Infor Lawson Core Technology Installation Guide--Windows

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Version Log

The version log describes the changes between versions of this document.

Part Number	Release Date	Description
LSFCTIG-901W-03	November 2008	Updated System Requirements
LSFCTIG-901W-04	January 2009	PT 180104
LSFCTIG-901W-05	May 2009	Updated System Requirements and third party procedures
LSFCTIG-9015W-01	October 2009	Updated System Requirements, added LUU (MKS toolkit replacement option) with new pre- and post-installation steps
LSFCTIG-9016W-01	May 2010	Updated System Requirements
LSFCTIG-9016W-02	June 2010	Updated System Requirements: support for Windows 2008 R2
LSFCTIG-9017W-01	October 2010	Updated System Requirements; updated WAS classpath requirement
LSFCTIG-9018W-01	May 2011	Updated System Requirements, removed ldapbp.jar from WAS classpath requirement, new post-install steps for service pack installations.
LSFCTIG-9019W-01	November 2011	Updated System Requirements, additional configuration steps for WebSphere 7.0 FP 17 and 19
LSFCTIG-90110W-01	May 2012	Updated System Requirements
LSFCTIG-90111W-01	November 2012	Updated System Requirements Documentation for S3 Mobile Monitor support
LSFCTIG-90112W-01	May 2013	Updated System Requirements Support for Java SDK 1.7
LSFCTIG-90112W-02	September 2013	Added Upgrading LDAP Schema instructions as a post-installation step for service packs.

Contents

Installation Overview

1

This section provides the following information about installing Lawson Core Technology.

What is Lawson Core Technology?

Lawson Core Technology is the first Lawson package to be installed on your system. It provides the infrastructure necessary to run the Lawson Business Applications. The following components are delivered:

- Lawson Core Administration Services
- Lawson Security, including Resource Management, Single Sign-on (SSO), and predefined templates for application security setup
- ProcessFlow
- IOS
- Applications run time programs, configuration files, and utilities
- Application Maintenance Toolset

Knowledge Prerequisites

To install this product, you should have the following knowledge and experience:

- Understand the architecture and directory structure of the Lawson system.

- Understand how your organization plans to implement Lawson Security.
- Have experience setting up and administering the LDAP you will use with Lawson.
- Have experience setting up and administering the web server and application server you will use with Lawson.
- Have experience setting up and administering the RDBMS you will use with Lawson.
- Have operating system administrator experience.

Network Configuration

Lawson Core Technology can be installed in the following configurations.

Note: Supported configurations will vary depending on platform. Please see your Lawson Customer Account Executive for specific configuration information for your OS.

Figure 1. Single-server configuration

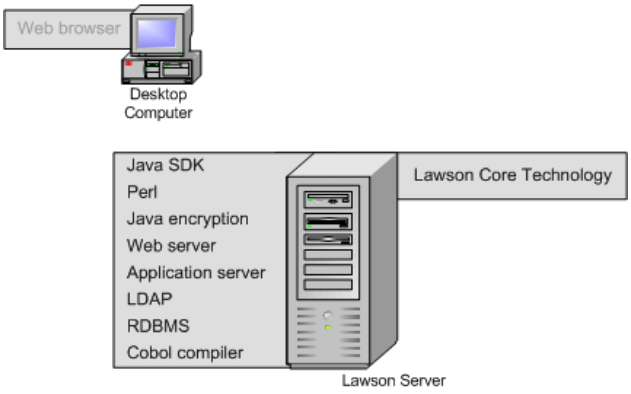
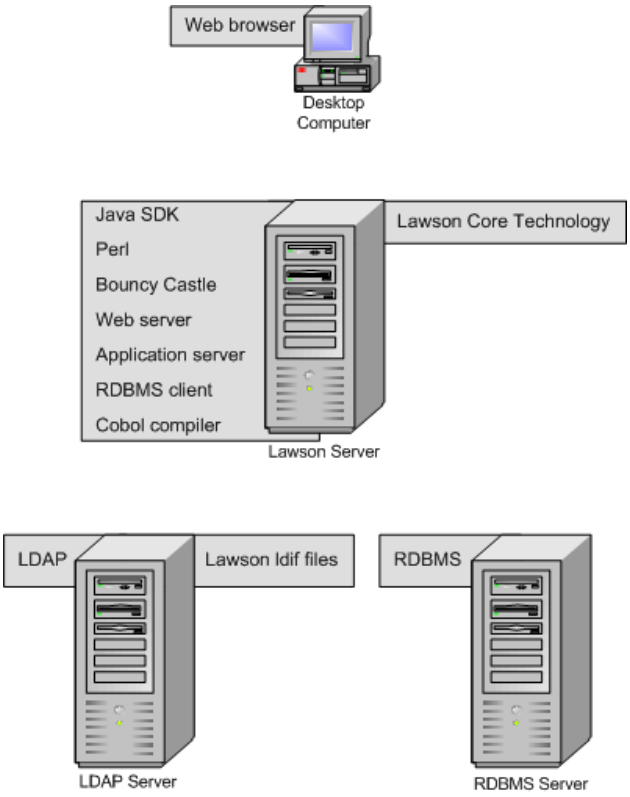


Figure 2. Remote LDAP and RDMBS server configuration

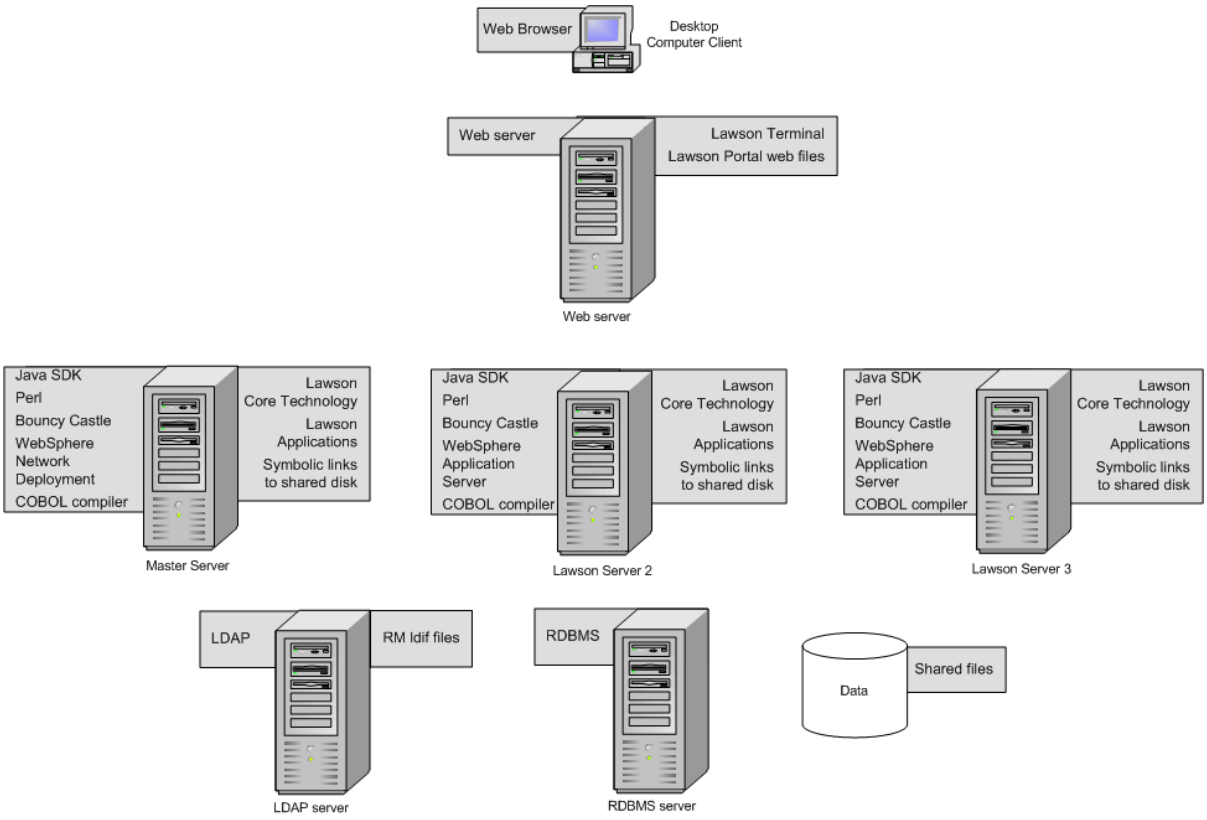


Scaling for Performance

For enhanced performance, Lawson Core Technology and Applications can be installed in a horizontal or vertical scaled server configuration using WebSphere Network Deployment to manage the configuration

- In a vertically-scaled configuration, you install one Lawson Environment with Applications and create multiple WebSphere application servers to manage the Environment.
- In a horizontally-scaled configuration, you install multiple Lawson servers and manage them using a WebSphere cluster. If you are planning to install Lawson in a horizontally-scaled configuration, see the *Horizontal Scaling Installation Guide* for installation instructions.

Figure 3. Horizontally-scaled configuration



System Requirements

The following software and hardware requirements must be met before you install this product.

If you are installing Infor Lawson System Foundation in a horizontally-scaled configuration, see the *Horizontal Scaling Installation Guide* for additional requirements.

Important: To work with Lawson, third-party products must be installed in directories without spaces in their names. Many Windows third-party products install by default in C:\Program Files. When installing Windows products, ensure that you choose an install directory with a name that does not contain spaces.

Lawson Server Requirements: Windows

Component	Supported Version(s)	Notes
Operating System	Windows 2008 SP2 x64 (64-bit) Windows 2008 R2 x64 (64-bit)	Lawson supports Windows 2008 Standard, Enterprise, or Data Center Editions
Java SDK	Java SDK 1.6, minimum 1.6_18 Current release of Java SDK 1.7	The Lawson system, the web server/ application server, and the installation tools use this program. This product is available for download from the Sun or IBM websites. Use the product specific to your operating system. **Note:** For Windows 2008 x64, Lawson requires 64-bit Java. For more information, see "Verify Java SDK requirements" on page 21.
Perl	5.8.x 5.10.x 5.12.x 5.14.x	The Lawson system and the installation tools use this program. This product is available for download from the Perl website.
Microsoft Visual C++ 2008 Redistributable Package	If you are installing on Windows 2008 64-bit, use the Microsoft Visual C++ 2008 SP1 Redistributable Package (x64)	Microsoft downloads are available from http://www.microsoft.com/downloads

Component	Supported Version(s)	Notes

UNIX Utilities for Microsoft Windows	MKS Toolkit 9.2 or 9.4
	-or-
	Lawson UNIX Utilitiies with the following:
	• Microsoft Subsystem for UNIX-based Applications (SUA)
	• Utilities and SDK for UNIX-based Applications
	• Required Windows hotfixes:
	  • http://support.microsoft.com/kb/2458000 (Windows 2008 R2 only_
	  • http://support.microsoft.com/kb/981194 (All supported Windows platforms)
		Microsoft downloads are available from http://www.microsoft.com/downloads
		Lawson UNIX Utilities has pre-installation setup requirements.
		For more information, see "Installing Lawson UNIX Utilities" on page 22.

Application server	WebSphere Application Server Network Deployment 7.0, minimum fixpack 23 WebSphere Application Server 8.5	This product is available for download from Downloads on Infor Xtreme. **Note:** For Windows 2008 x64, Lawson requires the 64-bit version of WebSphere. For more information, see "Setting up WebSphere" on page 31.
Java Encryption	Bouncy Castle 1.6x	Lawson Security uses this program for encryption. This product is available for download from the Bouncy Castle website. For more information, see "Configuring Java Encryption" on page 35.
Database client	Oracle client DB2 client SQL Server client	The database client for the RDBMS you use must be installed on the Lawson server machine. **Important:** Lawson does not support the Oracle Instant Client

Component	Supported Version(s)	Notes
Micro Focus Net Express Cobol compiler	5.0 5.1 with NXP3251010074 NXP3251030042 NXP3251030042-28571-HOTFIX-2800	This product is available for download from Downloads on Infor Xtreme. **Note:** For 64-bit Windows 2008, Lawson requires the 64-bit version of Net Express. There are pre-installation setup requirements. For more information, see "Verifying the Cobol Compiler" on page 24.

LDAP Server Requirements

Component	Supported Version(s)	Notes
LDAP	**Windows 2008 users** Microsoft Active Directory Lightweight Directory Services (AD LDS)	For more information, see "Setting Up the LDAP" on page 27.

Web Server Requirements

Component	Supported Version(s)	Notes
Java SDK	Current release of Java SDK 1.6 The Java SDK version must be the same for all Lawson and third party components in the system.	The installation tools and the web server/application server use this program. The Java SDK version must be the same for all Lawson and third party components in the system.

Component	Supported Version(s)	Notes
Web Server	IBM HTTP Server (use the version delivered with WebSphere) Use the 32-bit HTTP Server that is delivered with the WebSphere Application Server supplements for your Windows OS. IIS 7.0, or 7.5. Use the version that comes with your Windows operating system	See the WebSphere product record on Downloads on Infor Xtreme for information on the fix pack level currently supported by Lawson. For more information, see "Setting up WebSphere" on page 31.

RDBMS Client and Server Requirements

Component	Supported Version(s)	Notes
Relational database	**Microsoft SQL Server** SQL Server 2008 SQL Server 2008 R2 (with Windows 2008 only) SQL Server 2012 **Oracle** • Oracle 11g R2 (with Windows 2008 only) **IBM DB2 Enterprise 9** • DB2 version 9.5 with the latest IBM fix pack • DB2 version 9.7 with the latest IBM fix pack • DB2 version 10.1 with the latest IBM fix pack • DB2/Z **DB2 Connect** • DB2 Connect 9.5 • DB2 Connect 9.7 • DB2 Connect 10.1	Database support may vary by platform. See your Lawson Account Manager for details. Have the following documentation available when you set up the database: • The documentation provided with your RDBMS • The *Lawson Administration: Data Access* manual for your database. **Important:** Due to licensing restrictions, you must not use the DB2 that is bundled with Tivoli Directory Server as the RDBMS for your Lawson application data.

Desktop Computer Requirements

Component	Supported Version(s)	Notes
Web browser	Internet Explorer 7.0 Internet Explorer 8.0 Internet Explorer 9.0	Required for smoke testing.
LDAP browser	Any LDAP browser	We recommend that you have an LDAP browser installed to connect to the LDAP for verification purposes.
Lawson Interface Desktop (LID)	9.0.1.x (latest available version)	Provides a command line interface to the Lawson system. Used for initial system setup and verification.

Optional Third Party Component

Component	Supported Version(s)	Notes
IBM WebSphere MQ	6.0 7.0	IBM WebSphere MQ is an optional message-oriented middleware component for customers licensed for ProcessFlow Integrator. WebSphere MQ can be installed on the Lawson server or on a remote server. Lawson supports 32-bit WebSphere MQ, which runs on a 32-bit or 64-bit windows machine. This product is bundled with Lawson System Foundation and is available from Downloads on Infor Xtreme Use IBM documentation to install WebSphere MQ.

M3 System Requirements

These requirements apply only if your configuration includes the M3 Business Engine.

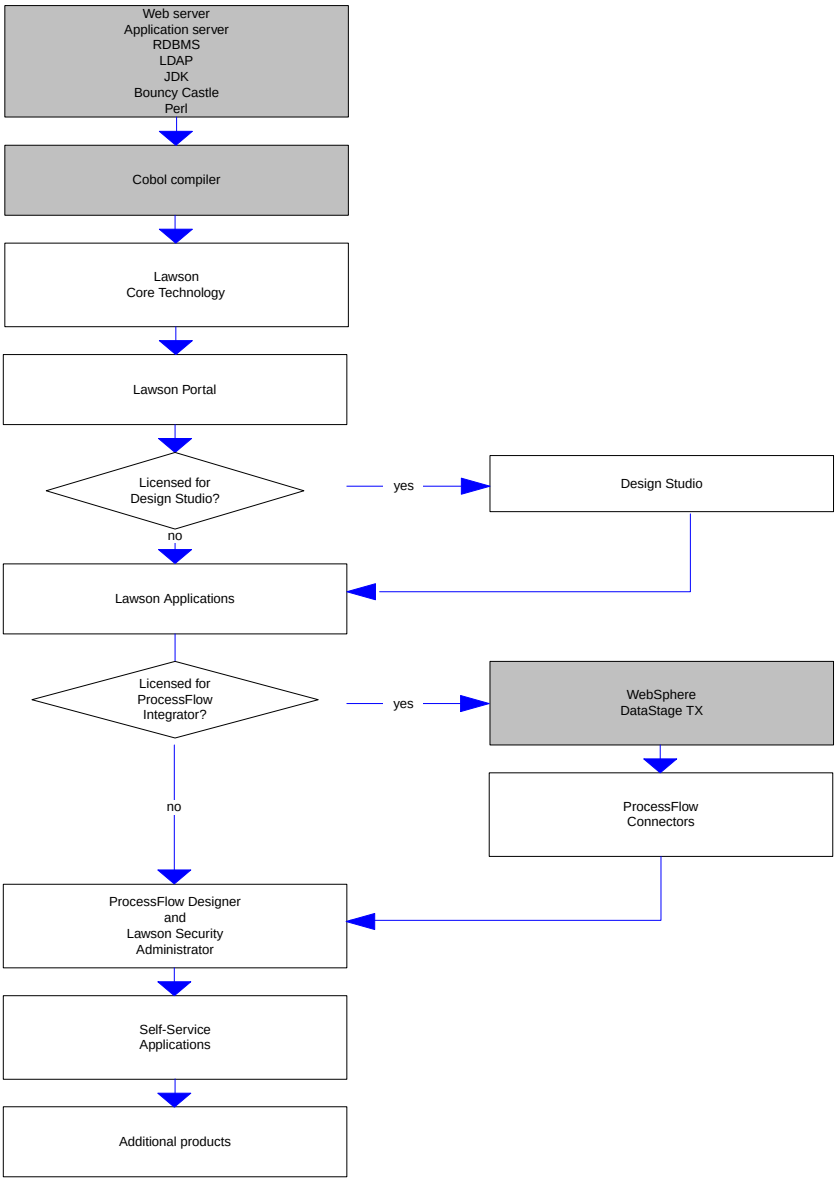
Component	Supported Version(s)	Notes
M3 Business Engine	14.0.1.0 and higher	For Business Engine installation requirements and instructions, see the *M3 Business Engine Installation Guide*.
User interfaces	Lawson Smart Office 9.0.x, minimum version 9.0.2 Lawson Smart Office 9.1.x Lawson Smart Office 10.0.x Infor Smart Office 10.0.x	For installation requirements and instructions, see • *Lawson Smart Office Installation Guide* or the *Infor Smart Office Installation Guide*

Installation Process Overview

The following table provides an overview of the Lawson Core Technology installation process.

	Task	See...
1	Verify that all requirements are met	"System Requirements" on page 12
2	Gather required information on system variables	"Installation Worksheets" on page 114
3	Complete pre-installation procedures	"Pre-Installation" on page 20
4	Download and install Lawson Core Technology	"Installation" on page 41
5	Complete post-installation procedures	"Post-Installation" on page 49
6	Complete installation verification procedures	"Verifying the Installation" on page 65

Lawson Installation Sequence



Pre-Installation

2

This section contains procedures that must be completed before you install this product. While working through these procedures, you will identify values that must be provided during the installation. Use the "Installation Worksheets" on page 114 to record your values.

Managing Environment Variables

To install Lawson successfully, a number of environment variables must be set. To ensure that your system is set up correctly, Lawson recommends that you create a script to manage variables. You will run the script before you start the installation.

❑ Add environment variables to the script

Use the following example to create a script to manage and set environment variables that are required to install Lawson.
As you work through the pre-installation requirements, add required variables for your configuration to the script.
Example script for a Windows installation

Important: In the following script, substitute your Environment name for the *LawEnvName* variable, for example **lsfprod1**.

```
#For JAVA
set JAVA_HOME=c:\JDK6
set LAW_JAVA_BIN=%JAVA_HOME%\bin
set PERL_HOME=c:\PERL
set PATH=%PERL_HOME%\bin;%JAVA_HOME%\bin;%PATH%

#For WebSphere Application Server
set WAS_HOME=c:\IBM\WebSphere\AppServer
set WAS_LOGS=%WAS_HOME%\profiles\LawEnvName\logs\LawEnvName_app

#If using optional WebSphere MQ
#set BPM_ADDTL_CLASSPATH=d:\ibm\WebSphereMQ\java\lib\com.ibm.mq.jar;d:\ibm\WebSphereMQ\
java\lib\com.ibm.mq.jar

#Added for database

#If using SQL SERVER 2008
set MSSQL_HOME=c:\SQLServer
set PATH=c:\SQLServer\100\Tools\binn;%PATH%

#If using ORACLE
#set ORACLE_HOME=c:\oracle\11.1.0/db_1
#set PATH=%ORACLE_HOME%\bin;%PATH%

# If using ORACLE AND TIVOLI
#set PATH=c:\IBM\ldap\V6.2\bin;%ORACLE_HOME%\bin:;%PATH%
```

Verifying System Requirements

Verify that all system requirements have been met. For supported versions, see the System Requirements section of this document.

❑ Verify Java SDK requirements

The Java SDK is used by the following system components:

- The Lawson installer program. The Java SDK must reside on each machine where the program will be run.
- The web server and/or application server
- The Lawson system

All Lawson components in the system must point to the same Java SDK.

___**1** Verify that *JAVA_HOME* is set to the directory where you installed the Java SDK.

`echo %JAVA_HOME%`

___**2** Verify that the correct version of the Java SDK is installed. At the command line, type

`java -version`

Note: If the **`java -version`** command does not return the correct version of Java , you may have more than one version of Java on your machine. Ensure the PATH variable points to the correct version of Java.

___**3** Verify the Java path is correct. Type

`where java`

The Java path returned must match the %JAVA_HOME%\bin value.

❑ Verify Perl installation

___**1** Verify that the correct version of Perl is installed.

At the command line, type

`perl -version`

If the perl -version command does not return the correct version of Perl, restart the computer and try the command again.

___**2** Verify Perl path that your system is using.

`which perl`

❑ Add variable definitions to the environment variable script

___ Add the following variable definitions to the environment variable script.

`%JAVA_HOME%`

`PATH=%JAVA_HOME%/bin;%PATH%`

`%PERL_HOME%`

`PATH=%PERL_HOME%/bin;%PATH%`

`PATH=`*`PathtoCCompiler`***`;%PATH%`**

Installing Lawson UNIX Utilities

Lawson UNIX Utilities are an alternative to MKS Toolkit. If you are not using MKS Toolkit, you must install Lawson UNIX Utilities and Microsoft SUA or Cygwin before you install Lawson Core Technology.

❑ Uninstall MKS Toolkit

If MKS Toolkit is installed on the Lawson server machine, you must remove it prior to installing Lawson UNIX Utilities and Microsoft SUA.

___**1** Use the Add/Remove Programs utility in Windows to uninstall MKS Toolkit.

___**2** Check the PATH environment variable to ensure that MKS Toolkit location was removed from your PATH.

❑ Enable the POSIX subsystem

___**1** Use the Turn Windows Features On or Off utility to enable the Subsystem for UNIX-based Applications.

___**2** When you are asked if you want to install Microsoft SUA from the web, choose No.

❑ Install Microsoft SUA

___**1** Download the Utilities and SDK for UNIX-Based Applications to a temporary directory.

The download is available on http://www.microsoft.com/downloads/

Ensure that you choose the appropriate package for your operating system.

___**2** Install the package using the following options:

- Choose Custom installation
- Install the Base Utilities, SVR-5 Utilities, and GNU Utilities
- Select the following options:
  - Enable SuToRoot Behavior for SUA programs
  - Enable setUID behavior for SUA programs

❑ Install Cygwin (for LUU+Cygwin installation only)

___**1** Download Cygwin's setup.exe to a temporary folder.

The download is available in http://cygwin.com/install.html

___**2** Run setup.exe. Make sure that the following are included:

- All packages under the "Base" category
- Util-linux
- Sharutils
- Bc under Utils

___**3** After the installation, remove or rename perl.exe that came with Cygwin.

(<cygwinroot>\bin\perl.exe where cygwinroot is Cygwin's installation directory)

___**4** Remove or rename uname.exe that came wit Cygwin.

(<cygwinroot>\bin\uname.exe)

___**5** Add the following system environment variables. Ensure that these environment variables are available to all running processes.

- CYGWIN=nodosfilewarning noenvcache
- CYGROOT=<path to cygwin's intall root folder (Ex: e:\cygwin)>

❑ Install Lawson UNIX Utilities

___**1** Create a directory on your Windows server for the LUU files. Lawson recommends that the files be installed outside of the Lawson system. One LUU installation can be used by multiple Environments.

Example

D:\LUU

___**2** Download the LUU package from the Lawson Core Technology product record on Infor Xtreme.

___**3** Unzip the LUU installation package to a temporary location.

___**4** Run "perl luusetup.pl *PathToLUU*"

where *PathToLUU* is the directory where you want to install LUU.

When the script has completed:

- The LUU files are installed to the specified path.
- The PATH environment variable is updated with the path to LUU
- An environment variable LAW_UU_ROOT is created to point to the LUU installation directory.

Verifying the Cobol Compiler

The 4GL Technology component of the Lawson Core Technology installation requires a Cobol compiler. See the "System Requirements" on page 12 for version information. Verify that the compiler has been installed and that your system variables have been updated.

❑ Set system environment variables for Net Express

___**1** Use the Windows System Properties dialog to set the following system environment variables:

Environment variable	Value
%NetExpressPath%	The path to the Cobol compiler. For example: For Windows 64-bit systems, E:\NetExpress5.0\Base\Bin\WIN64 For Windows 32-bit systems, E:\NetExpress5.0\Base\Bin **Important:** The Net Express path must not contain spaces.
%PATH%	Update the PATH variable to include %NetExpressPath%.

___**2** Reboot the machine to ensure that environment variable changes take effect.

❑ Verify Net Express version and path

___**1** Verify that you have the correct version of Net Express. At the command line, type

```
cobol version
```

___**2** Verify that your system points to the correction version of Net Express. At the command line, type

```
which cobol
```

The result should show the path to **`cobol.exe`** for your platform, such as **`E:\NetExpress5.0\Base\Bin\WIN64\cobol.exe`** if you have a 64-bit Windows system.

Setting Up Users and Permissions

❑ Set up a Windows user with Administrator permissions

All Lawson products must be installed by the **lawson** user with Administrator privileges at the operating system level.

- You must create a user called **lawson**.
- The user must belong to the Administrators group.
- If you plan to upgrade from a previous version of Lawson and the older version is on a different machine, the **lawson** user must be a domain user in the same domain as the older Environment.

❑ Create a group for Lawson users

New Lawson customers must create at least one group of users that have access to Lawson applications. Any user who accesses Lawson applications must be either a member of the Lawson user group or a member of a group that is a member of the Lawson user group.
The Lawson user group can be either a local or a global group. Using a local group offers the most flexibility (but cannot be used in all situations). Local groups can contain users and global groups.

Important: Observe the following naming conventions when creating a Lawson group.

- Lawson user names must not contain spaces.
- Because you cannot have a Windows user and group with the same name, the group cannot be named **lawson**.

❑ Create the Windows group for Lawson developers

You must create a group for Lawson developers.

___ Using Windows, create a group called **LAWDEV** that will have access to Lawson applications.

Lawson recommends that this group be a subset of the Lawson user group. If not, members of the Lawson Developer group must also be assigned to the Lawson User group.

❑ Assign access rights to Lawson applications

The Lawson users group and the LAWDEV group must have access rights to Lawson applications. For more information on assigning user rights, see the appropriate documentation from Microsoft.

Note: In an Active Directory Domain, Domain security policies override Local security policies. If you need Domain Security, contact your Domain administrator.

If you use Windows in an Active Directory Domain Controller configuration, do the following:

- From the Administrative Tools menu, select the Domain Controller Security Policy.
- Assign the user right "Allow Log on Locally" to the Lawson user group and the LAWDEV user group.

If you use Windows as a member server in a Domain, do the following:

- From the Administrative Tools menu, select the Local Security Policy.
- Assign the user right “Allow Log on Locally” to the Lawson user group and the LAWDEV user group.

❑ Assign rights to schedule Lawson batch jobs

This procedure describes how to assign Windows user rights to schedule Lawson batch jobs. For more information on assigning user rights, see the appropriate documentation from Microsoft.

Note: In an Active Directory Domain, Domain security policies override Local security policies. If you need Domain Security, contact your Domain administrator.

If you use Windows in an Active Directory Domain Controller configuration, do the following:

- From the Administrative Tools menu, select the Domain Controller Security Policy.
- Assign the user right "Log on as a batch job" to the Lawson user group and the LAWDEV user group.

If you use Windows as a member server in a Domain, do the following:

- From the Administrative Tools menu, select the Local Security Policy.
- Assign the user right "Log on as a batch job" to the Lawson user group and the LAWDEV user group.

❑ Determine values for the Lawson Single Sign-on user

During the installation of this product, a default Single Sign-on user called **lawson** is delivered to the LDAP. The purpose of this user is to allow initial login access to components of the Lawson system. You must log in as this user when you access the system for the first time for smoke testing, verification, and initial setup purposes.
The Lawson Single Sign-on user is mapped to the OS user **lawson**.
Record the values below on the "Security/Single Sign-on Installation Values" on page 120. You will need to provide them during the installation.

- The OS password for the **lawson** user.
- The domain (machine name) for the **lawson** user.
  - If the **lawson** user is a domain user, the domain will be the machine name for the domain controller
  - If the **lawson** user is local, the domain will be the local machine name.
- A Lawson password for this user, which you need for initial login access to the Lawson system. It does not need to be the same as the OS password. This password is stored in Resource Management.

Setting Up the LDAP

Lawson requires an LDAP to store and manage user information. For supported LDAP version information, see the System Requirements in this document.

The following LDAP options are available:

- If you plan to install multiple Lawson Environments, you must create a separate instance of the LDAP for each Environment.
- You can create a new LDAP instance for Lawson users.

-or-

- You can use an existing LDAP instance that already contains users, and import Lawson metadata to that instance.

  Important: If you install Lawson using this option, changes will be made to your LDAP schema.

❑ Verify LDAP requirements

Verify that the following installation and setup requirements are met. Use the documentation provided with the LDAP to do the following setup. Record your values in "LDAP Installation Values" on page 116

- **ADAM/AD LDS only** Create an ADAM/AD LDS administrator user, domain, and password in Windows and install the LDAP as this user. You must supply these values during the Lawson installation.
- Verify the LDAP server name and listening port for the LDAP instance.
- If you plan to route LDAP transactions through a secure socket (ldaps protocol), you must import a security certificate into the LDAP and add the security certificate information into the Java SDK on your system. Verify that an SSL port for the LDAP instance has been defined.
- Define a DN for Lawson data.
  - If you are installing a single Environment with the LDAP instance, you will supply the DN for this location during the Lawson installation.
  - If you are planning to install more than one Environment pointing to the LDAP instance, you must define a unique DN for each Environment plus a DN for resources. The DNs must all reside at the same level within the container.
- Define a user with administrative rights to the LDAP server with an Administrator DN and password.

  The administrator must have the following rights to the Lawson repository:
  - Create/read/write/delete rights in the container designated for Lawson data, including the user container.
  - Read access to the schema.
  - Create/read/write/delete rights on any Lawson-owned objects in the user container. If you are consuming an existing LDAP, the administrator does not need create/delete access to Lawson users who are mapped to existing users. The administrator must be able to update non-mapped attributes.
- If you plan to consume an existing LDAP user tree or install more than one Environment in an LDAP instance, see "Verify LDAP user attributes (optional)" on page 29 for additional requirements.

❑ Verify LDAP user attributes (optional)

You must collect data about user attributes if you are doing one of the following:

- You already have users set up in an LDAP and want Lawson to consume your existing user data. Lawson data can be imported into an existing ADAM or Directory Server instance. In this scenario, Lawson will use the resource DN location you provide to access your existing LDAP and consume the users you have already set up.

  -or-

- You are installing multiple Environments that will use a single LDAP schema. In this situation, you create a resource DN so that all Environments on your system can share the same resource data. Even though you do not have user data in the LDAP yet, you must tell the install program how you plan to define your users so that the default users created at install time are set up properly.

During the installation of this product, you must supply a value for the structural class that defines users in your LDAP instance. Choose one of the following options and record your values in "LDAP Installation Values" on page 116

Structural Class	Definition
inetOrgPerson	The most common structural class for users in ADAM/AD LDS and Directory Server. If you choose this option, the installation program will assume that your users are set up with the following standard attributes: • Naming attribute = cn • First name attribute = givenName • Last name attribute = sn • Display name attribute = displayName • Email attribute = mail If users are set up with different attributes, choose "other" as the structural class. You will be asked to specify the attributes individually.
user (ADAM/AD LDS only)	If the existing LDAP instance is ADAM or AD LDS, the structural class can be **user**. If you choose this option, the installation program will assume that your users are set up with the following standard attributes: • Naming attribute = cn • First name attribute = givenName • Last name attribute = sn • Display name attribute = displayName • Email attribute = mail If users are set up with different attributes, choose "other" as the structural class. You will be asked to specify the attributes individually.

Structural Class	Definition

other	Choose **other** if the following circumstances apply:
	• The structural class that defines users is not inetOrgPerson or user.
	• inetOrgPerson or user is the structural class, but the attributes used are different from the standard ones listed above. If you choose this option, you will be asked to specify each of the attributes.
	  • Naming attribute
	  • First name attribute
	  • Last name attribute
	  • Display name attribute
	  • Email attribute

❑ **Verify that the LDAP is running**

The LDAP must be running when you install this product.
Before you begin the installation, use an LDAP browser to verify that you can connect to the Lawson LDAP instance.

Using SSL for Infor Security Transactions

You have the option to run Infor Security transactions through an https port using SSL. To do this, you must have a digital certificate, which is an electronic document used to verify the unique identities of principals and entities over networks. There are two ways to obtain a certificate:

- Purchase one from a Certification Authority (CA).
- Generate one using the tools provided with the Java SDK. If you generate your own keystore, you will have to re-generate it every three months.

The security certificate must be added to the following components of the Lawson system:

- The web server
- The JDK used by the Lawson system, which is referenced by the LAW_JAVA_HOME variable.
- The JDK used by the application server (if different from the one used by the Lawson system).
- If you plan to use ldaps, the security certificate must be added to the LDAP.

Use the instructions provided by third party product vendors to import security certificates.

Setting up WebSphere

These WebSphere requirements apply to Infor Lawson System Foundation installed in a single Lawson server configuration.

Lawson System Foundation must be deployed in an application server within a node that is federated to the WebSphere Network Deployment Manager. For each Environment on your system, you create the following:

- A web server with a unique listening port.
- A custom profile for each Environment. Lawson recommends that you include the Enviroment name in the profile name, for example lsfprod1_profile. Use the same Environment name you will use when you install Lawson Core Technology.
- A WebSphere application server, configured with values specific to the Environment.
- A virtual host, which defines the unique ports over which the web server and application server communicate.

Important: If you are installing in a scaled configuration, there are special setup requirements.

- For all scaled installations, see KnowledgeBase article AR_5436124 for additional WebSphere setup and deployment instructions.
- If you plan to use horizontal scaling, see the *Horizontal Scaling Installation Guide*.

❑ Set up the IIS web server (Windows web servers)

Each separate Environment you install must have its own IIS web server defined with a unique listening port.

- Create a web site for Lawson.
  - Allow anonymous access to the web site.
  - Basic authentication must be turned off.
- Define default documents index.htm, index.html, default.htm and default.html
- Define a listening port for the web server.
- Define a document root directory. Lawson recommends that you use *LAWENVNAME*/web
- Redirect web server traffic to the servlet container using the WebSphere plug-in. Basic authentication must be turned off on the sePlugin directory.

❑ Set up the HTTPServer web server (Windows or UNIX web servers)

Add the following configuration to the virtual host in the httpd.conf file. Lawson recommends that you define a virtual host in httpd.conf for each Environment you plan to install.

- Define a listening port for the web server.

- Define default documents index.htm, index.html, default.htm and default.html
- Define a document root directory. Lawson recommends that you use *LAWENVNAME*/web. This directory must exist before you can start the web server.

❑ Create application server(s) for Lawson

___ In the WebSphere Administration Console, Use the Servers>New Server option to create a new application server for Lawson.

Lawson recommends that you include the Environment name in the server name. You will need an application server defined for each Environment you install.

Example

lsfprod1_app

Important: Lawson Support requires that WebSphere application servers must be in a federated node.

❑ Configure application server(s) for Lawson

___**1** On the Application Server Configuration tab, go to the Server Infrastructure>Java and Process Management>Process Definition>Java Virtual Machine> Custom Properties for the application server.

Add the following name/value pairs for environment variables.

Name	Value
com.lawson.gendir	literal path to GENDIR **Example** d:\lsfprod1\gen
com.lawson.lawdir	literal path to LAWDIR **Example** d:\lsfprod1\law
com.lawson.ladbdir	literal path to LADBDIR **Example** d:\lsfprod1\db

Name	Value
Optional com.lawson.logdir	Literal path to a location for Infor Security log files. If you don't set this value, security logs will be stored in *LAWDIR*/system by default. **Important:** This directory must already exist on your system.
Optional com.lawson.log.server.name	This value is used in vertically-scaled configurations. It allows vertically-clustered Lawson installations to have unique IOS log files for each server in the cluster. This value must be unique for each cluster member. The recommended naming sequence is "_server <*Number*>", where the resulting IOS log is named "ios_server<*Number*>.log". For example, if you have three application servers in your vertical cluster, your IOS logs will be ios_server1.log, ios_server2.log, and ios_server3.log. If you don't set this value, IOS logs will be written to "ios.log" by default. **Important:** The characters in the server name value must be valid file name characters for your OS.

___**2** Navigate to the Server Infrastructure>Java and Process Management>Process Definition>Java Virtual Machine configuration. Add Lawson files/locations to the JVM classpath for the application server where you will deploy Lawson. Use the literal path to your GENDIR, LAWDIR, and WAS_HOME.

```
WAS_HOME\plugins\javax.j2ee.jta.jar
GENDIR\java\jar\lawsonrt.jar
GENDIR\java\jar\lawsec.jar
GENDIR\java\thirdParty\secLS.jar
LAWDIR\system
WAS_HOME\plugins\javax.j2ee.servlet.jar
WAS_HOME\plugins\javax.j2ee.jsp.jar
```

Important: If you are using WebSphere 8.5, include the additional classpath:

```
WAS_HOME\plugins\javax.j2ee.el.jar
```

___**3** For each application server running Lawson, define the following variables in the Server Infrastructure>Java and Process Management >Process Definition>Environment Entries configuration window.

Environment variable	Value
GENDIR	Literal path to *GENDIR* for your Environment
LAWDIR	Literal path to *LAWDIR* for your Environment
LADBDIR	Literal path to *LADBDIR* for your Environment
COBDIR	Literal path to the Cobol install directory on your system
PATH	**Lawson UNIX Utilities users** The literal path to: *GENDIR*\bin;*GENDIR*\cgi-bin;*COBDIR*\bin;*LAW_UU_ROOT* where *LAW_UU_ROOT* is the base directory where LUU is installed, for example, D:\:luu
LAWENVNAME	Use the same value you will use for the Environment name when you install this Lawson product

❑ Create a virtual host in WebSphere

___**1** In Environment>Virtual Host, create a new virtual host in WebSphere. The virtual host is required to communicate between the web server and the application server for this Environment. Lawson recommends that you use the Environment name in the virtual host name.

Example

lsfprod1_host

___**2** Add the following ports to the Host Alias definition for the virtual host:

- The web server listening port for this Environment.
- **HTTP Server users only** The virtual host listening port for this Environment defined in the httpd.conf file.
- The WCInboundDefault and WCInboundDefaultSecure ports defined in the application server created for this Environment.

  Note: These ports are listed in the Web Container>Web Container Transport Chains window in the application server configuration.

❑ Verify the WebSphere installation

___**1** Restart the web server.

___**2** Restart the WebSphere Application Servers.

___**3** Restart the Deployment Manager.

___**4** Ensure that the Default Application (IBM's DefaultApplication.ear) is running. You may need to install the default application.

___**5** Use the sample applications to verify that web server traffic is redirected to the servlet container. In the address line of a web browser, type:

http://*WebServerName*:*WebServerPort*/snoop

- If the snoop servlet page appears, redirection is working.
- If the snoop servlet page does not appear, check the web server configuration, correct errors, and re-try the snoop servlet test.

___**6** Use the WebSphere Administration Console to un-install the Default Application. Lawson applications cannot run if the DefaultApplication is running.

Configuring Java Encryption

The Bouncy Castle and unlimited strength JCE policy files add the encryption algorithms required by Infor for single sign-on.

During the Infor Lawson installation, you will select the algorithms you want to use. However, not all algorithms are compatible with all versions of JDK. If you select an incompatible algorithm during the installation, an error message will prompt you to choose a different algorithm.

Some customers may want to use a specific algorithm. After completing this section, we recommend that you use the regression tests provided by Bouncy Castle to verify that your algorithm is compatible with your JDK before you begin the installation.

If you need to install an update to the Java or WebSphere-delivered JDK, you can use this procedure to manually reconfigure encryption.

Important: Bouncy Castle is added to all JDKs used by the Lawson system before you install any Lawson products. Repeat the steps below for all JDKs consumed by the Lawson system, for example:

- The JDK defined as *LAW_JAVA_HOME* on the Infor Lawson server.
- The JDK delivered with and used by the application server.
- Any JDKs consumed by other Infor products that use single sign-on via the Distributed SSO solution (for example, Infor Lawson Business Intelligence (LBI) applications such as Smart Notification and Framework Services).

❑ Download Bouncy Castle files

___**1** Download the following files from the Bouncy Castle download site

http://www.bouncycastle.org/latest_releases.html

- Ensure that you download the Bouncy Castle files for your version of Java.

File	Purpose
bcprov-ext-jdk1X-*XXX*.jar	Deliver algorithms to the JDK.
bctest-jdk1X-*XXX*.jar	Contain regression tests used to verify which algorithms are compatible with your JDK. Download these files if you want to verify algorithms before installing Lawson.

___**2** Download the unlimited strength JCE policy files for the JDK(s) you are using:

JDK	Platform	Policy files to use	Where to find the files
Lawson JDK (LAW_JAVA_HOME)	Windows	Sun	Use the "Other Downloads" link. For JDK 1.6, see http://java.sun.com/javase/downloads/index.jsp
WebSphere JDK	Windows	IBM	https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=jcesdk

❑ Install Bouncy Castle

___**1** Create a temporary directory to hold the Bouncy Castle regression test .jar file.

```
mkdir BCTestDir
```

___**2** Copy the regression .jar into the temporary directory.

```
cp bctest-jdk1X-XXX.jar BCTestDir
```

___**3** Copy the **bcprov-ext-jdk1*X-XXX*.jar** to the following location(s).

Configuration	Java Location
Lawson system JDK	%JAVA_HOME%\jre\lib\ext
WebSphere JDK	*%WAS_HOME%*\java\jre\lib\ext

❑ Configure Java Encryption

___**1** Extract local_policy.jar and US_export_policy.jar from the unlimited strength policy files and copy them into the following location(s) .

Configuration	JDK Location
All installations	%JAVA_HOME%jre\lib\security
WebSphere installations	*%WAS_HOME%*\jre\java\lib\security

___**2** Locate the java.security file in the \security directory.

___**3** Use Wordpad to open the java.security file. Add the following line.

```
security.provider.ProviderNumber=org.bouncycastle.jce.provider.BouncyCastleProvider
```

where *ProviderNumber* is the number that reflects the position where the line appears in the file.

You must change the *ProviderNumber* for each security.provider that appears after the Bouncy Castle line.

- For Sun JDK, the security.provider line for Bouncy Castle must come AFTER the sun.security.provider.Sun line.

  Sun JDK Example

```
security.provider.1=sun.security.provider.Sun
security.provider.2=sun.security.rsa.SunRsaSign
security.provider.3=com.sun.net.ssl.internal.ssl.Provider
security.provider.4=org.bouncycastle.jce.provider.BouncyCastleProvider
security.provider.5=com.sun.crypto.provider.SunJCE
security.provider.6=sun.security.jgss.SunProvider
security.provider.7=com.sun.security.sasl.Provider
```

- For IBM JDK, the security.provider line for Bouncy Castle must come AFTER the com.ibm.crypto.provider.IBMJCE line.

  IBM JDK Example

```
security.provider.1=com.ibm.crypto.provider.IBMJCE
security.provider.2=com.ibm.jsse.IBMJSSEProvider
security.provider.3=org.bouncycastle.jce.provider.BouncyCastleProvider
security.provider.4=com.ibm.jsse2.IBMJSSEProvider2
security.provider.5=com.ibm.security.jgss.IBMJGSSProvider
security.provider.6=com.ibm.security.cert.IBMCertPath
security.provider.7=com.ibm.crypto.pkcs11.provider.IBMPKCS11
security.provider.8=com.ibm.security.cmskeystore.CMSProvider
security.provider.9=com.ibm.security.jgss.mech.spnego.IBMSPNEGO
```

___**4** Repeat these steps for all JDKs used by your system, including the java.security files for JDKs on machines running applications that connect to Lawson using the Distributed Single Sign-on solution (DSSO). (This includes the JDKs embedded in the application server.)

- The java.security file for the WebSphere JDK, located in

  WAS_HOME\java\jre\lib\security

- The java.security files for JDKs on machines running applications that connect to Lawson using the Distributed Single Sign-on Solution (DSSO).

___**5** Run the Bouncy Castle algorithm verification tests in "Verifying Encryption Algorithms" on page 98

Setting Up the Database

Before you begin this installation, the RDBMS must be installed and configured for Lawson. When you install, GEN and LOGAN data is written to the RDBMS. You can put GEN and LOGAN in the same RDBMS or choose a different RDBMS for each.

This section contains general requirements that apply to all supported databases. See the Installation Worksheet for your RDBMS for requirements specific to your database:

- "Oracle Database Installation Values" on page 125
- "DB2 Database Installation Values" on page 121
- "SQL Server Database Installation Values" on page 123

See the documentation provided by the RDBMS vendor for detailed procedures on how to install and set up your database.

❑ Set up the RDBMS

Lawson has the following setup requirements for all supported databases.

___**1** Install the database client software on the Lawson server machine.

___**2** Establish a database user and password.

___**3** Create the database, observing the following guidelines:

Database	Guidelines

Oracle	The installation program will prompt for the TNS name or the SID. If you set up a SID, the SID name must not exceed 20 characters. Lawson does not support the UTF-8 character set. The client server character set must match that of the operating system where the client server runs. For more information, see Oracle's NLS_LANG FAQ at http://www.oracle.com/technology/tech/globalization/htdocs/nls_lang%20faq.htm. The Oracle database must be created with the following character set: **`NLS_CHARACTERSET= WE8MSWIN1252`** If Oracle is on a remote server, set the NLS_LANG variable on the Lawson server to the following character set: **`NLS_CHARACTERSET= WE8MSWIN1252`**
SQL Server	The database name must not exceed 20 characters. Sort Order Binary Order Case-sensitive Latin1_General_BIN collation.
DB2	The local alias name must not exceed 20 characters. Code page 1252 Code set IBM-1252 Sort order Binary (identity)

___**4** Set up tablespaces for tables and indexes for both GEN and LOGAN.

___**5** Verify that you can connect to the database before you begin the Lawson installation.

___**6** Set an environment variable defining your *Database*HOME directory.

Database	**Directory**
Oracle	*ORACLE_HOME*\bin
SQL Server	**SQL Server 2008** *SQLSERVER_HOME*\100\Tools\BINN

DB2	%DB2HOME% must equal *DB2INSTANCE*\sqllib (the sqllib subdirectory in the home directory of the DB2 instance owner). %DB2INSTANCE% must equal the DB2 database instance name.

___**7** Verify that the directory location of the database client command is in the PATH variable on your Lawson server machine.

___**8** Add the following database environment variables to the environment variable script.

DatabaseHOME

PATH

Installation

3

Use these procedures to download and install the product.

Product Components to Download

Download and install this product:

Product Name	Version	Platform
Lawson Core Technology	9.0.1	Windows
Lawson System Foundation Infocenter (Product Documentation)	9.0.1	Windows

For downloading instructions, see the online Help on the Product Downloads page at Infor Xtreme.

Preparing for Lawson Core Technology Installation

Lawson Core Technology is installed on the Lawson server machine.

❑ Log in to your system

___**1** Log into your system as **lawson**.

___**2** Open a DOS command window as Administrator.

❑ Run the script to set environment variables

___ At the command line, run the script you created to set environment variables required for this installation.

❑ Stop the application server

Use the instructions provided by your vendor to stop the application server. You only need to stop the application server instance that is set up to run Lawson.

❑ Ensure that the web server is running

The web server must be running during the installation so that validation for the web server listening port can occur.
Verify that the web server is running.

❑ Extract the installation file

The installation program must be located on the machine where you are installing the product. Lawson recommends that you create a directory where you can run the installation program. The installation files will be written to this directory.

___**1** Create a directory for the installation.

```
mkdir InstallDirectory
```

___**2** Move the downloaded installation file into the *InstallDirectory*

___**3** Ensure that you are in the *InstallDirectory*.

___**4** Extract the installation .zip file into the *InstallDirectory*.

```
jar -xvf XXX.zip
```

where *XXX* is the filename for the product.

Installing Lawson Core Technology

Use these instructions to install Lawson Core Technology for the first time.

- If you are installing a service pack or single patch, see "Installing Lawson Core Technology Updates" on page 68
- If you want to install patches in batch mode, see "Installing Patches in Batch Mode" on page 86

During this process, have the Installation Worksheets from Appendix F available for reference.

Important: The Lawson installer supports the following characters:
- **a** through **z**
- **A** through **Z**
- **0** through **9**
- _ (underscore). Note that underscores are not permitted in host or domain names.
- **-** (hyphen)

Unsupported characters will cause the installation to fail. Ensure that your values contain only the characters listed above.

❑ Launch the install program

___**1** From a command prompt or administrator window, move into the *InstallDirectory*.

___**2** To start the install program, type

```
java -jar XXX.jar
```

where

XXX is the filename for this product.

___**3** When the Welcome screen appears, click Next.

❑ Create a new Environment

___**1** When you install this product for the first time, select Create a new Environment.

___**2** Type a name for the new Environment.

Note: The environment name of the secondary server should be the same as the primary server.

___**3** Click Next.

❑ Configure Environment values

___**1** On the Configuring Core screen, enter the following values.

- A unique port number for Lawson Interface Desktop (LID).
- The base directory where you want to install the Environment. The install program verifies that this directory is not already in use, and uses this value to determine the location for Lawson subdirectories such as GENDIR, LAWDIR, etc.
- The path to the JAVA_HOME directory. The install program verifies that this path contains a valid JDK.
- The file security level.

___**2** Click Next.

❑ Configure servers

___**1** To configure General Network Information, enter the following data:

- The network-accessible address of the Lawson server.
- The network-accessible address of the SMTP server.

Click Next.

___**2** To configure Web Server Information, enter the following information:

- The fully qualified domain name for the web server machine. Do not use the IP address to identify the web server.
- The protocol assertion to use for Lawson Single Sign-on.
- The port number configured in web server software. If you chose **Use HTTP only** for the protocol assertion, you are asked for the HTTP port. If you chose one of the HTTPS options, you are asked for the HTTP port and the HTTPS port.

___**3** Click Next.

The install program verifies the server name and port number for the web server.

❑ Configure Resource Management

___**1** To configure Resource Management, enter the values you noted in the LDAP Installation Values worksheet.

The install program verifies that the LDAP server name, listening port, and administrator information is correct.

___**2** When you are asked if you want Lawson to consume an existing LDAP user tree:

- If you are installing a single Environment in this LDAP and are creating a new LDAP instance or a new LDAP user tree for Lawson, select No for this option.

  Click Next.

  OR

- Select Yes if one of the following is true:
  - You have an existing LDAP instance and you want Lawson data added to your schema.

    -or-

  - You are installing multiple Environments against this instance of the LDAP that will use the same LDAP user tree.

  Type the required information.

  Click Next.

❑ Configure the security server and Single Sign-on

___**1** To configure the Security Server, enter unique port numbers for the security server HTTP port and SSL port.

Click Next.

___**2** To configure Single Sign-on, enter the information from the Single Sign-on Installation Values Worksheet.

Click Next.

❑ Configure the database for GEN and LOGAN

___**1** To configure ladb, enter the number of simultaneous connections.

Click Next.

___**2** To configure the GEN Database, enter the information from the Installation Values worksheet for your database.

Click Next.

___**3** To configuring the LOGAN database, enter the information from the Installation Values worksheet for your database.

Click Next.

❑ Configure persistent data location

___**1** To configure IOS, enter the location where you plan to install persistent data files. These files are managed by IOS, but will be delivered when you install Portal.

___**2** Click Next.

❑ Configure ProcessFlow

___**1** On the ProcessFlow General screen, enter the ProcessFlow port numbers from the ProcessFlow installation worksheet.

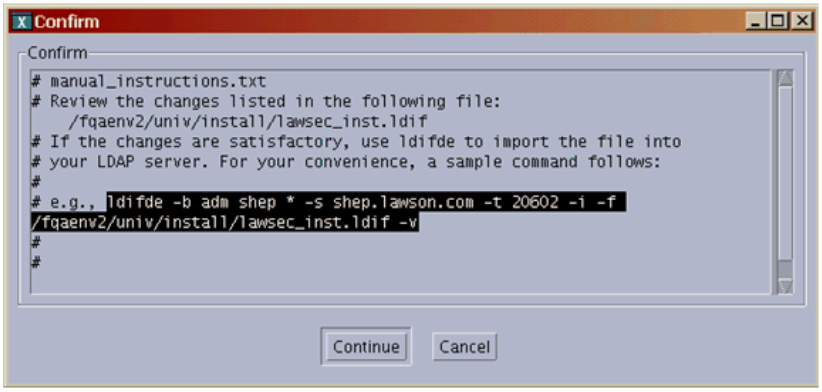
___**2** Click Next.

❑ Verify information and start the installation

On the Installation Summary screen, verify the information.

- To change a value, click Previous to access the correct screen.
- To start the installation, click Next.

A series of messages appears to indicate the progress of the installation. When the installer reaches the point at which to install the ldif file, the installer will pause at the following screen:



Important: Do not select Continue until you have been instructed to do so in "Return to the installation program interface" on page 47

❑ Import the ldif file

___**1** On the Lawson server machine, change to the *GENDIR*\install directory.

___**2** **Remote LDAP server only** Copy or FTP the **lawsec_inst.ldif** and **manual_instructions.txt** files from *GENDIR*/install on the Lawson server to a temporary location on the LDAP server machine.

Important: If you use FTP to transfer the file, you must use ASCII mode. Do not use binary mode, which will cause errors during the ldif load.

From the command prompt, change to the temporary directory where you placed the files.

___**3** Using a text editor, open the document **manual_instructions.txt**. Identify the ldif import command in manual_instructions.txt, which was created using your installation values.

___**4** Copy the ldif import command from manual_instructions.txt.

___**5** Paste the ldif import command at the command prompt on the LDAP server.

Important: Do not press Enter to run the command until you have determined whether you need to edit the command. For example, if you use a remote LDAP server, you must be sure to edit the command to point to the correct location of the ldif file.

IBM Directory Server example

`ldapmodify -D` *`AdministratorDN`* **`-w ? -p`** *`LDAPPort`* **`-h`** *`LDAPServerName`* **`-f lawsec_inst.ldif -v`**

where

AdministratorDN is the DN for the LDAP administrator

LDAPServerName is the machine name or IP address where the LDAP is installed

LDAPPort is the listening port for the LDAP you are loading files to.

ADAM example

ldifde -b *AdamWindowsAdmin AdamWindowsDomain* *** -s** *LDAPServer* **-t** *LDAPPort#* **-i -f lawsec_inst.ldif -v**

where

AdamWindowsAdmin AdamWindowsDomain is the Windows user name and domain for the Adam administrator

LDAPServerName is the machine name or IP address where the LDAP is installed

LDAPPort is the listening port for the instance of the LDAP you are loading files to.

___**6 Remote LDAP server only** Edit the command to reflect the location of the **lawsec_inst.ldif** file on the LDAP server.

___**7** Press Enter to run the ldif import.

When you are prompted for a password, type in the following value:

LDAP	Value
ADAM	The Windows password for the ADAM administrator
IBM Directory Server	The administrator DN password

Important: If you used binary mode to FTP the ldif file to the LDAP server, you will see errors during the ldif import. If you see errors, do not press **Continue**. You must re-FTP the file as an ASCII transfer and repeat the ldif import.

If you do press **Continue**, you must stop the installation and start over again.

❑ Return to the installation program interface

___ When the ldif import is successfully completed, return to the install program interface and click Continue.

❑ Complete the installation

When the installation is complete, click Finish.

❑ Copy the license file

___**1** Insert the license CD-ROM into your system CD or DVD drive.

___**2** On the Lawson server, copy the license file to the license directory.

Open a command window and type

cp *cdromdirectory***LICENSE %LAWDIR%\system\license**

❑ Check the log file

The log file is located in
%LAWDIR%\system\install.log
You can check the log file for install details, including

- The time the installation was started and completed
- Values you chose during installation
- A complete list of files installed
- Any errors that occurred during the install
- An installation summary

Installing the Infor Lawson System Foundation Infocenter

The Infor Lawson System Foundation Infocenter is a web-accessible application containing all of the administration, reference, and user documentation associated with Lawson System Foundation and Process Server products. The documentation is delivered as a .war file, which is deployed into the WebSphere application server you created to run Lawson.

___**1** Download the infocenter application **help_lsf**_*Platform_Exx_version*.**war** from the Infor Lawson Core Technology product download record for your platform to a temporary location on the Lawson Core Technology server.

Important: Use the **help_lsf**_*Platform_E361_version*.**war** file for WebSphere 7 and **help_lsf**_*Platform_E421_version*.**war** for WebSphere 8.5.

___**2** Create a directory for the infocenter application.

```
mkdir %LAWDIR%\help\en-us\lsf
```

___**3** Copy the .war file into the infocenter directory.

```
cp help_lsf_Platform_Exx_version.war %LAWDIR%\help\en-us\lsf
```

Post-Installation

4

The following post-installation steps must be performed to configure the products, deploy the web archive files, and verify the Lawson Core Technology installation.

Updating Environment Variables

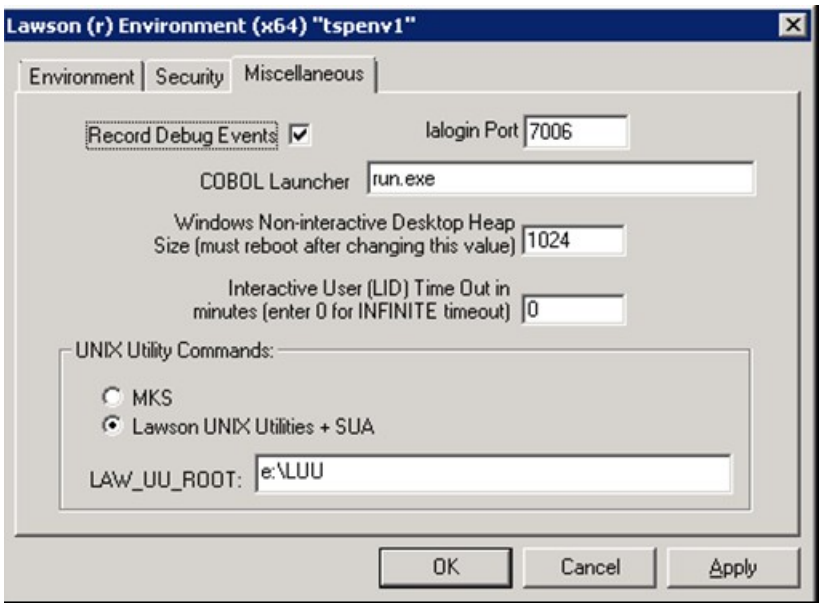
❑ **Configure Environment variables in the Lawson Environment utility**

___**1** At the command prompt, type

```
laconfig.exe
```

___**2** From the Environments list, select the Environment you just installed. Click Configure.

___**3** Select the Miscellaneous tab.



___**4** In the COBOL Launcher field, type **run.exe**.

___**5** In the UNIX Utility Commands panel, select the UNIX utility you installed.

___**6** Type in the path to the directory where the UNIX utilities are installed.

___**7** Click OK.

❑ Add third party environment variables to enter.cmd

When you installed Lawson, a file called enter.cmd was delivered to the base directory. Always run this script before you start the Lawson system and application server to ensure that all required variables are set.

Lawson environment variables are already defined in enter.cmd . You must add third party variables to the file.

___**1** Using a text editor, open the enter.cmd file, which is located in the base directory for your Lawson installation.

___**2** Update the file to include definitions for third party environment variables, including:

Variable	Definition
JAVA_HOME	Path to the Java SDK installation for this Environment.
PERL_HOME	Path to the Perl installation for this Environment
COBDIR	Path to the COBOL compiler for this Environment

PATH	%COBDIR%\bin: %JAVA_HOME%\bin: %PERL_HOME%\bin *Database*_HOME\bin
WEBDIR	Location of the document root directory for the web server. **Example** lfsprod1\web
WAS_HOME	WebSphere installation directory **Example** IBM\WebSphere\AppServer
WAS_LOGS	Location of WebSphere log files for your Environment **Example** *WAS_HOME*\profiles\lsfprod1\logs\lsfprod1_app
IHS_HOME	HTTP Server installation directory Example IBM\IBMIHS
*Database*_HOME	Database installation directory
BPM_ADDTL_CLASSPATH (MQ Series users only)	*MQInstallDir*`\java\lib`

___**3** Save the file.

Verifying the Net Express Path after the Installation

Use this procedure to verify that the NetExpressPath and PATH variables point to the correct location of Net Express. Because Net Express supports both the Windows 32-bit and 64-bit platforms, you must verify that your installation points to the version of Net Express for the platform you have. If you point to the wrong Net Express path, the Environment may experience serious functionality failures.

❑ Verify Net Express path after the installation

___**1** Start the Lawson Configuration Utility (laconfig). At the command line, type

laconfig

___**2** Select the Environment and click OK.

___**3** On the Environment tab, verify that the values for NetExpressPath and PATH point to the correct location.

Setting Up the Default User/ OS Identity in Infor Lawson System Foundation

This procedure creates a default privileged identity that automatically links Lawson users to an operating system (OS) user. Any user who does not need a unique OS ID can be automatically linked to a privileged identity. This means that you do not need to create Environment/OS service identities for some users. For more information, see *Lawson Administration: Resources and Security* or *Lawson Administration: LAUA Security*.

❑ Create a user on the operating system

This user, which will be linked to the ONLINE privileged identity, has the following characteristics:

- Can be any user except "lawson."
- Can be a normal user; does not need administrative access rights.

❑ Run the loadusers command

___ From the command prompt, type the following:

loadusers -g *DomainName**UserName*

where

DomainName (Windows only) is the domain of the user you specified in *UserName*

UserName is the name of the OS user to which Lawson online-only users will be linked.

You will receive a message that the privileged identity has been created.

Granting Database User Permissions (Oracle only)

Give the Oracle Lawson GEN and LOGAN users permission to create and alter objects in the Oracle database by running the Lawson grant_law_perms.sql script. Granting permissions now will:

- Prevent log file errors as you proceed with the Lawson installation.
- Enable Lawson database utilities used for database setup and troubleshooting. For more information on these utilities, see the *Lawson Administration: Data Access Using Oracle* guide.

❑ Run the grant_law_perms script

___**1** At the command line on the Lawson server, change directories.

cd *GENDIR*/oracle

___**2** Start the Oracle **sqlplus** utility. Log in as the Oracle user SYS and connect as SYSDBA.

___**3** Type the following in sqlplus.

```
@grant_law_perms
```

___**4** When you are prompted for the user name, enter the Oracle user ID to use when connecting to the Lawson GEN database. This value must match the Oracle user ID you provided for GEN when you installed Lawson. See the "Oracle Database Installation Values" on page 125 for your value.

___**5** Repeat this procedure to grant permissions to the Oracle user ID for the LOGAN database.

Deploying Web Applications to WebSphere

❑ Start the application server

The application server you created to run Lawson applications must be stopped during the Lawson installation process. Before you can deploy web applications, you must start the application server.

Important: When the installation program completes, the Lawson Environment is running. If you stopped the Environment, start it now. The Environment must be started before the application server is started.

___**1** If the Lawson Environment is stopped, start it. At the command line, type

```
startlaw
```

___**2** Using the instructions provided with your application server, start the server you configured to run Lawson.

❑ Deploy the Lawson System Foundation Infocenter in WebSphere 7.0

Use the Install New Application feature in the Integrated Solutions Console to deploy the Lawson System Foundation Infocenter application.
The infocenter application is located in %LAWDIR%\help\en-us\lsf.

___ On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select help_lsf_<*platform*>.war. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the InfoCenter application to the Lawson Environment, for example, **lsfprod1-help**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply. Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host
- On the Map context roots for Web modules page, type the context root **helplsf**. The context root will form the URL to access the infocenter application.
- Save changes to the master configuration.

Start help_lsf_<*platform*>.war.

❑ Deploy the Lawson System Foundation Infocenter in WebSphere 8.5

Use the Install New Application feature in the Integrated Solutions Console to deploy the Lawson System Foundation Infocenter application.
The infocenter application is located in %LAWDIR%\help\en-us\lsf.

___ On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select help_lsf_<*platform*>.war. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the InfoCenter application to the Lawson Environment, for example, **lsfprod1-help**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply. Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host
- On the Map context roots for Web modules page, type the context root **helplsf**. The context root will form the URL to access the infocenter application.
- Save changes to the master configuration.

Start help_lsf_<*platform*>.war.

❑ Deploy Lawson applications in WebSphere 7.0

Use the Install New Application feature in the Integrated Solutions Console to deploy Lawson web applications.
Lawson web applications are located in %GENDIR%\assembly\components\ear.

___**1** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select lawsec.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-lawsec**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host
- Save changes to the master configuration.

Start lawsec.ear.

___**2** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select bpm.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-bpm**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.

- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host

- Save changes to the master configuration.

Start bpm.ear.

___**3** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select ios-ws.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen:
  - in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-ios**
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host

- Save changes to the master configuration.

Start IOS-ws.ear.

___**4** **Scaled configurations only** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select IOS-cluster-services.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen:
  - in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-ios-cluster**
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the cluster and click Apply.

Important: Do not map this application to the web server.

Click Next.

- Save changes to the master configuration.

___**5** Regenerate the web server plug-in.

___**6** Propagate the web server plugin.

___**7** Restart the application server that runs the Lawson applications.

___**8** Restart the web server.

❑ Infor Lawson Addins and WebSphere 8.5 installations only: Update lsservice.properties

If you use Infor Lawson Addins for Microsoft Office and WebSphere 8.5, you must perform the following steps before you deploy the Lawson lawsec.ear file.

___**1** Download and install patch JT-453953.

___**2** Open the file %LAWDIR%\service\lsservice.properties for editing.

___**3** Enable the property lawson.request.wrapper.enabled.

Your file should show:

```
lawson.request.wrapper.enabled=true
```

___**4** Save and close the file when you are finished editing.

❑ Deploy Lawson applications in WebSphere 8.5

Use the Install New Application feature in the Integrated Solutions Console to deploy Lawson web applications.

Lawson web applications are located in %GENDIR%\assembly\components\ear.

___**1** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select lawsec.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-lawsec**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

Click Next.

- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host

- Save changes to the master configuration.

Start lawsec.ear.

___**2** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select bpm.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-bpm**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.

- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host

- Save changes to the master configuration.

Start bpm.ear.

___**3** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select ios-ws.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen:
  - in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-ios**
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

Click Next.

- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host

- Save changes to the master configuration.
- On the Metadata for modules page, select the checkbox next to the web module(s). Click Next.

Start IOS-ws.ear.

___**4** **Scaled configurations only** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select IOS-cluster-services.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen:
  - in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-ios-cluster**
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the cluster and click Apply.

  Important: Do not map this application to the web server.

  Click Next.

- Save changes to the master configuration.

___**5** Regenerate the web server plug-in.

___**6** Propagate the web server plugin.

___**7** Restart the application server that runs the Lawson applications.

___**8** Restart the web server.

Creating and Configuring a Privileged Identity for Batch Jobs

This topic describes how to perform configuration to ensure that Windows batch jobs run properly. The configuration is necessary because some Windows password policies might cause users' jobs to fail if a password has expired or has been changed.

The configuration described here creates a privileged Lawson identity that is mapped to a Windows administrative user.

After configuration, when a normal batch job user runs a job, ownership of the job is temporarily assigned to the privileged user for execution. Immediately upon execution, ownership of the job returns to the normal batch user so that the user can create print files and so that distribution groups execute as intended.

With this setup, passwords for normal batch users do not expire. System administrators need to follow password policies for the operating system user that is linked to the privileged identity.

Add an administrative user on the operating system

Add an administrative user to the operating system. This user must have the following characteristics:

- Be a member of the Windows administrators' group and the Lawson group
- Have user rights in the Domain Security Policy set to "Log On as A Batch Job"
- As is true of operating system IDs of all batch users, this ID must be unique and not be assigned to the Environment/OS service of any other user.

Create the Lawson privileged identity

___**1** From the Lawson Security Administrator main menu, select User Management and then select Manage Privileged Identities.

___**2** Click New.

___**3** Type the same DOMAIN_USER, SID, and PASSWORD that you used for the user you created on the operating system in the previous task.

___**4** Click Add

___**5** At the prompt to confirm the password, retype it and then click OK.

___**6** At the prompt, type the Privileged Identity and then click OK.

Lawson recommends that you name the privileged identity BATCH.

When you are finished adding the identity, it will appear on the dialog box in the Key field.

Add the RUNUSERKEY parameter to lajs.cfg

___**1** Open the file **%LAWDIR%\system\lajs.cfg** in a text editor.

___**2** Add the following parameter:

```
RUNUSERKEY BATCH
```

where "BATCH" is the name of the privileged identity you created in the previous task.

___**3** Save and close **lajs.cfg**.

Configure ProcessFlow to Use HTTPS

If you installed Lawson Core Technology using "Use HTTPS on Login Only" or "Use HTTPS Always", you must configure ProcessFlow to use HTTPS.

___**1** At the command line, type:

`pfserv config`

and press Enter to launch the ProcessFlow configuration utility.

___**2** Press Enter until you see the following prompt:

`Is IOS on a secured Server?`

The default value is **`false`**.

___**3** Type **`true`** and press Enter to change the value.

___**4** Press Enter for each of the remaining prompts until the utility is complete.

___**5** When finished with the pfserv config setup prompts, restart ProcessFlow.

At the command line, type:

stoppfbpm

startpfbpm

Configuring ProcessFlow Server to use WebSphere MQ (Optional)

Do these procedures only if you are licensed for ProcessFlow Integrator and have installed the optional IBM WebSphere MQ application.

❑ Set environment variables for MQ

___**1** Create an environment variable to point to MQ .jar files.

`set BPM_ADDTL_CLASSPATH=`*`MQInstallDir`***`\java\lib`**

___**2** Verify that the MQ installation added *MQInstallDir*\java\lib to the PATH.

`echo %PATH%`

If *MQInstallDir*\java\lib is missing from the PATH, use the System Properties utility in the Control Panel to edit the system PATH to include it.

❑ Run the ProcessFlow configuration utility

___**1** At the command line, type:

`pfserv config mq`

___**2** Answer the prompts using the table below as a guideline.

Prompt	Meaning
Is MQ on a remote (external) server? (Y/N)	If MQ is on the Lawson server, type N. The configuration script will complete with no more prompts. If MQ is on a different machine, type Y. You will be asked for additional configuration information. The default is N.
Please enter the MQ Host (localhost)	Type the remote machine name where MQ is installed.
Please enter the MQ Port (1414)	Type the MQ listening port. This value was set when you installed WebSphere MQ. The default is 1414.
Please enter the MQ Channel: (testchannel)	Type the MQ channel name. This value was set when you installed WebSphere MQ.
Should the MQ user/password be specified? (Y/N)	If you answer "y" to this prompt, you will be asked to specify a user name and password for MQ. The MQ user does not need to be a Lawson user. If you answer "n" to this prompt, the configuration script will complete with no more prompts.
Please enter the MQ User (null)	Type the MQ user name.
Please enter the MQ Password (null)	Type the MQ user password.

___**3** Restart the ProcessFlow server:

```
stoppfbpm
startpfbpm
```

Creating an laua User Record

To complete IOS smoke testing, you must do the following:

- Add users to the laconfig utility.
- Create an laua user record for the **lawson** user.

❑ Add users to laconfig

___**1** Run the **laconfig** utility. At the command prompt:

```
cd %GENDIR%\bin
laconfig.exe
```

___**2** Select the Environment and click Configure.

___**3** On the laconfig window, click the Security tab.

___**4** In the Users field, type the name of the user group you set up for Lawson applications in "Setting Up Users and Permissions" on page 25

___**5** Click OK, then click OK again to close laconfig.

❑ Set up the lawson user in laua

___**1** Log into LID as the **lawson** user.

___**2** Use the **jobqgrpdef** to create a job queue group.

___**3** Start the **laua** program.

___**4** Use the **laua** F6 Define>Security Class function program to create a security class with access to the LOGAN productline.

___**5** Use the **laua** F6 Define>User Profile function to add the security class and job queue group to the **lawson** user record.

___**6** Use the **usergrpdef** utility to create a user group.

___**7** Add the **lawson** user to the user group.

___**8** Use the laua F6 Define>User Profile function to add the user group to the lawson user record.

Configuring M3 Business Engine for ProcessFlow

Use this procedure to add ProcessFlow configuration information to the MOVEX.properties file in the M3 Business Engine.

❑ Update the MOVEX.properties file

___**1** Ensure that the LifeCycle Manager Server is started.

___**2** Log into the LifeCycle Manager client as an administrator.

___**3** In LifeCycle Manager, locate the environment you will run ProcessFlow with. Right-click the environment name and select M3 BE *Version* - Environment>Server View.

The Server View administration tool displays.

___**4** Right-click on the environment name and select M3 BE *Version* - Environment>Edit properties.

___**5** In the drop-down list in the Property File Editor, select the MOVEX.properties file.

___**6** Under Select property file, select the property file. Define the following values:

app.pfi.enabled	**app.pfi.enabled=true** This setting enables ProcessFlow with the M3 system.
app.pfi.rmiserver	This setting contains the host name or IP address for the server where ProcessFlow Runtime is installed. **Example** app.pfi.rmiserver=PFIServer.lawson.com
app.pfi.asyncport	The ProcessFlow RMI server listening port. The default value is 16003. This value is defined in the %LAWDIR%/system/bpm. properties file on the ProcessFlow Runtime server. **Note:** You can check this value by running the following command on the ProcessFlow server: **`pfserv config rmi`** **Example** app.pfi.asyncport=16003
app.pfi.user	The user name for the user used to launch PFI flows.
app.pfi.password	The password for the user used to launch the PFI flows.

___**7** Click Apply changes.

___**8** Click Confirm changes to confirm the changed values in the property file.

-or-

Click Undo to revoke the changes, or click Return to the property list to continue working in the property file.

Changing the Primary Authenticating System to Landmark (LSF-Landmark federated systems only)

❑ Edit the lsservice.properties

Complete the following steps in the Infor Lawson System Foundation environment.

Important: These steps apply to Infor Lawson System Foundation 9.0.1.9 and higher with Landmark in a federated environment. If you are running a lower version of Infor Lawson System Foundation, skip these steps.

___**1** Navigate to **`%LAWDIR%\law\system`**

___**2** With a text editor, open **`lsservice.properties`**.

___**3** Add the following lines:

```
isprimary=false
server.authservicename=SSOPV2
```

___**4** Save and close the file.

Verifying the Installation

Use the following smoke tests to verify that Lawson Core Technology is correctly installed.

Important: If any smoke test fails, check the Lawson Core Technology product download record and patch page on Infor Xtreme to determine whether there are mandatory patches to address the issue. Apply patches, and repeat the smoke tests.

❑ Verify the Lawson Security installation

Use the following smoke tests to verify that the Lawson Security components are correctly installed:

Smoke test	Result
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/sso/SSOServlet	Displays the single sign-on login box. Type in the Lawson Single Sign-on/Portal user name and password. The following message appears: **SSO Login Completed Successfully**
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/ssoconfig/SSOCfgInfoServlet	Displays a raw xml file.
At the command line, type **`cd %GENDIR%\bin`** **`lsconfig -l`**	Accesses the LDAP server and displays the configuration.

❑ Verify ProcessFlow

Smoke test	Result
Check that the ProcessFlow servers are running. At the command prompt, change directory to %GENDIR%\bin and type: **`pfserv ping all`**	If successful, this test displays a lists messages indicating that the ProcessFlow RMI Server, Event Manager, ProcessFlow Server, and ProcessFlow Scheduler are running.
Run the flow test script. At the command prompt, change to %GENDIR%\bin and type: **`pfserv test`**	The flow test executes. If the messaging indicates that flows ran successfully, then the BPM web application is successfully deployed.
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/bpm/menu.do	Displays the ProcessFlow login box. Type in the Lawson Single Sign-on/Portal user name and password and press Enter to display the ProcessFlow Administration interface.
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/bpm/userForm.do	After you log in with a Single Sign-On user name and password, this test displays the User form for ProcessFlow.

❑ Verify the IOS installation

Do the following smoke tests to ensure that IOS installed correctly.

Smoke test	Result
In the address line of a web browser, type http://*WebServerName:WebServerPort*/servlet/SysEnv	Displays an xml file with system configuration information.
In the address line of a web browser, type http://*WebServerName:WebServerPort*/servlet/Profile?_PATH=test	Displays an xml file with profile information. **Note:** The Profile .xml file may contain errors in BOOKMARK, PORTAL_USER, ROLE, and MESSAGES sections. The files required for these tests are delivered when you install the Lawson for Ming.le.

Smoke test	Result
Verify that CGI programs are working. http://*WebServerName:WebServerPort*/cgi-lawson/printenv.exe http://*WebServerName:WebServerPort*/cgi-lawson/userenv.exe	printenv.exe displays a list of environment variables. userenv.exe displays the **lawson** user setup

❑ Verify the Lawson System Foundation Infocenter

Smoke test	Result
In the address line of a web browser, type http://*MachineName:WebServerPort*/helplsf/index.jsp	Displays the Lawson System Foundation Infocenter home page.

❑ Check the backup folder

Files that were replaced during the update process are copied to the following locations:
%LAWDIR%\system\backup on the Lawson server
Lawson recommends that you periodically check the contents of the backup directory and clean out files that you no longer need to avoid file system space problems.

Important: Do not remove backup files until you have thoroughly tested each update.

Checking for Updates

There may be critical patches and/or a service pack available for this product. If updates are available, install them now.

See the **Installing Updates** section of this guide for instructions.

❑ Check for patches and service packs

Product updates are available from Infor Xtreme.

___**1** Click the Download>Patches link on the product download record to check for patches.

___**2** Check the list of available products on Infor Xtreme to determine if there is a service pack for this product.

___**3** Download and install the updates.

Installing Lawson Core Technology Updates

5

Use the instructions in this chapter to install service packs or individual patches.

Patches can also be installed in batch mode. For more information, see "Patch Installation Overview" on page 83.

- If you are installing individual patches, observe the following guidelines:
  - As a best practice, Lawson recommends that you install patches in ascending numerical order based on the number in the patch bundle name. Install all patches for Lawson Core Technology in increasing numerical order, then continue with the other products one at a time.
  - See the patch readme file for any special pre- and post-install instructions you will need to complete.

Preparing for a Service Pack Installation

❑ Log in to your system

___**1** Log into your system as **lawson**.

___**2** Open a DOS command window as Administrator.

❑ Update Lawson UNIX Utilities

If you are using Lawson UNIX Utilities instead of MKS Toolkit, you must update it before installing service packs. You can install an updated LUU package on top of your existing installation.

Note: If you install the new version of LUU in a different location, you must reconfigure your environment variables to point to the correct LUU instance.

___**1** Download the LUU package from the Lawson Core Technology product record for this service pack on Infor Xtreme.

___**2** Unzip the LUU installation package to a temporary location.

___**3** Run "perl luusetup.pl *PathToLUU*"

where *PathToLUU* is the directory where LUU is installed

❑ Set environment variables

___ Run the enter.cmd file to set Lawson environment variables and PATH. At the command prompt, type

`cd` *`LawBaseDir`*

`enter.cmd`

where *LawBaseDir* is the name of the base directory where you installed Lawson Core Technology.

❑ Turn off security

___**1** With the Lawson system running, turn Security off.

`lawsec off`

___**2** Ensure your user community is restricted from accessing Lawson for Ming.le and/or LID while the Lawson security is turned off.

❑ Stop the application server

If you are installing a patch or service pack, you must shut down the application server you are using for Lawson so that updates can be successfully delivered.

Use the instructions provided by your vendor to shut down the application server instance that runs the Lawson web applications.

❑ Stop the Lawson system

Stop the Lawson system.

___ Type **`stoplaw`**.

If you see the message 'Failed to stop service. Error code 1053', you can adjust the timeout value in the registry to allow the service to stop. For more information, see "stoplaw service fails to stop" on page 112.

❑ Change the Lawson service to start manually

___**1** In the Windows Services window, locate the Lawson service.

___**2** Change the Lawson service startup from "Automatic" to "Manual".

___**3** Reboot the Windows server.

❑ Ensure that the web server is running

The web server must be running during the installation so that validation for the web server listening port can occur.
Verify that the web server is running.

❑ Ensure that the RDBMS is running

Lawson patches or service packs may deliver updates to data that reside in the RDBMS. Verify that the RDBMS you use for Lawson is running before you begin installing the update.

❑ Ensure that the LDAP is running

Lawson patches or service packs may deliver updates to data that resides in the LDAP. Verify that the LDAP you use for Lawson is running before you begin installing the update. Use one of the following methods to verify that the LDAP is running:

- If your LDAP server is Windows, use the Services utility to verify that the LDAP server is started.
- Use the LDAP browser to verify that you can connect to the LDAP instance you use for Lawson.

❑ Extract the installation file

The installation program must be located on the machine where you are installing the product. When the product was installed for the first time, an *InstallDirectory* was created.

- Use the same *InstallDirectory* as a location to extract and launch the installation program.
- Ensure that the **install.cfg** file created by the initial Lawson installation is in the *LAWDIR*/system directory. The install program reads the values from your initial installation and uses them to install updates.

___**1** Move the downloaded installation .zip file into the *InstallDirectory*

___**2** Extract the installation .zip file into the temporary directory.

```
jar -xvf XXX.zip
```

where *xxx* is the filename and release number for this product.

Updating Lawson Core Technology

❑ Launch the install program

___**1** From a command prompt or administrator window, move into the *InstallDirectory*.

___**2** To start the install program, type

```
java -jar XXX.jar
```

where

XXX is the filename for this product.

___**3** When the Welcome screen appears, click Next.

❑ Choose the Environment to update

___**1** Choose Select an existing Environment.

___**2** In the drop-down list, select the Environment to update and click Next.

___**3** On the Install Options screen, select Update and click Next.

Note: If you see other options besides Update, it means the following:

- **Restart** means that your previous install failed to complete. If you have corrected the reason for failure, choose the Restart option to complete the install.
- **Reload** means that you have previously installed this same service pack. Choosing Reload will cause the same files to be redelivered.
- **Revert** means that you have already installed a later version of this service pack, or have installed patches that supercede files delivered with this service pack. Choosing Revert will restore your system to an earlier state.
- The **Delete** option is only used when you need to un-install a component.

___**4** Review the Installation Summary information. To continue the installation, click Next.

The installation displays messages to indicate progress.

❑ Complete the installation

When the installation is complete, click Finish.

❑ Turn security on

___ Turn Security back on.

Type **`lawsec on`**

❑ Check the log file for errors and DSSO updates

If you are using the Distributed Single Sign-On solution (for example, you have Lawson Business Intelligence on a remote machine), you should check for updates to the dsso.jar file.

___**1** Use a text editor to open the installation log file. The log file is located in

%LAWDIR%\system\install.log

___**2** Check the log file for installation errors.

___**3** Search the log file for the line "Creating package DSSO".

If this text is present in the log file, then DSSO updates were delivered. Follow the update instructions in the Distributed Single Sign-On Installation Guide to install the new dsso.jar file.

❑ Change the Lawson service to start automatically

___**1** In the Windows Services window, locate the Lawson service.

___**2** Change the Lawson service startup from "Manual" to "Automatic".

___**3** Reboot the Windows server.

❑ Perform schema LDAP schema upgrade

If the environment you are updating has not had its LDAP schema upgraded, you must upgrade it now following instructions in the appropriate appendix to this document. For more information, see "Upgrading schema" on page 129.

Updating WebSphere Configuration

This service pack requires additional configuration to your WebSphere installation in order to successfully deploy the Lawson .ear files.

❑ Scaled configurations only: Enable IOS cache refresh feature in the cluster

If you are using a scaled configuration, the Websphere cluster must be configured to enable the IOS cache refresh feature on all machines in the cluster. For instructions, see KnowledgeBase article AR_5436124.

❑ Add an environment variable to the Deployment Manager

This procedure is required if you are using WebSphere 7.0 Fixpack 17 or 19.

___**1** Under System Administration > Deployment Manager > Java and Process Management > Process Definition >Environment Entries, click New.

___**2** In the Name field, type EJBDEPLOY_JVM_ARGS

___**3** In the Value field, type -DNoCustomConverter=true

___**4** Save your changes.

❑ Restart the Deployment Manager

In order for your configuration changes to take place, you must restart the Deployment Manager.

Updating the Lawson System Foundation Infocenter

Use these instructions to install an update to an existing infocenter.

❑ Download the new infocenter

___**1** Download the new infocenter application **`help_lsf_`***`Platform`***`.war`** from the Lawson Core Technology product download record for your platform to a temporary location on the Lawson Core Technology server.

___**2** Delete the existing .war file from the infocenter directory %LAWDIR%\help\en-us\lsf

___**3** Copy the updated .war file you downloaded into the infocenter directory.

```
cp help_lsf_Platform.war %LAWDIR%\help\en-us\lsf
```

❑ Remove the existing infocenter

___**1** In WebSphere, uninstall the existing infocenter.

___**2** Stop the WebSphere application server.

___**3** Delete the contents of the following directory:

WAS_HOME\AppServer\profiles*YourProfile*\temp*YourNode*\help_lsf_*Platform*.war

___**4** Start the WebSphere application server.

❑ Deploy the Lawson System Foundation Infocenter in WebSphere 7.0

Use the Install New Application feature in the Integrated Solutions Console to deploy the Lawson System Foundation Infocenter application.
The infocenter application is located in %LAWDIR%\help\en-us\lsf.

___ On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select help_lsf_<*platform*>.war. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the InfoCenter application to the Lawson Environment, for example, **lsfprod1-help**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply. Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for Lawson.

  Example

  lsfprod1_host
- On the Map context roots for Web modules page, type the context root **helplsf**. The context root will form the URL to access the infocenter application.
- Save changes to the master configuration.

Start help_lsf_<*platform*>.war.

Re-deploying Web Applications to WebSphere

If you are installing a patch, check the patch readme files to determine if you need to build and deploy new web application(s). If the product update did not affect a web application, you do not need to complete this step.

❑ Start the application server

The application server you created to run Lawson applications must be stopped during the Lawson installation process. Before you can deploy web applications, you must start the application server.

Important: When the installation program completes, the Lawson Environment is running. If you stopped the Environment, start it now. The Environment must be started before the application server is started.

___**1** If the Lawson Environment is stopped, start it. At the command line, type

```
startlaw
```

___**2** Using the instructions provided with your application server, start the server you configured to run Lawson.

❑ Update web applications in WebSphere 7.0

___**1** Navigate to Applications>Application Types>WebSphere enterprise applications.

___**2** In the Enterprise Applications window, stop the Lawson web applications:

lawsec

bpm

IOS

IOS-cluster-services (scaled configurations only)

help

___**3** Select the lawsec application and click the Update button. Select Replace the entire application and browse to select the updated .ear file.

- If you do not have Lawson Landmark Technology installed, select %GENDIR%\assembly\components\ear\lawsec.ear
- If you are using S3 Lawson System Foundation federated with Lawson Landmark Technology, select %GENDIR%\assembly\products\lawsec\jar\LM\lawsec.ear

Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying to a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.
- Save changes to the master configuration.

Start lawsec.ear.

___**4** Select the bpm application and click the Update button.

Select Replace the entire application and browse to %GENDIR%\assembly/components/ear to select the updated .ear file. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying to a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.

- Save changes to the master configuration.

Start bpm.ear.

___**5** Select the ios-ws application and click the Update button.

Select Replace the entire application and browse to %GENDIR%\assembly/components/ear to select the updated .ear file. Ensure that "Prompt me only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply.

  Note: If you are deploying to a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.

- Save changes to the master configuration.

Start IOS-ws.ear.

___**6** **Scaled configurations only** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select IOS-cluster-services.ear. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen:
  - in the Application Name field, type a unique name that associates the web application to the Lawson Environment, for example, **lsfprod1-ios-cluster**

- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the cluster and click Apply.

Important: Do not map this application to the web server.

Click Next.

- Save changes to the master configuration.

___**7** Select the help application and click the Update button.

Select Replace the entire application and browse to the location where you placed the new help_lsf_<platform>.war file to select the updated .war file. Ensure that "Prompt me only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server and click Apply. Click Next.
- Save changes to the master configuration.

Start the help application.

___**8** Regenerate the web server plug-in.

___**9** Restart the application server that runs the Lawson applications.

___**10** Restart the web server.

Updating the ProcessFlow Configuration File

A new pfserv.cfg file has been delivered with this release. You may have customized your existing pfserv.cfg, so Lawson delivers the new file to a different location. Do this procedure to:

- Add your customizations to the new pfserv.cfg file.
- Move the new pfserv.cfg file into the correct location.

___**1** From the command line, navigate to %LAWDIR%\system.

___**2** Rename the pfserv.cfg file.

`pfserv.cfg.old`

___**3** Using a text editor, open **`pfserv.cfg.old`** to check for customizations you may have made.

___**4** Navigate to %GENDIR%\system. Using a text editor, open **`pfserv.cfg`**.

___**5** Update the values in **`pfserv.cfg`** to include customizations you may have made to **`pfserv.cfg.old`**.

___**6** Copy the new pfserv.cfg from %GENDIR%\system to %LAWDIR%\system.

___**7** Restart ProcessFlow. Type

stoppfbpm

startpfbpm

Changing the Primary Authenticating System to Landmark (LSF-Landmark federated systems only)

❑ Edit the lsservice.properties

Complete the following steps in the Infor Lawson System Foundation environment.

Important: These steps apply to Infor Lawson System Foundation 9.0.1.9 and higher with Landmark in a federated environment. If you are running a lower version of Infor Lawson System Foundation, skip these steps.

___**1** Navigate to **%LAWDIR%\law\system**

___**2** With a text editor, open **lsservice.properties**.

___**3** Add the following lines:

isprimary=false

server.authservicename=SSOPV2

___**4** Save and close the file.

Updating the IOS Configuration File

New transaction capabilities have been added to IOS. To enable the new service, you must add an entry to your iosconfig.xml file.

For more information on the new service, see the *Lawson System Foundation Release Notes* v. 9.0.1.8.

___**1** From the command line, navigate to %LAWDIR%\system.

___**2** Using a text editor, open **iosconfig.xml**.

___**3** Locate the following line:

```
<agent class="com.lawson.tesla.agent.ErpTransactionAgent" system="erp"/
>
```

___**4** Add the following line immediately after it.

```
<agent class="com.lawson.tesla.agent.ErpTransactionAgent"
system="extended"/>
```

```
<agent class="com.lawson.tesla.agent.ErpTransactionAgent" system="erp"/>
<agent class="com.lawson.tesla.agent.ErpTransactionAgent" system="extended"/>
```

___**5** Save the **`iosconfig.xml`** file.

Apply Technology Updates to Applications

Do this ensure that Technology updates for selects, drills, screens and report handling are applied to your applications.

___ At the command prompt, type:

`srgen <Productline>`

`rptgen <Productline>`

`scrgen <Productline>`

for LOGAN and all application product lines residing in the Environment.

Note: `scrgen` could take some time depending on how many system codes you have implemented.

Verifying the Installation

Use the following smoke tests to verify that Lawson Core Technology is correctly installed.

Important: If any smoke test fails, check the Lawson Core Technology product download record and patch page on Infor Xtreme to determine whether there are mandatory patches to address the issue. Apply patches, and repeat the smoke tests.

❑ Verify the Lawson Security installation

Use the following smoke tests to verify that the Lawson Security components are correctly installed:

Smoke test	Result
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/sso/SSOServlet	Displays the single sign-on login box. Type in the Lawson Single Sign-on/Portal user name and password. The following message appears: **SSO Login Completed Successfully**

Smoke test	Result
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/ssoconfig/SSOCfgInfoServlet	Displays a raw xml file.
At the command line, type **`cd %GENDIR%\bin`** **`lsconfig -l`**	Accesses the LDAP server and displays the configuration.

❑ Verify ProcessFlow

Smoke test	Result
Check that the ProcessFlow servers are running. At the command prompt, change directory to %GENDIR%\bin and type: **`pfserv ping all`**	If successful, this test displays a lists messages indicating that the ProcessFlow RMI Server, Event Manager, ProcessFlow Server, and ProcessFlow Scheduler are running.
Run the flow test script. At the command prompt, change to %GENDIR%\bin and type: **`pfserv test`**	The flow test executes. If the messaging indicates that flows ran successfully, then the BPM web application is successfully deployed.
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/bpm/menu.do	Displays the ProcessFlow login box. Type in the Lawson Single Sign-on/Portal user name and password and press Enter to display the ProcessFlow Administration interface.
In the address line of a web browser, type http://*WebServerName*:*WebServerPort*/bpm/userForm.do	After you log in with a Single Sign-On user name and password, this test displays the User form for ProcessFlow.

❑ Verify the IOS installation

Do the following smoke tests to ensure that IOS installed correctly.

Smoke test	Result
In the address line of a web browser, type http://*WebServerName:WebServerPort*/servlet/SysEnv	Displays an xml file with system configuration information.
In the address line of a web browser, type http://*WebServerName:WebServerPort*/servlet/Profile?_PATH=test	Displays an xml file with profile information. **Note:** The Profile .xml file may contain errors in BOOKMARK, PORTAL_USER, ROLE, and MESSAGES sections. The files required for these tests are delivered when you install the Lawson for Ming.le.
Verify that CGI programs are working. http://*WebServerName:WebServerPort*/cgi-lawson/printenv.exe http://*WebServerName:WebServerPort*/cgi-lawson/userenv.exe	printenv.exe displays a list of environment variables. userenv.exe displays the **lawson** user setup

❑ Verify the Lawson System Foundation Infocenter

Smoke test	Result
In the address line of a web browser, type http://*MachineName:WebServerPort*/helplsf/index.jsp	Displays the Lawson System Foundation Infocenter home page.

❑ Check the backup folder

Files that were replaced during the update process are copied to the following locations:
%LAWDIR%\system\backup on the Lawson server
Lawson recommends that you periodically check the contents of the backup directory and clean out files that you no longer need to avoid file system space problems.

Important: Do not remove backup files until you have thoroughly tested each update.

Checking for Patches

There may be critical patches available for this product. If patches are available, install them now.

See the **Installing Patches** section of this guide for instructions.

❑ Check for patches

Product updates are available from Infor Xtreme.

___**1** Click the Download>Patches link on Infor Xtreme record to check for patches.

___**2** Download and install the updates.

Installing Patches in Batch Mode

6

Patch Installation Overview

With Lawson System Foundation 9.0.0.3 and higher, additional functionality has been built into the installation program for handling patches.

Installing patches in batch mode

The batch patch installer allows you to install multiple patches to an Environment at the same time. The installer's logic evaluates patch files to determine the following:

- Are the files all valid Lawson patch files?
- Have the patches already been installed on your system?
- Have the patches been superceded by another patch?

The installer will only install patches that it determines to be valid.

The batch patch installer runs only in command line mode. You can run the batch patch feature in interactive command line mode (where you will be prompted to proceed with each phase of the installation), or in unattended mode.

Installing individual patches

You can install patches individually using either GUI mode or command line mode.

- The GUI instructions are the same as for a service pack installation. For more information, see "Installing Lawson Core Technology Updates" on page 68.
- For instructions for running the installer in command line mode, see "Using the Lawson Installer and GlobalPerms Viewer from the Command Line" on page 100

Un-installing patches

You can use the installer to remove an individual patch. Patches cannot be removed in batch mode.

Important:

The following conditions must be met for successful patch removal.

- The product must be installed.
- The patch you are removing must be installed. Removing a patch will automatically remove any superceding patches.
- A higher service pack must not have been installed.
- Backup directories are in place. If you are using the default backup directory, your backup files are in %LAWDIR%\system\backup. If you changed the backup directory, check the BACKUPDIR value in %LAWDIR%\system\install.cfg to determine where your backup directory resides.
- You must have the .jar file for the patch you want to remove.
- Post-install steps must be manually completed; for example, if the patch affected an .ear file, you must redeploy the backup .ear file to the application server.

Preparing for Batch Patch Installation

Perform the following procedures before doing a batch patch installation.

❑ Log in to your system

___**1** Log into your system as **lawson**.

___**2** Open a DOS command window as Administrator.

❑ Set environment variables

___ Run the enter.cmd file to set Lawson environment variables and PATH. At the command prompt, type

`cd` *`LawBaseDir`*

`enter.cmd`

where *LawBaseDir* is the name of the base directory where you installed Lawson Core Technology.

❑ Turn off security

___**1** With the Lawson system running, turn Security off.

```
lawsec off
```

___**2** Ensure your user community is restricted from accessing Lawson for Ming.le and/or LID while the Lawson security is turned off.

❑ Stop the application server

If you are installing a patch or service pack, you must shut down the application server you are using for Lawson so that updates can be successfully delivered.
Use the instructions provided by your vendor to shut down the application server instance that runs the Lawson web applications.

❑ Stop the Lawson system

Stop the Lawson system.

___ Type **`stoplaw`**.

If you see the message 'Failed to stop service. Error code 1053', you can adjust the timeout value in the registry to allow the service to stop. For more information, see "stoplaw service fails to stop" on page 112.

❑ Change the Lawson service to start manually

___**1** In the Windows Services window, locate the Lawson service.

___**2** Change the Lawson service startup from "Automatic" to "Manual".

___**3** Reboot the Windows server.

❑ Ensure that the web server is running

The web server must be running during the installation so that validation for the web server listening port can occur.
Verify that the web server is running.

❑ Ensure that the RDBMS is running

Lawson patches or service packs may deliver updates to data that reside in the RDBMS. Verify that the RDBMS you use for Lawson is running before you begin installing the update.

❑ Ensure that the LDAP is running

Lawson patches or service packs may deliver updates to data that resides in the LDAP. Verify that the LDAP you use for Lawson is running before you begin installing the update. Use one of the following methods to verify that the LDAP is running:

- If your LDAP server is Windows, use the Services utility to verify that the LDAP server is started.
- Use the LDAP browser to verify that you can connect to the LDAP instance you use for Lawson.

Installing Patches in Batch Mode

Each Lawson patch is packaged with a copy of the installation program. Therefore, you can launch an individual patch file in batch mode and use it to install all of the patches for a given Lawson package. Lawson recommends that you always launch the most recent patch you downloaded. In this way, you will ensure that you have the most recent available version of the installation program.

❑ Download patches

___**1** Create directories to hold patches. Lawson recommends that you create a patch directory for each product package you will patch, for example:

mkdir *LCTPatchDirectory*

mkdir *PortalPatchDirectory*

mkdir *BCIPatchDirectory*

___**2** Download the patch .zip files you want to install to the appropriate*PatchDirectory*. Patch files are located on the patch page for each product on Infor Xtreme.

Important: Do not download the patches in the same directory where the install packages of the following Lawson self-service applications are located:

- Employee Manager Self Service
- Requisition Center
- Customer Self Service
- Vendor Self Service
- Procurement Card Self Service
- Smart Reconciliation

___**3** Ensure that the **install.cfg** file created by the initial Lawson installation is in the *LAWDIR*/system directory for each Environment on your system. The install program reads the values from your initial installation and uses them to install updates.

❑ Install patches in batch mode

___**1** At the command line, change directories to the directory where you downloaded patches

cd *PatchDirectory*

___**2** Unzip the file for the most recent patch. (Using the most recent patch will ensure that you are using the most recent installer program.)

jar -xvf *FileName*.**zip**

where

FileName is name of the most recent patch you downloaded.

___**3** Launch the installer

java -jar *FileName*.**jar -b** *DirectoryPath* **-p** *PackageName InstanceName*

where

FileName is name of the most recent patch you unzipped.

DirectoryPath is the directory where the patches are located (usually the directory you are currently in).

PackageName (optional) is the name of the Lawson product to patch. Valid package names are:

- LSFCT (Lawson Core Technology)
- PFRT (ProcessFlow Runtime)
- PORTAL (Portal application server component)
- PORTALWEB (Portal web server component
- STUDIO (Design Studio application server component)
- STUDIOWEB (Design Studio web server component)
- BCI (BCI Connector)
- ECA (Application Developer Workbench)

InstanceName (optional) is the name of the Environment to patch

Example

lsfprod1

___**4** When the installer prompts you to unzip files, type 1 for Yes.

The installer evaluates the patch files you downloaded to determine which products they contain patches for.

___**5** If you downloaded patches for multiple products (for example, Lawson Core Technology plus Portal), but did not specify a *PackageName*, the installer prompts you to choose which package you want to install. Type the number corresponding to the product.

___**6** If you did not specify an*InstanceName* to patch, the installer prompts you to choose the Environment. Type the number corresponding to the Environment.

The installer evaluates the system to determine whether the patches in your *PatchDirectory* are valid for your system.
When the evaluation is complete, the installer displays a summary of patches that will not be installed. The following messages may appear.

Message	Definition

PatchName: Does not contain a valid Lawson product	The patch file is not a Lawson .jar file.
PatchName: Is not a patch package.	The package is a service pack or full product install, not a patch.
PatchName: Does not contain the selected package.	This patch file does not contain patches for the *PackageName* you specified.
PatchName: Is the same as *PatchName*	You have duplicate patch files in your *PatchDirectory*. Only one patch will be installed.
PatchName: Is already installed.	This patch already resides on your system.
PatchName: Is already superseded.	This patch has been superceded by a newer patch that already resides on your system.
PatchName: Will be superseded by *PatchName*	The patch is already superceded by a different patch in your download directory. Only the newer patch will be installed.
PatchName: There are no deliverables for the selected package	This message will appear if you launch the installation with a specific *PackageName* (product) , and the installer finds patch files that are for a different product.
PatchName: Not applicable for current service pack level	The patch is for an earlier service pack or a service pack you have not yet installed. You do not need to install it.
PatchName: Is for a different hardware platform	This patch file is not intended for your operating system or hardware. Ensure that you accessed the patch page on Infor Xtreme for the correct operating system.

___**7** The installer displays a list of patches to install. Type 1 to proceed, or 2 to cancel.

When the installation is complete, a message displays.

❑ Change the Lawson service to start automatically

___**1** In the Windows Services window, locate the Lawson service.

___**2** Change the Lawson service startup from "Manual" to "Automatic".

___**3** Reboot the Windows server.

❑ Turn security on

___ Turn Security back on.

Type **`lawsec on`**

❑ Check the log file

The log file is located in
%LAWDIR%\system\install.log
You can check the log file for install details, including

- The time the installation was started and completed
- Values you chose during installation
- A complete list of files installed
- Any errors that occurred during the install
- An installation summary

❑ Complete post-install procedures

___**1** Check the README file for each patch that was installed to determine whether there are post-install procedures you must do to complete the patch installation.

For example, you may need to do one or more of the following:

- Re-deploy an updated .ear file to the application server.
- Run rptgen or scrgen on each of your productlines.
- Run a cmprts.

___**2** Complete smoke tests. For more information, see "Verifying the Installation" on page 65.

Removing Patches

You can remove individual patches by re-running the patch .jar file. The installation program detects that the patch has already been installed, and will restore a previous version of the file from backup. Use these instructions to remove patches using the installation program in GUI mode. You can also remove patches using command line mode. For more information, see "Using the Lawson Installer and GlobalPerms Viewer from the Command Line" on page 100..

❑ Ensure that a backup directory is in place

The patch removal process restores an earlier version of patched files from your backup directory. Therefore, you must have a backup directory on your system that contains backups for the patches you want to remove.

___ Check your system for a backup directory.

- The default backup location is %LAWDIR%\system\backup.

- If your default has been changed, you can view the BACKUPDIR variable in %LAWDIR%\system\install.cfg for the correct location.

❑ Remove the patch

___**1** Ensure that you are in the *PatchDirectory* where the patch file you want to remove resides.

___**2** To start the install program, type

`java -jar` *XXX*`.jar`

where *XXX* is the filename for this product.

___**3** When the Welcome screen appears, click Next.

___**4** From the drop-down list, select the Environment to remove the patch from and click Next.

- If the patch has not been superceded, you see two options: Reload and Remove. Click Remove to back out the patch.
- If the patch has been superceded by one or more newer patches, the only option is to remove.

A message appears listing the patch to be removed. If one or more superceding patch(es) are detected, all patches listed will be removed.

```
The following actions will be done:
     Remove LawsonCoreTechnology patch FileName (InstallID)
```

where

FileName is the name of the .jar file for the patch to be removed.

InstallID is the Install ID from the GlobalPerms file for the patch to be removed.

___**5** Click Next to proceed with patch removal.

The installation program searches the backup directory and restores the files from backup. The installation program then runs installation scripts to reinstall the backup files.

___**6** When the patch removal process is complete, click Finish.

❑ Complete post-install procedures for restored patch files

___**1** Check the README file for each patch that was restored to determine whether there are post-install procedures you must do to complete the patch installation.

For example, you may need to do one or more of the following:

- Re-deploy an updated .ear file to the application server.
- Run rptgen or scrgen on each of your productlines.
- Run a cmprts.

___**2** Complete smoke tests. For more information, see "Verifying the Installation" on page 65.

Un-installing S3 Lawson System Foundation

7

The Un-installation Feature

You can use the installation package for this product to remove a Lawson Environment and Environment subproducts.

Important: Before you use the un-installation feature, ensure that you review this section to understand how the feature behaves. The un-installation feature is not completely automated. To completely remove an Environment and all subproducts, you will need to use a combination of Lawson un-installation tools, third party products, and command-line deletions.

Which Components are Removed?

The following list provides general rules about objects that are deleted by the un-installation program.

- All components delivered by this installation plus any installed Environment subproducts are removed. An Environment subproduct is defined as any product that requires an existing Environment instance to install. The table below provides a list of Environment products and how they are affected by the un-installation program.

  Note: If you want to remove a subproduct without deleting the whole Environment, use the un-installation feature for that subproduct. For example, to remove Portal but leave the rest of the Environment intact, use the Portal un-installation feature.

- GEN and LOGAN tables in the RDBMS are removed, but the table and index spaces in the RDBMS remain intact. You can use them again if you want to re-install.

Which Components are NOT Removed?

The following list provides general information about objects that are not automatically deleted by the un-installation program. These items must be removed after the un-installation is complete.

- The Lawson directory structure, including *GENDIR*, *LAWDIR*, *LADBDIR*, and subdirectories.
- The following file types are not removed:
  - Configuration files
  - Log files
  - Compiled programs, for example LOGAN and ERP applications
  - Files created after the original installation was complete: for example, files created by the customer or files created at runtime
- Components that create their own named instances for installation purposes, which are listed in the table below. These components must be removed separately using the installation package for that product. See the product *Installation Guide* for detailed instructions.
- Application tables and data in the RDBMS are not removed. You must clean these up manually.
- Lawson programs that are not subproducts of the Environment (such as EPM or SA products) are not removed.

Overview of Environment Products and Un-installation

The following table provides a list of Environment products/subproducts and indicates how they behave when the Environment un-installation feature is used.

Product	Affected by the Environment un-install program?	Additional information
ProcessFlow Runtime	Yes	Does not remove data from LDAP Does not un-deploy or delete web applications
Lawson Core Technology	Yes	Does not remove data from LDAP Does not un-deploy or delete web applications Compiled LOGAN programs are not removed
Portal Core Technology component	Yes	If you want to remove Portal but leave everything else intact, use the Portal un-install feature.

Portal Web	No	The Portal Web installation creates its own named instance on the web server. Use the Portal un-install feature to remove.
Design Studio Core Technology component	Yes	If you want to remove Design Studio but leave everything else intact, use the Portal un-install feature.
Design Studio Web	No	Design Studio Web installs into the Portal named instance on the web server. To un-install, use: The Portal un-install, which removes both Portal and Design Studio web components -or- The Design Studio un-install, which will remove Design Studio only.
BCI Connector/ProcessFlow Connector	No	The BCI Connector installation creates a separate named instance on the Lawson server or on a remote server. If BCI Connector is installed on the Lawson server, files will remain in *GENDIR* and *LAWDIR* after Environment un-install. Use the BCI Connector un-install feature to remove BCI Connector files and instance information in /etc/
Application Development Workbench	Yes	If you want to remove ADW but leave everything else intact, use the ADW un-install feature.
Lawson Security Administrator Desktop Tools	No	Use Add/Remove programs to un-install from the desktop machine.

ProcessFlow Designer Desktop Tools	No	Use Add/Remove programs to un-install from the desktop machine.

Preparing to Un-install

To un-install, you can use any installation package that contains a full delivery of the product. You cannot use a service pack or patch package.

The package you use to un-install does not need to be the same one that you used to do the original installation. If you don't have the original package on your system, you can download a new one from Infor Xtreme.

❑ Log in to your system

___**1** Log into your system as **lawson**.

___**2** Open a DOS command window as Administrator.

❑ Set environment variables

___ Run the enter.cmd file to set Lawson environment variables and PATH. At the command prompt, type

`cd` *`LawBaseDir`*

`enter.cmd`

where *LawBaseDir* is the name of the base directory where you installed Lawson Core Technology.

❑ Stop the application server

Use the instructions provided by your vendor to stop the application server. You only need to stop the application server instance that is set up to run Lawson.

Un-installing Lawson

❑ Launch the install program

___**1** From a command prompt or administrator window, move into the *InstallDirectory*.

___**2** To start the install program, type

`java -jar` *XXX*`.jar`

where

XXX is the filename for this product.

___**3** When the Welcome screen appears, click Next.

❑ Choose the Environment to un-install

___**1** Choose Select an existing Environment.

___**2** In the drop-down list, select the Environment to remove and click Next.

___**3** On the Install Options window, select Delete and click Next.

___**4** Review the Installation Summary window and click Next to continue.

The installation displays messages to indicate progress.

❑ Complete the un-installation and verify component removal

___**1** When the un-installation is complete, click Finish.

___**2** To view the log file, click the View Log button. The log file is located in

%LAWDIR%\system**install**.**log**

___**3** Use a text editor to view the GlobalPerms file located in

The GlobalPerms file lists the components that were deleted during the un-installation.

❑ Remove components with separate named instances

This installation program does not remove Lawson system components that install with their own named instances. Examples of this are:

- Portal or Design Studio Web components installed on a remote or local web server
- BCI Connector installed on the Lawson server or a remote server.

To complete the removal of the Environment, you must un-install those components separately. For instructions, see the un-installation section of the *Installation Guide* for the component.

❑ Remove Lawson web applications

The un-installation program does not undeploy or delete Lawson .war or .ear files from your system.
Use the instructions provided with your application server to undeploy .war or .ear files.

❑ Clean out the LDAP

Lawson data in the LDAP must be removed.

- If you use ADAM, you must un-install the ADAM instance used for Lawson. Before you can re-install Lawson, you must install and configure a new ADAM instance.
- If you use IBM Directory Server, you can remove Lawson data from the DN location and re-use that location when you re-install Lawson. Use the documentation provided with Directory Server to delete.

❑ Remove Lawson directories

___**1** Review contents of Lawson directories to check for files you want to save. For example, if you plan to re-install the Environment using the same values as the Environment you just removed, you should save a copy of **%LAWDIR%\system\install.cfg**.

___**2** Remove Lawson directories.

```
rm -r %GENDIR%
rm -r %LAWDIR%
rm -r %LADBDIR%
```

Re-installing an Environment

Lawson recommends that you use the following guidelines if you plan to re-install after removal.

- Do a complete manual cleanup of all components, including LDAP data and applications.
- Note that you cannot re-use the same ADAM instance. You must delete the original instance and install and configure a new one. If you plan to re-install the Environment using the same values, ensure that you re-create the ADAM instance exactly using the same machine name/port number, user name/password, and DN names as the first ADAM instance.
- If you plan to use all of the same values for your re-installed Environment, you can re-use the install.cfg file created by the original installation.
  - Copy install.cfg to the *InstallDirectory*.
  - When you launch the installation program, call install.cfg.

java -jar *XXX*.**jar install.cfg**

where XXX is the name of the LST or LCT installation program.

The install program fields will be populated with the answers you provided when you did the original installation.

Bouncy Castle Algorithm Verification

A

Use the instructions in this section if you want to verify which encryption algorithms are compatible with your JDK.

You must run regressions on all JDKs that are used by the Lawson system or a supporting component of the Lawson system, for example:

- The JDK defined as *JAVA_HOME* and *LAW_JAVA_HOME* on the Lawson server.
- The JDK delivered with and used by the application server.
- Any JDKs consumed by other Lawson products that use Lawson Single Sign-on via the Distributed SSO solution, for example, EPM applications such as Smart Notification and Framework Services.

The encryption algorithm you choose must pass the regression test on all JDKs used by the Lawson system.

- "Verifying Encryption Algorithms" on page 98

Verifying Encryption Algorithms

The encryption algorithms delivered by Bouncy Castle must be verified against your JDK to identify which algorithms are compatible. To do this, you run a set of regression tests, examine the results, and determine which of the available algorithms you want to use. Repeat for all JDKs consumed by the Lawson system. When all regressions are complete, you must select an algorithm that is compatible with all of them.

Before you run regressions, ensure that you did the following:

- Downloaded the Bouncy Castle regression tests.
- Added Bouncy Castle .jar files to all JDKs.
- Configured the java.security for the JDK to add Bouncy Castle as an encryption provider.

❑ Run Bouncy Castle regressions

___**1** Change to the directory where the Bouncy Castle test files are located.

```
cd BCTestDir
```

___**2** Run the regressions. Type

PathTojava **-cp bctest-jdk***XX-XXX***.jar org.bouncycastle.crypto.test.RegressionTest > crypto.out 2>&1**
PathTojava **-cp bctest-jdk***XX-XXX***.jar org.bouncycastle.jce.provider.test.RegressionTest > jcecrypto.out 2>&1**
where
XX-XXX is the version number of your Bouncy Castle .jar file.

___**3** Examine the output files **crypto.out** and **jcecrypto.out** for failures.

Some algorithms will fail, which is normal. Algorithms that failed cannot be used with the JDK on your system. For further explanation of encryption regressions and failures, see article #1058625 in the Infor Xtreme KnowledgeBase.

___**4** Repeat these instructions to run regressions on all JDKs consumed by your system.

Using the Installation Program from the Command Line

B

Using the Lawson Installer and GlobalPerms Viewer from the Command Line

Starting with Lawson System Foundation 9.0.0.3, Lawson's installer program can be run in the following modes: \

- GUI mode
- Command line mode, either interactive or unattended (service packs and patches only)
- GlobalPerms Viewer mode, which allows you to view the contents of the GlobalPerms file and determine what patches or service packs have been installed on the system.

Java Installer Command Line Usage

`java -jar` *`XXX`***`.jar -[c|d|g|h|i|r|x] [-a`** *`PathToAnswersFile`***`] [-j`** *`Package.jar`***`] [-p`** *`PackageName`***`]`** *`InstanceName`*

where

XXX is the filename of the installation package

package.jar is the name of the installation .jar file

PathToAnswersFile is the path to the answers file that contains answers to the prompts.

InstanceName is the name of the instance to patch.

- If you are installing an application server patch, use the Environment name
- If you are installing a web server patch, use the web server instance name

Parameters are described below.

Installation Options

Parameter	Definition

-a *PathToAnswersFile*	Can be used in command line or GUI mode. This mode requires an answers file pre-populated with values required by the installation in the format property=value, for example:
	
	`GENDIR=/lsfprod1/gen`
	`LAWDIR=/lsfprod1/law`
	`LADBDIR=/lsfprod1/db`
	
	When you run the install, values will be automatically filled in for the appropriate question. They may be left as is or changed.
	
	This flag is not valid on a patch or update install, because the installation program reads install.cfg to get the answers it needs.

-b *PatchDirectory*	Use only when installing patches. Evaluates all patch files in the *PatchDirectory* to determine whether they are suitable for installation. Installs suitable patches in batch mode. *InstanceName* and -p *PackageName* are optional Use with -c, -i, and -d
-c	Interactive command line mode. The installation program goes through the interview. When the interview is complete, displays an installation/summary confirmation screen. Requires *InstanceName*. When installing patches, -c displays an installation summary/ confirmation screen that requires you to confirm the installation. This flag is optional
-d	Detail. Outputs detailed information about installation progress in the command window. This is the same output you would see in GUI mode if you clicked the Detail button. This flag is optional. Use with -c, -i, or -x.
-g	Calls the GlobalPerms Viewer. Requires *InstanceName*. Arguments between -g and *InstanceName* are passed to GPViewer. For more information on the GPViewer, see For more information, see "GlobalPerms Viewer Options" on page 104..

Parameter	Definition
-i	Run in batch (unattended) mode. Do not use with -c. Supported for service pack and patch installations only. Requires *InstanceName* **Important:** Lawson does not support running the initial installation of 9.0.x Lawson System Foundation in unattended batch mode.
-j *Package*.jar	Specify an additional product .jar file to install. Can be used in GUI or command line mode.
-l	Lists the contents of the .jar file. Overrides other switches except -h.
-p *PackageName*	Valid package names for Lawson System Foundation are: LSFCT (Lawson Core Technology) LSFSD (ProcessFlow Runtime) PORTAL (Portal application server component) PORTALWEB (Portal web server component STUDIO (Design Studio application server component) STUDIOWEB (Design Studio web server component) BCI (BCI Connector) ECA (Application Developer Workbench)
-r	Redelivers files. Use -r in the following circumstances: • You have corrupted a patch file, and need to replace it. • Your installation failed during file delivery. Correct any issues, and run the installer again using the -r switch. The install will run to completion.

Parameter	Definition
-x *Filename*.jar*InstanceName*	Delete/remove/uninstall the specified package or an individual patch from the Environment *InstanceName*. The following conditions must be met before you can use this option. • The product or patch must have previously been installed on the system. • A higher service pack has not been installed. • The backup directories must be in place and defined in the BACKUPDIR value in the %LAWDIR%\system\install.cfg file. Use with -c or -i. When used with -i, the installation program will not display a confirmation prompt before deleting.
-h	Help. Prints usage. This flag will override any other switches unless it comes before -g.

Examples: Using the Installer in Command Line Mode

Example command	Result
java -jar LSFCT.jar -a c:\install\ answers.txt	Runs the installation program in GUI mode with answers pre-populated per the answers file.
java -jar LSFCT.jar -a c:\install\ answers.txt env1	Installs the LSFCT.jar file to the Environment named env1 in interactive command line mode with answers pre-populated per the answers file.
java -jar LSFCT_AIX_09000002P16672.zip -i env1	Installs Lawson Core Technology patch to the Environment named env1. This patch will install without user intervention.

java -jar LSFCT_AIX_09000002P16672.zip -c lsfprod1	Installs Environment patch to the Environment named lsfprod1. The following summary screen will appear, asking you to confirm before the installation begins. Installation summary: Update Environment Technology for Environment lsfprod1 The following actions will be done Update 4GL tools The following directories are affected LADBDIR=\lsfprod1\DB (1 files / 249832 bytes) GENDIR=\lsfprod1\gen (5 files / 2764665 bytes) Installer files Log file is \lsfprod1\law\system\install.log Configuration is \lsfprod1\law\system\install.cfg Product registry is \lsfprod1\law\system\GlobalPerms Backups written to \lsfprod1\law\system\backup Do you wish to continue? 1: Exit 2: Install Select number [Install] : 2
java -jar LSFCT_AIX_09000002P16672.zip -cx lsfprod1	Removes patch LSFCT_AIX_09000002P16672.zip from the Environment named **lsfprod1** in interactive command line mode.

GlobalPerms Viewer Options

The GlobalPerms Viewer (GP Viewer) is a utility included with the installer in every product .jar file. This utility reports on the contents of GlobalPerms, which is the repository of file and version information created and used by the installer. This is useful for determining what has been installed on the system.

Usage

You can use the GP Viewer with *Product* .jar file to list installed components, installation history, and PTs delivered in a package, plus information on specific files delivered by the product installation .jar file.

java -jar *Product*.**jar -g [c|i|h|l|p|f** *Filename* **|v** *Filename***]** *InstanceName*

where

Product.jar is the name of the file used to install or update the product.

instanceName is the name of the instance the product was installed to. For application server products, this is the Environment name. For web server-side installs, this is the web server instance name.

You can use the GP Viewer with the %GENDIR%\install\installer.jar file. This is useful if you do not have the original product installation .jar file.

`java -cp %GENDIR%\install\installer.jar com.lawson.install.GPViewer [c|i|h|l|p|f` *`Filename`* **`|v`** *`Filename`***`] %LAWDIR%\System\GlobalPerms`**

where

Filename is the full path to a file you want to view information on.

Note: For web server installs, GlobalPerms is located in the web server instance directory.

GlobalPerms is the full path to the GlobalPerms file. GlobalPerms is always located in the %LAWDIR%\system directory for application server-side installs, and in the web server instance directory for web server-side installs.

- Only one switch at a time is valid.
- If no switches are passed to GPViewer, -p is the default.
- if using **`java -jar`** *`product`***`.jar -g`** *`switches instanceName`*, the -g is a switch to the installer (*product*.jar) and anything between -g and *instanceName* are switches to GPViewer.

Parameter	Definition
-c	Lists components per package installed.
-f *Filename*	Lists information about the specified file.
-h	Help. Prints this usage.
-i	Lists installation history
-l	Lists installation history for each package.
-p	Lists PTs for each package installed. This is the default if no other switches are used.
-v *Filename*	Lists version information about the specified file.

Examples: Using the GlobalPerms Viewer

Example command	Result
java -jar LSFCT_AIX_09000002P16672.jar -gl lsfprod11	Returns a list of all files delivered with this patch, including version information.

java -jar portal.jar -g lsfprod1	Returns the contents of GlobalPerms in the Environment env1 for files delivered by the Portal installation.
java -jar installer.jar com.lawson.install GPViewer -fv %GENDIR%\bin\lapm %LAWDIR%\system\ GlobalPerms	Returns the version and InstallID stored in GlobalPerms for the specified file.
java -jar LSFCT_AIX_09000002P16672 -f %GENDIR%\java\jar\ios.jar lsfprod2	Lists information about the ios.jar delivered with this patch.

Installation Troubleshooting

C

This section describes how to identify and recover from failed installations.

Identifying the Point of Failure

The first step in recovering from a failed installation is to determine the phase in which the failure occurred. Error messages will be logged in the installation log file:

The installation occurs in three phases.

- **Phase 1: Interview**
  - For new installs, this is the questions you answer before actual installation can occur.
  - For updates and patches, the only interview question is which environment to update.

  The interview phase ends when the Summary Screen displays, listing the number of files to be delivered, and the location of the install log and backups.
- **Phase 2: File Delivery**
  - Delivery begins when you click ‘Install’ after the Summary Screen (in GUI mode) or answer ‘Yes’ to the question ‘Do you wish to Continue’ (in commandline mode). This phase consists of backing up existing files, unpacking files from the jar, and putting them in their destination location. On IBM i, this begins with restoring a SAV file containing native objects to a temporary library, before they can be copied into place.
  - You can identify Phase 2 by checking the install log.

    Phase 2 begins with

    ```
    Stopping Lawson
    Backing up files
    Loading files
    ```

and ends with

```
File loading completed
```

followed by a summary of the number of files delivered.

- **Phase 3: Running the component installer scripts**

  After file delivery has completed successfully, the installer launches a series of perl scripts which do initial system configuration for the product.

  You can identify Phase 3 in the install log. Phase 3 begins with

  ```
  Preparing Environment
  Activating Components
  Finish Environment
  ```

  and continues until the installation is complete.

Troubleshooting a new installation

To recover from failure on a new installation, do the following:

- Check the install log to determine the installation phase where the failure occurred.
- Analyze error messages to determine what failed.
- Read the relevant topic below for troubleshooting tips.

Phase One (interview) failures

Symptom	Solution
You receive error messages that indicate validation has failed	Ensure that you set up installation users correctly, and that you are logged in as the correct user for your platform. For more information, see "Setting Up Users and Permissions" on page 25. Carefully check the answers you provided for technical accuracy, typographical errors, invalid characters, and character length limitations. For more information, see the Installation Worksheets. Correct errors, and proceed until Phase 1 has successfully completed.

Phase Two (file delivery) failures

Symptom	Solution
A file is in use, and the installer cannot delete it.	Locate the process that is using the file and ensure that it is terminated. • Delete the contents of %GENDIR%\install. • Delete all files that have been delivered. • Run the installation program again. Choose the Reload option to re-deliver files and run the perl scripts.
There is a problem setting permissions	Ensure that you set up installation users correctly, and that you are logged in as the correct user for your platform. For more information, see "Setting Up Users and Permissions" on page 25. • Delete the contents of %GENDIR%\install. • Delete all files that have been delivered. • Run the installation program again. Choose the Reload option to re-deliver files and run the perl scripts.

Phase Three (perl script) failures

If the install fails during running of the perl scripts you will need to do further evaluation before deciding how to proceed. Phase 3 can be split into two categories: during or after ‘Activating Core Admin Utilities’.

Symptom	Solution

Install fails while install-core.pl (Activating Core Admin Utilities) is running	• Correct the problem that caused the failure • Try to re-run the install as an update to an existing Environment. If you see your Environment as an update option, or see options to Reload, Restart, or Delete, continue with the install. • If you do not see your Environment in the list, go through the cleanup for Phase 2 failures and re-run the installation program again as a new install. If your install.cfg file is intact, the interview questions will display with your values already populated. You can change values if needed.
Install fails after install-core.pl has successfully completed. Common causes are: • The database is not running • The LDAP is not running • Bouncy Castle is not configured correctly • You forgot to load the ldif file • ProcessFlow ports specified during the interview are in use by another server	Locate the error messages Correct the problem that caused the failure Re-run the install, choosing the Restart option. The Restart option does not re-deliver files. It does re-run the perl scripts.

Troubleshooting a service pack or patch installation

You may experience a failure during an update (service pack or patch) installation. Since an initial install must have completed, basic configuration must be adequate for the install.

- Check the install log to determine the installation phase where the failure occurred.
- Analyze error messages to attempt to determine the likely cause.
- Read the relevant topic below for troubleshooting tips.

Phase One (interview) failures

Symptom	Solution

You do not see your Environment as an update option.	Verify the following: • The %LAWDIR%\system directory contains an install.cfg and a GlobalPerms file. Correct errors, and proceed until Phase 1 has successfully completed.
An error message indicates that you are logged in as the wrong user.	Ensure that you set up installation users correctly, and that you are logged in as the correct user for your platform.

Phase Two (file delivery) failures

Symptom	Solution
A file is in use, and the installer cannot delete it.	This is almost always the launt.dll file. Follow the procedures to release the file. For more information, see "Preparing for a Service Pack Installation" on page 69.
A file is locked and cannot be overwritten.	Ensure that you set up installation users correctly, and that you are logged in as the correct user for your platform.

Phase Three (perl script) failures

If the install fails during running of the perl scripts, it usually means that a third party product is not accessible

Symptom	Solution

Install fails when a perl script is executing.
 	
Common causes are:
• The database is not running
• The LDAP server is not running
• You forgot to load the ldif file
• Your system configuration has changed, but some or all of the required configuration was missed. For example:
  • You updated your Java version, but did not update the JAVA_HOME or LAW_JAVA_HOME variables on your system or in %LAWDIR%\system\install.cfg.
  • You updated your Java version, but did not re-install and configure Bouncy Castle.
  • You changed your web server name and port, but did not update %LAWDIR%\system\install.cfg.
	Locate the error messages in the log file and attempt to diagnose the failure.
	
	Correct the problem that caused the failure.
	
	If you forgot to load the ldif file, load it now.
	
	Re-run the install, choosing the Restart option. The Restart option does not re-deliver files. It does re-run the perl scripts.

stoplaw service fails to stop

Symptom	Solution

The following error may occur when running the stoplaw command

`Failed to stop service. Error code 1053`

To resolve this issue, adjust the default time-out period for Windows services.

___**1** In the Registry Editor (regedit), right-click the following registry subkey

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control

___**2** **32-bit Windows** Select New>DWORD Value.

-or-

64-bit Windows Select New>QWord Value

In the right pane of Registry Editor, **New Value #1** (the name of a new registry entry) is now selected for editing.

___**3** Type **ServicesPipeTimeout** to replace New Value #. Press Enter.

___**4** Right-click on ServicesPipeTimeout registry and then click Modify.

___**5** In the Value data textbox, type the desired timout period for the service in milliseconds and click OK.

Example

if you want to set the time-out period to 120 seconds (120000 milliseconds or 2 minutes), type 120000.

___**6** Reboot the machine. You must restart the computer for Service Control Manager to apply this change.

Installation Worksheets

D

Use the worksheets in this section to plan your Lawson Core Technology installation. The installation program will prompt for these values.

Important: The Lawson installer supports the following characters:
- **a** through **z**
- **A** through **Z**
- **0** through **9**
- _ (underscore)

Unsupported characters will cause the installation to fail. Ensure that your values contain only the characters listed above.

Core Administration Values

Prompt	Your Value
Create a new Environment **Important:** Do not use **`lawson`** for your Environment name. Using **`lawson`** as an Environment name will cause conflicts with default user information delivered to the LDAP server.	
The LID port The LID port must be an available port on your system.	
The base directory for the Lawson install Lawson recommends that you use the Environment name for example, lsfprod1 All Lawson directories will be created under the base directory.	
The directory for GENDIR The default is */BaseDirectory*/**gen**	
The directory for LAWDIR The default is */BaseDirectory*/**law**	
The directory for LADBDIR The default is */BaseDirectory*/**db**	
The directory for LAUNTDIR	
The directory containing a Java JDK The installation program uses this value to set a LAW_JAVA_HOME variable, which must point to the directory where your JDK is installed. It must be the same as the JAVA_HOME variable for your environment.	
Choose the file security level The installation program sets file security on files created during the installation. Choose Basic, Medium, or Strict.	

Machine/Port Installation Values

Prompt	Your Value
The network-accessible name of the Lawson server. The Lawson server is the machine where this product is installed. Examples: *MachineName*.*DomainName*.com, *MachineName*, or IP address.	
The network-accessible name of the SMTP server. The SMTP server is the e-mail server on your network. This value is required for ProcessFlow and optional for Lawson Security. Examples: *MachineName*.*DomainName*.com, *MachineName*, or IP address.	
The fully-qualified name of the web server. The web server is the machine where the web server software is installed. It can be the same machine as the Lawson server or a remote machine. Use the machine name and domain name to identify the server. Example: *MachineName*.*DomainName*.com	
Choose the protocol assertion to use for Lawson Single Sign On (SSO). Use HTTP only Use HTTPS for login only Use HTTPS always	
The http port number for your web server The web server listening port is set when you configure the web server.	
The https port number for your web server If you chose Use HTTP only, you will not see this field. The web server HTTPS port is set when you configure the web server.	

LDAP Installation Values

Use this worksheet for ADAM and IBM Directory Server LDAPs. Note that some values are ADAM-only.

Prompt	Your Value
Choose your LDAP ADAM (AD LDS) IBM Directory Server	
The fully-qualified name of the LDAP server machine The LDAP server is the machine where the LDAP software is installed. It can be the same machine as the Lawson server or a remote machine. Use the machine name and domain name to identify the server. Example: *MachineName*.*DomainName*.com	
The LDAP listening port. The LDAP listening port is set when you install the LDAP. The default for TCP/IP is 389. The default for SSL connection is 636.	
The DN of an LDAP administrator user. Before you install Lawson, you must configure the LDAP to set up an LDAP administrator user with a Distinguished Name (DN) and password. This user must be able to read and write entries in the LDAP DIT and schema. The install program uses this value to write information to the LDAP.	
The password for LDAP administrator user. Before you install Lawson, you must configure the LDAP to set up an LDAP administrator user with a Distinguished Name (DN) and password. This user must be able to read and write entries in the LDAP DIT and schema. The install program uses this value to write information to the LDAP.	
The DN into which Resource Management can load metadata. The DN is the location in the LDAP where Lawson will load resource metadata. This location must exist in the LDAP. The install program uses this value to write information to the LDAP. You must define a unique DN for each Environment that will share this LDAP instance.	
ADAM or AD LDS only **The Windows user ID of the administrator for the ADAM instance used for this Lawson Environment.** When you install ADAM, you are asked to specify a Windows user and password for the ADAM administrator. The install program uses this value to access ADAM.	

Prompt	Your Value
ADAM or AD LDS only **The Windows domain for the ADAM administrator.** When you install ADAM, you are asked to specify a Windows user and password for the ADAM administrator. Enter the domain name for this user. Example: MachineName	
ADAM or AD LDS only **The Windows password for the ADAM administrator.** When you install ADAM, you are asked to specify a Windows user and password for the ADAM administrator. The install program uses this value to access ADAM. **Note:** You will not be asked for this value during the installation interview. However, you must supply the password when you import the ldif file.	
The protocol that Lawson will use to connect to the LDAP. If you choose TCP/IP, all LDAP traffic will occur over an unsecured socket. If you choose SSL, all LDAP traffic will be routed through a secure socket.	
Do you want Lawson to consume an existing LDAP user tree? Answer Yes if one of the following situations applies: • You already have users set up in the LDAP and you want Lawson to add metadata to the existing DIT. **Important:** This installation will make changes to your DIT. You have the option to review changes before importing them into the LDAP. • You are installing multiple Environments to the same LDAP instance. In this case, you must have created a DN for resources when you set up the LDAP. If you want the install program to create a new DIT for Lawson, choose NO.	
If you chose "yes" for the question above, you must provide the following values:	

Prompt	Your Value
The DN for the container where users are stored in your DIT. You will not see this question if you answered NO to the question above. • If you already have users in the LDAP, the DN is the location in your Directory Information Tree (DIT) where users are stored. The install program uses this value to add Lawson resource metadata to your DIT. • If you are installing multiple Environments into a single LDAP instance and do not have existing users in the LDAP, enter the DN you created to hold resources here.	
Choose the structural class used to define users in your LDAP server. Valid choices are: inetOrgPerson. If you are installing multiple Environments into a single LDAP instance, always choose inetOrgPerson here. user other	
If you chose "user" or "other" as a structural class, you must provide the following values:	
The naming attribute for your user object	
The attribute used to hold a user's first name	
The attribute used to hold a user's last name	
The attribute used to hold a user's display name	
The attribute used to hold a user's email	

Security/Single Sign-on Installation Values

Prompt	Your Value
An available port for the security server to use for non-SSL communications. This port number can be any available port on the Lawson server machine. The install program will designate the port number you enter as the security server non-SSL port.	
The SSL listening port for the security server. This port number can be any available port on the Lawson server machine. The install program will designate the port number you enter as the security server SSL port.	
Choose a PBE encryption algorithm. From the drop-down list, choose the PBE encryption algorithm to use. If you don't have a preference, choose one at random.	
Choose a symmetric encryption algorithm. From the drop-down list, choose the symmetric encryption algorithm to use. If you don't have a preference, choose one at random.	
The symmetric encryption bit size. Or, enter -1 to use the default for the algorithm you chose. If you don't know the default for the algorithm you chose, enter -1 to use the default.	
The password to protect the Lawson ssoconfig utility. You must supply this password in order to run the ssoconfig utility, which you use when you need to make changes to the security configuration.	
Do you want to use e-mail to recover the SSO utility password? If you choose this option, you enable a mechanism that e-mails a method to recover the password to a designated user.	
The e-mail address where the password recovery message should be sent. Example: YourName@YourCompany.com	

Prompt	Your Value
The password to assign to the lawson user for Single Sign-on access The single sign-on user "lawson" is installed by default to allow initial login access to the Lawson system. Enter a password for the lawson user to use when logging into the Lawson Portal. This password is stored in Resource Management.	
The Windows domain to which the lawson user belongs The Lawson single sign-on user is installed by default to allow initial login access to the Lawson system. This user must be mapped to a valid Windows domain which can be either a remote domain controller or the local machine. Example: *DomainName\lawson*.	
The OS password for the lawson account on this Windows domain The default lawson single sign-on user is mapped to the lawson account on this Windows domain.	
The OS user to map to the lawson single sign-on user. The default single sign-on user must be mapped to a valid user ID and password in the OS.	
The OS password for the lawson user. The Lawson single sign-on user is installed by default to allow initial login access to the Lawson system. This user is mapped to the OS user **lawson**.	

DB2 Database Installation Values

Prompt	GEN Value	LOGAN Value
The number of simultaneous database connections This value is written to the Lawson ladb.cfg file, which contains parameters for Lawson database access. The default value provides a minimum configuration for installation purposes. You can tune values in ladb.cfg when the Lawson installation is complete.	20	

Prompt	GEN Value	LOGAN Value
Choose the database to use for this data area The choices you see depend on what the installation program detects in the PATH variable on the Lawson server machine. If you do not see the database you plan to use in the list of choices, verify that the directory containing the command to start the database appears in your PATH.		
The local alias for the DB2 database Before you install Lawson, the DB2 client must be installed and configured to connect to the DB2 server. This value is the alias name as cataloged on the local system. The alias name cannot exceed 20 characters		
The OS user ID to use when connecting to DB2 (DB2 on UNIX or Windows only) This value must be a valid OS user on the machine where the DB2 server is installed.		
The OS password for the user (DB2 on UNIX or Windows only)		
The local alias for the DB2 zSeries database (DB2 for zSeries only) Before you install Lawson, the DB2 client must be installed and configured to connect to the DB2 server. This value is the alias name as cataloged on the local system.		
The OS user ID to use when connecting to DB2 This value must be a valid user in the OS on the machine where the DB2 server is installed.		
The name of the database as defined on the zSeries (DB2 for zSeries only) This is the actual name of the database on the zSeries. It is needed by Lawson when it creates tables in the database.		
The zSeries user ID to use when connecting to DB2 (DB2 for zSeries only) This value must be a valid user in the OS on the zSeries machine where DB2 is installed.		

Prompt	GEN Value	LOGAN Value
The password for the user This value is the OS user password used to log into the system where DB2 is running.		
The schema name to use when creating tables The schema name is used to keep the data for this Lawson data set separate from any other data stored in the database. All tables will be created with this name as the table owner. You must use a unique schema name for each Lawson data area. Lawson recommends that you use the format EnvironmentName_DataAreaName; for example, LSF1_GEN and LSF1_LOGAN. The schema name cannot exceed 18 characters in length.		
The name of the table space to use when creating tables A table space with this name must be defined in the database before you install Lawson.		
The name of the table space to use when creating indexes A table space with this name must be defined in the database before you install Lawson		

SQL Server Database Installation Values

Prompt	GEN value	LOGAN value
The number of simultaneous database connections This value is written to the Lawson ladb.cfg file, which contains parameters for Lawson database access. The default value provides a minimum configuration for installation purposes. You can tune values in ladb.cfg when the Lawson installation is complete.	20	

Prompt	GEN value	LOGAN value
Choose the database to use for this data area The choices you see depend on what the installation program detects in the PATH variable on the Lawson server machine. If you do not see the database you plan to use in the list of choices, verify that the directory containing the command to start the database appears in your PATH.		
The name of the SQL Server server to use Before you install Lawson, SQL Server must be installed and configured. In SQL Server, this value is by default the name of the machine where the SQL Server is installed.		
The name of the database on the server Before you install Lawson, a database for Lawson data must be created in SQL Server. The database name must not exceed 20 characters.		
The user ID to use when connecting to SQL Server Depending on how you configured SQL Server, this value can either be a user defined in SQL Server or a Windows domain\user that has been set up with SQL Server permissions to create tables.		
The password for the SQL Server user If the user ID is a Windows domain\user, this is a Windows password. If the user ID was defined in SQL Server, use the SQL Server password defined for that user.		
Enter the schema name to use when creating tables Enter the schema name to be used to create tables.		
Do you want to specify filegroups for tables and indexes? If you choose YES, the install program will deliver Lawson data to filegroup locations that you specify. If you choose NO, SQL Server will choose where to place Lawson data.		
The name of the filegroup to use when creating tables You will not see this question if you answered NO to the question above. The filegroup must be defined in SQL Server before you begin the Lawson installation. The name you enter here must match the case of the value defined in SQL Server		

Prompt	GEN value	LOGAN value
The name of the filegroup to use when creating indexes You will not see this question if you answered NO to the question above. The filegroup must be defined in SQL Server before you begin the Lawson installation. The name you enter here must match the case of the value defined in SQL Server.		

Oracle Database Installation Values

Prompt	GEN value	LOGAN value
The number of simultaneous database connections The expected maximum number of users that will be using lawson at the same time. This value is written to the Lawson ladb.cfg file, which contains parameters for Lawson database access. The default value provides a minimum configuration for installation purposes. You can tune values in ladb.cfg when the Lawson installation is complete.	20	
Choose the database to use for this data area The choices you see depend on what the installation program detects in the PATH variable on the Lawson server machine. If you do not see the database you plan to use in the list of choices, verify that the directory containing the command to start the database appears in your PATH.		
Choose the Oracle protocol for the server connection If the Oracle database is remote, you must choose TNS (TCP/IP). If Oracle is local, you can choose either TNS or SID.		
The TNS name for the Oracle server (TNS connection protocol only) Before you install Lawson, the TNS name must be configured in the TNSnames.ora file. You may need to qualify the name, for example MachineName.DomainName.com		

Prompt	GEN value	LOGAN value
The SID for the Oracle server (SID connection protocol only) The SID (System ID) is the instance name for the Oracle server. This value must be configured in Oracle before you install Lawson. The SID must not exceed 20 characters.		
The Oracle user ID to use when connecting to the database Before you install Lawson, user IDs and passwords must be defined in Oracle. These users will be the owner of tables created during the Lawson install, therefore you must set up a user ID and password for GEN and a user ID and password for LOGAN.		
The password for the Oracle user Before you install Lawson, user IDs and passwords must be defined in Oracle. These users will be the owner of tables created during the Lawson install, therefore you must set up a user ID and password for GEN and a user ID and password for LOGAN.		
The name of the table space to use when creating tables Before you install Lawson, this table space name must be defined in Oracle as locally-managed.		
The name of the table space to use when creating indexes Before you install Lawson, this table space name must be defined in Oracle as locally-managed.		

IOS Installation Values

You will need to supply or verify the following information during the installation and post-installation of this product. Before you begin the installation, fill in the following worksheet.

Prompt	Value

Where would you like the persistent data files stored?

The IOS component manages persistent data that must be available to the Portal. This data is delivered with the Portal installation.

The default is %LAWDIR%\persistdata.

ProcessFlow Installation Values

Prompt	Your Value
The listening port for the Event Manager server The Event Manager server port can be any available port on the Lawson server machine. The install program will designate the port number you enter. The default is 16001.	
The listening port for the ProcessFlow server The ProcessFlow server port can be any available port on the Lawson server machine. The install program will designate the port number you enter. The default is 16002.	
The listening port for the ProcessFlow RMI server The ProcessFlow RMI server port can be any available port on the Lawson server machine. The install program will designate the port number you enter. The default ProcessFlow RMI server port is 16003.	
Do you plan to install Lawson Services Automation (SA)?	

WebSphere Administration Values

These values are not required by the installation program. However, Lawson recommends that you note them to assist with WebSphere administration.

Value	Your Value
Document Root directory (WEBDIR) Directory where Lawson web content resides. Lawson recommends that you use *LawEnvName*/web, for example \lsfprod1\web	
WAS_HOME The directory where WebSphere Application Server is installed. Lawson recommends that you use \IBM\WebSphere\AppServer	
WAS_LOGS The location where WebSphere logs are stored. Lawson recommends that you use %WAS_HOME%\profile*LawEnvName*\logs*LawEnvName_app* where *LawEnvName* is the name of your WebSphere profile, for example lsfprod1 *LawEnvName_app* is the name of the application server you create in WebSphere to run Lawson applications, for example lsfprod1_app	

Upgrading LDAP Schema

This section contains steps that must be performed one time when you install a service pack. For example, if you are in the process of installing release 9.0.1.12 over release 9.0.1.9 and you have never performed the LDAP schema upgrade described in this appendix, you must perform the procedure now. When you move to a later release, for example, 9.0.1.13, you will not need to rerun this procedure.

Note: This information is also published as Knowledge Base article #1369992.

- "Upgrading schema" on page 129

Upgrading schema

Perform the topics in this section in the order shown here in order to upgrade LDAP schema.

Update meta schema

This procedure updates the meta schema.

___**1** From a command window in **`LAWDIR/system`**, type

`secupgdschema -f GENDIR/system/schemaupg.xml`

___**2** Verify that RmMeta_Default.xml was created in the correct location.

Open the file LAWDIR/system/RMApiInit.properties in a text editor.

___**3** Verify that the file contains the following line:

`DEFAULT.com.lawson.lawrm.rmMetaMgr.MetaDataFile`

Run ldifgen

Before you start

- Descriptions of all parameters and variables used in the commands in this section are in the table "ldifgen parameters details" at the end of the section
- When you perform this procedure, you will need to know the complete "binddn," the LDAP distinguished name used to bind to the LDAP server.

  Examples:

  `cn=root,o-lwsnrmmetaroot`

  `cn=root,cn=lsf9016,dc=lsf9016,dc=lpc,dc=lawson,dc=com`

___**1** Move into the location LAWDIR/system.

___**2** Copy the file RmMeta_Default.xml under a new name to save it, for example, RmMeta_Default_Backup.xml.

___**3** Run the ldifgen command. Type

`ldifgen xmltoschemaldif -k -h` *`host`* **`-p`** *`LdapPort`* **`-D`** *`binddn`* **`-w`** *`LdapPwd`* **`-f schema.ldif -m meta_data.ldif RmMeta_Default.xml`**

___**4** Rerun the ldifgen command with additional parameters to ensure that the latest version of all attributes is included. Type

`ldifgen bootstrap -f` *`YourDataOutputfile`***`.ldif -r reorgfile.ldif -v -X -D`** *`binddn`* **`-h`** *`FQ_host_name`* **`-p`** *`LdapPort`* **`-w`** *`LdapPwd`*

___**5** **IMPORTANT:** Review the output from this command. If either *YourDataOutputfile*.ldif or *YourReorgfile*.ldif are larger than 0 bytes, they must be imported to your LDAP as described in Step 6.

___**6** Using native tools supplied by your LDAP vendor, import the following files, created during the previous step, into your LDAP:

On ADAM, run the "ldifde" command. On Tivoli, run the "ldapmodify" command.

___**a** *YourSchema*.ldif

___**b** *YourMetaData*.ldif

___**c** You can skip importing this file if it is 0 bytes as determined in Step 5.

YourDataOutputfile.ldif

___**d** You can skip importing this file if it is 0 bytes as determined in Step 5.

YourReorgFile.ldif

Example import commands using ADAM

This example is provided for your convenience. For complete details, refer to your LDAP vendor's documentation.

ldifde -b *administratorDN LdapWindowsDomain LdapPWD* **-s** *YourLdapServer.YourDomain*.**com -t** *LdapPort* **-i -f** *YourSchema*.**ldif**

ldifde -b *administratorDN* **L***dapWindowsDomain LdapPWD* **-s** *YourLdapServer.YourDomain*.**com -t** *LdapPort* **-i -f** *YourMetaData*.**ldif**

Example import commands using Tivoli

This example is provided for your convenience. For complete details, refer to your LDAP vendor's documentation.

ldapmodify -D *administratorDN* **-w** *LdapPWD* **-p** *LdapPort* **-h** *ldapServer* **-f** *YourSchema*.**ldif**

ldapmodify -D *administratorDN* **-w** *LdapPWD* **-p** *LdapPort* **-h** *ldapServer* **-f** *YourMetaData*.**ldif**

ldigen parameters details

Additional information about what data is needed by the command parameters.

Parameter	Description
RmMeta_Default.xml	The file used by Schema Editor to write metadata changes. This file was initially installed when Lawson Security / Resource Management was installed. In the previous procedure, you updated it to ensure that it contains the most recent meta schema.
FQ_host_name	Fully qualified host name. Typically, host is specified in the format: *YourLDapServer.YourDomain*
-p *LdapPort*	The port number for the LDAP.
-D *binddn*	In the example this is, **cn=root,o-lwsnrmmetaroot** **binddn** is the LDAP distinguished name used to bind to the LDAP server.
-w *LdapPwd*	Password that you use to run the LDAP server.
-f *YourSchema*.**ldif**	The output file where the schema modification ldif will be written.
-m *YourMetaData*.**ldif**	The output file where the data modification ldif will be written.

Parameter	Description
YourDataOutputFile`.ldif`	This file must have the same name where it is referenced in the ldifgen bootstrap command and the LDAP import commands. **Note:** If the file is 0 bytes, it does not need to imported.
YourReorgFile`.ldif`	If the file is larger than 0 bytes, it does not need to imported. This ldif file is not required to be named "reorg".
short_host_name	Host name but in the format: YourLdapServer" (without ". YourDomain.com)

Verify that the domain is enabled for multiple single sign-on

___**1** On the ILSF server, move into the following location:

`LAWDIR/system`

___**2** Open the following file in an editor or other text viewer:

`RMApiInit.properties`

___**3** Verify that the following line exists and that it is set to true. Add the line if it does not exist and change the value to true if necessary.

`DEFAULT.com.lawson.lawrm.EnableMultipleSSODomain=true`

Add the SSO domain container and service container nodes to the system

Before you start These instructions assume that you are familiar with the Lawson Security utility, ssoconfig. If you are not, you can find additional information, including information about how to make selections from the menus, in the document, *Resources and Security Administration Guide*, which is available in the ILSF infocenter and on the Xtreme Support site.

___**1** Run the ssoconfig utility. At a command window, type

`ssoconfig -c`

and then at the prompt type the security administrative password.

___**2** From the main ssoconfig menu, select "Other Options."

___**3** From the Other Options menu, select "Add SSO domain container node."

When the node is created, you will be returned to the Other Options menu.

___**4** From the Other Options menu, select "Add service container."

___**5** When you are finished, you can select Back to return to the main ssoconfig menu and then select Exit.

Review / update JVM memory settings

For a federated system with a large number of actors, Infor Lawson recommends that this value be set to a minimum of "Xmx2048". However, this is a customer choice. You might decide to wait to determine how your system performs before updating memory settings. (A system reboot is required any time you change this value.)

___**1** On the ILSF server, navigate to the following location:

`GENDIR/java/command`

___**2** Open the following file in a text editor:

`lsserver.properties`

___**3** Locate the property **`ljx.vm.options=Xmx`***###*

where "###" is the current value. By default, this property is set to Xmx768m"

___**4** If necessary, change this property to "Xmx2048m" or another value appropriate for your system.

Stop / restart the Infor Lawson System Foundation server

___ Run the stoplaw / startlaw commands on the Infor Lawson environment to make the changes you made throughout this process take effect.

Enabling S3 Mobile Monitor

This section provides the following information about installing the Lawson System Mobile Monitor.

Important: This guide assumes that you are installing the Lawson System Mobile Monitor for a system where the Infor Lawson System Foundation is already installed and configured.

What Is the Infor Lawson System Mobile Monitor?

The Infor Lawson System Mobile Monitor is an application for Android and iPhone devices that enables administrators to use those devices to monitor a Infor Lawson System Foundation system and perform some administrative tasks. You must install components on both the client (the mobile device) and the server where the Infor Lawson System Foundation is installed, and you must perform configuration steps on both as well.

Knowledge Prerequisites

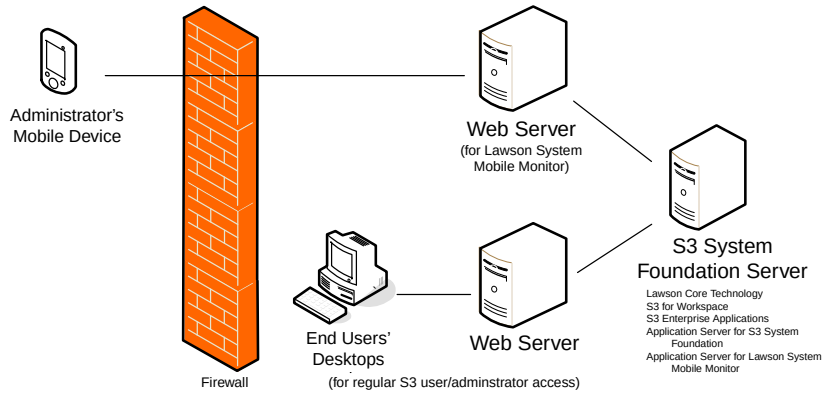
To install and configure this product, you should have the following knowledge and experience:

- Understand the architecture and directory structure of the Lawson system.
- Understand how to set up Lawson Security roles and identities.
- Have experience setting up and administering the web servers and application servers for Lawson.
- Have operating system administrator experience.
- Have experience installing applications on a mobile device.

Network Configuration

The following diagram shows a simplified view of the network for a system with the Infor Lawson System Mobile Monitor. It does not include all components, such as the database server, LDAP server, or Workspace server.

Figure 4. Illustration: Network configuration for the Infor Lawson System Mobile Monitor



System Requirements

The following software and hardware requirements must be met before you install this product.

Infor Lawson System Foundation Requirements

Component	Supported Version(s)	Notes
Infor Lawson System Foundation	9.0.1.9 or above 10.0.2.x or above	Patch requirements for 9.0.1.9: Download the patch associated with JT-372495 for your platform and its release level.

Component	Supported Version(s)	Notes
All other Infor Lawson System Foundation required components	See the *Lawson Core Technology Installation Guide* for your version of Infor Lawson System Foundation.	For such required components as the web server, application server, LDAP server, and database server, the Infor Lawson System Mobile Monitor should be installed with the same version as you are using for your Infor Lawson System Foundation system.

Infor Lawson System Mobile Monitor Requirements

Component	Supported Version(s)	Notes
Mobile device operating system	Android 2.3 or above iOS 5.x or above	Required platform for Android and Apple mobile devices.
Web browser	Internet Explorer 8.0 Internet Explorer 9.0	Required for smoke testing.
LDAP browser	Any LDAP browser	Lawson recommends that you have an LDAP browser installed to connect to the LDAP for verification purposes.
Lawson Interface Desktop (LID)	10.0.x (latest available version)	Provides a command line interface to the Lawson system. Used for initial system setup and verification.
Lawson Security Administrator	10.0.x (latest available version)	Provides an interface to the Lawson Security system for security setup. Used for initial setup and verification.
Resource Management Administrator	10.0.x (latest available version)	Provides an interface for Lawson Security system for resource setup. Used for initial setup and verification.

Installation and Configuration Process Overview

The following table provides an overview of the installation and configuration process.

	Task	See...
1	Verify that all requirements are met	"System Requirements" on page 135
2	Complete pre-installation procedures	"Pre-Installation" on page 137
3	Download and install the Infor Lawson System Mobile Monitor	"Installation" on page 142
4	Configure the Infor Lawson System Mobile Monitor	"Configuration" on page 145
5	Complete installation verification procedures	"Verification" on page 150

Pre-Installation

This section contains procedures that must be completed before you install this product. While working through these procedures, you will identify values that must be provided during the installation.

Installing Hyperic Sigar 1.6.4

Use this procedure to install the Hyperic Sigar software. This software is required for the Infor Lawson System Mobile Monitor.

___**1** Download the installer from http://sourceforge.net/projects/sigar/files/.

___**2** Create a directory for the installation.

`mkdir`*InstallDirectory*

___**3** Move the downloaded installation file into the *InstallDirectory* folder.

___**4** Extract the installation .zip file into the *InstallDirectory*.

For example:

jar -xvf *XXX*.zip

___**5** Note the location of the Hyperic Sigar installation. The path to Hyperic Sigar will be needed for configuring the WebSphere application server for the Infor Lawson System Mobile Monitor.

Setting Up WebSphere

Use the tasks in this procedure to add and configure a WebSphere application server and a web server for the Infor Lawson System Mobile Monitor.

❑ Create an application server for the Infor Lawson System Mobile Monitor

___ In the WebSphere Administration Console, use the Servers > New Server option to create a new application server for the Infor Lawson System Mobile Monitor.

Lawson recommends that you include the Environment name in the server name and also indicate that it is for the Infor Lawson System Mobile Monitor.

Example

lsfprod1Mobile_app

Important: Infor Support requires that WebSphere application servers must be in a federated node.

❑ Set up an IIS web server for the Infor Lawson System Mobile Monitor (Windows web servers)

If you use IIS web servers, use this task to set up an IIS web server defined with a unique listening port for the Infor Lawson System Mobile Monitor.

- Create a web site for this web server.
  - Allow anonymous access to the web site.
  - Basic authentication must be turned off.
- Define default documents index.htm, index.html, default.htm, and default.html.
- Define a listening port for the web server.
- Define a document root directory. Infor recommends that you use *LAWMM*/web
- Redirect web server traffic to the servlet container for the Infor Lawson System Mobile Monitor using the WebSphere plug-in. Basic authentication must be turned off on the sePlugin directory.

❑ Set up an HTTPServer web server for the Infor Lawson System Mobile Monitor (Windows or UNIX web servers)

If you use IBM HTTP web servers, add the following additional configuration to the virtual host section in the httpd.conf file. Lawson recommends that you define a separate virtual host in httpd.conf for each Environment you plan to install as well as the Infor Lawson System Mobile Monitor.

- Define a listening port for the web server.

- Define default documents index.htm, index.html, default.htm and default.html
- Define a document root directory. Lawson recommends that you use *LAWMM*/web for the Infor Lawson System Mobile Monitor web server document root. This directory must exist before you can start the web server.

❑ Configure the application server for the Infor Lawson System Mobile Monitor

___**1** On the Application Server Configuration tab, select Server Infrastructure > Java and Process Management > Process Definition > Java Virtual Machine > Custom Properties for the application server.

Add the following name/value pairs for Lawson environment variables.

Name	Value
com.lawson.gendir	literal path to GENDIR **Example** d:\lsfprod1\gen
com.lawson.lawdir	literal path to LAWDIR **Example** d:\lsfprod1\law
com.lawson.ladbdir	literal path to LADBDIR **Example** d:\lsfprod1\db
Optional com.lawson.logdir	Literal path to a location for Lawson Security log files. If you don't set this value, security logs will be stored in *LAWDIR*/system by default. **Important:** This directory must already exist on your system.

Name	Value
Optional com.lawson.log.server.name	This value is used in vertically-scaled configurations. It allows vertically-clustered Lawson installations to have unique IOS log files for each server in the cluster. This value must be unique for each cluster member. The recommended naming sequence is "_server <*Number*>", where the resulting IOS log is named "ios_ server<*Number*>.log". For example, if you have three application servers in your vertical cluster, your IOS logs will be ios_server1.log, ios_server2.log, and ios_server3. log. If you don't set this value, IOS logs will be written to "ios. log" by default. **Important:** The characters in the server name value must be valid file name characters for your OS.
Required com.lawson.mobileadmin. cache_expiration	30000
Required com.lawson.mobileadmin.lsf_ appserver_name	The name of the application server for the Infor Lawson System Foundation system, for example, lsfprod1_app.
Required com.lawson.mobileadmin.lsf_ appserver_path	The path to the WebSphere profile for the Infor Lawson System Foundation system's application server. For example: D:\IBM\WebSphere\AppServer\profiles\lsfprod
Required if global security is turned on in WebSphere com.lawson.mobileadmin. was_username	The name of the user for Infor Lawson System Foundation system. **Important:** This user must have enough privilege to check the status and restart the application server instance for Mobile Monitor.
Required if global security is turned on in WebSphere com.lawson.mobileadmin. was_password	The password for the user of Infor Lawson System Foundation system.

___**2** Navigate to the Server Infrastructure > Java and Process Management > Process Definition > Java Virtual Machine configuration. Add Lawson files/locations to the JVM classpath for the application server you have created for the Infor Lawson System Mobile Monitor. Use the literal path to your GENDIR, LAWDIR, WAS_HOME, and PATH_TO_SIGARBIN.

```
WAS_HOME\plugins\javax.j2ee.jta.jar
GENDIR\java\jar\lawsonrt.jar
GENDIR\java\jar\lawsec.jar
GENDIR\java\thirdParty\secLS.jar
LAWDIR\system
WAS_HOME\plugins\javax.j2ee.servlet.jar
WAS_HOME\plugins\javax.j2ee.jsp.jar
PATH_TO_SIGARBIN\lib\sigar.jar
```

Important: If you are using WebSphere 8.5, include the additional classpath:

```
WAS_HOME\plugins\javax.j2ee.el.jar
```

___**3** For the application server for the Infor Lawson System Mobile Monitor, define the following Lawson variables in the Server Infrastructure > Java and Process Management > Process Definition > Environment Entries configuration window.

Environment variable	Value
GENDIR	Literal path to *GENDIR* for your Environment
LAWDIR	Literal path to *LAWDIR* for your Environment
LADBDIR	Literal path to *LADBDIR* for your Environment
COBDIR	Literal path to the Cobol install directory on your system
PATH	The literal path to: *GENDIR*\bin;*GENDIR*\cgi-bin;*COBDIR*\bin;*LAW_UU_ROOT*;PATH_TO_SIGARBIN where *LAW_UU_ROOT* is the base directory where LUU is installed, for example, D:\:luu
LAWENVNAME	Use the same value you used for the Environment name when you installed Infor Lawson System Foundation.

❑ Create a virtual host in WebSphere

___**1** In Environment > Virtual Host, create a new virtual host in WebSphere for the Infor Lawson System Mobile Monitor. The virtual host is required to communicate between the web server and the application server for this Environment. Lawson recommends that you use the Environment name in the virtual host name.

Example

lsfprod1_mm_host

___**2** Add the following ports to the Host Alias definition for the virtual host:

- The web server listening port for this the Infor Lawson System Mobile Monitor.
- **HTTP Server users only** The virtual host listening port for the Infor Lawson System Mobile Monitor as defined in the httpd.conf file.
- The WCInboundDefault and WCInboundDefaultSecure ports defined in the application server created for the Infor Lawson System Mobile Monitor.

  Note: These ports are listed in the Web Container > Web Container Transport Chains window in the application server configuration.

❑ Verify the WebSphere application server installation for the Infor Lawson System Mobile Monitor

___**1** Restart the web server.

___**2** Restart the WebSphere application server for the Infor Lawson System Mobile Monitor.

___**3** Restart the Deployment Manager.

___**4** Ensure that the Default Application (IBM's DefaultApplication.ear) is running in the application server for the Infor Lawson System Mobile Monitor. You may need to install the default application.

___**5** Use the sample applications to verify that web server traffic is redirected to the servlet container. In the address line of a web browser, type:

http://*WebServerHostName*:*WebServerPort*/snoop

- If the snoop servlet page appears, redirection is working.
- If the snoop servlet page does not appear, check the web server configuration, correct errors, and re-try the snoop servlet test.

___**6** Use the WebSphere Administration Console to un-install the Default Application. Lawson applications cannot run if the Default Application is running.

Installation

Use these procedures to download and install the product.

- "Installation Files for Infor Lawson System Mobile Monitor" on page 143
- "Deploying the Infor Lawson System Mobile Monitor to WebSphere" on page 143

Installation Files for Infor Lawson System Mobile Monitor

The following files are needed to install and configure the Infor Lawson System Mobile Monitor:

File	Description and Location
lsmm.ear	The Infor Lawson System Mobile Monitor .ear file to be deployed to the application server for the Infor Lawson System Mobile Monitor. It is located at %GENDIR%\assembly\products\lsmm.
lawsec.ear	The Lawson Security .ear file to be deployed to the application server for the Infor Lawson System Mobile Monitor, It is located at %GENDIR%\assembly\products\lawsec\jar\secondary\ .
LawsonSystemMobileMonitor.apk or LawsonSystemMobileMonitor.ipa (depending on your device type)	The application file for installing the Infor Lawson System Mobile Monitor on a mobile device. Available from the application store for your device.
lsmmservice.xml.template	An XML template file that, after editing, you use to create a service for the Infor Lawson System Mobile Monitor.
Lsmmsysadmin.sc	An XML template file containing Lawson Security information needed for the Infor Lawson System Mobile Monitor. This includes information for the S3MobileMonitorAdmin role and related identity, profile, and security class data.
Lsmmit.sc	An XML template file containing Lawson Security information needed for the Infor Lawson System Mobile Monitor. This includes information for the S3MobileMonitorITAdmin role and related identity, profile, and security class data.

Deploying the Infor Lawson System Mobile Monitor to WebSphere

Use these procedures to deploy the Infor Lawson System Mobile Monitor and the Lawson Security .ear files to the WebSphere application server for the Infor Lawson System Mobile Monitor.

❑ Deploy the Infor Lawson System Mobile Monitor in WebSphere

Use the New Application feature in the Integrated Solutions Console to deploy the Infor Lawson System Mobile Monitor application.

___ On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select the lsmm.ear file. Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the Infor Lawson System Mobile Monitor application to the Lawson Environment, for example, **lsfprod1-lsmm**.
- On the Map Modules to Servers screen, select the web module. In the Clusters and servers list, select the application server and the web server for the Infor Lawson System Mobile Monitor, and click Apply. Click Next.
- On the Map virtual host for web modules page, select the checkbox next to the web module. Select the virtual host defined for the Infor Lawson System Mobile Monitor.
- Save changes to the master configuration.

❑ Deploy the Lawson Security application for the Infor Lawson System Mobile Monitor in WebSphere

Use the New Application feature in the Integrated Solutions Console to deploy the Lawson Security application.

___**1** On the Applications > New Application > New enterprise application > Preparing for the application installation screen, browse to select lawsec.ear. It is located at %GENDIR%\assembly\products\lawsec\jar\secondary\.

Ensure that "Fast Path - Prompt only when additional information is required" is checked.

You can take WebSphere's default values with the following exceptions:

- On the Select Installation Options screen in the Application Name field, type a unique name that associates the web application to the Infor Lawson System Mobile Monitor, for example, **lsmm-lawsec**.
- On the Map Modules to Servers screen, select each web module. In the Clusters and servers list, select the Lawson application server and the web server for the Infor Lawson System Mobile Monitor, and click Apply.

  Note: If you are deploying in a vertically scaled configuration, select the cluster and the web server and click Apply.

  Click Next.

- On the Map virtual host for web modules page, select the checkbox next to the web module(s). In each virtual host drop-down box, select the virtual host defined for the Infor Lawson System Mobile Monitor.

___**2** Save changes to the master configuration.

___**3** Regenerate the web server plug-in.

___**4** Propagate the web server plug-in.

___**5** Restart the application server that runs the Infor Lawson System Mobile Monitor.

___**6** Restart the web server.

Configuration

This section describes the steps to configure the service, users, and Lawson Security for the Lawson System Mobile Monitor.

- "Creating the Service for the Infor Lawson System Mobile Monitor" on page 145
- "Setting Up Users and User Security for the Infor Lawson System Mobile Monitor" on page 146
- "Adding Form ID Definitions for the Infor Lawson System Mobile Monitor" on page 149
- "Configuring the Infor Lawson System Mobile Monitor" on page 150

Creating the Service for the Infor Lawson System Mobile Monitor

Use this procedure to install a Infor Lawson System Foundation service for the Infor Lawson System Mobile Monitor.

❑ To create the Infor Lawson System Mobile Monitor service

___**1** Create a copy of the lsmmservice.xml.template file and name it lsmm.xml. The template file is located at %GENDIR%\install.

___**2** Edit the lsmm.xml file to reflect the values for your system. You must change the following:

Template Field	Needed Change
HTTPURL	Change the host name and web server port number to reflect the values for the Infor Lawson System Mobile Monitor.

Template Field	Needed Change
HTTPSURL	Change the host name and web server port number to reflect the values for the Infor Lawson System Mobile Monitor.
PROTOASSERT	Change the value according to the preferred security setup protocol for the Infor Lawson System Mobile Monitor. You may use **<PROTOASSERT>Use HTTPS always</PROTOASSERT>** or **<PROTOASSERT>Use HTTP only</PROTOASSERT>**.
SERVICEURL	Change the host name and web server port number to reflect the values for the Infor Lawson System Mobile Monitor.

___**3** Import the service definition for the Infor Lawson System Mobile Monitor.

___**a** At the command line, type

```
ssoconfig -c
```

___**b** Supply the password for the **ssoconfig** utility when prompted.

___**4** Select Manage Lawson Services.

___**5** Select Load service and identity file.

___**6** Enter the path and file name of the modified service definition file, and press Enter.

___**7** Restart Lawson.

Setting Up Users and User Security for the Infor Lawson System Mobile Monitor

Use these procedures to set up user identities for users who will access the Infor Lawson System Mobile Monitor, and to load the security roles and security classes the users will need for the Infor Lawson System Mobile Monitor.

❑ Create user identities for the Infor Lawson System Mobile Monitor

You need to add identities for users for the Infor Lawson System Mobile Monitor service. When you later add the security roles and security classes from the delivered template files, those files will assign the roles to users with the resource IDs of **lawson** and **mobilesysadmin.**

___**1** If you use Kerberos with a domain controller, set up domain users for any users you want to set up as identities for the Infor Lawson System Mobile Monitor service.

___**2** Log in to the Lawson Security Administrator.

___**3** Click User Management.

___**4** For new users, click New User to access the new user wizard to create a new user record. When creating identities for the new users, create identities for the lsmm service and the SSOP service. The user name and passwords for these identities should match.

___**5** For existing users (such as the lawson user), click User Maintenance, perform a search for the user, right-click on the user, select Manage Identities, select the lsfmm service, enter the identity credentials, and then select Edit > Add.

❑ Create Resource Management roles for Infor Lawson System Mobile Monitor

Use this procedure to set up the **S3MobileITAdminRole** and **S3MobileSysAdminRole** for Infor Lawson System Mobile Monitor.

___**1** Login to Resource Management as Administrator.

___**2** Click **Add** > **Role**.

___**3** In the **ID** field, type **S3MobileITAdminRole**.

___**4** Add a description.

___**5** Click **Edit** > **Add**.

___**6** In the **ID** field, type **S3MobileSysAdminRole**.

___**7** Add a description.

___**8** Click **Edit** > **Add**.

___**9** Exit the application.

❑ Add security roles and classes for the Infor Lawson System Mobile Monitor

Creating the **S3MobileITAdmin** and the **S3MobileSysAdmin** security classes will allow the users to gain access in the Infor Lawson Mobile Monitor.

___**1** Access %GENDIR%\install and locate the Lsmmit.sc and Lsmmsysadmin.sc files.

___**2** Open each file in a text editor and edit values for the application security profile, the security class, and application product line.

Value	Description
`profileid="APP"`	Edit the three-character profile ID to match the application profile ID for your system.
`<Secprof>APP</Secprof>`	Edit the three-character profile ID to match the application profile ID for your system.
`<SecClassName>APPS901</SecClassName>`	Edit all instances of this to be the name you want for the security class that controls access to the Infor Lawson System Mobile Monitor.

Value	Description
PDL$_$APPS901	Edit all instances of this to reflect the name of your application product line.
<FQname>:APPS901:</FQname>	Edit all instances of this to reflect the name of your application product line.

___**3** From the command line, run the following command twice, once for each security role file:

lsload ROLE *filename*

where *filename* is the name of the security role file (Lsmmsysadmin.sc and Lsmmit.sc).

___**4** Login to the Lawson Security Administrator tool.

___**5** Click the **Profiles** from the **Profile Management** panel and select the **ENV** profile.

___**6** Click the **S3MobileITAdmin** security class and add the following access rules under the System Administration category:

- MRESTRTLAW
- MSTARTLAW
- MSTOPLAW

___**7** Click the **S3MobileSysAdmin** security class and add the following access rules under the System Administration category:

- MJQACTION
- MJQSTATUS
- MLASERVSTA
- MLSFSYSLOG
- MPATCHRPT
- MQSTATUS
- MRNGDBDUMP
- MSRVDIAG

___**8** Assign the **S3MobileITAdminRole** and **S3MobileSysAdminRole** roles to the appropriate security class.

___**9** Assign the appropriate role to users who will use the Infor Lawson System Mobile Monitor.

Adding Form ID Definitions for the Infor Lawson System Mobile Monitor

If the form ID definitions do not already exist on your system, use this procedure to define the form IDs (tokens) for the Infor Lawson System Mobile Monitor in the Form ID Definition utility (**`tokendef`**). These form IDs correspond to the functions available through the Infor Lawson System Mobile Monitor, and are needed so that Lawson Security can control access to these different functions.

❑ Add form ID definitions for the Infor Lawson System Mobile Monitor

___**1** In a Lawson Interface Desktop session, access the Form ID Definition utility (tokendef). At the command line, type

`tokendef`

___**2** Select Environment Form IDs.

___**3** Select the SYSADMIN (System Administration) category.

___**4** Move the cursor to within the list of existing form IDs and press **Insert (F8)**.

___**5** Verify the following form ID definitions:

Form ID	Title	Type
MJQACTION	Mobile Monitor Definition	Online
MJQSTATUS	Mobile - Job Queue Status	Online
MLASERVSTA	Mobile - Service Status	Online
MLSFSYSLOG	Mobile - View LSF System Logs	Online
MPATCHRPT	Mobile - Patch Report	Online
MQSTATUS	Mobile Monitor Queue Status	Online
MRESTRTLAW	Mobile - Restart LSF	Online
MRNGDBDUMP	Mobile Monitor Definition	Online
MSRVDIAG	Mobile - LSF Server Diagnostics	Online
MSTARTLAW	Mobile - Start LSF	Online
MSTOPLAW	Mobile - Stop LSF	Online

___**6** Exit the Form ID Definition utility.

Configuring the Infor Lawson System Mobile Monitor

The Infor Lawson System Mobile Monitor enables an administrator to perform various monitoring and administration activities via an iPhone or Android phone. The first time you attempt to access the Infor Lawson System Mobile Monitor on your mobile device, you will be prompted to accept the license agreement and then to create the first profile. You can later create additional profiles.

❑ To configure profiles on a mobile device

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Profiles.

___**3** Tap Create New Profile.

___**4** Supply values for the following fields:

Profile Name	A name for the profile.
Server Name	The server or host name where the Infor Lawson System Mobile Monitor is installed.
Port Number	The port to access the Infor Lawson System Mobile Monitor. This will be the web server port associated with the Infor Lawson System Mobile Monitor web application deployed in WebSphere.

___**5** Tap Save.

Verification

Use the procedures in this section to verify that the Lawson System Mobile Monitor is successfully installed and configured.

- "Verifying the Infor Lawson System Mobile Monitor" on page 150

Verifying the Infor Lawson System Mobile Monitor

The following procedures include the straightforward test of simply attempting to log in to the Infor Lawson System Mobile Monitor through your mobile device, as well as other tests to try if that basic test fails.

❑ Log in to the Infor Lawson System Mobile Monitor

___**1** Tap the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** When prompted, supply the login credentials.

___**3** If the login fails, investigate the cause based on the error message. For example, "Invalid Credentials" indicates an error in the user name or password. "Host Unreachable" indicates possible problems in the server or host name in the profile you set up on your mobile device.

❑ Access /sso/SSOServlet on the Infor Lawson System Mobile Monitor port

___**1** Open a browser and go to the following URL:

http(s)://*serverName***:***lsmmPort***/sso/SSOServlet**

___**2** When prompted, supply the login credentials.

If the credentials are accepted, then the Infor Lawson System Mobile Monitor is successfully routing authentication requests that come through its port to the SSOP authentication service for the Infor Lawson System Foundation Environment.

❑ Access the laservstatus service

___ Open a browser and go to the following URL:

http(s)://*serverName***:***lsmmPort***/LSFMobileAdmin/LaservStatus?srvc=summary**

Using the Infor Lawson System Mobile Monitor

This section describes the different functions available to an administrator in the Infor Lawson System Mobile Monitor and how to access them.

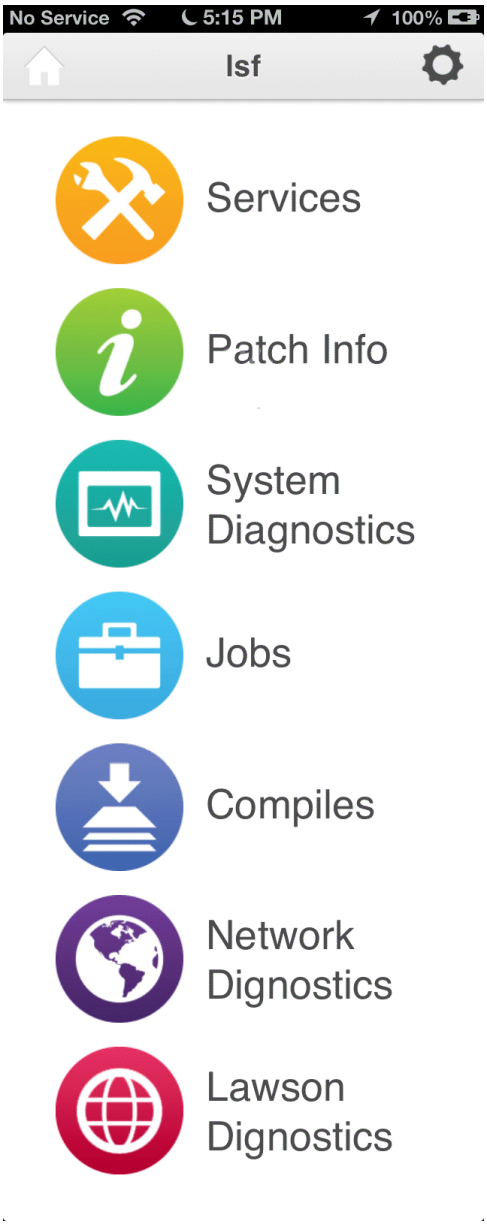
Infor Lawson System Mobile Monitor Overview

The Infor Lawson System Mobile Monitor provides the following features that administrators can use to monitor and administer an Environment via a mobile device.

- View Environment settings.
- Start and stop the Environment.
- View the status of the Environment services.
- View diagnostic information, such as CPU, memory, user sessions, and processes.
- View job status and restart Needs Recovery jobs.
- View compile status and error logs.
- View patch information.
- View network diagnostics information.
- View diagnostics information and run smoke tests for the Lawson environment.

To access these features, you tap one of the icons on the initial screen for the Lawson System Mobile Monitor, as shown in the following illustration (your screen may differ, depending on the version and type of your mobile device).

Figure 5. Screen capture: Initial screen for the Infor Lawson System Mobile Monitor



Stopping and Starting the Lawson Environment from a Mobile Device

Use this procedure to start and stop the Lawson Environment through the Infor Lawson System Mobile Monitor on a mobile device.

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Settings.

___**3** On the Settings screen, slide the Status control to the On or Off position, depending on whether you want to start or stop the Environment.

Viewing System Information

Use this procedure to view various types of information about the Environment, including the status of the services, system diagnostics information, and patch information.

❑ To view service status information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Services.

___**3** On the Service Status screen, review the status of WebSphere, the Environment, and the various services within the Environment.

___**4** To view the log files for the Lawson Application Server (latm), the Lawson Database Server (ladb), or the Lawson Security Server (lase), tap the arrow button at the right side of the row for each of these servers.

❑ To view system diagnostics information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap System Diagnostics.

___**3** On the System Diagnostics screen, tap the arrow button at the right side of the row for the type of information you want to view. You can view information on CPU, memory, the file system, OS user sessions, and processes.

❑ To view patch information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Patch Info.

___**3** On the Patch Information screen, review the displayed information for the base release and patches. You can also expand each section for more details by tapping the plus sign.

Viewing and Restarting Batch Jobs

Use these procedures to view the status of batch jobs and, optionally, restart Needs Recovery jobs.

❑ To view batch job status information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Jobs.

___**3** On the Jobs Status screen, review the number of jobs of each status. You can then view a list of the jobs of each status type by tapping the arrow button at the right side of a row.

___**4** If you view the list of jobs of a specific status type, tap the arrow button at the right side of a row to view the job log.

❑ To restart Needs Recovery jobs

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Jobs.

___**3** On the Jobs Status screen, tap the arrow button at the right side of the Needs Recovery row.

___**4** On the Needs Recovery screen, select the job that you want to recover by tapping the circle to the left of the job name, tap Recover at the top of the screen, and tap OK to start the recovery.

Viewing Compile Information

Use this procedure to view information about compile jobs.

❑ To view compile job information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Compiles

___**3** On the Compile Status screen, review overall status of the compile. You can see the name of the product line being compiled, the status (such as Completed) of the compile process, and the number of errors encountered.

___**4** To view a specific compile error log, tap the arrow button at the right of the Error Found row, and tap the arrow button at the right of the row for the error log you want to view.

Viewing Network Diagnostics Information

Use this procedure to gather information that could help you troubleshoot network issues, including ping, trace route, and name system information.

❑ To view network information

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Network Diagnostics.

___**3** To view ping data, on the Network Diagnostics screen, tap the arrow button at the right of the Ping row, enter the host and ICMP number, and tap Proceed.

___**4** To view trace route data, on the Network Diagnostics screen, tap the arrow button at the right of the TraceRoute row, enter the host and the maximum number for hops, and tap Proceed.

___**5** To view name system information, on the Network Diagnostics screen, tap the arrow button at the right of the NSLookUp row, enter the host, and tap Proceed.

Accessing Lawson Diagnostics

Use this procedure to view Lawson system information and to run smoke tests for Resource Management and PFI.

❑ To access Lawson diagnostics

___**1** Access the Infor Lawson System Mobile Monitor application on your mobile device.

___**2** Tap Lawson Diagnostics.

___**3** Tap the arrow button at the right of the row for the type of diagnostics you want to check.

Database Users	Provides information about the current database users.
RM Smoke Test	Runs the Resource Management smoke test.
PFI Smoke Test	Runs the PFI smoke test.
Print Env	Displays information about the Lawson environment. This is the same information as if you access the URL **`http://yourserver:webport/cgi-lawson/printenv.exe`**.