installation or at runtime. However, Sterling Integrator still supports integration with JBoss, WebLogic, and WebSphere. After you upgrade to 5.0, you can restore integration with your application server if desired. To do so, use the Sterling Integrator EJB Adapter. For more information, refer to the documentation for the EJB Adapter.

#### Copy a Microsoft SQL Server 2000 Database to an SQL Server 2005 Database

Before upgrading, it is recommended that you first make a backup of your Microsoft SQL Server 2000 database. One way to accomplish this is to make a separate copy of your existing database so that you can preserve your current system. If you are moving from a Microsoft SQL Server 2000 database to an SQL Server 2005 database, use the following procedure. Your existing Gentran Integration Suite instance will no longer function if you upgrade your existing database without making a copy.

After this procedure, you will have two databases:

- A database that you will use in your upgraded version of Sterling Integrator (Sterling Integrator 5.0).
- A database that you can use in your old version of Sterling Integrator.

**Caution:** This is an optional procedure, and it is the customer's responsibility to perform it. Sterling Commerce Customer Support cannot help with this procedure.

1. Perform a full database backup to the file system on the source SQL 2000 server of the source database.

- 2. Copy the resultant backup (.bak) file from the file system on the source server file system to the file system on the SQL 2005 server.
- 3. Connect to the SQL 2005 database server as a Windows authenticated user with administrative privileges on the database server using SQL Server Management Studio 2005.
- 4. Make sure that the destination database is not in use (disconnect any connected applications).
- 5. Restore the backup of the SQL 2000 database over the existing SQL 2005 database, using the Tasks|Restore|Database wizard. The restore will be from a "device," the file created above. Specify on the **Options** tab the correct locations for the data and log files (since the locations in the backup may not be the same as the correct locations for files on the on SQL 2005 database server); also check the box to specify that the existing database is to be overwritten. Confirm that the restore is reported as successful.
- 6. Check to make sure that existing users in the database match existing users on the server using the command sp\_change\_users\_login 'report'. If no rows are returned, go to step 8.
- 7. If rows are returned, execute the command sp\_change\_users\_login 'update\_one', 'username', 'username' substituting the unlinked login name in each execution to correct links between existing users in the restored database and existing logins on the server.
- 8. Examine the users of the database using the SQL Studio or sp\_helpuser. If the login (existing on the server) who will be working with this database is not currently a user of the restored database, add that login as a user of the database by executing the following commands (login\_name and user\_name should generally be the same):

```
USE database_name
Go
EXEC sp_grantdbaccess 'login_name', 'user_name'
Go
EXEC sp_addrolemember 'db_owner', 'username'
Go
CHECKPOINT
Go
USE master
Go
EXEC sp_defaultdb 'username', 'database_name'
Go
```

Note: The spaces in the quoted strings in the SQL commands should not be included in the final procedure, as spaces are significant to the procedure and the commands will fail if they are there (that is, EXEC sp\_grantdbaccess 'login\_name', 'user\_name' should be EXEC sp grantdbaccess 'login name', 'user\_name').

9. Examine the user tables in the SQL 2005 database to determine which schema they currently are in. Using the SQL Studio, the schema will be the prefix before each table listed in the Table tree.

**Note:** This assumes that the schema of the user objects is not changed, even if it is a schema name with the same name as a user other than the user who will be accessing the data.

10. Execute the following command in the SQL 2005 database to ensure that the default schema for the user who will interact with the database matches the schema containing the restored user objects. If the objects are in the dbo schema, use dbo as the schema\_name.

```
USE database_name
Go
ALTER USER user_name WITH DEFAULT_SCHEMA = schema_name
Go
```

## **Upgrade Path Scenarios**

## **Upgrade Path Scenarios for Sterling Integrator 5.0**

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Scenario	Example	Upgrade Processes includes:				
Operating system and the database are the same between the current Gentran Integration Suite version and Sterling Integrator 5.0	You are upgrading from Gentran Integration Suite 4.3 (on HPUX 11.11 and using Oracle 10.1.0.4 RAC) to Sterling Integrator 5.0 (on HPUX 11.11 and using Oracle 10.1.0.4 RAC).	<ol> <li>Export the configuration data and backup the database.</li> <li>Upgrade to Sterling Integrator 5.0.</li> </ol>				
Database upgrade is needed before the upgrade to Sterling Integrator 5.0,	You are upgrading from Gentran Integration Suite 4.0 (on Solaris 9	<ol> <li>Export the configuration data and backup the database.</li> </ol>				
when the current Gentran Integration Suite database version is not supported by Sterling Integrator 5.0.	and using DB2 8.1 Fixpack 5) to Sterling Integrator 5.0 (on Solaris 9 and using DB2 9.2).	2. With help from a database administrator (DBA), copy the database to DB2 9.2.				
				<ol> <li>Backup the newly created database.</li> </ol>		
Your current Gentran Integration Suite operating system is not supported by Sterling Integrator 5.0.	If you are upgrading from Gentran Integration Suite 4.0 (on RH EL 3.0 and using Oracle) to Sterling Integrator 5.0 (on RH EL 5.0 and using Oracle)	<ol> <li>Export the configuration data and backup the database.</li> <li>Upgrade to Sterling Integrator 5.0 on the RH EL 5.0 machine while pointing to Oracle.</li> </ol>				

Scenario	Example	Upgrade Processes includes:
You want to move your current Sterling Integrator 5.0 instance to a	If you are upgrading from Sterling Integrator 5.0 on Windows Server	<ol> <li>Export the configuration data and backup the database.</li> </ol>
new operating system.	2003 to Sterling Integrator 5.0 on Windows Server 2008 using your current database.	<ol> <li>Upgrade to Sterling Integrator 5.0 on the Windows Server 2008 machine while pointing at your current database.</li> </ol>

## **Supporting Information and Detailed Procedures**

#### Upgrade Microsoft SQL Server 2005

Sterling Integrator 5.0 supports Microsoft SQL Server 2005 Enterprise and Standard version 9.00.3159 or higher within 9.x.x. To upgrade to Microsoft SQL Server 2005 9.00.3159 from version 9.00.3152:

1. Apply the GDR2 hotfix. You can download it from http://support.microsoft.com/kb/934459/.

The Microsoft SQL Server 2005 version is now 9.00.3159.

## **Upgrade Impacts for MySQL**

### **MySQL Upgrade Impacts**

Starting with version 5.0.05 and beyond, the MySQL database is no longer bundled with Sterling Integrator software. Therefore, you will need to install and configure an external version of the MySQL database prior to upgrading to the new version of Sterling Integrator.

### Upgrade MySQL Checklist (External MySQL)

This checklist assumes you are upgrading from a previous version of Gentran Integration Suite or Sterling Integrator directly to Sterling Integrator 5.0, Patch 5005 and you are knowledgeable on the MySQL database.

If you need additional MySQL database information, see the documentation provided by the vendor at <u>http://dev.mysql.com/doc/refman/5.0/en/</u>.

If you are moving from a version of MySQL earlier than MySQL 5.0, you will need to export the data from the earlier version to the MySQL 5.0 version using the following procedure. Your existing Gentran Integration Suite instance will no longer function if you upgrade your existing database without making a copy. After this procedure, you will have two databases:

- A database that you will use in your upgraded version of Sterling Integrator (Sterling Integrator 5.0).
- A database that you can use in your old version of Sterling Integrator.

Task	Which database	MYSQL Upgrade for Patch 5005 Checklist	Your Notes
1	New external database	Install an external MySQL database. Refer to MySQL documentation for information about installing the database. Be sure to install the correct version and patches. See <i>System Requirements</i> for supported version information.	
2	New external database	Update the MySQL Parameters.	
3	New external database	Create the database. For example, you can run the following command to create the database: CREATE DATABASE database_name Refer to MySQL documentation for information about creating the database.	
4	New external database	Create a user account and grant permissions.	
5	New external database	Install the JDBC Driver for MySQL.	
6	Previous database	Rename the SCHEMAS table to XMLSCHEMAS to avoid reserved word collision:	
		<ul> <li>Only required when moving from MySQL version earlier than 5.0</li> </ul>	
		Use the following command: Alter table SCHEMAS rename to XMLSCHEMAS	
7	Previous database	Perform a MySQL database export.	
		As part of the export, you will have a backup copy of the database.	
8	Previous database	If you renamed the SCHEMAS table in task 6, you need to rename the SCHEMAS table, so that your older version of Sterling Integrator will be operational. Use the following command: Alter table XMLSCHEMAS rename to SCHEMAS	
9	New external database	Import the exported data for MYSQL into the new external database.	

#### Update the MySQL Parameters

Sterling Integrator requires the following parameter settings in your MySQL database:

The parameter values recommended are minimum values. You can increase the values based on your requirements or if the database server is used by more than one instance of Sterling Integrator.

It is recommended to configure a data file for auto extension (innodb\_data\_file\_path = ibdata1:400M:autoextend).

Parameter	Value
max_connections	500
max_allowed_packet	100M
default-table-type	INNODB
wait_timeout	31536000
max_write_lock_count	500000
transaction-isolation	READ-COMMITTED
character-set-server	utf8
binlog_format	mixed
table_open_cache	512
key_buffer_size	384M
sort_buffer	512K
connect_timeout	15
innodb_data_file_path	ibdata1:400M:autoextend
innodb_data_home_dir	/install_dir/mysql/var/
innodb_log_group_home_dir	/install_dir/mysql/var/
innodb_flush_log_at_trx_commit	1
innodb_mirrored_log_groups	1
innodb_log_files_in_group	3
innodb_file_io_threads	4
innodb_lock_wait_timeout	600
innodb_log_file_size	5M
innodb_log_buffer_size	8M

Parameter	Value
innodb_buffer_pool_size	128M
innodb_additional_mem_pool_size	32M

Review the innodb\_buffer\_pool\_size and the innodf\_additional\_mem\_pool\_size in the \install\_dir\install\mysql\data my.ini. If the values from the previous Sterling Integrator tuning.properties are larger than what is in your new my.ini file, you need to adjust them accordingly.

#### Create User Account and Grant MySQL Database User Privileges

You must grant all privileges on the MySQL database to the Sterling Integrator administrative user. The following example creates and grants all privileges to the user in the MySQL database:

```
GRANT ALL PRIVILEGES ON database_name.* TO user@localhost IDENTIFIED BY 'password' WITH GRANT OPTION
```

Where:

- database\_name refers to the name of the database created.
- user refers to the database user account that will be used by Sterling Integrator.
- password refers to the password associated with the database user account.

Once you have granted all the privileges, you will need to FLUSH the privileges to complete the setup. For example, run this command from the SQL prompt: FLUSH PRIVILEGES;

#### Install the JDBC Drivers for MySQL

The Sterling Integrator requires appropriate JDBC driver for MySQL database. These drivers are platform independent and architecture independent drivers. See *System Requirements* for supported version information.

After obtaining the correct JDBC driver, record the absolute path to its location on your system. You must supply this absolute path when installing the Sterling Integrator.

#### Perform a MySQL Database Export

The full backup can be performed using the mysqldump utility. The details on the usage of this MySQL utility can be found in the MySQL reference documentation. Since there are many options that are provided with this utility, the following are the minimum recommendations:

- Specifying the db\_name on the mysqlcommand will prevent the subsequent import from creating a new database. You should specify the db\_name of the Sterling Integrator Database
- --extended-insert: Use multiple-row INSERT syntax that include several VALUES lists. This results in a smaller dump file and speeds up inserts when the file is reloaded
- --quick: This option is useful for dumping large tables. It forces mysqldump to retrieve rows for a table from the server a row at a time rather than retrieving the entire row set and buffering it in memory before writing it out.

• --disable-keys: This makes the dump file faster because the indexes are created after all rows are inserted.

To export the database.

2. Make a copy the resultant dump file (.dmp) file from the file system on the source server file system to the file system on the MySQL destination server.

If the MySQL database was created as part of a Sterling Integrator installation, you can determine the port number by reviewing the MYSQL\_PORT entry in the sandbox.cfg that is in the Sterling Integrator install directory.

#### Import the Data to the New Version of MySQL Database

Before you begin:

- Make sure the new version of the MySQL database is not in use.
- Know the name of the new database.

To import the exported data:

1. Enter: mysql -u <external\_mysql\_username> -p<password> <db\_name>
 --host=<external\_mysql\_host> --port=<external\_mysql\_port> <
 <dump file name>

Where database name is the name of the new database created in task 3 of the checklist.

## **Before You Being the Upgrade**

### Introduction

The following topics will assist you with preinstallation tasks when planning an upgrade installation of Sterling Integrator in a Windows non-cluster environment:

- Pre-Upgrade Checklist for Windows on page 21
- Verify System Requirements on page 24
- Install the Java 2 Software Development Kit on page 25
- Security Certificates on page 25
- *Port Numbers* on page 26
- *License File* on page 26

#### **Pre-Upgrade Checklist for Windows**

The preinstallation checklist for the Windows environment identifies the prerequisite tasks you must complete before installing Sterling Integrator.

Note: You can upgrade Sterling Integrator only by a previously created user account.

When creating a name, such as an account name, permissions name, profile name, or database name, follow these conventions:

- Use any valid alphanumeric characters and -, :, \$, &, or \_.
- Do not use spaces or apostrophes.

You may want to make a copy of the following checklist and use it to record the information you collect for installing Sterling Integrator:

Step	Description	Your Notes
1	Verify that your system meets the hardware and software requirements specified for this release. See <i>Verify System Requirements</i> on page 24.	
2	Verify that your system has the patches required by Java™ for the Windows environment. See the vendor's Java Web site for more information.	
3	For systems with multiple IP addresses, verify that the IP address on which Sterling Integrator resides is accessible by any client computer that is running a browser interface.	
	<b>Caution</b> : If you do not verify the IP addresses, your system may not operate properly after installing Sterling Integrator.	
4	If you are using a non-English environment, confirm that you are using the appropriate character set.	
5	Determine and record information about the Java 2 Software Development Kit (JDK). See <i>Install the Java 2</i> <i>Software Development Kit</i> on page 25.	
	• Version of the JDK.	
	<ul> <li>Absolute path to the JDK files and patches. The path name cannot include spaces.</li> </ul>	
6	Decide which of the following security certificates you will use:	
	<ul> <li>The default self-signed SSL (Secure Sockets Layer) certificate that is automatically installed.</li> </ul>	
	<ul> <li>A Certificate Authority-related certificate that you install before installing Sterling Integrator.</li> </ul>	
	For more information, refer to Security Certificates on page 25.	
7	Obtain the unlimited strength JCE distribution file. For more information, refer to <i>Download the JCE Distribution File</i> on page 25.	
8	Determine and record the initial port number to be used by Sterling Integrator. See <i>Port Numbers</i> on page 26.	

Step	Description	Your Notes
9	Determine and record information about your database server. Be aware that this information is case sensitive.	
	Database vendor	
	<ul> <li>Database user name and associated password</li> </ul>	
	<ul> <li>Database (catalog) name</li> </ul>	
	Database host name	
	<ul> <li>Database host port number</li> </ul>	
	<ul> <li>(Oracle, Microsoft SQL Server 2005, and MySQL only) Absolute path and file name for one JDBC driver</li> </ul>	
	<ul> <li>(DB2 only) absolute paths and file names for two JDBC drivers</li> </ul>	
	<b>Note:</b> If you are using an Oracle 10.2.x database, you must set it up for native compilation by allocating space and by setting the plsql_native_library_dir parameter.	
10	Determine and record information to set up default system alerts from Sterling Integrator:	
	<ul> <li>The Administrative e-mail address to which system alert messages are sent.</li> </ul>	
	<b>Note:</b> It is recommended that you not change the Administrative e-mail address during an upgrade. If you change this address, you will have to update adapters, business processes and other items that include this information.	
	<ul> <li>The SMTP Server IP address used for sending alert messages.</li> </ul>	
11	Determine and record the directory in which you plan to install Sterling Integrator.	
	<ul> <li>The installation directory must not exist because the installation process creates it.</li> </ul>	
	<ul> <li>The installation directory must have adequate free disk space.</li> </ul>	
	• The name of the directory cannot include spaces and must be less than 30 characters long. Using a directory name of more than 30 characters could create an installation that is impossible to delete.	
12	During installation, you are prompted twice to type the passphrase, which is not displayed when you type it. <b>Note:</b> The system passphrase used when upgrading to Sterling Integrator 5.0 must match the system passphrase of your existing Gentran Integration Suite 4.x installation.	

Step	Description	Your Notes
13	Obtain the license file and record the absolute path and file name to the license file. Be sure that the path name and the file name do not contain any spaces. See <i>License File</i> on page 26.	
14	Determine whether Sterling Integrator is using an application server (JBoss™, WebLogic® or WebSphere®).	
	Sterling Integrator does not require an application server for installation or at runtime.	
	Sterling Integrator supports integration with JBoss and WebLogic during the installation. You can also integrate with WebSphere, JBoss, or WebLogic after installing version 5.0 by using the Sterling Integrator EJB Adapter. This does not represent a WebLogic server for deploying the Application Console.	
15	If you use a File System as your document storage method, determine and record the path to the File System.	
	You will need the File System path structure so that after the upgrade, you can copy/mount the documents to the new installation directory. The directory structure (path to the File System) must be the same in the current and in the upgraded system.	

#### **Verify System Requirements**

Before you begin, verify that your system meets the hardware and software requirements specified for this release. The hardware requirements listed are the minimum required to run Sterling Integrator. Your system requirements will exceed these if you are running other applications on the same machine as Sterling Integrator. For current information, see the *System Requirements* posted on Sterling Integrator Documentation Library:

http://www.sterlingcommerce.com/Documentation/SI50/homepage.htm

The installation strictly enforces the following system requirements:

• Operating system version (must match requirement exactly)

The minimum patch level for the operating system is enforced, but you can apply higher patch levels.

- JDK version (must match requirement exactly)
- Disk space

The disk space is a minimum for the installation. The system should be separately sized to handle whatever load is going to be put on the system.

- Database
- JDBC driver version (supports exact matches and wildcard matches).

If any of the above requirements are not met, the installation will fail and print/log a report of all items that were non-compliant.

#### Install the Java 2 Software Development Kit

You must install the Java 2 Software Development Kit (JDK) and the patches specific to your system. To determine which JDK version and patches you need, see the *System Requirements*. After you install the JDK, record the path to the JDK for future reference.

#### **Security Certificates**

Before installing Sterling Integrator, you must decide which of the following security certificates you will use:

- The default self-signed SSL (Secure Sockets Layer) certificate that is automatically generated by the installation.
- A Certificate Authority-related certificate that you generate before installing Sterling Integrator.

If you install with the default SSL certificate, but you later want to switch to a CA-related certificate, you can make that change using the sslCert property in the noapp.properties.in file.

#### **Download the JCE Distribution File**

The Java Cryptography Extension (JCE) is a set of Java packages from Sun Microsystems, Inc. that provides a framework and implementations for encryption, key generation and key agreement, and Message Authentication Code (MAC) algorithms. By default, Sterling Integrator uses the limited strength JCE file that is included in the JDK that you use during the installation. Installing unlimited strength JCE file will overwrite the limited strength JCE file.

**Note:** If you are installing Sterling Integrator outside of the United States, check to see if you can get the JCE unlimited strength jurisdiction policy files. The unlimited strength jurisdiction policy files can only be exported to countries to which the United States permits the export of higher-level encryption.

To download the JCE that matches your JDK version:

- 1. Open your browser and navigate to http://java.sun.com/javase/downloads/index.jsp.
- 2. At the bottom of the page (Other Downloads), locate the Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files and click Download.
- 3. Click the appropriate link to start the download.
- 4. Save the file to your system.
- 5. Record the directory and the zip file name.

You will need this information during the installation process.

#### **Port Numbers**

During installation, you are prompted to specify the initial port number for Sterling Integrator. For other ports, you can accept the default port number suggested by the installation program, or you can specify a different port number. To specify a port number, follow these guidelines:

- Sterling Integrator requires a range of 100 consecutive open ports between 1025 and 65535.
- The initial port number represents the beginning port number in the range.
- Make sure that port numbers in the port range are not used by any other applications on your system.

After your installation, refer to the *install\_dir*\install\properties\sandbox.cfg file for all of the port assignments.

#### License File

After your company signed the sales contract with Sterling Commerce, Sterling Commerce creates a license file containing information about your company, your system, and the packages (components) that your company selected to use, such as services, maps, and adapters.

Your first license file is a temporary keyfile that is e-mailed to you after you purchase Sterling Integrator. It allows you to run Sterling Integrator and all of the licensed features for a limited period. Before the keyfile expires, you must replace the temporary key with a permanent key to continue running Sterling Integrator. Failure to either extend your temporary keyfile or replace it with a permanent keyfile will result in the keyfile expiry and Sterling Integrator will fail to start.

The permanent license keyfile contains your specific operating system and the IP address of your system, and is valid for 20 years from the date of issue.

The Sterling Integrator permanent license file contains a single or multiple IP addresses in your computing environment. If you change an IP address in your computing environment that is present in your Sterling Integrator license file, Sterling Integrator will cease to operate. You should take necessary precautions to avoid this potential outage, including notifying the appropriate contacts within your organization (Information technology and related departments) and include the license file updates in your computing environment change plans.

#### Obtain a License File

To extend your temporary key, obtain the permanent key, or request changes to a permanent key you already have:

- 1. Navigate to the Sterling Commerce Customer Center (https://customer.sterlingcommerce.com).
- 2. Click Support Center > Sterling Integrator > Key Requests.
- 3. Enter the following information:
  - Company Name
  - Contact Name
  - Phone Number
  - Fax number

- Email Address
- Requested Key Type (Permanent or Temporary)
- PSP number The PSP Number (unique number that identifies a licensed software asset in your Sterling Integrator installation) is present in the temporary or previous version of the keyfile you received from Sterling Commerce.
- CD Key (if no PSP number is present in your license Key)
- Order Number
- Product
- Platform
- Environment
- IP Addresses
- Previous IP Address
- Sterling Account Executive
- Comments
- 4. Click Submit.

Your new keyfile will be generated and delivered to you as an attachment to an email.

#### Install the License Key (Windows)

To install the license keyfile from the command line:

- 1. When you receive the permanent license keyfile, make a copy of it, and keep the copy in a safe place.
- 2. Stop Sterling Integrator.
- 3. Copy your license file to the machine where Sterling Integrator is installed.
- 4. Navigate to \install\_dir\bin.
- 5. Enter AddLicenseSet.cmd <path> .Where <path> is the path to the license keyfile.
- 6. Start Sterling Integrator.

You can also install or update your license file from the Licenses screen (Operations > System > Licenses) when Sterling Integrator is running.

#### **Creating a Process Output Log**

A log of process activity during the upgrade will help if troubleshooting is required. Output is automatically logged to upgrade.log. Use this procedure to generate a separate output log for each process you want to log.

In Windows, you must redirect the standard output and standard error of each command to create a log file. Do the following:

1. To redirect the standard output and standard error to create a log file, type a command similar to the following:

process.cmd > processoutput.log 2>&1

where *process* is the name of the command and *processoutput* is the name of the output log.

The log-writing process time varies, depending on the size of your database and your system hardware.

**Caution:** If you attempt to view the log while it is being written, the upgrade.cmd script stops running and does not create a log of the upgrade process.

2. After you complete the command, you can review the output log using any text editor (for example, Microsoft Notepad).

## **Upgrade the Software**

### Introduction

Installing the Sterling Integrator in a Windows non-cluster environment includes:

- Upgrade in a Windows Non-Cluster Environment (GUI-Based) on page 29
- Upgrade in a Windows Non-Cluster Environment (Silent Install File) on page 33
- Determine If You Need a Maintenance Patch on page 40
- Install the Current Maintenance Patch in Windows on page 40
- Install a Hot-Fix on page 42
- Validate the Software Upgrade on page 45
- Uninstall Sterling Integrator from a Non-Cluster Windows Environment on page 47

#### **General Installation Wizard Information**

The installation wizard provides:

- The option of either entering the paths or selecting the paths and files (Select File button).
- For every screen in the wizard, you need to click **Next** to move to the next step the wizard. The click **Next** step is not represented in each step in the procedure.

### **Upgrade in a Windows Non-Cluster Environment (GUI-Based)**

Before you begin the upgrade:

- You must have administrative privileges and a login on the host machine to do an upgrade.
- If you downloaded Sterling Integrator or a Service Pack (SP) from the Electronic Software Distribution (ESD) Portal, unzip the downloaded file to an empty directory. Do not change the

directory structure of the newly unzipped files. The directory containing the unzipped files is an electronic image of an installation CD.

- If you are installing Sterling Integrator on VMware, you should provide the IP address of the virtual machine and not of the VMware host. For example, if 10.251.124.160 is the IP address of the VMware server and 10.251.124.156 is the IP address of the Windows 2003 server it is hosting, you should use 10.251.124.160 as the IP address to install Sterling Integrator.
- Do not include any spaces in the directory path to the SCIInstallWizard.jar file.
- When creating a name, such as an account name, permissions name, profile name, or database name, do not use any valid alphanumeric characters and -, :, \$, &, or \_. Do not use spaces or apostrophes.
- Sterling Integrator 5.0 does not support IPv6 installation on Windows. Before applying an IPv6 address, see *IPv6 Capabilities* section in Sterling Integrator 5.0 System Requirements guide.
- If you need to install more than one instance of the Sterling Integrator on the same Windows server, you must install the second instance in a different installation directory.
- You need to know what version of the Windows Server you are using.
- You need to have completed the pre-upgrade checklist.
- *install\_dir* refers to the installation directory where the software is installed. Do not use any
  pre-existing directory name or an old version of the Sterling Integrator installation directory. If you do,
  you could inadvertently overwrite the existing installation. You should create a new installation
  directory before you begin the upgrade.
- Create a folder that contains:
  - license file
  - SI.jar (jar file for the upgrade, for example SI 5005.jar)
  - SCIInstallWizard.jar
  - jce file

To upgrade the software:

- 1. Close all open Windows programs and any command prompt windows.
- 2. Copy the SCIInstallWizard.jar and SI.jar files from your installation media to your desktop or to a Windows directory.
- 3. Start the upgrade using one of the following methods:

For Windows Server 2003 or earlier:	For Windows Server 2008:	
<ul><li>You can either:</li><li>From the desktop, double-click SCIInstallWizard.jar.</li></ul>	Complete the following steps: Click Start.	
<ul> <li>From a command prompt or the Run dialog box, enter:</li> </ul>	<ul> <li>Right-click Command Prompt and select Run as administrator. The Administrator: Command Prompt dialog box is displayed.</li> </ul>	
C:\PathtoJDK\bin\java -jar	Enter:	
\absolutePath\SCIInstallWizard.jar The installation wizards starts.	C:\ <i>PathtoJDK</i> \bin\java -jar \ <i>absolutePath</i> \SCIInstallWizard.jar The installation wizards starts.	

- 4. Click **Next** to continue the upgrade.
- 5. Review the license agreement and click Accept to accept the terms.
- 6. Enter the full path to your **JDK** directory.
- 7. Enter the full path to your **license** file.
- 8. Enter the full path to your **JCE** file.
- 9. Enter the **installation directory** where you want to install the upgrade software. If you did not create the new installation directory, you will see this prompt, *The directory does not exist, create it*? Click **Yes.**
- 10. Enter the path to the **SI.jar** file.
- 11. Enter the IP Address or Hostname. Default is localhost.
- 12. Enter the Initial Installation Port. Default is 8080.
- 13. Enter your system passphrase.
- 14. Enter your system passphrase again to confirm it.
- 15. Enter the administrative e-mail address.
- 16. Enter the **SMTP mail server host name** (IP address or a host name) that you want to use for system alert messages and other administrative notices.
- 17. Do you want to enable FIPS (Federal Information Processing Standards) mode?
  - If yes, select the check box.
  - If no, clear the check box. (default)
- 18. Select the database that you want to use (Oracle, Microsoft SQL Server 2005, DB2, or MySQL).
- 19. Select This is an upgrade from a previous version. You must select this option, as this is an upgrade.
- 20. If you want to generate an installation log, select *Verbose install*. The events that occur during the installation are recorded in InstallSI.log file. By default, the *Verbose install*? is not selected.
- 21. (Skip if using MySQL) At the *Apply database schema automatically*? check box in the **Select all options that apply to this installation** dialog box, decide whether to automatically or manually apply database definition language (DDL) statements:
  - To automatically apply DDL statements, select the check box (the default value).
  - To manually apply DDL statements, clear the check box.

If you manually create the database schema, you will have to run the installation command again after manually creating the schema. You will manually create the database schema using the sql files in the *install\_dir*\install\repository\scripts directory. For more information, refer to the utilities configuration documentation.

The application of DDL statements should be done in the same order when you select the check box at the *Apply database schema automatically*? prompt. You can find this order by referring to an installation log file of an installation where the check box was selected at the *Apply database schema automatically*? prompt.

Apply the DDL statements manually and restart the installation procedure in a new installation directory. You can delete the installation directory created earlier. Clear the check box at the *Apply* 

*database schema automatically?* prompt. The installation process will continue and complete without any errors. The installation process will validate the database with a Sterling Integrator tool called DBVerify and warn you if there are issues.

22. Configure your database by entering the following information and click Next:

- Database user name.
- Database password. You will need to enter the password twice.
- Database catalog name.
- Database host name In Oracle, do not use an IP v6 address for the host name.
- Database port
- (Oracle, Microsoft SQL Server 2005, and MySQL) Absolute path and file name for one JDBC driver file.
- (DB2 only) Absolute paths and file names for one **JDBC driver** file.

Use the Type-4 JDBC driver. This type of driver converts JDBC calls into the network protocol used directly by DB2, allowing a direct call from Sterling Integrator to the DB2 server.

• (Oracle only) Select the check box to select the **data type** to use for caching. Select either the default BLOB (binary large object) columns data type or the Long Raw data type.

You can significantly improve performance by enabling the cache on the BLOB data object in Oracle. For more information, refer to the Sterling Integrator documentation for slow performance in Oracle.

- 23. Review the **Database Information**.
- 24. The **Install Actions** screen appears. The check boxes are automatically selected for the installation actions *Verify Operating System is supported*, *Verify the selected JDK is supported*, *Install Components*, *Save install files*, *Clean Up Files*, and *Install Windows Services*. You cannot clear them.
- 25. If you want to create a desktop icon for launching Sterling Integrator, select the *Create Desktop Icons* (*Windows & Linux*) check box on the **Install Actions** screen. By default, the check box is selected. If you created a desktop icon and use Windows Servers 2008, you will need to perform some additional configuration for the desktop icon after the upgrade is complete. See the *Configure the Sterling Integrator Desktop Icon for Windows Server 2008* on page 39.

The **Installation Progress** screen appears. You can click the **Show Details** button to confirm your installation information before starting the installation.

26. Click Install to finish the installation.

The Installation Progress screen shows the general progress of the installation through different stages. For more information about these stages, click **Show Details**.

The upgrade completes automatically.

When finished, the system displays a dialog box with the message *Installation Wizard completed*. *Please see the installation guide for next steps*.

Installation information is in the following files:

• ant.install.log

- InstallSI.log
- PreInstallSI.log (use this log if the upgrade does not complete)
- 27. After performing the upgrade, refer to *Install the Current Maintenance Patch in Windows on page 40* to install the latest patch.

# Upgrade in a Windows Non-Cluster Environment (Silent Install File)

Use the following instructions to install in a Windows environment from a command line, using a manually edited silent installation file. Make sure that you have set up your silent installation file.

To use a manually edited silent installation file, you first create a silent installation file using a text editor. The file must contain the entries marked as required in the following table. When you are finished editing the file, record its name and location. You will use this information during the installation.

If possible, use a silent installation file from an interactive installation as an example for your silent installation file. Also, use the antinstall-config.xml file in SCIInstallWizard.jar to check the names and default values for the entries.

Entry	Description	
The following entries correlate to prompts in the installation procedure described in <i>Upgrade in a Windows Non-Cluster Environment (GUI-Based)</i> on page 29. Read through that procedure when creating your silent installation text file.		
ACCEPT_LICENSE	(Required) Indicates if the user accepts the license agreement. Default: YES	
JVM_LOC	(Required) Full path to JDK directory.	
JCE_DIST_FILE	(Required) Full path to unlimited strength JCE policy file. If present, this file will overwrite the JCE file in the JDK. Example: <i>absolutePath</i> \unrestrict123.zip	
LICENSE_FILE_PATH	(Required) Full path to a valid license file. Example: <i>absolutePath</i> \Full_License.xml	

Note: Use extra backslashes in the file paths that you specify in your silent installation file. For example, use C\:\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\install\_dir\\ins

Entry	Description
INSTALL_DIR	(Required) The directory that includes subdirectories like "bin" (where many commands are stored) and "properties" (where many property files are stored).
	the installation will fail.
	The path to this directory might include the following:
	<ul> <li>The installation directory that you specify during an interactive installation.</li> </ul>
	• The subdirectory "install".
	<ul> <li>The INSTALL_DIR property refers to the installation directory where the software is installed. Do not use any pre-existing directory name or an old version of the Sterling Integrator installation directory. If you do, you could inadvertently overwrite the existing installation. You should create a new installation directory before you begin the upgrade.</li> </ul>
	Although you can enter your own path, the <i>install_dir</i> install path matches the path that is created during an interactive installation. It also matches the path that is used in documentation. For example, an instruction to stop Sterling Integrator reads:
	1 Navigate to the <i>install_dir</i> \install directory.
	2 Run the hardstop.cmd command.
	Use the same drive to upgrade to Sterling Integrator 5.0 where you have installed Gentran Integration Suite 4.x. For example, if you have installed Gentran Integration Suite 4.x on C:\ drive, Sterling Integrator 5.0 upgrade should be performed on C:\ drive.
DB VENDOR	(Required) Database vendor.
_	Valid values:
	Oracle
	<ul> <li>MSSQL2005</li> </ul>
	• DB2
	<ul> <li>MySQL</li> </ul>
MSSQL2005	(Required if DB_VENDOR=MSSQL2005) For Microsoft SQL Server 2005, set this attribute to the default value of <b>true</b> . For all other servers, do not include this attribute. This attribute is case-sensitive. Default: true

Entry	Description
INSTALL_IP	<ul> <li>(Required) Host IP address.</li> <li>Valid values:</li> <li>localhost (default)</li> </ul>
	<ul> <li>(your IP address)</li> </ul>
	If you are installing Sterling Integrator on VMware, you should provide the IP address of the virtual machine and not of the VMware host. For example, if 10.251.124.160 is the IP address of the VMware server and 10.251.124.156 is the IP address of the Windows 2003 server it is hosting, you should use 10.251.124.160 as the IP address to install Sterling Integrator.
	<b>Caution:</b> Sterling Integrator 5.0 does not support IPv6 installation on Windows. Before applying an IPv6 address, see <i>IPv6 Capabilities</i> section in Sterling Integrator <i>5.0 System Requirements</i> guide.
PORT1	(Required) Base port for ASI server. Ports are assigned consecutively from this port . Example: 12345 Default: 8080
APSERVER_PASS	(Required) Passphrase used to secure all encrypted data in database. Default: (blank)
SI_ADMIN_MAIL_ADDR	(Required) E-mail address for the administrative user. Example: abc@xyz.com
SI_ADMIN_SMTP_HOST	(Required) Valid SMTP host through which the system can e-mail the administrative user. Example: mail.xyz.com
FIPS_MODE	(Optional) Indicates if you are using FIPS (Federal Information Processing Standards) mode. Valid values:
	<ul> <li>true - Enable FIPS mode.</li> </ul>
	<ul> <li>false (default) - Disable FIPS mode.</li> </ul>
ORACLE_USE_BLOB	(Required if DB_VENDOR=Oracle) Indicates if you are using the BLOB data type.
	Valid values:
	<ul> <li>true (default) - BLOB data type</li> </ul>
	<ul> <li>false - Long Raw data type</li> </ul>
DB_USER	(Required) Database user name. Example: abcd_123_1
DB_PASS	(Required) Database password.
	Example: xyz

Entry	Description
DB_DATA	(Required) Database catalog name. Example: abcd
DB_HOST	(Required) Database host name. Example: abcd Default: localhost
DB_PORT	(Required) Database port. Example: 1234
DB_DRIVERS	<ul> <li>(Required) Full path to JDBC driver files. If DB_VENDOR is:</li> <li>For Oracle, MSSQL2005, or MySQL, specify one driver.</li> <li>For DB2, specify two drivers.</li> <li>If you specify more than one driver, use colons (:) to separate the file names.</li> <li>Examples:</li> <li>JDBC_driver_dir/jdbc.jar</li> <li>JDBC_driver_dir/db2_1_jdbc.jar:JDBC_driver_dir/db2_2_jdbc.jar</li> </ul>
UPGRADE	(Required if upgrading) Indicates if you are upgrading. Default: false
DB_CREATE_SCHEMA	<ul> <li>(Required if DB_VENDOR=Oracle, MSSQL2005, or DB2) Indicates if you want the database schema automatically created.</li> <li>Valid values: <ul> <li>true (default) - Automatically create the schema.</li> <li>false - Manually create the schema.</li> </ul> </li> <li>If you create the database schema manually, restart the installation procedure in a new installation directory. You can delete the installation directory created earlier.</li> <li>This feature is not supported in MySQL.</li> </ul>
DEBUG	<ul> <li>(Optional) Records events that occur during the installation in InstallSI.log file.</li> <li>Valid values:</li> <li>true - records events that occur during the installation.</li> <li>false (default) - does not record the events that occur during installation.</li> </ul>
JDK64BIT	<ul> <li>(Required) Indicates if a 32-bit or 64-bit JDK is being used.</li> <li>Refer to the <i>System Requirements</i> to determine the type of JDK for your operating system.</li> <li>Valid values:</li> <li>true (default) - (64-bit)</li> <li>false - (32-bit)</li> </ul>

Entry	Description
Icons	(Required) Indicates if you want to create a desktop icon for launching Sterling Integrator. Valid values:
	<ul> <li>true - Create a desktop icon.</li> </ul>
	<ul> <li>false (default) - Do not create a desktop icon.</li> </ul>
	If you choose to create a desktop icon and use Windows Server 2008, you will need to perform some additional configuration for the desktop icon after the upgrade is complete. See the <i>Configure the Sterling Integrator Desktop Icon for Windows Server 2008</i> on page 39.
INTERNAL_MYSQL	(Required if DB_VENDOR=MySQL) Set this attribute to the default value of <b>false</b> .
The following entries do not directly in a Windows Non-Cluster Environ document your installation.	correlate to prompts in the installation procedure described in <i>Upgrade ment (GUI-Based)</i> on page 29. Use these entries to customize or
SI_LICENSE_AVAILABLE	Indicates if a license is being passed in and is required for installation. Default: YES
DB_DRIVERS_VERSION	Free form version string for JDBC driver. This is informational only. Example: 8_1_5
JDBC_VENDOR	JDBC driver vendor. Used when multiple vendors are available (DB2 iSeries: DB2APP, DB2TOOLBOX, DB2).
LOAD_FACTORY_SETUP	Indicates whether factory setup should be loaded during installation Valid values:
	<ul> <li>true (default) loads factory setup during installation.</li> </ul>
	<ul> <li>false - does not load factory setup during installation. Run loadDefaults command after installation.</li> </ul>
	Note: To manually set LOAD_FACTORY_SETUP to false after an installation where LOAD_FACTORY_SETUP=true (the default value), change LOAD_FACTORY_SETUP to false in sandbox.cfg file.
CONFIG_GS	Indicates whether integration with Gentran Server should be configured.
	Default: No
NO_DBVERIFY	Valid values are true or false. When set to true during installation and installservice, dbverify will not be run.
	This means that the Sterling Integrator will not generate DDL to make the database like the XML entity repository.
DB_CLEAN	Indicates if database should be wiped at the beginning of the installation.
	Default: no

Before you begin:

- If you are using FTP to copy the files, verify that your session is set to binary mode.
- The directory path to SI.jar cannot include any spaces.
- *install\_dir* refers to the installation directory where the software is installed.

To install Sterling Integrator using the manually edited silent installation file, refer to your preinstallation checklist and follow the steps below:

- 1. From the Sterling Integrator installation media, copy SI.jar to a Windows directory.
- 2. Set up your silent installation file and record the location.
- 3. Start the upgrade using one of the following methods:

For Windows Server 2003 or earlier:	For Windows Server 2008:
From a command prompt or the Run dialog box, enter: C:absolutePath\bin\java -Xmx512m -jar	Complete the following steps: Click Start.
\absolutePath\SI.jar -f \absolutePath\SilentInstallFile	<ul> <li>Right-click Command Prompt and select Run as administrator. The Administrator: Command Prompt dialog box is displayed.</li> </ul>
	Enter:
	C:absolutePath\bin\java -Xmx512m -jar \absolutePath\SI.jar -f \absolutePath\SilentInstallFile

The installation begins. The program verifies support for your operating system and JDK. It also verifies that your operating system is patched to the required level.

You can follow the progress of your installation through the PreInstallSI.log in your installation directory. If the installation stops, check the PreInstallSI.log file for details.

The following components are installed:

- Core files (services, adapters, and predefined business processes)
- Package files
- License file
- 4. When the installation is finished, the system displays the following message:

Installation has completed successfully.

Log out to exit.

- 5. To start Sterling Integrator, navigate to the *install\_dir*\install\bin directory and issue the following commands to install and start Windows services:
  - a. InstallWindowsService.cmd
  - b. startWindowsService.cmd

It might take several minutes for the Sterling Integrator components to initialize and start up.

If Sterling Integrator does not start or if you receive a message about an invalid or corrupt license file, go to *Windows Non-Cluster Environment Troubleshooting Tips* on page 63.

When startup is finished, a message like the following is displayed:

Open your Web browser to http://host:port/(interface)

Where *host* is the IP address, *port* is where Sterling Integrator resides on your system, and *(interface)* is the interface used by Sterling Integrator.

6. After performing the upgrade, refer to *Install the Current Maintenance Patch in Windows on page 40* to install the latest patch.

## Configure the Sterling Integrator Desktop Icon for Windows Server 2008

User Access Control (UAC) is a security component in Windows Server 2008. If you enable, the UAC, it affects the installation process as well as the daily processing for Sterling Integrator. If you disable the UAC, which requires a reboot, the installation process and daily processing for Sterling Integrator remains the same as in previously supported Windows version.

If you installed or upgraded the Sterling Integrator on a Windows Server 2008 and you created a desktop icon for Sterling Integrator, you must complete this task in order for the desktop icon to work:

- 1. Right-click on the Sterling Integrator desktop icon.
- 2. Click Properties.
- 3. In the Shortcut tab, click Advanced.
- 4. Select the check box for **Run as Administrator**.
- 5. Click **OK** to apply the changes to Advanced Properties.
- 6. Click **OK**.

### Install the Current Maintenance Patch in Windows

#### **Determine If You Need a Maintenance Patch**

Patches contain cumulative fixes for a specific version of Sterling Integrator. Because each patch contains the fixes from previous patches, you only need to install the most recent patch.

**Note:** During patch installation, the dbVerify utility compares the list of standard indexes with those present in the database and drops the custom indexes. You should recreate the custom indexes after the patch installation is complete.

To help you determine which patch to use, the files are named using the following naming convention:

si\_<release number>\_build\_<build number>.jar

Information about a patch is located in a PDF file with a similar name. The naming convention for PDF files containing information about a particular patch is:

si\_<release number>\_build\_info.pdf

Both the jar and the PDF files are available on the Sterling Commerce Support on Demand web site. To access this information, do the following:

- 1. Log in to the Support On Demand web site at https://support.sterlingcommerce.com/user/login.aspx.
- 2. Click on the **Product Support** menu.
- 3. Navigate through the menu items to the **Service Packs and Patches** section to download the jar and the PDF files for Sterling Integrator.

You should periodically check the web site to verify that you have the most recent patch.

**Note:** The patch installation may use one or more patch property override files. These files will be named propertyFile\_patch.properties. Do not alter these files.

Additionally, property changes made directly in \*.properties or \*.properties.in files may be overwritten during the patch installation. Properties overridden using the customer\_overrides.properties file are not affected.

#### **Install the Maintenance Patch**

To install the latest patch for Sterling Integrator in a Windows environment, follow the steps below.

- 1. Go to the Sterling Commerce Support on Demand Web site, at https://support.sterlingcommerce.com/user/login.aspx.
- 2. Download the most recent patch file for your version of Sterling Integrator and record the absolute path to the downloaded file. If you use FTP, use Binary mode. Do not rename the file. Make sure that you download the file to your local machine (for example, to your installation bin directory), and not to a network drive. Use the full path to your local machine when you install the patch.

- 3. Verify that the database server is up and ready to accept connections.
- 4. Stop Sterling Integrator.
- 5. Perform a full backup of the Sterling Integrator installation directory, including all subdirectories. Also back up your database.
- 6. If the database password is encrypted, decrypt the password.
- 7. If you edited any property files, ensure that the associated \*.properties.in files have the most current changes. Property files will be overridden with the contents of the associated \*.properties.in files during the patch installation.

**Note:** Sterling Commerce recommends that you maintain property file changes using (when possible) the customer\_overrides.properties file. For more information about this file, refer to the property file documentation.

- 8. Close all command prompt windows.
- 9. To apply the patch:

For Windows Server 2003 or earlier:	For Windows Server 2008:
<pre>From a command prompt or the Run dialog box, enter: C:\install_dir\install\bin\InstallSer vice.cmd <path>\si_<version>_sp_0_patch_<numbe r&gt;_<app_server>.jar where: <path> is fully qualified path to maintenance patch file <version> is Sterling Integrator version <number> is patch number <app_server> is Application server Example: C:\install_dir\install\bin\InstallSer vice.cmd \patch\si_22_sp_0_patch_1_jboss.jar</app_server></number></version></path></app_server></numbe </version></path></pre>	<pre>Complete the following steps: Click Start. Right-click Command Prompt and select Run as administrator. The Administrator: Command Prompt dialog box is displayed. Enter: C:\install_dir\install\bin\Install Service.cmd <path>\si_<version>_sp_0_patch_<nu mber&gt;_<app_server>.jar where: <path> is fully qualified path to maintenance patch file <version> is Sterling Integrator version <number> is patch number <app_server> is Application server Example: C:\install_dir\install\bin\Install Service.cmd \patch\si_22_sp_0_patch_1_jboss.ja r</app_server></number></version></path></app_server></nu </version></path></pre>

Information about the patch installation is automatically logged to *install\_dir*\install\logs\InstallService.log.

If the patch attempts to modify the database schema and the modification fails, you will receive an error message about the failure. The message provides the error message code from the database and

the SQL command that failed. The failure information is also logged to the system.log file and to the patch.log file.

**Note:** The InstallService.cmd command stops the WebDAV server that is used for MESA Developer Studio. Refer to the MESA Developer Studio documentation for information on how to re-start the WebDAV server.

- 10. Enter the passphrase when prompted.
- 11. If you decrypted the password, re-encrypt the password.
- 12. Restart Sterling Integrator.

#### **Install a Hot-Fix**

After you install the Sterling Integrator, you may need to install a hot-fix. A *hot-fix* is one or more fixes applied to a specific existing patch.

Before you can install a hot-fix developed for your company, you must have completed the following:

- Received the file name of the *caseid*.jar to install from Sterling Commerce Customer Support
- Created a full backup of the Sterling Integrator
- Created a full backup of your database

To install a hot-fix on a Windows system:

- 1. Log in to the computer that you are installing the hot-fix on.
- 2. Is the database password encrypted? If Yes, decrypt the password.
- 3. At the command line, enter ftp theworld.stercomm.com.
- 4. Enter your user name and password. If you do not know your user name and password, contact Sterling Commerce Customer Support.
- 5. Enter bin and press Enter to select Binary as your transfer mode.
- 6. At the FTP prompt, enter the command get *ccaseid.jar*, where *ccaseid* includes the ID number you received from Customer Support.

Note: You can transfer the file to any directory for which you have write permission.

- 7. Stop the Sterling Integrator.
- 8. Navigate to the *install\_dir*\install\bin directory.

For Windows Server 2003 or earlier:	For Windows Server 2008:	
<pre>From a command prompt or the Run dialog box, enter: C:\install_dir\install\bin\InstallSer vice.cmd absolutePath\ccaseid.jar</pre>	<ul> <li>Complete the following steps:</li> <li>Click Start.</li> <li>Right-click Command Prompt and select Run as administrator. The Administrator: Command Prompt dialog box is displayed.</li> </ul>	
	Enter:	
	C:\ <i>install_dir</i> \install\bin\Install	

#### 9 To install the hotfix:

**Caution:** You may need to complete this step twice depending on the patch. Read the output from the InstallService.cmd script carefully to see if you need to complete this step twice.

Service.cmd

*absolutePath\ccaseid.*jar

- 10. If you decrypted the database password, re-encrypt the password.
- 11. Restart the Sterling Integrator.
- 12. In the *install\_dir*\install\bin directory, run dump info.cmd to verify that the hot-fix was successfully installed. The successful running of dump info.cmd will display the Sterling Integrator version number of the hot-fix.

#### Hot-Fix Package Delivery Method

The hot-fix package delivery method has changed effective Sterling Integrator, Release 5.0 Build 5006 onwards. The hot-fix package will be delivered as a jar file that contains only the files that were modified. However, the installation procedure for a hot-fix remains the same. Refer to Install a Hot-Fix on page 42 for hot-fix installation procedure.

The following list describes the features of the new hot-fix package model:

- ٠ Modified components are packaged as an installable file (jar).
- Hot-fix version is maintained in the hotfix properties file. It does not update the SI VERSION table.

Run dumpinfo. cmd command to display the hot-fix version. You can also verify the hot-fix version in Sterling Integrator Support user interface page.

- Size of the hot-fix package is small. ٠
- Hot-fix must be installed on the same build version that was used to build it. For example, if a test system is on Sterling Integrator, Release 5.0 Build 5006 and the hot-fix is built for 5006, it can be installed on that test system. However, if the production system is on Sterling Integrator, Release 5.0 Build 5005, you must apply Sterling Integrator, Release 5.0 Build 5006 prior to applying the hot-fix.
- You can locate the hot-fix read me file in the Sterling Integrator root (*install\_dir*) directory. For example, install dir\hotfix readme.txt.
- If you have Sterling File Gateway installed in your environment, the hot-fix for Sterling File Gateway is installed automatically.

#### **DB Checksum Tool**

A checksum is a simple redundancy check used to detect errors in data. In Sterling Integrator 4.3, a verification process is used to compare the checksum between the existing default resource and the resource added after applying a patch or upgrading. The DB Checksum tool, a resource difference tool generates a granular report of the changes in the system that was not permitted to be set as defaults.

The DB Checksum tool generates the difference in resource checksum between the default resource and the latest system resource from the database.

#### Perform a Checksum

To run DB Checksum tool, do the following:

- 1. Navigate to the install dir\bin directory.
- 2. Run the following command from the *<install dir>\bin directory*:

```
db_checksum_tool.cmd [-d] [-i [1 | 2 | 3 | 4 | 5]] [-r [wfd | map | schema |
sii | template]] [-o <output file>] [-g]
```

where:

-d is the mode to dump the difference of resource checksum between the default resource and latest system resource.

- -i is the resource type integer (optional).
  - 1 is WFD
  - 2 is MAP
  - 3 is SCHEMA
  - 4 is SII
  - 5 is TEMPLATE
- -r is the resource name (optional).For example, wfd, map, schema, sii, or template.
- $-\circ$  is the file name to output all the messages (optional).
- -g is the file name that lists all the ignored resources (optional).
- -h is the help screen.
- 3. The DB Checksum tool performs the relevant checksum operation based on the command options and generates the output message.

## Validate the Software Upgrade

After installing Sterling Integrator, you should complete the following tasks:

Note: The following tasks assume that Sterling Integrator is installed and running.

- Start Sterling Integrator in Windows on page 45
- Access Sterling Integrator on page 45
- Validate the Upgrade on page 45
- Stop Sterling Integrator on page 46

#### **Start Sterling Integrator in Windows**

To start Sterling Integrator in a Windows environment, double-click Sterling Integrator icon on your Windows desktop. Sterling Integrator starts running.

Note: It may take several minutes for Sterling Integrator components to initialize and start up.

If Sterling Integrator does not start or if you receive a message about an invalid or corrupt license file, go to the *Troubleshooting: Windows Environment* section.

When startup is finished, a message like the following is displayed:

*Open your Web browser to http://host:port/(interface)*, where *host:port* is the IP address, *port number* is where Sterling Integrator resides on your system, and *(interface)* is the interface used by Sterling Integrator (for example, admin or dashboard).

Make a note of the URL address so you can access Sterling Integrator later.

#### **Access Sterling Integrator**

To log in to Sterling Integrator the first time, follow these steps:

- 1. Be sure that Sterling Integrator is started and running.
- 2. Open a browser window and enter the address displayed at the end of startup.
- 3. The login page for Sterling Integrator displays.
- 4. Enter the default user ID (**admin**) and password (**password**). The default login is at an administrative level. One of your first tasks as an administrator is to change the administrative password and to register other users with other levels of permission.

#### Validate the Upgrade

After you install, start, and log in to Sterling Integrator the first time, you can validate the installation by testing a sample business process. Follow these steps:

1. Open a browser window and enter the address for Sterling Integrator. This address was displayed at the end of startup.

- 2. Enter your user login and password.
- 3. From the Administration Menu, select Business Process > Manager.
- 4. In the Process Name field, type Validation\_Sample\_BPML and click Go!
- 5. Click execution manager.
- 6. Click execute.
- 7. Click Go! You see the Status: Success message in the upper left side of the page.

#### **Stop Sterling Integrator**

To stop Sterling Integrator in a Windows environment, follow these steps:

- 1. Open Sterling Integrator.
- 2. From the Administration Menu, select Operations > System > Troubleshooter.
- 3. Click Stop the System and wait for shutdown to complete.

### Uninstall Sterling Integrator from a Non-Cluster Windows Environment

When you uninstall Sterling Integrator, the following components are affected:

• Sterling Integrator application is automatically removed from the server.

Additionally, you may perform the following tasks:

- Manually remove the JDK that was installed
- Manually remove any desktop tools that were downloaded
- Free any database space in Oracle or SQL Server databases

To uninstall Sterling Integrator 5.0 from a Windows environment, follow these steps:

- 1. Stop Sterling Integrator and wait for shutdown to complete.
- 2. Run *install\_dir\install\bin\uninstallWindowsService.cmd* to remove the following Windows services:
  - Sterling Integrator
  - Opsserver
  - Noapp server
  - WebDav server

You should receive a message stating that the services were successfully removed. To verify their removal, open the Services window:

- a. Select **Start > Settings > Control Panel**.
- b. Click Administrative Tools > Services.

If the services were not removed, you must delete them from the Windows registry:

- a. Go to the Windows registry.
- b. Locate HK\_LOCAL\_MACHINE\System\Current Control Set\Services.
- c. Delete the keys for Sterling Integrator and Opsserver. These registry keys start with Sterling Integrator.
- d. Reboot to apply the registry changes.
- 3. If the JDK is not being used by another application, remove it.
  - a. From the Windows Start menu, select Settings > Control Panel.
  - b. From the Control Panel, select Add/Remove Programs.
  - c. In the Add/Remove Programs window, select Java 2 SDK Runtime Environment Standard Edition v<version number> and click Remove.
  - d. In the Add/Remove Programs window, select **Java 2 SDK Standard Edition v**<*version number>* and click **Remove**.
  - e. Close all windows and return to your desktop.

- 4. Delete the folder where Sterling Integrator was installed, including all subfolders. For example, delete *C:\SterlingCommerce* and its subfolders.
- 5. If you use an Oracle or SQL Server database, these remain intact even after you remove Sterling Integrator from the server. If you no longer want to reference the data, contact your database administrator about removing the unwanted tables and recovering the database space where Sterling Integrator resided.
- 6. After you remove Sterling Integrator from the server, you can remove Eclipse and any tools that were downloaded to the desktop:

**Note:** You can remove Eclipse plug-ins without removing Eclipse. Refer to the Eclipse on-line help for information about removing the plug-ins.

**Note:** MESA Developer Studio and Reporting Services are optional features that are purchased separately from Sterling Integrator. These features each require a separate license in addition to your license for Sterling Integrator.

• Map Editor and associated standards

Refer to the Map Editor Guide for information about removing the Map Editor.

Graphical Process Modeler

Refer to the *Graphical Process Modeler Guide* for information about removing the Graphical Process Modeler.

• Web Template Designer

Refer to the Web Extensions Guide for information about removing the Web Template Designer.

• (If licensed) MESA Developer Studio plug-ins, including the Software Development Kit (SDK) and Skin Editor.

Refer to the *MESA Developer Studio* guide for information about removing MESA Developer Studio.

• (If licensed) Reporting Services, which requires MESA Developer Studio if you want to use the plug-ins to create fact models and custom reports.

Refer to the MESA Developer Studio guide for information about removing Reporting Services.

## **Post Upgrade Configuration**

## Introduction

Review all of the following information, as you may need to perform these additional tasks to configure the system after the upgrade:

- *Change Default Passwords* on page 49
- Add Third-Party Libraries on page 49
- Configure Document File Systems on page 50
- *Configure Services and Adapters* on page 50
- Review the EDI Sequence Check Queue on page 50
- JDBC Adapter and Lightweight JDBC Adapter on page 51
- Odette FTP Adapter on page 54
- Restore Performance Tuning Configuration on page 56
- Changes to Network Interface Bindings on page 57
- Correct Missing Manager IDs on page 59
- Configure Property Files on page 59

#### **Change Default Passwords**

This upgrade changes the administrative password to the default password. After the upgrade, change the password back to the administrative password to minimize security risks. This is the Admin password for logging into the UI (/dashboard or /ws).

For security purposes, change all default user ID passwords immediately after installation is completed. See the *Update My Account Information* task in the documentation library.

#### Add Third-Party Libraries

If you added third-party libraries to configure adapters for the previous release, you need to add each of the libraries again after you complete the upgrade process for release 5.0. See the documentation for each third party adapter you use.

#### **Configure Document File Systems**

If you use a File System as your document storage method, determine and record the path to the File System.

You will need the File System path structure so that after the upgrade, you can copy/mount the documents to the new installation directory. The directory structure (path to the File System) must be the same in the current and in the upgraded system.

#### **Review the EDI Sequence Check Queue**

The EDI Sequence Check Queue is used for X12 and EDIFACT sequence and duplicate checking. You can check the contents of the queue through the UI (Trading Partner -> Document Envelopes -> EDI Sequence Check Queue). Any interchanges that are in the queue will not be able to be processed after upgrade because the EDI compliance report serialized format has changed. The EDI Post Processor displays the following error:

The compliance report for interchange <interchange document ID> could not be deserialized because the format has changed. The entry for this interchange should be manually removed from the EDI Sequence Check Queue through the UI, and the inbound deenvelope workflow should be rerun (WF ID <wfid>).

If you receive this error, you should follow the instructions in the error message to correct the situation.

#### **Configure Services and Adapters**

You may need to reconfigure services and adapters after an upgrade. During an upgrade, packages for services and adapters are reprocessed to update the service configurations.

After an upgrade, the configurations of default adapters and services are re-set to their default configurations. This includes directory paths, which are restored to their default paths. You need to reconfigure those adapters and services, which include, but are not limited to:

- All default FTP adapters
- All default SFTP adapters
- OdetteFTP Adapter
- SAP Suite Adapter
- SWIFTNet Client Service
- SWIFTNet Server Adapter

If you modified the standard configuration for a service or adapter, you may need to reconfigure or reactivate the service or adapter following an upgrade. You may also need to reconfigure adapters that used directories or scripts in the installation directory of your previous release.

Examples of services and adapters that commonly need to be reconfigured following an upgrade include:

- Federation adapter
- FTP adapter
- System services such as the Alert service and the BP Fault Log adapter

These are just examples. Always check the configuration of your adapters following an upgrade.

The following adapters need special consideration following an upgrade:

- JDBC Adapter and Lightweight JDBC Adapter on page 51
- File System Adapter and Command Line2 Adapters on page 53
- Odette FTP Adapter on page 54

#### JDBC Adapter and Lightweight JDBC Adapter

Storage locations of the database pool properties that allow the JDBC adapter and the Lightweight JDBC adapter to communicate with your external database have been streamlined. The poolManager.properties file has been eliminated and some of its pool properties are now included in the jdbc.properties file, along with some new properties. You will need to manually update your existing jdbc\_customer.properties.in file to add some new database pool properties. If you do not have a jdbc\_customer.properties.in file, create one since customer.properties are not affected by product updates. The specific actions necessary depend on your current installation.

#### Upgrade from 3.0

If you are upgrading from version 3.0 and you used the JDBC adapter or the Lightweight JDBC adapter in that version, perform the following steps:

- 1. Save a copy of the jdbc.properties file and the poolManager.properties file from the earlier system. You will need any properties settings you customized for your external database.
- 2. Set up your Lightweight JDBC adapter or JDBC adapter according to the instructions in the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic in Sterling Integrator Documentation site.

#### Upgrade from 3.1

If you are upgrading from version 3.1 and you used a jdbc\_customer.properties.in file in that version, perform the following steps:

- 1. Copy the jdbc\_customer.properties.in file from Sterling Integrator 3.1 installation to the *install\_dir*\install\properties directory in Sterling Integrator 5.0 installation. You will edit this copied file in the following steps.
- 2. Open the *install\_dir*\install\properties\jdbc\_customer.properties.in file in a text editor.

3. Add the following properties:

Note: In the following property names, replace *databasePool* with the name of the pool.

Property	Description
databasePool.factory	Always enter: com.sterlingcommerce.woodstock.util.frame.jdbc.ConnectionF actory.
databasePool.behaviour	Sets the behavior that a connection pool exhibits when it runs out of connections. This property replaces the databasePool.onEmpty property in the former poolManager.properties file. Valid values:
	<ul> <li>0-The pool returns, indicating to the software to abort its current action and try again later. This value corresponds to the value return in the <i>databasePool</i>.onEmpty property.</li> </ul>
	<ul> <li>1–The pool waits the number of milliseconds specified in <i>databasePool.waittime</i> for a connection to be returned before indicating to the software to abort and try again. This value corresponds to the value <i>wait</i> in the <i>databasePool.onEmpty</i> property.</li> </ul>
	2–The pool creates a buffered connection (a connection above the size specified in databasePool.maxsize). When using a setting of 2, the maximum number of connections for the pool is the value specified for databasePool.maxsize plus the value specified for databasePool.buffersize connections. This allows connections to be created under heavy demand. This value corresponds to the value new in the databasePool.onEmpty property.
databasePool.buffersize	Number of extra connections that the connection pool can create above the value specified for <i>databasePool.maxsize</i> to improve handling of unanticipated loads on the system. This property is only used if <i>databasePool.behaviour</i> is set to 2.
databasePool.maxsize	Maximum size of the database pool. This property was previously contained in the poolManager.properties file.
	This value must not exceed the value specified for the <i>databasePool.</i> <b>maxconn</b> parameter in the jdbc.properties file.
databasePool.initsize	Initial size of the database pool. This property was previously contained in the poolManager.properties file.
databasePool.waittime	Amount of time (in milliseconds) to wait for a connection to become available before indicating to the software to abort the current action and try again later. This property is only used if <i>databasePool</i> . <b>behaviour</b> is set to 1.

For more information, see the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic in Sterling Integrator Documentation site.

- 4. Run the setupfiles.cmd utility located in the *install\_dir*\install\bin directory of the Sterling Integrator installation directory.
- 5. Stop and restart Sterling Integrator to use the updated settings.

If you are upgrading from version 3.1 and you used the JDBC adapter or the Lightweight JDBC adapter but you did not use a jdbc\_customer.properties.in file in that version, perform the following steps:

1. Save a copy of the jdbc.properties file and the poolManager.properties file from Sterling Integrator 3.1 installation. You will need any properties settings you customized for your external database.

2. Set up your Lightweight JDBC adapter or JDBC adapter according to the instructions in the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic in Sterling Integrator Documentation site.

#### File System Adapter and Command Line2 Adapters

You must configure your File System and Command Line2 adapters before you remove the previous release directory. Reconfigure any File System and Command Line2 adapters that were configured to use directories or scripts in the installation directory for the previous Sterling Integrator release. Ensure that you create new directories and save scripts outside of the release 5.0 installation directory and edit each configuration to use the appropriate directories and scripts.

- **Note:** Creating directories and saving scripts outside of the release 5.0 installation directory makes future upgrade processes easier.
- **Note:** The 5.0Command Line2 adapter has replaced the Command Line adapter. To replace the Command Line adapter, follow the instructions in *Command Line Adapter* on page 53.

#### Command Line2 Adapter

If you are using the Command Line2 adapter and have located the CLA2Client.jar file anywhere other than the default location, you must replace it with the new version. For information about the default location and how to start the Command Line2 adapter, see the Command Line2 adapter information in the online Documentation site.

If you are upgrading to Sterling Integrator 5.0 from a version lower than 4.0.1 and are using the Command Line2 adapter, you must update the version of the CLA2Client.jar file with the CLA2Client.jar located in the *install\_dir*install\client\cmdline2 directory. If you installed the CLA2Client.jar file anywhere other than the default location, you must replace each copy of the file with the new version. If you only installed it in the default location, the update occurs automatically during the upgrade process.

#### **Command Line Adapter**

If you are upgrading to Sterling Integrator 5.0 from a version prior to 4.0 and are using the Command Line adapter, you must update the version of the CLAClient.jar file with the CLA2Client.jar located in the *install\_dir*installclient\cmdline2 directory. If you installed the CLAClient.jar file anywhere other than the default location, you must replace each copy of the file with the new version. If you only installed it in the default location, the update occurs automatically during the upgrade process.

**Note:** CLA instances are now pointing to the CLA2 Service definition. After importing old service instances of CLA onto Sterling Integrator 5.0, you need to reconfigure the imported CLA services to re-set the Remote Name and Remote Port service configuration parameters. For more information, refer to the documentation for the Command Line Adapter and Command Line2 Adapter.

#### **Odette FTP Adapter**

If you use the Odette FTP Adapter and are using the Partner Profile XML file version 2.00 used in Gentran Integration Suite 4.3, you must modify it to match the new Partner Profile version 3.00. To modify the XML file, refer to the following table:

Section	Name of Structure or Field	Action	Comment
Partner Profiles	<generalparameters> <partnerprofileversion>3.00 </partnerprofileversion> </generalparameters>	Use correct version label of the Partner Profile.	New Version label: 3.00
Physical Partner	Description	Add field and description content	Mandatory in OFTP Partner database
Physical Partner	SubMailbox	Add field, if used.	Optional
Physical Partner	<authenticationcertificate type =""&gt; <subject>string</subject> <issuer>string</issuer> <serial> Bignumber_string  </serial></authenticationcertificate 	Add Structure, if used.	OFTP 2.0: Mandatory for security only. Structure may be repeated.
Physical Partner	<authenticationcertificate type ="Private Key"&gt; <subject>string</subject> <issuer>string</issuer> <serial>Bignumber_string  </serial></authenticationcertificate 	Add Stucture, if used.	OFTP 2.0: Mandatory for security only.
Physical Partner/CAPI	DWindowSize	Delete field	
Physical Partner/IP	IPFilter		Uses IPv4 or IPv6 addresses.
Physical Partner IP	SSL	Add field, if used.	OFTP 2.0: Mandatory for security only.
Physical Partner IP	CipherStrength	Add field, if used.	OFTP 2.0: Mandatory for security only.

Physical Partner IP	<sslcertificate type =""&gt; <subject>string</subject> <issuer>string</issuer> <serial> Bignumber_string  </serial></sslcertificate 	Add structure, if used.	OFTP 2.0: Mandatory for security, only. Structure may be repeated.
Physical Partner Contract	Description	Add field and description content.	Mandatory in OFTP Partner database.
Physical Partner Contract	MultipleLoginSessions		Now used.
Physical Partner Contract	DuplicateFilePeriod	Rename DuplicateFileProcessing Testings To DuplicateFilePeriod	
Physical Partner Contract	SessionLogLevel	Add fields.	Optional
Physical Partner Contract	GroupNameList	Add fields, if used.	Optional
Physical Partner Contract	SecureAuthentication	Add fields.	OFTP 2.0: Mandatory
Physical Partner Contract	<timescheduletable>  <timescheduletable></timescheduletable></timescheduletable>	Delete structure and create schedules in the Sterling Integrator Scheduler instead.	Initiator Business Process and Business Process user fields are still used.
Physical Partner Contract	OdetteFTPAPILevel	Rename OdetteAPILevel to OdetteFTPAPILevel	
Logical Partner	Description	Add field and description content.	Mandatory in OFTP Partner database.
Logical Partner	<fileservicecertificate type =""&gt; <subject>string</subject> <issuer>string</issuer> <serial>string </serial></fileservicecertificate 	Add structure, if used.	OFTP 2.0: Mandatory for security, only. Structure may be repeated.
Logical Partner Contract	Description	Add field and description content.	Mandatory in OFTP Partner database.
Logical Partner Contract	FileTransmissionRetries	Rename FileTransmitRetries to FileTransmissionRetries	
Logical Partner Contract	SignedEERPRequest	Add field, if used.	

Logical Partner Contract	EERP/NERPSignatureCheck	Add field, if used.	
Logical Partner Contract	File Signing	Add field, if used.	
Logical Partner Contract	File Encryption	Add field, if used.	
Logical Partner Contract	CipherSuite	Add field, if used.	
Logical Partner Contract	File Compression	Add field, if used.	
Logical Partner Contract	CharEncoding	Add field, if used.	
Logical Partner Contract	Receive VitualFilenamePattern	Add field, if used.	
Logical Partner Contract	EERPTimeout	Rename WaitForEERP to EERPTimeout	
Logical Partner Contract	FileScheduleTimeout	Add field, if used.	
Logical Partner Contract	InboundBusinessProcess	Add field, if used.	Optional
Logical Partner Contract	InboundBusinessProcess	Add field, if used.	Optional, if no Inbound business process is specified.

After changing the Partner Profile for version 3.00, import the Partner Profile into the new Odette FTP Partner Profile database. For additional information, see *Odette FTP Partner Profile*.

#### **Restore Performance Tuning Configuration**

To restore your original performance tuning configuration to the new release, Sterling Integrator provides the Performance Tuning Wizard. You use the wizard to re-enter the settings you saved earlier.

To restore the performance tuning configuration:

- 1. From Sterling Integrator Administration Menu, select Operations > System > Performance > Tuning.
- 2. Under Edit, click Go!
- 3. Click Edit settings.
- 4. Complete the Performance Tuning Wizard, using the settings you obtained from the previous release.

#### **Changes to Network Interface Bindings**

To increase the security of the Administrator Console user interface, Sterling Integrator version 5.0 binds only to specific network interfaces. After upgrading, if the previous URL for Sterling Integrator returns *Page cannot be displayed*, you can adjust property settings to correct the problem.

- 1. On the server where Sterling Integrator resides, edit the noapp.properties.in file.
- 2. Locate the **admin\_host** parameter. The default settings are as follows:

*hostname1* is the name of primary network interface, the one given highest priority by Sterling Integrator.

localhost is the name of the network interface on the server where Sterling Integrator resides.

```
Default entries
```

```
admin_host.1 = hostname1
admin_host.2 = localhost
```

- 3. Correct the parameters.
  - If no interface is being displayed, edit *hostname1* so that it correctly identifies the primary network interface that accesses Sterling Integrator.
  - If an additional network interface needs to access Sterling Integrator, add an additional *admin\_host* entry, as shown below.

Edited entries

admin\_host.1 = hostname1
admin\_host.2 = localhost
admin\_host.3 = hostname2

- 4. Stop Sterling Integrator.
- 5. Run the setupfiles.cmd utility located in the *install\_dir*\install\bin directory.
- 6. Restart Sterling Integrator to use the updated settings.

For the Dashboard user interface, Sterling Integrator version 5.0 provides unrestricted binding to network interfaces through the perimeter server. To restrict access to the Dashboard user interface, you can adjust property settings so that only one network interface accesses Sterling Integrator.

- 1. On the server where Sterling Integrator resides, edit the perimeter.properties.in file.
- 2. Locate the localmode.interface parameter. The default setting is unrestricted, as shown below.

#### Unrestricted Setting (Default)

localmode.interface=\*

3. To restrict access to the Dashboard, enter the network interface that you want Sterling Integrator to support.

#### Restricted Setting

localmode.interface=hostname1

4. Stop Sterling Integrator.

- 5. Run the setupfiles.cmd utility located in the *install\_dir*\install\bin directory.
- 6. Restart Sterling Integrator to use the updated settings.

#### Add Advanced File Transfer Tab

The Advanced File Transfer tab in the Dashboard interface will not be enabled by default after an upgrade installation of Sterling Integrator 5.0. You will need to configure the Dashboard to enable the tab.

If you have a license for Advanced File Transfer, perform the following steps to add the Advanced File Transfer tab:

- 1. Log in as Admin.
- 2. Click Manage Layout.
- 3. Click Add Pane.
- 4. Enter the following name:

#### **Advanced File Transfer**

- 5. Click Apply.
- 6. Click the customize icon for the new Advanced File Transfer tab.
- 7. Click Add Portlet.
- 8. Select the Add box for Advanced File Transfer Management.
- 9. Click Apply.
- 10. Select Clear Borders and Title from the Decoration menu.
- 11. Click Save and Apply.

#### **Reconfigure Archive Settings**

The upgrade does not automatically reconfigure the archive configuration. You must reconfigure the Backup Directory setting in Archive Manager after an upgrade.

To reconfigure your Archive settings, use the following procedure:

- 1. From the Administration Menu, choose Operations > Archive Manager.
- 2. Under Configure Archive Settings, click Go!
- 3. If a message displays about the UI Lock, click **OK** to continue.
- 4. Click Next.
- 5. Update the Backup Directory field with the correct path information:
- 6. Click Save.
- 7. Confirm the settings and click **Finish**.

#### **Correct Missing Manager IDs**

If you created a Manager ID with no corresponding User ID in your previous version of Sterling Integrator, the Manager ID may be missing after upgrading to Sterling Integrator 5.0. If this occurs, create a user in the system with a User ID that matches the missing Manager ID.

#### **Download Sterling Integrator Tools**

Sterling Integrator includes tools that run on a desktop or personal computer. After you install, start, and access Sterling Integrator, you can install the following tools by downloading them from within Sterling Integrator. For more information about a tool, refer to the documentation for that tool.

- **Note:** MESA Developer Studio and Reporting Services are optional features that are purchased separately from Sterling Integrator. These features each require a separate license in addition to your license for Sterling Integrator.
- Map Editor and associated standards
- Graphical Process Modeler
- Web Template Designer
- (If licensed) MESA Developer Studio plug-ins, including:
  - MESA Developer Studio Software Development Kit (SDK)
  - MESA Developer Studio Skin Editor
- (If licensed) Reporting Services, which requires MESA Developer Studio if you want to use the plug-ins to create fact models and custom reports.

Conflicting IP addresses can cause problems when you download a desktop tool. See the *Troubleshooting: Windows Environment* section.

#### **Configure Property Files**

Property files contain properties that control the operation of the Sterling Integrator. For example, the REINIT\_DB property in the sandbox.cfg property file controls whether or not a database is initialized when you install Sterling Integrator.

By modifying the values of these properties, you can customize the Sterling Integrator to suit your business and technical needs. Most property files are in the *install\_dir*\install\properties directory.

After installing the Sterling Integrator, most property and script files do not need any further configuration for basic operation of the system. However, if you want to customize any specific operations—for example, setting a different logging level—you will need to edit (and in some cases, create) certain property or .xml files.

Before changing any property files, refer to the *Working with Property Files* documentation for general information about how to work with property files. Also, the property files reference documentation has information about specific properties.

Areas where you might need to make specific property file changes after an installation include (but are not limited to) the following areas:

- LDAP user authentication
- Prevention of cross-site script vulnerabilities
- Logging configuration
- Process-specific property file settings
- Securing the Interop Servlet

## **User Documentation**

#### **User Documentation for Sterling Integrator**

The user documentation is available via an online documentation site on the Web. Providing the documentation in an online environment allows for frequent updates of content based on user feedback and usability.

We also understand the need for a printed copy of documentation. You can print topics of information using your Internet browser, or you can download documents in PDF format. You also have the option to request a documentation CD.

#### **Using the Online Documentation**

The documentation for Sterling Integrator is located on the Sterling Commerce Documentation web site. You can type a word or phrase and search the entire library for information. Or you can move through a hierarchy of contents pages to identify the topic you want. After you find the topic you want, you can read it online or print it using your browser's Print function.

To access the Documentation site, from within Sterling Integrator or one of its tools, select the Help icon. (Note that the application must reside on a computer that supports Internet access and an Internet browser.)

You can also access the Documentation site by opening your Internet browser and typing the following URL:

http://www.sterlingcommerce.com/Documentation/SI50/homepage.htm

#### **Documentation Available in PDF Format**

The online documentation includes documents in PDF format that you can download. To download PDF documents, click the *Documentation in PDF Format* link from the main online documentation page.

#### **Requesting a Documentation CD**

You can request a CD that contains all the documentation found on the Documentation site. To submit a request, go to the following URL:

http://support.sterlingcommerce.com/forms/Gentran\_GIS\_UpgradeRequest.aspx

## **Chapter 9**

## **Troubleshooting Tips**

## Windows Non-Cluster Environment Troubleshooting Tips

Situation	Message or Symptom	Explanation/Resolution
Installing	You encounter errors or problems during installation.	Explanation
		Installation creates two log files, one for the first (bootstrap) phase and a second for the actual installation phase.
		Resolution
		Examine the log files generated during installation:
		<ul> <li>install_dir\install\logs\bootstrap.log</li> </ul>
		<ul> <li>install_dir\install\installSI.log</li> </ul>
Installing	During installation, you select the destination directory and the installation program stops running.	Explanation
		The command window was closed after you selected the destination directory.
		Resolution
		Delete the destination directory and re-start the installation process. Do not close the command window.
Installing	You started the installation program but realize that the license file has not been downloaded.	Resolution
		Minimize the installation window, obtain the license file, and then continue with the installation procedure.
Installing	During installation, you identify the initial port number and then see the message: <i>Port number is already in use</i> .	Resolution
		Choose one:
		Use a different port number.
		<ul> <li>Stop the service that is using the port number that you want to use.</li> </ul>

Situation	Message or Symptom	Explanation/Resolution
Installing	During installation, you enter database information and see the message: Information is incorrect.	Explanation One or more of the criteria for the database is incorrect. Resolution Click Back to redisplay the dialog box that asks for the database information. Correct the error and click Next.
Installing	Installation appears to complete successfully, but Sterling Integrator services are not installed.	<ul> <li>Explanation You may have reinstalled Sterling Integrator on a Windows server and chosen the same initial port. Resolution If this is the case, either reinstall Sterling Integrator in a different directory using a different port, or follow the steps below to uninstall the existing Sterling Integrator services prior to reinstalling Sterling Integrator. <ol> <li>Run install_dir\install\bin\stopWindowsSer vice.cmd and wait for all Sterling Integrator Windows services to stop. </li> <li>Run install_dir\install\bin\uninstallWindo wsService.cmd and log off. This cleanly removes the old Windows services from Windows cache and verifies that there are no scheduled jobs running in the background. Delete the install_dir directory. You can now install the new version of Sterling</li></ol></li></ul>
Installing Starting	After installing Sterling Integrator, a silnstall.* subdirectory is left in the current working directory. This can cause the file system to become full. If Sterling Integrator does not start, examine the log file in <i>install_dir</i> \install\ <i>logs</i> for an invalid or corrupt license file.	Explanation The Java installer is not allowed to delete the silnstall.*/platform_core_2000.jar because it is "in use" by the JVM. Resolution Manually delete the leftover silnstall.* subdirectory on Windows after each installation attempt. Resolution Obtain the license file. Then restart Sterling Integrator.

Situation	Message or Symptom	Explanation/Resolution
Installing a desktop tool or resource	<ul> <li>Cannot download any of the following:</li> <li>Note: MESA Developer Studio <ul> <li>and Reporting Services are</li> <li>optional features that are</li> <li>purchased separately from</li> <li>Sterling Integrator. These</li> <li>features each require a</li> <li>separate license in addition</li> <li>to your license for Sterling</li> <li>Integrator.</li> </ul> </li> <li>Map Editor and associated</li> <li>standards</li> <li>Graphical Process Modeler</li> <li>Web Template Designer</li> <li>(If licensed) MESA Developer</li> <li>Studio plug-ins (Software</li> <li>Development Kit (SDK), Skin</li> <li>Editor)</li> <li>(If licensed) Reporting Services,</li> <li>which requires MESA Developer</li> <li>Studio if you want to use the</li> <li>plug-ins to create fact models and</li> <li>custom reports.</li> </ul>	<ul> <li>Explanation</li> <li>When you install Sterling Integrator, system files are created that contain an internal IP address. If you install Sterling Integrator behind a firewall, and your firewall is configured to accept an external IP address from a client computer, you may not be able to download the desktop tools and resources. The firewall will reject the IP address from a client residing outside of the firewall.</li> <li>Resolution</li> <li>Modify the system files that contain the invalid IP address. Follow these steps:</li> <li>1 Navigate to the <i>install_dir</i>\install\bin directory.</li> <li>2 Stop Sterling Integrator.</li> <li>3 Enter the following command followed by the external IP address: patchJNLP.cmd external_IP address</li> <li>4 Restart Sterling Integrator.</li> </ul>
Accessing	Attempts to access the URL for Sterling Integrator display the message: <i>Page cannot be displayed.</i>	See Changes to Network Interface Bindings on page 57.

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