Before you begin

Please read this document in its entirety before beginning the installation process. We have documented the most efficient method of successful installation and configuration of the Store Integration Framework (SIF): Data Integration Facility (DIF).

For the best experience, ensure that you have the required hardware and software prior to beginning the installation process.

Enterprise Prerequisites:

Please be aware that not all components are required for all solutions. After reading this document, and the DIF documentation, if you are unsure if a component is required, please submit a question through PartnerLine describing your intended solution.

- WebSphere MQ Series V5.3.0.1
- WebSphere MQ EveryPlace V2.0.0.4
- WebSphere Application Server V5.0.1
- Please consult software documentation for hardware requirements.

4690 Prerequisites

Details on acquiring 4690 components can be found in the 4690 Controller section of this document.

- 4690 POS Controller/Terminal Hardware. (NOTE: A retail system unit (4694 or SurePOS750 can be configured as a combination controller/terminal)
- 4690 OS V3R2 CSD level 03C0

One of the following applications: If you do not have a specific preference, we recommend using SA.

- GSA Base level 9400 CSD level L001
- SA V2 Base level 9510 CSD level M001
- ACE - V2 CSD1

Introduction

This document is intended to be used by software developers interested in using the Data Integration Facility (DIF) component of the Store Integration Framework (SIF). Although the DIF beta code will not be available until early September, the documentation is available now for developers to prepare. Also there are support components that may be installed prior to code being available. All information will be made available through the web site, and this document serves as a roadmap for preparing to use the DIF when it is released.

Where to Start

Documentation:

The *SIF: DIF Overview* is the best place to start to understand what the DIF is and how it connects with other systems. The overview presents three distinct scenarios, and associated architectures, where the DIF may be used. Please keep in mind that these scenarios are in no way exclusive of each other.

The *SIF: DIF Users Guide* is the comprehensive technical reference for the DIF. Information for configuring, using and extending the DIF is in the user's guide. It includes several simple examples showing how to use the DIF. Please keep in mind this document is still a draft and is subject to change. Comments to improve the documentation may be submitted through PartnerLine.

The other documentation currently available on the SIF Beta web site provides information for installing the supporting components referenced below.

Additional Components:

4690 Controller:

The initial release of DIF will only be supported on 4690 POS controllers. The required 4690 components and levels can be found in the 4690 Prerequisites section of this document. For those participants without a 4690 controller, there are instructions below for acquiring the components. Links for additional assistance installing 4690 may be found in the Help section of the SIF Beta Support web site.

4690 Terminal:

Although not required for all solutions, a 4690 terminal is required to execute transactions. For example, using the DIF during a transaction to do a price look-up to host server would obviously require a terminal. However, if you are only a consumer of TLOG data, we will provide a generic TLOG, and a terminal will not be required. However, a terminal is required if you need to generate specific transactions. Please note that a POS system (4694 or SurePOS750) may be configured as a combination controller/terminal.

Enterprise Server:

Although the DIF code resides solely on the store controller, a "host" server is required to communicate with the controller. The DIF is designed to be extended to support varied messaging protocols, but the following messaging systems are supported in the beta release.

WebSphere MQ/MQ Everyplace:

WebSphere MQ and MQe provide an assured messaging solution between the store controller and the host server. WebSphere MQ is installed on the server, while WebSphere MQe is installed on the 4690 controller.

Communication from WebSphere MQ to WebSphere MQe requires the installation of a WebSphere MQe bridge on the host. Support for installing WebSphere MQ/MQe is available through your Developer Relations representative.

Please review the *WebSphere MQ/MQe Configuration Tips* before installing WebSphere MQ or the bridge.

Please note that at this time WebSphere MQ/MQe is the only messaging solution supported for Host to Store communication, or the TLOG trickle function. It is possible to support other messaging solutions, but will require custom extensions to the standard DIF product offering.

Users may develop their own custom MQe functions by creating new Actors based on the MQe API or by extending the provided MqeActor class.

HTTP/SOAP:

The DIF enables the use of HTTP/SOAP request/response to communicate with a web server such as WebSphere Application Server. This requires the development of a custom Actor that uses the appropriate SOAP API for the required task.

For example, the Sun SAAJ (SOAP with Attachments API for Java) provides a SOAPConnection class that allows SOAPMessage objects to be sent over HTTP. Since DIF uses SOAP messages internally between Actors, a custom Actor must only establish the SOAPConnection and call the associated "send" method.

The IBM implementation of the SAAJ API is provided as part of the DIF product, so custom Actors that use this API can be readily added to a user's configuration. The DIF does not currently provide a default SOAP "sender" Actor.

4690 Controller:

If you do not have a 4690 controller, here is the method for acquiring both the software and hardware to set-up the controller.

Software:

Once you have completed the steps to access PartnerWorld for Developers you can call the PartnerWorld number - 800 426 9990 and ask for an evaluation copy of 4690 and a POS application (SA, GSA, or ACE) and they will take you through the process. Please see the 4690 Pre-Requisites section of this document for version information.

For 4690 education resources check the following link.

> http://www2.clearlake.ibm.com/store/support/education/

For 4690 documentation resources, including applications, check the following link.

> http://www2.clearlake.ibm.com/store/support and then select "Publications" under "Popular Links"

Hardware:

Since 4690 is not a general purpose OS, there are specific system units that are supported. Please consult the 4690 Controller Matrix at the following URL to select a compatible machine.

> http://www-1.ibm.com/support/docview.wss?rs=219&uid=pos1R1001643

Hardware may be acquired by one of the following methods.

1. You can purchase at a reduced rate by going to…

   http://www.developer.ibm.com/welcome/hwmall.html

2. You can get loaner equipment by working with your IBM account representative.

Here are two suggested HW configurations. (Please note these are just two possible configurations and this does not imply that either are required configurations for DIF.)

1. SurePOS 750 System

   - SurePOS 753 4800/7P3 (850 MHz Celeron), 128MB RAM, 20GB hard drive. **Add optional CD-ROM.**
   - 4820 8BT – USB Connectivity (Customer display)
   - 4610 TI4 – USB Connectivity (POS Printer)

2. 4694 System

   - 4694-347/P47 (866MHz VIA C3), 128MB RAM, 20GB hard drive. **Add optional CD-ROM.**
   - 4820 8BT – USB Connectivity (Customer display)
   - 4610 TI4 – SIO Connectivity (POS Printer)

Installing 4690:

A 4690 installation tip sheet can be found in the Information section of the SIF Beta web site. Additional information is available from the 4690 support links given above. Please refer to the Help section of the SIF Beta web site for links to these and additional resources.