Setup Checklist - iSeries Preinstallation

This document contains information to assist you when planning to install Sterling Integrator in an iSeries environment.

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

✦ The first character must be alphabetic or one of the following: **$**, **@**, or **#**

✦ The remaining characters may be alphanumeric or one of the following: **$**, **@**, **#**, **_** or **.**

✦ Do not use spaces or apostrophes.

You may want to make a copy of the following checklist and use it to do the following:

✦ Set up your system and verify that it is ready for an installation (Steps 1-6).

✦ Record the information that you will need during the installation (Steps 7-18).

Step	Description	Your Notes
1	Verify that your system meets the hardware and software requirements specified for this release. See *Verify that the Sterling Integrator user profile's home directory is pointing to /home/appuser. This can be done by the WRKUSRPRF command.* on page 13.	
2	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. **Caution**: If you do not verify the IP addresses, your system may not operate properly after installing Sterling Integrator.	
3	Verify that all client computers are using Microsoft Internet Explorer 5.x or later.	
4	If you are using a non-English environment, confirm that you are using the appropriate character set.	
5	Configure the system to view Sterling Integrator files using Windows Explorer. See *Configuring the System to View Files* on page 10.	
6	Map a network drive to your working directory. See *Mapping a Network Drive* on page 10.	
7	Specify the QCCSID (Coded Character Set) under which Sterling Integrator will run. See *Specifying the QCCSID* on page 10.	
8	Determine and record the collection name for the database. See *Preparing the Database* on page 11.	

Step	Description	Your Notes
9	Determine and record the passphrase you want to use for the Sterling Integrator system. During installation, you are prompted twice to enter the passphrase, which is not displayed when you type it.	
10	Determine and record information to set up default system alerts from Sterling Integrator: ◆ The Administrative e-mail address to which system alert messages are sent. ◆ The SMTP Server IP address used for sending alert messages.	
11	Determine and record the initial port number to be used by Sterling Integrator. See *Determining Port Numbers* on page 9.	
12	Determine and record the catalog name for the database. See *Preparing the Database* on page 11.	
13	Determine the Host IP address for Sterling Integrator. This is required even if you only have one IP address for your system. To find the IP Address of your system: ◆ Key in `WRKTCPSTS *IFC` ◆ Locate and record the IP address to use for Sterling Integrator.	
14	Create the Sterling Integrator user profile and its associated password. Be sure to record the user password so you can enter it during installation. The user password is not displayed when you enter it. See *Creating a Sterling Integrator User Profile* on page 11.	
15	Determine and record the absolute path to the Sterling Integrator jar file. The jar file can reside in any directory on your system. During installation, you use this directory, but this is not the final directory where Sterling Integrator resides.	
16	Record the directory in which you want to install Sterling Integrator. The Sterling Integrator installation directory must be a new directory and cannot already exist. A large subdirectory tree will be created under this directory. During installation, this directory is referred to as *install_dir*.	
17	Obtain the license file and record the absolute path to the license file. See *Obtaining a License File* on page 12.	
18	Obtain the JCE distribution file and record the absolute path to the zipped file. See *Downloading the JCE Distribution File* on page 9.	

Step	Description	Your Notes
19	Determine whether Sterling Integrator supports an application server. The Sterling Integrator might not require an application server for installation or at run-time. However, the Sterling Integrator might support integration with JBoss™ and WebLogic® during the installation. You might also be able to integrate with WebSphere®, JBoss, or WebLogic after installing version x.x by using the Sterling Integrator EJB Adapter. This does not represent a WebLogic® server for deploying the Sterling Integrator Console.	
20	Verify that your user profile points to the correct JDK. If you have multiple JDKs loaded on your system, you need to point your user profile to JDK 1.5. You need to create a SystemDefault.properties file in the home directory of the user profile. See *Creating a SystemDefault.properties file* on page 13.	
21	Verify that your user profile is pointing to a job queue in a subsystem that meets the following requirements: 1 The subsystem has at least 2 GB of dedicated memory. 2 The Max Active (maximum number of threads) is set to at least 500. This can be viewed on the WRKSYSSTS screen and is broken down by subsystem. If you don't know which system pool your subsystem is defined to, press the **F14** key. 3 The maximum jobs in the subsystem is set to ***NOMAX**. 4 The Max Active parameter defined in the Job Queue is set to at least **8**.	

Note: The Sterling Integrator installation program will automatically set the umask to 002 during the installation. However, iSeries system administrators should consider placing an appropriate umask command such as umask 002 in their global or user login script because the default of 000 could allow many IFS files to be world-writable. Please consult the IBM iSeries Information Center for more information on umask and customizing your Qshell environment.

Checking 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 most recent *System Requirements*.

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)

Make sure that your profile is pointing to JDK 1.5.

✦ 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 the installation halts because the system requirements are not met, you need to upgrade to a supported version.

Downloading the JCE Distribution File

The Java Cryptography Extension (JCE) is a set of Java packages from IBM 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.

If you install the unlimited strength file, it will overwrite the limited strength file. You must use the unlimited strength file if you are using the AES-192 CBC or AES-256 CBC symmetric key algorithm in Web services.

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 obtain this file for the IBM JDK 1.5:

1. Open your browser and navigate to https://www14.software.ibm.com/webapp/iwm/web/reg/pick.do?source=jcesdk.

2. Enter your IBM ID and password. If you do not have an IBM ID, follow the IBM registration instructions provided on the Sign In page.

3. Click **Submit**.

4. Select **Unrestricted JCE Policy files for SDK 1.4.2** and click **Continue**.

5. Review your personal information and the license agreement. Select **I agree** checkbox and click **I Confirm** to continue.

6. Download the unrestrict142.zip file to your system.

7. Once the file resides on your system, note the exact directory and file name for this zipped file. You will need this information during the installation process.

Determining Port Numbers

During installation, you are prompted to specify the initial port number for Sterling Integrator. To specify a port number, follow these guidelines:

✦ Sterling Integrator requires a range of 200 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*/properties/sandbox.cfg file for all of the port assignments. In an iSeries environment, you can also view the port numbers currently in use on your system using one of these methods:

- ◆ Select from the **iSeries Navigator Network > TCP/IP Configuration > Connections**.

- ◆ Enter **WRKTCPSTS** on an iSeries command line and select **Option 3 (Work with TCP/IP connection status)**. Press **F14** to sort the port numbers in numerical sequence.

Configuring the System to View Files

In the iSeries environment, you must configure your system to view Sterling Integrator files using Windows Explorer. Use the NetServer component of OS/400 to set up file shares that are accessible through Windows networking. You must set up a file share to a working directory in your iSeries Integrated File System (IFS).

Mapping a Network Drive

In the iSeries environment, you must map a network drive to the working directory for Sterling Integrator. For more information, refer to the documentation on the IBM Web site.

Specifying the QCCSID

In the iSeries environment, you must specify the QCCSID (Coded Character Set) under which Sterling Integrator will run. Follow these steps:

1. From an iSeries command line, enter **DSPSYSVAL SYSVAL(QCCSID)**.

2. Is the QCCSID set to 65535?

- ◆ If Yes, then complete one of the following tasks:

  • Change the CCSID to a specific coded character set:

    – Enter **CHGSYSVAL SYSVAL(QCCSID) VALUE**(*xxx*), where *xxx* represents your coded character set.

    – IPL your iSeries.

  • Keep the QCCSID at 65535 and specify a specific CCSID other than 65535 when you create your Sterling Integrator user profile.

Note: Refer to the *IBM National Language Support Guide* for valid coded character sets. It is recommended that you use the coded character set 037 for US English system.

- ◆ If No, continue with the next preinstallation task.

Creating a Sterling Integrator User Profile

In the iSeries environment, you must create a user profile for accessing the Sterling Integrator databases. You use this user profile when you submit the installation command.

If your system value QCCSID is set to 65535, then set the CCSID parameter to a specific coded character set other than 65535 on the CRTUSRPRF command. See the *IBM National Language Support Guide* for valid coded character sets. See your operating system documentation for more information about creating user profiles.

Note: The job description assigned to the user profile must have a job queue defined that allows at least two active jobs. If the maximum number of active jobs is less than two, Sterling Integrator will not install correctly. This also applies to starting Sterling Integrator after installation.

Preparing the Database

In an iSeries environment, Sterling Integrator uses the DB2 database that is included in OS/400.

In an iSeries environment, the installation process creates a new collection for Sterling Integrator. Before you install, you must determine and record the collection name and the catalog name.

✦ The collection name is the name of the collection (or library) that contains the database, journal, and journal receiver for your Sterling Integrator system. The default for this prompt is (Sterling Integrator)DB. This collection must not already exist.

✦ The catalog name is the database name of your iSeries system, as defined by the WRKRDBDIRE command. Generally, this value is the name of your system.

All database files are required to be journaled when being used by the translator in Sterling Integrator. If your application files are not currently journaled, and you plan to access these files through Sterling Integrator, please refer to the IBM manuals for instructions on journaling physical files.

Database Sizing (iSeries)

Database sizing is designed to give you estimates of the database growth and to assist in planning the disk requirements.

Capacity Planning (iSeries)

There are many factors to consider when estimating the amount of disk space that will be required for the Sterling Integrator. As a result, trying to consider all growth factors is impractical because the user may not know the answers to many questions that are required to do a detailed forecast. Over the years the cost of disks has dramatically decreased, and the capacity and speed of disks has increased. The method of how information system managers order disk capacity has also changed from purchasing disk arrays that are dedicated to a particular database server and project to the concept of SANS.

The Sterling Integrator provides a methodology to estimate your initial disk requirements. Consider the confidence that you have in your data estimates when making the final purchase decision and adjust accordingly. After the initial purchase and production deployment, disk growth should be tracked for future purchase forecasts.

Tracking and Estimating Future Disk Requirements (iSeries)

You should track your actual database storage usage and the number of database records regularly. Correlating these two metrics enables you to plan your future disk requirements. Moreover, determining the average amount of space used for each order line or shipment line enables you to accurately predict your future growth requirements.

Translator Requirements for iSeries Database Files

All database files are required to be journaled when being used by the translator in Sterling Integrator. If your application files are not currently journaled, and you plan to access these files through Sterling Integrator, please refer to the IBM manuals for instructions on journaling physical files.

Obtaining a 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. To extend your temporary key, obtain the permanent key, or request changes to a permanent key you already have, go to the online Gentran Integration Suite/Sterling Integrator Key Request form (https://support.sterlingcommerce.com/forms/gis_key_request.aspx)and have your PSP number (a unique number that identifies a licensed software asset in your Sterling Integrator installation) available. The PSP Number is present in the temporary or previous version of the keyfile you received from Sterling Commerce. Upon submission of this form, your new keyfile will be generated and delivered to you as an attachment to an email.

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.

Installing the Temporary Key

To install the temporary key, do the following:

1. Rename the temporary key. Use a name (for example, **assetTracking.key**) that clearly identifies the key as the original installation license key.
2. Copy the temporary key to the *absolutePath*/conf directory.
3. Rename the temporary license key file to **license.key**.

Installing the Permanent Key

To install the permanent key from the command line, do the following:

1. When you receive the permanent license key file, 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 the *install_dir*/bin directory and run the `./AddLicenseSet.sh <path>` command, where `<path> is` the path to the license keyfile, for example, `./AddLicenseSet.sh gis_license.xml`.

5. Start Sterling Integrator.

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

Creating a SystemDefault.properties file

When creating a SystemDefault.properties file in the Application user profiles home directory, perform the following steps:

1. Create a home directory for the Application user profile.

   From an iSeries command line, key in **MKDIR '/home/*appuser*'** where *appuser* represents the Sterling Integrator user profile.

2. Create the SystemDefault.properties file.

   a. Sign on with the Sterling Integrator user profile.

   b. Key in **EDTF** and press **F4**. Key in **'/home/*appuser*/SystemDefault.properties** and press **Enter**.

   c. An edit session will be displayed. On the first line, key in **java.version=1.5**.

   d. Press **F2**, then press **F3**.

3. Verify that the Sterling Integrator user profile's home directory is pointing to /home/appuser. This can be done by the WRKUSRPRF command.