Gentran Integration Suite™

Upgrade Guide

Version 4.2 (from 4.1 and 4.1.1)

Sterling Commerce

An IBM Company

Contents

Pre-Upgrade Information

This documentation describes how to upgrade from Gentran Integration Suite releases 4.1 and 4.1.1 to Gentran Integration Suite release 4.2 in a UNIX®, Microsoft® Windows, or iSeries® environment. For information about the enhancements in Gentran Integration Suite release 4.2, refer to the *Guide to What's New* document.

Checklist

Use the following checklist to track your upgrade progress. This checklist also helps you know what documentation to use at each stage of your upgrade.

Step	Upgrade Guide Information	Other Documentation	Done?
Pre-Upgrade (Chapter 1)			
1	*Before You Begin* on page 6.		
2	*Creating a Process Output Log* on page 7.		
3	*Verifying System and Database Compatibility* on page 8.	*System Requirements*	
4	*Preparing Your System for the Upgrade* on page 9.	*Release Notes*	
Upgrade (Chapter 2 - UNIX, 3 - Windows, or 4 - iSeries)			
5	*Upgrade Procedure*	◆ *Installation Guide* ◆ *System Requirements*	
Post-Upgrade (Chapter 5)			
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7	*Starting an Upgraded Cluster (UNIX and Windows Only)* on page 15.		
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Step	Upgrade Guide Information	Other Documentation	Done?
9	*Accessing User Documentation for Gentran Integration Suite* on page 16.		

Before You Begin

Before you begin upgrading, be aware of the following prerequisite tasks and considerations. The following sections cover standard items for all upgrades, special items for particular kinds of upgrades, and process output logs.

Also, at several points in the upgrade process, you will be asked to download a file from https://support.sterlingcommerce.com. 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**.

Standard Tasks and Considerations

Before you begin upgrading, be aware of all of the following prerequisite 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. Download the following information from the Gentran Integration Suite library page http://www.sterlingcommerce.com/Documentation/GIS42/homepage.htm.

   ◆ *Gentran Integration Suite 4.2 Installation Guide*

   ◆ *Gentran Integration Suite 4.2 Release Notes*

   ◆ *Gentran Integration Suite 4.2 System Requirements*. With each release, Sterling Commerce™ introduces leading edge technology to improve and enhance its software. You should review the System Requirements documentation to confirm that your system and databases meet the requirements and to manage any necessary upgrades or changes before upgrading.

4. Download the following items from the Support on Demand site, https://support.sterlingcommerce.com.

   For both items, click on the **Gentran Integration Suite - 4.2** link in the "Service Packs and Patches" section.

   ◆ (UNIX/Linux and ISeries) ServiceInstallerWrapper.sh.in or (Windows) ServiceInstallerWrapper.cmd.in

   ◆ si_engine_4204.jar

   Be sure to copy the files to a location on your system from which you can retrieve them easily.

5. Archived data can only be restored from the same version and patch of Gentran Integration Suite 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 Gentran Integration Suite that matches the version and patch from which the archive was taken.

6. Back up your database.

7. Review and note the adapters, business processes, and other configurations on 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. *Always* install and test your upgrade in a non-production environment before upgrading your production environment.

Special Tasks and Considerations

Before you begin upgrading, be aware of the following special tasks and considerations, depending on your type of upgrade:

✦ If you are using oracle 8i with your current version of Gentran Integration Suite, upgrade to oracle 9i or oracle 10g before upgrading to Gentran Integration Suite 4.2.

✦ If you had LDAP (Lightweight Directory Access Protocol) configuration information in the security.properties file, this information will automatically be moved to the authentication_policy.properties file, which is first used in Gentran Integration Suite 4.2.

✦ Your version of Gentran Integration Suite was bundled with the JBoss™ application server and supported integration with WebLogic® and WebSphere® application servers. Gentran Integration Suite version 4.2 is installed without integration to an application server and does not require an application server for installation or at run-time.

However, Gentran Integration Suite still supports integration with JBoss, WebLogic, and WebSphere. After you upgrade to 4.2, you can restore integration with your application server if desired. To do so, use the Gentran Integration Suite EJB Adapter. For more information, refer to the documentation for the EJB Adapter.

Creating a Process Output Log

A log of process activity during the upgrade will help if troubleshooting is required. output from `upgrade.sh` and `upgrade.cmd` is automatically logged to upgrade.log.

Use this procedure to generate a separate output log for each process you want to log.

UNIX

To create a process output log:

1. Use the `script` command to record the session and save the standard output to a file.

2. Run the `script` command to record the process, ensuring that you have created and specified the file name in which to save the process output.

    For example, to start recording output to a file named processoutput.log, at the command line, type `script processoutput.log`.

3. After the upgrade is complete, type `exit` at the command line to stop recording.

4. You can now retrieve the file containing the process output.

    The following example shows a session in UNIX after starting the `script` command, specifying the output to be saved to the file named listing.log, and typing `exit` to stop the `script` command from running:

```
[2]%script listing.log
    Script started, file is listing.log
    [3]%ls
    Custard.Recipe        FavoriteRecipes  Curry.Recipe
    VindalooCurry.Recipe   Jelly.Recipe
    [4]%exit
    Script done, file is listing.log
```

Windows or iSeries

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

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` (Windows)

    `process.sh > processoutput.log 2>&1` (iSeries)

    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: In Windows, 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).

Verifying System and Database Compatibility

To verify system compatibility and prepare for the upgrade, review the *Gentran Integration Suite Release 4.2 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.

Preparing Your System for the Upgrade

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

1. Back up Gentran Integration Suite 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 Gentran Integration Suite 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 Gentran Integration Suite and your database, you are ready to upgrade the software. Before you begin, see the *Gentran Integration Suite 4.2 Release Notes*.

Chapter 2

UNIX Upgrade

This chapter has instructions for UNIX only. Please see Windows-specific instructions for Windows and iSeries-specific instructions for iSeries.

Always make a full backup of your Gentran Integration Suite instance prior to performing an upgrade. It is also recommended that you thoroughly test this process in a test or development environment prior to implementing in a production environment.

Upgrade Procedure (UNIX)

This process will upgrade your Gentran Integration Suite 4.1 instance to 4.2, which means you will no longer have a Gentran Integration Suite 4.1 instance after performing the steps below.

Note: Upgrading from Gentran Integration Suite 4.1.1 Build 1976 or higher gives an error during the upgrade that asks to create a column that already exists. This happens with both cluster and non-cluster upgrades. When this error occurs, press **I** to ignore the error.

1. Download the following items from the Support on Demand site https://support.sterlingcommerce.com:

    ◆ si_engine_4204.jar (or later)

    ◆ ServiceInstallerWrapper.sh.in

2. Place the ServiceInstallerWrapper.sh.in file in the Gentran Integration Suite 4.1 *install_dir*/bin directory.

3. Change the Gentran Integration Suite 4.1 directory to *install_dir*/bin.

4. Run `setupfiles.sh`.

5. Generate the license file from https://productupdates.stercomm.com/ap/bp/APWelcome and run `AddLicenseSet.sh`.

6. Run `InstallService.sh - absolutePath/si_engine_420X.jar`.

7. If you are upgrading a cluster, repeat steps 1-6 for each other node, and then go to *Post-Upgrade Processes* on page 14.

Chapter 3

Windows Upgrade

This chapter has instructions for Windows only. Please see UNIX-specific instructions for UNIX and iSeries-specific instructions for iSeries.

Always make a full backup of your Gentran Integration Suite instance prior to performing an upgrade. It is also recommended that you thoroughly test this process in a test or development environment prior to implementing in a production environment.

Upgrade Procedure (Windows)

This process will upgrade your Gentran Integration Suite 4.1 instance to 4.2, which means you will no longer have a Gentran Integration Suite 4.1 instance after performing the steps below.

Note: Upgrading from Gentran Integration Suite 4.1.1 Build 1976 or higher gives an error during the upgrade that asks to create a column that already exists. This happens with both cluster and non-cluster upgrades. When this error occurs, press **I** to ignore the error.

Note: Make sure that you are using the correct JDK version. For more information about installing the correct JDK version, refer to the *Gentran Integration Suite 4.2 System Requirements* and the pre-installation checklist in the *Gentran Integration Suite 4.2 Installation Guide*. If you are upgrading a cluster, refer to cluster installation instructions from the *Gentran Integration Suite 4.2 Installation Guide*.

1. Download the following items from the Support on Demand site
   https://support.sterlingcommerce.com:

   ◆ si_engine_4204.jar (or later)

   ◆ ServiceInstallerWrapper.cmd.in

2. Place the ServiceInstallerWrapper.cmd.in file in the Gentran Integration Suite 4.1 *install_dir*\bin directory.

3. Change the Gentran Integration Suite 4.1 directory to *install_dir*\bin.

4. Run the command `setupfiles.cmd`.

5. Generate the license file from https://productupdates.stercomm.com/ap/bp/APWelcome and run the following command:

   `AddLicenseSet.cmd absolutePath\(license file name).xml`

   The license file name is given when the license is generated. The `absolutePath` path is where you decide to save the license file.

6. Run the following command:

   `InstallService.cmd absolutePath\si_engine_420X.jar`

7. Upgrade the JDK as requested on the installation screen.

   a. Press **Enter** and type **quit**.

   b. Make sure that you have the required version of JDK installed in your local area.

   c. Type the following command:

      `C:\GIS41PM\SI\bin>replaceJDK.cmd c:\j2sdk1.4.2_12\`

      The following message appears:

      Success -- 1.4.2_12 meets the JVM requirements on Windows 2003

   d. When prompted, type your path to the JCE distribution file. For example, you might enter `c:\jce_policy-1_4_2.zip`.

      Confirmation messages appear.

8. If you are upgrading a cluster, repeat steps 1-7 for each other node, and then go to *Post-Upgrade Processes* on page 14.

Chapter 4

iSeries Upgrade

This chapter has instructions for iSeries only. Please see UNIX-specific instructions for UNIX and Windows-specific instructions for Windows.

Always make a full backup of your Gentran Integration Suite instance prior to performing an upgrade. It is also recommended that you thoroughly test this process in a test or development environment prior to implementing in a production environment.

Upgrade Procedure (iSeries)

This process will upgrade your Gentran Integration Suite 4.1 instance to 4.2, which means you will no longer have a Gentran Integration Suite 4.1 instance after performing the steps below.

Note: Upgrading from Gentran Integration Suite 4.1.1 Build 1976 or higher gives an error during the upgrade that asks to create a column that already exists. This happens with both cluster and non-cluster upgrades. When this error occurs, press **I** to ignore the error.

1. Download the following items from the Support on Demand site https://support.sterlingcommerce.com:

    ◆ si_engine_4204.jar (or later)

    ◆ ServiceInstallerWrapper.sh.in

2. Place the ServiceInstallerWrapper.sh.in file in the Gentran Integration Suite 4.1 *install_dir*/bin directory.

3. Change the Gentran Integration Suite 4.1 directory to *install_dir*/bin.

4. From the `qsh` command line, run the command `./setupfiles.sh`

5. Generate the license file from https://productupdates.stercomm.com/ap/bp/APWelcome and run the command `AddLicenseSet.sh`.

6. Run the following command:

    `InstallService.sh absolutePath/si_engine_420X.jar`

7. Go to *Post-Upgrade Processes* on page 14.

Post-Upgrade Processes

Configuring ASAPROUT (iSeries only)

If you are using iSeries, perform the following steps to configure ASAPROUT:

1. Start Gentran Integration Suite 4.2.

2. Log into Gentran Integration Suite as a user with administrative rights.

3. From the **Administration** menu, select **Operations** > **System** > **Support Tools** > **SQL Manager**.

4. Type, or copy and paste, the following SQL command in the command box:

    ```
    drop procedure ASAPROUT
    ```

5. Click **Execute**.

6. Clear the command box.

7. Copy and paste the following SQL command in the command box, ensuring the entire command is on a single line:

```
CREATE PROCEDURE ASAPROUT ( IN generationID VARCHAR(255) )  LANGUAGE SQL P1: BEGIN
DECLARE ruleID VARCHAR(255);  DECLARE mailboxID INTEGER;  DECLARE messagePattern
VARCHAR(255);  DECLARE messageID INTEGER;  DECLARE actionType VARCHAR(255);  DECLARE
processName VARCHAR(255);  DECLARE userID VARCHAR(255);  DECLARE contractName
VARCHAR(255);  DECLARE contractID VARCHAR(255);  DECLARE at_end SMALLINT DEFAULT 0;
DECLARE not_found CONDITION FOR SQLSTATE '02000';  DECLARE actionsets CURSOR WITH
RETURN FOR  SELECT RULE_ID, MESSAGE_PATTERN, MESSAGE_ID, MAILBOX_ID, ACTION_TYPE,
PROCESS_NAME,  USER_ID, CONTRACT_NAME, CONTRACT_ID   FROM MBX_ACTIONSET WHERE
GENERATION=generationID ORDER BY RULE_ID;  DECLARE rules CURSOR WITH RETURN FOR
SELECT  R.RULE_ID, MATCH_MBX.MAILBOX_ID,UPPER(PATTERN.MSG_NAME_PAT),  'Contract' AS
ACTION_TYPE,  CONTRACT.WORKFLOW_NAME AS PROCESS_NAME, ACTION.USER_ID,
CONTRACT.OBJECT_NAME AS CONTRACT_NAME, CONTRACT.OBJECT_ID AS CONTRACT_ID  FROM
MBX_RULE R, MBX_PATTERN PATTERN, MBX_CONTRACT_ACT CONT_ACTION,  MBX_ACTION ACTION,
SCI_CONTRACT CONTRACT, MBX_MATCH_MBX MATCH_MBX  WHERE  R.RULE_ID = PATTERN.RULE_ID
AND R.RULE_ID = ACTION.RULE_ID   AND CONT_ACTION.RULE_ID = R.RULE_ID AND
MATCH_MBX.RULE_ID = R.RULE_ID  AND CONT_ACTION.CONTRACT_NAME=CONTRACT.OBJECT_NAME AND
R.EVALUATE_ASAP > 0   UNION   SELECT  R.RULE_ID,
MATCH_MBX.MAILBOX_ID,UPPER(PATTERN.MSG_NAME_PAT),  'New_Proc' AS ACTION_TYPE,
NP_ACTION.PROCESS_NAME, ACTION.USER_ID,  '' AS CONTRACT_NAME, '' AS CONTRACT_ID
FROM  MBX_RULE R, MBX_PATTERN PATTERN, MBX_NEW_PROC_ACT NP_ACTION,  MBX_ACTION
ACTION, MBX_MATCH_MBX MATCH_MBX  WHERE  R.RULE_ID = PATTERN.RULE_ID AND R.RULE_ID =
ACTION.RULE_ID  AND  MATCH_MBX.RULE_ID = R.RULE_ID  AND NP_ACTION.RULE_ID = R.RULE_ID
AND R.EVALUATE_ASAP > 0;   DECLARE CONTINUE HANDLER FOR not_found  SET at_end = 1;
```

```
OPEN rules;  asap_loop:  LOOP   SET at_end = 0;   FETCH rules INTO ruleID, mailboxID,
messagePattern, actionType, processName,userID,contractName,contractID;   IF at_end <>
0 THEN   LEAVE asap_loop;  END IF;   INSERT INTO MBX_ACTIONSET (RULE_ID,
MESSAGE_PATTERN, MESSAGE_ID, MAILBOX_ID, ACTION_TYPE, PROCESS_NAME, USER_ID,
CONTRACT_NAME, CONTRACT_ID, GENERATION )   SELECT ruleID, messagePattern,
MSG.MESSAGE_ID, mailboxID, actionType, processName, userID, contractName, contractID,
generationID  FROM MBX_NEEDS_ROUTING NEEDS_ROUTING, MBX_MESSAGE MSG,
MBX_ROUTING_GNR8N GNR8N   WHERE NEEDS_ROUTING.MESSAGE_ID= MSG.MESSAGE_ID   AND
NEEDS_ROUTING.GENERATION < GNR8N.GENERATION   AND (MSG.MAILBOX_ID=mailboxID or
mailboxID is null)   AND UPPER(MSG.MESSAGE_NAME) LIKE messagePattern ESCAPE '|';  END
LoOP asap_loop;  CLOSE rules; END P1
```

8. Click **Execute**.

Starting an Upgraded Cluster (UNIX and Windows Only)

After you upgrade all nodes of a cluster, start the cluster using one of the following procedures:

Note: When running `startCluster.sh` or `startCluster.cmd` on a node, the following error appears:

> *Exception in thread "main" java.lang.OutOfMemoryError*

> Ignore this error. The cluster will start normally and function. To fix this error for UNIX, edit startCluster.sh to include the following line after the call to tmp.sh:

> `JAVA="$JAVA $HEAP_FLAGS"`

UNIX

1. Node 1

    Run the command `startCluster.sh 1 false`

2. Nodes after node 1

    a. Copy *install_dir*/bin / **FeatureSet.xml** from the node 1 to *install_dir*/bin on node 2.

    b. Run the command `startCluster.sh (node number)`

    c. After `startCluster.sh (node number)` completes successfully, go to *install_dir*/bin and run the `command run.sh`.

Windows

1. Node 1

    a. At a DOS prompt, go to the *install_dir*\bin directory.

    b. Run the command `startCluster.cmd 1`.

    c. After `startCluster.cmd 1` completes successfully, run the command `startwindowsservice.cmd`.

2. Node 2

    a. Copy FeatureSet.xml from node 1 to other nodes.

    b. At a DOS prompt, go to the *install_dir*\bin directory.

    c.   Run the command `startCluster.cmd 2`.

    d.   After `startCluster.cmd 2` completes successfully, run the command `startwindowsservice.cmd`.

    e.   Follow this same procedure for other nodes. For example, Node 3 would use the command `startCluster.cmd 3`.

Final Upgrade Notes

The upgrade process enables services that might have been disabled before the upgrade. If you want to disable these services again, you must disable them in Gentran Integration Suite 4.2 after the upgrade process.

After you upgrade, do not use the previous release of Gentran Integration Suite. However, you should maintain your backup copy for future reference.

Accessing User Documentation for Gentran Integration Suite

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 Gentran Integration Suite 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 Gentran Integration Suite 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/GIS42/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

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