Data Update (DATUP) 3.1.01

Installation Guide - National



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Department of Veterans Affairs (VA)

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REVISION HISTORY

Date	Revised Pages	Patch Number	Description
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Date	Revised Pages	Patch Number	Description
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October 8, 2010	All		Renamed all instances of "PEDTUP" to "DATUP. SwRI
September 3, 2010	All		National PEDTUP Installation Guide: Initial version. SwRI

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1 Project Scope

1.1 Project Description

The goal of the VHA PRE project is to design and develop a re-engineered pharmacy system, incorporating changes that have been made to the Enterprise Architecture and changes in pharmacy business processes. The intent of the PRE program is to ensure that no current system functionality is lost, but that it is either replicated in the new system or replaced by improved process and functionality. While the overall plan is still based on designing and implementing a complete pharmacy system, the scope of the effort has been defined to address a focused subset of the PRE functionality confined to the Data Update (DATUP) process.

1.2 PRE Project Goals and Objectives

The objective of the PRE project is to facilitate the improvement of pharmacy operations, customer service, and patient safety for the VHA. The PRE project will help address the identified goals and vision for the VHA Pharmacy System.

The goal for the PRE project is a seamless and integrated nationally-supported system that is an integral part of the Health<u>e</u>Vet-Veterans Health Information Systems & Technology Architecture (VistA) environment. To meet this goal, the PRE project will enhance pharmacy data exchange, as well as clinical documentation capabilities, in a truly integrated fashion to improve operating efficiency and patient safety. Additionally, it will provide a flexible technical environment. Achieving this goal will enable resolution of current pharmacy issues, improve patient safety, and facilitate long-term process stability.

1.3 DATUP Background

DATUP supports the Medication Order Check Healthcare Application (MOCHA) by performing data source updates. MOCHA conducts order checks using First Databank (FDB) MedKnowledge Framework¹ within the existing VistA pharmacy application. FDB is a data product that provides the latest identification and safety information on medications. Additionally, FDB provides the latest algorithms used to perform order checks. DATUP processes the data updates associated with FDB MedKnowledge Framework. The order checks performed by MOCHA include:

- Drug-Drug Order Check Check interactions between two or more drugs, including interaction monographs.
- Duplicate Therapy Order Check Check for duplicated drug classifications between two or more drugs.
- Drug-Dose Order Check Check minimum and maximum single doses, verify the dosing schedule, and provide the normal dosing range.

¹ At the time of development, this product was known as FDB Drug Information Framework (commonly abbreviated as FDB-DIF). The references to FDB-DIF in this manual are necessary due to previously completed code and instructions that could not be changed to match the new product name.

1.4 Related Documents

A complete list of documents relating to the PRE project and the DATUP development effort can be found in the Glossary and Acronym List (Version 5.0, dated September 26, 2008).

2 Document Overview

The information contained in this National Data Update (DATUP) Installation Guide is specific to DATUP development, which supports the MOCHA component. This section defines the layout of this document and provides an outline of the document structure.

2.1 Document Background

This document details the steps required to install the DATUP software at a national site, the terminology used for the configuration and deployment of the software, and the assumptions for installing the software. Additionally, this document details how to install and configure the database environment. This document accompanies the delivery of the DATUP v3.1.01 software release. The DATUP Version Description Document (Version 1.7) is delivered as a companion document to this Installation Guide. Refer to the Version Description Document for more information on the software inventory and versions used in the DATUP V3.1.01 software release.

2.2 Overview

The following list provides a brief description of the sections included in this document:

- Section 1: Provides introductory material delineating the purpose of the PRE project and the scope of the MOCHA effort
- Section 2: Presents an overview of the layout of the document
- Section 3: Presents the installation instructions for the DATUP v3.1.01 software release
- Section 4: Details the steps required to perform an installation when an existing version is already deployed.
- Section 5: Presents verification steps to verify that the installation was successful

Text in a Courier New font indicates WebLogic Console panels or text, commands, and settings that must be typed, executed, or configured to complete the installation.

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3 Installation Instructions

The following instructions detail the steps required to perform a *fresh* installation of the DATUP software at a national site. For *upgrade* installation instructions see Section 4. Section 3.1 details the terminology used for the configuration and deployment of the DATUP software. Section 3.2 outlines the assumptions for installing the DATUP software. While the system may be configured to run outside the given assumptions, doing so requires modifications that are not detailed in this document. Section 3.3 describes how to install and configure the DATUP software properly. Finally, Section 3.3 describes how to install and configure the database environment.

In order to understand the installation and verification process, the reader should be familiar with the WebLogic console shown in Figure 3-1. The WebLogic console is a Web page viewable from any Internet browser; however, Internet Explorer, Version 7, is recommended. The WebLogic console is generally divided into two sections. The left section contains the Change Center, Domain Structure, and other informational panels. The right section displays panels containing additional options or configuration details. Note: With the exception of the Change Center and Domain Structure references, further references to WebLogic console panels refer to panels in the right section of the WebLogic console.



Figure 3-1. WebLogic Console

3.1 Terminology

In an effort to make these installation instructions as general as possible for installation at any site, a few terms are used throughout the instructions with the intent that they be replaced with site-specific values.

Table 3-1 contains a list of those terms used only within this document as well as sample site-specific values for each term. Additionally, references to the DATUP-N server may be replaced with the site-specific name of the destination server at the installation site.

Term	Definition	Sample
Database Server	Machine on which Oracle is installed and runs	DATUP-N-DB
Deployment Machine	Site-specific machine on which WebLogic is installed and runs	DATUP-N
Deployment Server	WebLogic managed server where DATUP is deployed	National_DATUP
Deployment Server Port	Port on which the Deployment Server is listening	8010
Deployment Server's class path directory	Folder location on the Deployment Server where libraries on the class path are located (see WebLogic documentation for instructions on setting a WebLogic managed server's class path)	/u01/app/Oracle_Home/wlserver/server/li b
Java Database Connectivity (JDBC) Universal Resource Locator (URL)	URL to connect to Oracle database	jdbc:Oracle://DATUP-N-db:1972/FDB_DIF

Table 3-1. Terminology

3.2 Assumptions

The installation instructions found within this guide are intended to be performed on a clean installation of WebLogic 12.1.1, with a separate managed server to act as the Deployment Server. For details on completing the installation of the following items, please refer to each item's installation and configuration documentation supplied by Oracle.

For successful deployment of the DATUP software at a national site, the following assumptions must be met:

• The Deployment Server is configured and running.

- WebLogic is configured to run with the Java[™] Standard Edition Development Kit, Version 1.7+.
- Access to the WebLogic console is by means of any valid administrative user name and password.
- The proper Oracle database driver libraries for the chosen deployment environment are present on the class path for the respective Deployment Servers.
- Red Hat Enterprise Linux 6.x operating system is properly installed.
- Domain Name Server (DNS) resolution is configured for the DATUP server.
- The installation instructions are followed in the order that the sections are presented within this Installation Guide.
- FDB-DIF v3.3 database is installed on the Database Server. Installation instructions are provided in FDB-DIF Installation/Migration guide. Contact the PRE Configuration Manager who should be identified on the project's Technical Services Project Repository (TSPR) site for a copy of the guide and installations/migration scripts.

3.3 Database Installation and Configuration

The following sections describe the operating system and software for the DATUP database tier installation and configuration. Initially, install and configure the operating system software according to the manufacturer's specifications. Then configure the Oracle databases as specified in the following sections for DATUP to function properly.

3.3.1 Oracle Database

The DATUP database is designed to be operating system independent. The only constraint is that Oracle 11g Enterprise Edition – Production must be properly installed and configured. The following sections describe the installation, features, user creation, and configuration for the Oracle database.

For successful deployment of the DATUP v3.1.01 application on the National DATUP instance, the FDB-DIF v3.3 database must be installed. Installation instructions are provided in FDB-DIF Installation/Migration guide. Contact the PRE Configuration Manager who should be identified on the project's Technical Services Project Repository (TSPR) site for a copy of the guide and installations/migration scripts.

3.3.2 Oracle Installation

A proper installation of the Oracle Relational Database Management System (RDBMS) is one in which the Oracle Universal Installer was used to perform an error-free installation and a general purpose instance was created. A properly configured Oracle RDBMS is one in which the associated Oracle application development and configuration tools, namely SQL*Plus and Oracle Enterprise Manager, can be used to connect to the instance through Transparent Network Substrate alias.

Oracle Database Parameters

The following Oracle database parameters are recommended for the DATUP application:

- NLS language = American
- NLS territory = America

• Character set = WE8ISO8859P1

3.3.3 Oracle Schema Creation for DATUP

Following are the steps needed to setup the DATUP schema on a national instance. Additionally, an example session is provided is provided in **Oracle Installation.txt** detailing the commands issued, sequence performed, and expected results at each step. This file and the SQL scripts needed to create the DATUP schema are provided in the database/oracle_scripts.zip file. The following table provides a summary of each step that will be detailed below:

Step	Brief Description	Script File	User to Run Script File
1	Create tablespace and schema owner	1_CreateDatupSchema.sql	SYSTEM
2	Create schema objects	2_CreateDatupTables.sql	DATUP
3	Create application user	3_CreateDatupAppUser.sql	SYSTEM

Table 3-2: Summary	y of Steps for	Creating Orac	le Schema
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Step 1 – Create Tablespace and Schema Owner

Prior to creation of the schema, logical and physical environment structures must be setup for storage of the schema database objects: tablespaces and data files. For the DATUP schema one tablespace must be created, DATUP. The default scripted DATUP tablespace path is /home/oracle/datup.dbf, which may be changed in the 1_CreateDatupSchema.sql script to match the installation environment prior to execution. This script also creates the schema owner DATUP as described below:

• DATUP - Owner of the DATUP schema. The default scripted password is "DATUP", which may be changed in the 1_CreateDatupSchema.sql script prior to installation. The script should be loaded as SYSTEM, or a user with account creation privileges.

Step by Step Commands

- 1. Open a text editor and open the 1_CreateDatupSchema.sql script. Replace /home/oracle with the data file directory. The directory entered should already exist on the database server.
- 2. Login to the SQL client using a database account that has SYSDBA privileges (SYSTEM).
- 3. Execute the "1_CreateDatupSchema.sql" script.
- 4. Check for errors.

Step 2 – Create Schema Objects

Once the storage structures and schema have been created, execute the script 2_CreateDatupTables.sql to create the DATUP tables, sequences, triggers, and indices. The script should be executed as DATUP, the schema owner.

Step by Step Commands

- 1. Login to the SQL client using the DATUP user account.
- 2. Execute the "2_CreateDatupTables.sql" script.
- 3. Check for errors.

Step 3 – Create Application User

Once the schema objects have been established, create the required DATUP application user by executing the script 3_CreateDatupAppUser.sql.

• DATUP_APP_USER - Application user with read/update/delete access granted to the tables in the DATUP schema. The default scripted password is "DATUP_APP_USER", which may be changed in the 3_CreateDatupAppUser.sql script prior to installation. The script should be loaded as SYSTEM, or a user with account creation privileges. The chosen DATUP_APP_USER password must match the password used to configure the JDBC data sources in Section 3.4.4.

Step by Step Commands

- 1. Login to the SQL client using a database account that has SYSDBA privileges (SYSTEM).
- 2. Execute the "3_CreateDatupAppUser.sql" script.
- 3. Check for errors.

3.3.4 Oracle Configuration and Data Load

The DATUP Oracle Database is the primary data repository for the DATUP application on the National DATUP instance. The database should be installed and configured appropriately for the DATUP operating environment.

The initial data load about the regionally-managed MOCHA Servers must be loaded for the national DATUP instance to function. The data can be loaded with the SQL Loader scripts provided in the database/oracle_scripts.zip file. The Sites.ctl file describes the data and the Sites.csv file contains the comma-delimited Site records. The data should be loaded as DATUP APP USER. Execute the following steps to load the DATUP schema:

Step by Step Commands

- 1. Ensure the Sites.ctl file is in the current directory.
- 2. Type the following command from the Linux command prompt to invoke SQL Loader: \$sqlldr datup_app_user/datup_app_user@ORACLE control=Sites.ctl
- 3. Check for errors.

The DATUP database will need to be updated if a new MOCHA Server has been brought online since the original DATUP delivery date of March 17, 2010 and is not included in the Sites.csv spreadsheet. To update the Site table, login to the database as user DATUP APP USER. A new row must be added to

the Site table for each MOCHA Server added since the system was first brought online. The site table contains three columns, a unique SITE_ID, a descriptive SITE_NAME, and the Veterans Integrated Service Network (VISN) VISN number. To update this table, execute a statement such as INSERT INTO SITE VALUES (999, 'Example Medical Center', 23) for each MOCHA Server brought online.

3.4 WebLogic Installation Instructions

The following sections detail the steps required to configure and deploy DATUP onto WebLogic at a national site.

3.4.1 Class Path

The national DATUP Enterprise Application Archive (EAR) file contains all the required libraries for the proper functioning of the application. If any other applications have been deployed to the Deployment Server, there may be conflicting third-party libraries in the Deployment Server's class path that will cause DATUP to operate differently than expected. If versions on the Deployment Server's class path differ from those defined in the DATUP Version Description Document (Version 3.1.01, dated February, 2017), the preferred solution is to remove the library from the Deployment Server's class path. If that is not possible, replace the libraries with the DATUP versions.

3.4.2 WebLogic Server Startup Configuration

DATUP requires additional arguments added to the WebLogic Server's Server Start properties. This section details the steps to add the arguments to the server

- 1. Open and log into the WebLogic console, using an administrative user name and password. The WebLogic console is located at: http://<Deployment Machine>:7001/console.
- 2. Within the Domain Structure panel found in the left column of the WebLogic console, click on the Services > JDBC > Data Sources node. For reference, see Figure 3-2.



Figure 3-2. Domain Structure

3. Within the Change Center panel found in the left column of the WebLogic console, click Lock & Edit. For reference, see Figure 3-3.

Change	center
View c	hanges and restarts
Click the	Lock & Edit button to modify, add or
delete it	tems in this domain.
delete it	tems in this domain. Lock & Edit

Figure 3-3. Change Center

4. Click on the server name corresponding to the deployment server in the Summary of Servers panel found in the right column of the WebLogic console. For reference, see Figure 3-4.

Infiguration Control server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. nis page summarizes each server that has been configured in the current WebLogic Server domain. Customize this table revers (Filtered - More Columns Exist) lick the Lock & Editbutton in the Change Center to activate all the buttons on this page. Name Cluster Machine State Health Listen Port AdminServer(admin) Imachine RUINNING OK 8007 National_DATUP Machine RUINNING OK 8007	194	Y					
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Customize this table ervers (Filtered - More Columns Exist) lick the Lock & Editbutton in the Change Center to activate all the buttons on this page. New Clone Delete Showing 1 to 3 of 3 Previous Name Cluster Machine State Health Listen Port AdminServer(admin) RUNNING * OK 7003 National_DATUP Machine_1 RUNNING * OK 8007							
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	iustomize ti ervers (Filte ick the <i>Lock</i> New Clone Name AdminS	his table ered - More Columns E & Editbutton in the Char Delete erver(admin) al_DATUP	xist) nge Center to activate all th Cluster	e buttons on this page. Machine Machine_1	State RUNNING RUNNING	Health I OK	Showing 1 to 3 of 3 Previous Listen Port 7003 8007
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Figure 3-4. Summary of Servers

5. WebLogic will now display the panel Settings for Deployment Server in the right column of the console, where configuration of the Deployment Server are set. For reference, see Figure 3-5.

Settings for Nation	onal_DATU	P									
Configuration	Protocols	Logging	Debug	Monitoring	Control	Deployments	Services	Security	Notes		
General Clus	ter Servic	es Keyst	tores SS	E Federati	on Services	Deployment	Migration	Tuning	Overload	Health Monitoring	Server Start
Web Services											
Click the Lock 8	Edit button	in the Char	nge Center	to modify the	e settings or	this page.					
Save											
Use this page to	configure g	eneral feat.	ures of this	server such a	as default ne	etwork communic	ations.				
View JNDI Tree	ß										
Name:			Nationa	LDATUP				An alpha	numeric nam	e for this server insta	nce. More Info
Machine:			Machine	<u>-</u> 1				The Web meant to	Logic Server run, More	host computer (mach Info	ine) on which this server is
Cluster:			(Standa	llone)				The dust server b	er, or group elongs. Mor	of WebLogic Server in e Info	nstances, to which this
街 Listen Addr	ess:							The IP a connection	ddress or DN ons. More I	S name this server us nfo	es to listen for incoming
Listen Port	Enabled							Specifies plain-tex	whether this t (non-SSL) li	s server can be reach sten port. More Info	ed through the default
Listen Port:			8007					The defa	ult TCP port	that this server uses	to listen for regular (non-

Figure 3-5. Settings for Deployment Server

6. Click on the Server Start tab.

7. WebLogic will now display the panel Server Start tab in the Settings for Deployment Server in the right column of the console, where configuration of the Deployment Server is set. For reference, see Figure 3-6.

Click the Lock & Edit button in the Change Center to modify the settings on this page.	
Save	
Node Manager is a WebLogic Server utility that you can use to start, suspend, shut down, and restart servers Manager will use to start this server on a remote machine.	in normal or unexpected conditions. Use this page to configure the startup settings that Node
Java Home:	The Java home directory (path on the machine running Node Manager) to use when starting this server. More Info
Java Vendor:	The Java Vendor value to use when starting this server. More Info
BEA Home:	The BEA home directory (path on the machine running Node Manager) to use when starting this server. More Info
Root Directory:	The directory that this server uses as its root directory. This directory must be on the computer that hosts Node Manager. If you do not specify a Root Directory value, the domain directory is used by default. More Info
Class Path:	The classpath (path on the machine running Node Manager) to use when starting
/u01/app/OracleHome/user_projects/domains/pps_dev2/datupconf	this server. More Info
Arguments:	The arguments to use when starting this server. More Info
-server -Xms4g -Xmx4g -XX:FermSize=256m -XX:MaxPermSize=512m	
Security Policy File:	The security policy file (directory and filename on the machine running Node Manager) to use when starting this server. More Info

Figure 3-6. Server Start Tab

 Insert the following text in the Arguments box: -server -Xms4g -Xmx4g -XX:PermSize=256m -XX:MaxPermSize=512m -Dweblogic.nodemanager.ServiceEnabled=true – Also add arguments (for reference, see the examples below, modify path per your server configuration) :-

Dpeps.datup.configuration=:/u01/app/OracleHome/user_projects/domains/pp
s_dev2/datupconfig/fdb_datup_configuration.properties

- 9. Click the Save Button
- 10. Within the Change Center panel in the left column of the WebLogic console, click Activate Changes. For reference, see Figure 3-7.

chang	center
View o	hanges and restarts
Pending	changes exist. They must be activated
to take	effect.
to take	effect.

Figure 3-7. Activate Changes

3.4.3 National FDB-DIF Data Source Configuration

DATUP uses two database connections by means of a data source to FDB-DIF in order to perform FDB updates. Complete the following steps to create a new connection pool and data source for FDB-DIF.

- 1. Open and log into the WebLogic console, using an administrative user name and password. The WebLogic console is located at: http://<Deployment Machine>:7001/console.
- 2. Within the Domain Structure panel found in the left column of the WebLogic console, click on the Services > JDBC > Data Sources node. For reference, see Figure 3-8.



Figure 3-8. Domain Structure

3. Within the Change Center panel found in the left column of the WebLogic console, click Lock & Edit. For reference, see Figure 3-9.

Change	e Center
View c	hanges and restarts
Click the	e Lock & Edit button to modify, add or
delete i	tems in this domain.
delete i	tems in this domain. Lock & Edit

Figure 3-9. Change Center

4. Click New - Generic Data Source found in the Summary of JDBC Data Sources panel found in the right column of the WebLogic console. For reference, see Figure 3-10.

onfiguration	Monitoring			
A JDBC data so onnections. Ap ource. This page summ Customize th	urce is an object bo plications can look arizes the JDBC da i s table	ound to the JNDI up a data source ta source object	I tree that provides database connectivity through a e on the JNDI tree and then borrow a database conr	pool of JDBC nection from a data
ata Sources	(Filtered - More	Columns Exist	;) Showing 1 t	n 4 of 4. Previous Nev
New .			Showing 10	o for threads they
Generic Data S GridLink Data S	iource	Туре	JNDI Name	Targets
Generic Data S GridLink Data S Multi Data Sou	iource Source rce :e	Type Generic	JNDI Name jdbc/CTFdbDataSource	Targets pec_ms01
Generic Data S GridLink Data Sou	Source rce e IgDataSource	Type Generic Generic	jdbc/CTFdbDataSource jdbc/CTStagingDataSource	Targets pec_ms01 pec_ms01
Generic Data S GridLink Data S Multi Data Sou CTStagir PECSJMS	Source rce e IgDataSource	Type Generic Generic Generic	jdbc/CTFdbDataSource jdbc/CTStagingDataSource jdbc/PecsJmsDataSource	Targets pec_ms01 pec_ms01 pec_ms01
Generic Data S GridLink Data Sou CTStagir PECSJMS vha-stdo	Source rce e gDataSource Data Source	Type Generic Generic Generic Generic Generic	JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource jdbc/PecsJmsDataSource jdbc/gov.va.med.term.access.Database	Targets pec_ms01 pec_ms01 pec_ms01 pec_ms01

Figure 3-10. Summary of JDBC Data Sources

5. WebLogic will now display the panel Create a New JDBC Data Source in the right column of the console, where details of the new data source are set. For reference, see Figure 3-11.

Create a New JDBC D	ata Source		
Back Next Fini	Cancel		
JDBC Data Source	Properties		
The following proper * Indicates required fie	ties will be used to identify your ne elds	ew JDBC data source.	
What would you like to	o name your new JDBC data source	e?	
街 * Name:	FDB-DIF		
What JNDI name wou	ld you like to assign to your new JE	DBC Data Source?	
datasource/FI	DB-DIF	^	
		~	
What database type v	vould you like to select?		
Database Type:	Oracle	~	
Back Next Fini	Sh Cancel		

Figure 3-11. JDBC Data Source Properties

- 6. For the Name, type FDB-DIF.
- 7. For the JNDI Name, type datasource/FDB-DIF.
- 8. For the Database Type, select Oracle.
- 9. Click Next.
- 10. For the Database Driver, verify that Oracle's Driver (Thin) for Instance Connections; Versions:9.0.1 and later is selected.
- 11. Click Next.

12. WebLogic will now display the panel Transaction Options in the right column of the console, where the transaction attributes for this data source are set. For reference, see Figure 3-12.

reate a New	JDBC Data Source
Back Next	Finish Cancel
Transactio	n Options
You have se	lected non-XA JDBC driver to create database connection in your new data source.
Does this data	a source support global transactions? If yes, please choose the transaction protocol for this data source.
Suppor	ts Global Transactions
Select this op the <i>Logging L</i>	tion if you want to enable non-XA JDBC connections from the data source to participate in global transactions using ast Resource (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit.
O Logging	J Last Resource
Select this op transactions u	tion if you want to enable non-XA JDBC connections from the data source to emulate participation in global using JTA. Select this option only if your application can tolerate heuristic conditions.
• Emulat	e Two-Phase Commit
Select this op the one-phase	tion if you want to enable non-XA JDBC connections from the data source to participate in global transactions using e commit transaction processing. With this option, no other resources can participate in the global transaction.
One-Ph	ase Commit
Back Next	Finish Cancel

Figure 3-12. Transaction Options

- 13. Select the Emulate Two-Phase Commit radio button.
- 14. Click Next.

15. WebLogic will now display the panel Connection Properties in the right column of the console, where the connection pool attributes are set. For reference, see Figure 3-13.

Create a New JDBC Data Source		
Back Next Finish Cancel		
Connection Properties		
Define Connection Properties.		
What is the name of the database yo	ou would like to connect to?	
Database Name:	PECS	
What is the name or IP address of th	e database server?	
Host Name:	vaauspecapp80.aac.va.gov	
What is the port on the database ser	rver used to connect to the database?	
Port:	1521	
What database account user name d	lo you want to use to create database connections?	
Database User Name:	fdb_dif	
What is the database account passw	ord to use to create database connections?	
Password:	•••••	
Confirm Password:	•••••	
Back Next Finish Cancel		

Figure 3-13. Connection Properties

- 16. For Database Name, type the name of the Oracle database to which DATUP will connect. For example, PECS.
- 17. For Host Name, type the name of the machine on which Oracle is running. For example, vaauspecapp80.aac.va.gov.
- 18. For Port, type the port on which Oracle is listening. For example, 1521.
- 19. For Database User Name, type the user to connect to the FDB database. For example, FDB-DIF. The user entered should be the same as configured in Section 3.3.4
- 20. For Password and Confirm Password, type the password for the user given previously.
- 21. Click Next.

WebLogic will now display the panel Test Database Connection in the right column of the console, where the new data source can be tested. For reference, see Figure 3-14.

Password:	••••••	
Confirm Password:	••••••	
What are the properties to pass to	the JDBC driver when creating database connections?	
Properties:		
user=fdb_dif	~	
The set of driver properties whose System Properties:	values are derived at runtime from the named system property.	
	^	
	\sim	
What table name or SQL statement	would you like to use to test database connections?	
fdb_version		
Test Configuration Back Ne	kt Finish Cancel	

Figure 3-14. Test Database Connection

- 22. Leave all values as set by default, with the exception of Test Table Name. For this attribute, type fdb_version.
- 23. Click Next.
- 24. WebLogic will now display the panel Select Targets in the right column of the console, where the target server is selected for the new data source. For reference, see Figure 3-15.

Create a New JDBC Data Source
Back Next Finish Cancel
Select Targets
You can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time.
Servers
AdminServer
✓ National_DATUP
pec_ms01
Back Next Finish Cancel

Figure 3-15. Select Targets

- 25. Select the Deployment Server as the target. For example, National DATUP.
- 26. Click Finish.
- $27. \ Click \ \mbox{Activate}$ Changes.
- 28. WebLogic will now display the panel Summary of JDBC Data Sources in the right column of the console, where the newly created data source is displayed. For reference, see Figure 3-16.

6 II				
nfiguration	Monitoring			
JDBC data so onnections. A ource. his page sumr	ource is an object b pplications can look marizes the JDBC d iis table	oound to the JN < up a data sou ata source obje	IDI tree that provides database connectivity throu irce on the JNDI tree and then borrow a database ects that have been created in this domain.	ugh a pool of JDBC connection from a data
ustomize ti ata Sources	(Filtered - More	Columns Exi	ist)	
ustomize ti ata Sources New Y De	(Filtered - More	e Columns Exi	ist) Showin	g 1 to 5 of 5 Previous
ustomize ti ata Sources New Y De Name	(Filtered - More ete	Columns Ex	ist) Showin JNDI Name	g 1 to 5 of 5 Previous Targets
ustomize ti ata Sources New ✓ De Name CTFdbD	(Filtered - More ete ataSource	Columns Exi Type Generic	ist) Showin JNDI Name jdbc/CTFdbDataSource	g 1 to 5 of 5 Previous Targets pec_ms01
ata Sources New ✓ De Name CTFdbc CTStag	(Filtered - More ete ataSource	e Columns Exi Type Generic Generic	INDI Name JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource	g 1 to 5 of 5 Previous Targets pec_ms01 pec_ms01
Instomize ti ata Sources New ✓ De Name CTFdbD CTFdbD CTStag FDB-DI	(Filtered - More ete ataSource	e Columns Exi Type Generic Generic Generic	INDI Name JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource datasource/FDB-DIF	g 1 to 5 of 5 Previous Targets pec_ms01 pec_ms01 National_DATUP

Figure 3-16. Summary of JDBC Data Sources

3.4.4 National JDBC DATUP Data Source Configuration

DATUP uses two database connections by means of a data source to perform the automated DATUP update process. Complete the following steps to create a new connection pool and data source for MedKnowledge Framework.

- 1. Open and log into the WebLogic console, using an administrative user name and password. The WebLogic console is located at: http://<Deployment Machine>:7001/console.
- 2. Within the Domain Structure panel found in the left column of the WebLogic console, click on the Services > JDBC > Data Sources node. For reference, see Figure 3-17.



Figure 3-17. Domain Structure

3. Within the Change Center panel found in the left column of the WebLogic console, click Lock & Edit. For reference, see Figure 3-18.

chunge	center
View cl	nanges and restarts
Click the	Lock & Edit button to modify, add or
delete it	ems in this domain.
delete it	ems in this domain. Lock & Edit

Figure 3-18. Change Center

4. Click New - Generic Datasource found in the Summary of JDBC Data Sources panel found in the right column of the WebLogic console. For reference, see Figure 3-19.

	Advertise of			
nnguration	Monitoring			
, JDBC data so onnections. A ource. his page sumr	ource is an object b pplications can look narizes the JDBC d	oound to the JN k up a data sou ata source obje	IDI tree that provides database connectivity throu irce on the JNDI tree and then borrow a database ects that have been created in this domain.	ugh a pool of JDBC connection from a data
ustomize tl ata Sources	(Filtered - More	e Columns Exi	ist)	
ustomize ti ata Sources New ∽ De	(Filtered - More	e Columns Exi	ist) Showin	g 1 to 5 of 5 Previous
ustomize tl ata Sources New 🖌 De	(Filtered - More	Columns Ext	ist) Showin JNDI Name	g 1 to 5 of 5 Previous Targets
ustomize ti ata Sources New ✓ De Name CTFdbE	(Filtered - More ete ataSource	Columns Exi Type Generic	ist) Showin JNDI Name jdbc/CTFdbDataSource	g 1 to 5 of 5 Previous Targets pec_ms01
Ata Sources New ✓ De Name CTFdbc CTStag	(Filtered - More ete ataSource	e Columns Exi Type Generic Generic	ist) Showin JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource	g 1 to 5 of 5 Previous Targets pec_ms01 pec_ms01
Iustomize ti ata Sources New ✓ De Name CTFdbC CTStag FDB-DI	(Filtered - More ete ataSource	e Columns Exi Type Generic Generic Generic	INDI Name JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource datasource/FDB-DIF	g 1 to 5 of 5 Previous Targets pec_ms01 pec_ms01 National_DATUP

Figure 3-19. Summary of JDBC Data Sources

5. WebLogic will now display the panel Create a New JDBC Data Source in the right column of the console, where details of the new data source are set. For reference, see Figure 3-20.

Create a New JDBC	Data Source		
Back Next Fin	ish Cancel		
JDBC Data Source	e Properties		
The following proper * Indicates required fi	rties will be used to identify you elds	r new JDBC data source.	
What would you like t	to name your new JDBC data so	urce?	
街 * Name:	DATUP		
3 JNDI Name: datasource/Di datasource/Di	ATUP	~	
		~	
What database type Database Type:	would you like to select?		
Back Next Fin	ish Cancel		

Figure 3-20. JDBC Data Source Properties

- 6. For the Name, type DATUP.
- 7. For the JNDI Name, type datasource/DATUP.
- 8. For the Database Type, select Oracle.
- 9. Click Next.
- 10. For the Database Driver, verify that Oracle's Driver (Thin) for Instance connections; Versions: 9.0.1 and later is selected.
- 11. Click Next.
- 12. WebLogic will now display the panel Transaction Options in the right column of the console, where the transaction attributes for this data source are set. For reference, see Figure 3-21.

Create a New JD	BC Data Source
Back Next	Finish Cancel
Transaction C	Options
You have select	ted non-XA JDBC driver to create database connection in your new data source.
Does this data so	ource support global transactions? If yes, please choose the transaction protocol for this data source.
Supports	Global Transactions
Select this option the <i>Logging Last</i>	if you want to enable non-XA JDBC connections from the data source to participate in global transactions using <i>Resource</i> (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit.
O Logging La	ast Resource
Select this option transactions usin	i if you want to enable non-XA JDBC connections from the data source to emulate participation in global g JTA. Select this option only if your application can tolerate heuristic conditions.
Emulate T	wo-Phase Commit
Select this option the one-phase co	if you want to enable non-XA JDBC connections from the data source to participate in global transactions using ommit transaction processing. With this option, no other resources can participate in the global transaction.
One-Phase	e Commit
Back Next	Finish Cancel

Figure 3-21. Transaction Options

- 13. Select the Emulate Two-Phase Commit radio button
- 14. Click Next.

15. WebLogic will now display the panel Connection Properties in the right column of the console, where the connection pool attributes are set. For reference, see Figure 3-22.

Create a New JDBC Data Source		
Back Next Finish Cancel		
Connection Properties		
Define Connection Properties.		
What is the name of the database you	would like to connect to?	
Database Name:	PECS	
What is the name or IP address of the	database server?	
Host Name:	vaauspecapp80.aac.va.gov	
What is the port on the database serv	r used to connect to the database?	
Port:	1521	
What database account user name do	you want to use to create database connections	;?
Database User Name:	datup	
What is the database account passwor	d to use to create database connections?	
Password:	•••••	
Confirm Password:	•••••	
Back Next Finish Cancel		

Figure 3-22. Connection Properties

- 16. For Database Name, type the name of the Oracle database to which DATUP will connect. For example, PECS.
- 17. For Host Name, type the name of the machine on which Oracle is running. For example, vaauspecapp80.aac.va.gov.
- 18. For Port, type the port on which Oracle is listening. For example, 1521.
- 19. For Database User Name, type the user to connect to the FDB database. For example, DATUP. The user entered should be the same as configured in Section 3.3.3
- 20. For Password and Confirm Password, type the password for the user given previously.
- 21. Click Next.
WebLogic will now display the panel Test Database Connection in the right column of the console, where the new data source can be tested. For reference, see Figure 3-23.

reate a New JDBC [ata So	urce		
Test Configuration	Back	Next	Finish	Cancel
Test Database Co	nnectio	on		•
Test the database a	vailability	y and the	connectio	on properties you provided.
What is the full packa	ge name	of JDBC	driver clas	iss used to create database connections in the connection pool?
(Note that this driver	class mu	ist be in t	he dasspa	ath of any server to which it is deployed.)
Driver Class Name	:		0	pracle.jdbc.OracleDriver
What is the URL of the	e <mark>data</mark> ba	ase to cor	nnect to? 1	The format of the URL varies by JDBC driver.
URL:			jo	dbc:oracle:thin:@vaauspe
What database accou	nt user i	nam <mark>e d</mark> o	you want	to use to create database connections?
Database User Nar	ne:		d	latup
What is the database	account	passwor	d to use t	to create database connections?
(Note: for secure pas	sword m	anageme	nt, enter	the password in the Password field instead of the Properties field below)
Password:			•	
Confirm Password:			•	••••••
What are the properti	es to pa	ss to the	JDBC driv	ver when creating database connections?
Properties:				
user=datup				~
				~
The set of driver prop	erties w	hose valu	ues are de	erived at runtime from the named system property.
System Properties				
What table name or S	OL state	ment wo	uld vou lik	ke to use to test database connections?
	-			
SQL SELECT 1	FROM	DUAL		
				<u>^</u>
				~
Test Configuration	Reak	Meret	Finish	Canaal
rest configuration	Dack	Next	Timsti	Carton

Figure 3-23. Test Database Connection

- 22. Leave all values as set by default.
- 23. Click Next.
- 24. WebLogic will now display the panel Select Targets in the right column of the console, where the target server is selected for the new data source. For reference, see Figure 3-24.

Create a New JDB	BC Data Source	
Back Next	Finish Cancel	
Select Targets You can select or created but not o	ts one or more targets to deploy your new JDBC data source. If you don't sel c deployed. You will need to deploy the data source at a later time.	ect a target, the data source will be
Servers		
AdminServ	ver	
✓ National_D	DATUP	
□ pec_ms01	t I	
Back Next	Finish Cancel	

Figure 3-24. Select Targets

- 25. Select the Deployment Server as the target. For example, National DATUP.
- 26. Click Finish.
- 27. WebLogic will now display the panel Summary of JDBC Data Sources in the right column of the console, where the newly created data source is displayed. For reference, see Figure 3-25.

initially of Store	SC Data Sources			
onfiguration	Monitoring			
A JDBC data so INDI tree and t This page summ	urce is an object bound t hen borrow a database c varizes the JDBC data sou	to the JNDI tree that pr connection from a data urce objects that have l	ovides database connectivity through a pool of JDBC connection source. been created in this domain.	ns. Applications can look up a data source on th
Customize th	is table (Filtered - More Colur	nns Exist)		
New Y Dele	ete			Showing 1 to 6 of 6 Previous Ne
Name 4	*	Туре	JNDI Name	Targets
Name CTFdbDa	≈ ataSource	Type Generic	JNDI Name jdbc/CTFdbDataSource	Targets pec_ms01
Name CTFdbDa CTStagir	ataSource	Type Generic Generic	JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource	Targets pec_ms01 pec_ms01
Name CTFdbDa CTFdbDa CTStagir DATUP	ataSource	Type Generic Generic Generic Generic	JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource datasource/DATUP	Targets pec_ms01 pec_ms01 National_DATUP
Name CTFdbDa CTFdbDa DATUP FDB-DIF	ataSource	Type Generic Generic Generic Generic Generic	JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource datasource/DATUP datasource/FDB-DIF	Targets pec_ms01 pec_ms01 National_DATUP National_DATUP
Name « CTFdbDa CTFdbDa DATUP FDB-DIF PECSJMS	ataSource	Type Generic Generic Generic Generic Generic	JNDI Name jdbc/CTFdbDataSource jdbc/CTStagingDataSource datasource/DATUP datasource/FDB-DIF jdbc/PecsJmsDataSource	Targets pec_ms01 pec_ms01 National_DATUP National_DATUP pec_ms01

Figure 3-25. Summary of JDBC Data Sources

28. Within the Change Center panel in the left column of the WebLogic console, click Activate Changes. For reference, see Figure 3-26.



Figure 3-26. Activate Changes

3.4.5 Log4j2

DATUP uses Log4j2 to provide debug and error logs. Although the application will function without Log4j2 installed, using it can be helpful to troubleshoot potential issues. Because DATUP can operate without Log4j2 configured, all instructions within this section are only required if debugging deployed code.

To install Log4j2, the log4j2.xml must be edited to include the DATUP appenders and loggers.

- 1. Create the log folder defined in the Deployment Server arguments. For example, /u01/app/Oracle_Home/user_projects/domains/ppsn/DATUPLogs. Without this folder, Log4j2 will not be able to create the log files specified in the DATUP configuration.
- 2. Create the log4j2.xml file that is located in the path specified in the Deployment Server arguments.
- 3. Configure the log4j2.xml using Appendix C as a reference.
- 4. Refer log4j2.xml at /u01/app/OracleHome/user_projects/domains/pps_dev2/datupconfig
- 5. Restart the Deployment Server to load the Log4j2 configuration.

DATUP Configuration Properties

In order to use the DATUP component, a configuration file must be configured for each WebLogic deployment. The location of this file was configured in Section 3.4.2. This file is self-documenting and contains the list of configurable properties for DATUP. See Appendix A for a sample version and notes on new parameters.

3.4.6 DATUP Cleanup Script

DATUP creates temporary zip files during the update process. Create a cron job to remove /tmp/datup*.zip files once a day.

3.4.7 Deployment

The following steps detail the deployment of the DATUP component. Prior to completing these steps, the WebLogic class path, the WebLogic database configurations, and the Deployment Server must be restarted to load the changed configuration. Please refer to Sections 3.4.1 and 3.4.3 for instructions concerning these configuration items. Complete the following steps to deploy DATUP:

- 1. Open and log into the WebLogic console. This is located at: http://<Deployment Machine>:7001/console.
- 2. Within the Domain Structure panel in the left column of the WebLogic console, click the Deployments node. For reference, see Figure 3-27.



Figure 3-27. Domain Structure

3. Within the Change Center panel in the left column of the WebLogic console, click Lock & Edit. For reference, see Figure 3-28.

Change	e Center
View c	hanges and restarts
Click the	e Lock & Edit button to modify, add or
delete i	tems in this domain.
delete i	tems in this domain. Lock & Edit

Figure 3-28. Change Center

4. Click Install found in the Deployments panel in the right column of the WebLogic console. For reference, see Figure 3-29.

of Java EE applications and ed (redeployed), or deletec ion or module for deploymer	stand-alone application m d from the domain by first nt to targets in this domair	nodules that have been selecting the applicatio n, dick the Install butto	installed to this domain. Installed applications and modules ca n name and using the controls on this page. n.
of Java EE applications and ed (redeployed), or deletec ion or module for deploymer	stand-alone application m d from the domain by first nt to targets in this domain	nodules that have been selecting the applicatio n, dick the Install butto	installed to this domain. Installed applications and modules ca n name and using the controls on this page. n.
lete Start V Stop V			Showing 0 to 0 of 0 Previous
State	Health	Туре	Deployment Order
	There a	re no items to display	
lete Start 🕶 Stop 🕶			Showing 0 to 0 of 0 Previous
e	State	State Health There a start v	State Health Type There are no items to display elete Start Y Stop Y

Figure 3-29. Deployments

5. WebLogic will now display the panel Install Application Assistant in the right column of the console, where the location of the DATUP deployment will be found. For reference, see Figure 3-30.

nstall Application Assistant							
Back Next Finish Ca	ncel						
Locate deployment to insta	II and prepare for deployment						
Select the file path that represe directory or file in the Path field	ents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application I.						
Note: Only valid file paths are	displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.						
Path:	/uu1/app/oracientome/user_projects/domains/pps_dev2/servers/AdminServer/upioad/datup-national-3.1.01.0001.ear/app						
Recently Used Paths:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.01.0001.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/PPS_N-3.1.0.DEV1.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/PPS_N-3.0.4.DEV.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.00.DEV.ear/app						
Current Location:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.00.DEV.ear/app 1 <u>REDACTED</u> // u01 / app / OracleHome / user_projects / domains / pps_dev2 / servers / AdminServer / upload / datup-national-3.1.01.0001.ear / app						
Current Location:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.00.DEV.ear/app REDACTED // u01 / app / OracleHome / user_projects / domains / pps_dev2 / servers / AdminServer / upload / datup-national-3.1.01.0001.ear / app						

Figure 3-30. Install Application Assistant

6. Navigate to the deployment file location using the links and file structure displayed within the Location panel within the Install Application Assistant in the right column of the console, and select the DATUP deployment, select the datup-national-3.1.01.ear file. (Replace the release number for the current release.)

For reference, see Figure 3-31.

nstall Application Assistant							
Back Next Finish Ca	Cancel						
Locate deployment to insta	tall and prepare for deployment						
Select the file path that represe directory or file in the Path field	ssents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the ap eld.	plication					
Note: Only valid file paths are	re displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.						
Path:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.01.0001.ear/app/datup-natio	onal-3.1.					
Recently Used Paths:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.01.0001.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/PPS_N-3.1.0.DEV1.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/PPS_N-3.0.4.DEV.ear/app						
	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup-national-3.1.00.DEV.ear/app						
Current Location:	REDACTED // u01 / app / OracleHome / user_projects / domains / pps_dev2 / servers / AdminServer / upload / datup-national-3.1.01.0001.ear / a	app					
Current Location:	REDACTED // u01 / app / OracleHome / user_projects / domains / pps_dev2 / servers / AdminServer / upload / datup-national-3.1.01.0001.ear	арр					
Current Location:	REDACTED / / U01 / app / OracleHome / user_projects / domains / pps_dev2 / servers / AdminServer / upload / datup-national-3.1.01.0001.ear 1.01.0001.ear	арр					

Figure 3-31. Locate Deployment to Install and Prepare for Deployment

7. Once the DATUP deployment is located and selected, click Next.

8. WebLogic will now display the panel Choose targeting style within the Install Application Assistant in the right column of the console. Leave the default value selected, Install this deployment as an application, and click Next. For reference, see Figure 3-32.

Install Application Assistant
Back Next Finish Cancel
Choose targeting style
Targets are the servers, clusters, and virtual hosts on which this deployment will run. There are several ways you can target an application.
Install this deployment as an application
The application and its components will be targeted to the same locations. This is the most common usage.
○ Install this deployment as a library
Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications.
Back Next Finish Cancel

Figure 3-32. Choose Targeting Style

9. Within the Install Application Assistant in the right column of the console, WebLogic will now display the panel Select deployment targets, where the Deployment Server will be selected as the target in the next step. For reference, see Figure 3-33.

Install Application Assistant	
Back Next Finish Cancel	
Select deployment targets	
Select the servers and/or clusters to which you want to deploy this application. (You can reconf	gure deployment targets later).
Available targets for datup-national-3.1.01.0001-1 :	
Servers	
AdminServer	
☑ National_DATUP	
□ pps_ms01	
Back Next Finish Cancel	

Figure 3-33. Select Deployment Targets

- 10. For the Target, select the Deployment Server. For example, NationalPharmacyServer
- 11. Click Next.
- 12. Within the Install Application Assistant, WebLogic will now display the panel Optional Settings in the right column of the console, where the name of the deployment and the copy behavior are chosen. For reference, see Figure 3-34.

Install Application Assistant
Back Next Finish Cancel
Optional Settings
You can modify these settings or accept the defaults
* Indicates required fields
General
What do you want to name this deployment?
* Name: datup-national-3.1.01.0001-1
Security
What security model do you want to use with this application?
DD Only: Use only roles and policies that are defined in the deployment descriptors.
O Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.
O Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.
○ Advanced: Use a custom model that you have configured on the realm's configuration page.
Source Accessibility
How should the source files be made accessible?
• Use the defaults defined by the deployment's targets
Recommended selection.

Figure 3-34. Optional Settings

- 13. Enter the Name for the deployment. For example, DATUP.
- 14. Verify that the following default option for Security is selected:

DD Only: Use only roles and policies that are defined in the deployment descriptors.

15. Verify that the following default option for Source accessibility is selected:

Use the defaults defined by the deployment's targets.

- 16. Click Next.
- 17. Within the Install Application Assistant in the right column of the console WebLogic will now display the panel Review your choices and click Finish, which summarizes the steps completed above. For reference, see Figure 3-35.

Install Application Assistant								
Back Next	Finish Cancel							
Review your choices and click Finish								
Click Finish to	Click Finish to complete the deployment. This may take a few moments to complete.							
— Additional c	- Additional configuration							
In order to work completing this	In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?							
🖲 Yes, take n	ne to the deployment's configuration screen.							
🔵 No, I will r	eview the configuration later.							
— Summary —								
Deployment:	/u01/app/OracleHome/user_projects/domains/pps_dev2/servers/AdminServer/upload/datup- national-3.1.01.0001.ear/app/datup-national-3.1.01.0001.ear							
Name:	datup-national-3.1.01.0001-1							
Staging Mode:	Use the defaults defined by the chosen targets							
Plan Staging Mode:	Use the same accessibility as the application							
Security Model:	Security DDOnly: Use only roles and policies that are defined in the deployment descriptors. Model:							
Target Summary								
Click the <i>Lock</i>	& Edit button in the Change Center to activate all the buttons on this page.							
Components	ŵ	Targets						
datup-national	-3.1.01.0001.ear	National_DATUP						
Back Next	Finish Cancel							

Figure 3-35. Review Your Choices and Click Finish

18. Verify that the values match those entered in Steps 1 through 17 and click Finish.

19. WebLogic will now display the panel Settings for DATUP, in the right column of the console, where the values previously entered are available as well as a setting to change the deployment order. For reference, see Figure 3-36.

verview	Deployment Play	Configuration	Security	Targets	Control	Testing	Monitoring	Notes		
	D apro y mane r na	comgaration	s ccontry	. digeto		· usung				
Save										
Use this pag page lists th	ge to view the ge ie modules (such	neral configuration as Web application	of an enterp s and EJBs)	orise applica that are co	tion, such ntained in	as its name the enterpr	, the physical ise application	path to the . Click on t	applicat ne name	tion files, the associated deployment plan, and so on. The table at the end of the of the module to view and update its configuration.
lame:	dat	up-national-3.1.01.	0001-1							The name of this enterprise application. More Info
ath:	/ u nat	01/ app/ OracleHon ional-3. 1. 01. 0001	ne/ user_pro 1. ear/ app/	ojects/ dom datup-natio	ains/ pps_c nal-3, 1, 0	lev2/ serve 1. 0001. ea	rs/ AdminServ r	er/ upload/	datup-	The path to the source of the deployable unit on the Administration Server. More Info
eployment	t Plan: (no	plan specified)								The path to the deployment plan document on the Administration Server. More Info
taging Moo	de: (no	t specified)								Specifies whether a deployment's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info
lan Staging	g Mode: (no	t specified)								Specifies whether an application's deployment plan is copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info
ecurity Mo	del: DD	Only								The security model that is used to secure a deployed module. More Info
🗄 Deployn Irder:	nent 1	00								An integer value that indicates when this unit is deployed, relative to other deployable units on a server, during startup. More Info
🗄 Deployn rincipal Na	nent nme:									A string value that indicates the principal that should be used when deploying the file or archive during startup and shutdown. This principal will be used to set the current subject when calling out into application code for interfaces such as ApplicationLifecycleListener. If no principal name is specified, then the anonymous principal will be used. More Info

Figure 3-36. Settings for DATUP

- 20. Leave all the values as defaulted by WebLogic and click Save.
- 21. Within the Change Center panel in the left column of the WebLogic console, click Activate Changes. For reference, see Figure 3-37.

Change	center
View c	hanges and restarts
Pending	changes exist. They must be activated
to take	effect.
	effect.

Figure 3-37. Activate Changes

22. Within the Domain Structure panel in the left column of the WebLogic console, click the PRE > Deployments node. For reference, see Figure 3-38.



Figure 3-38. Domain Structure

23. WebLogic will now display the panel Summary of Deployments in the right column of the console, where all deployments for the WebLogic domain are listed. For reference, see Figure 3-39.

Sur	nmary	of Deployments	_				
C	ontrol	Monitoring					
	This pag deleted To insta	je displays a list of Java EE applications and stand-alone application modules that have been installed from the domain by first selecting the application name and using the controls on this page. Il a new application or module for deployment to targets in this domain, click the Install button.	to this domain	n. Installed a	applications and modules car	n be started, stopped,	, updated (redeployed), or
	Custom	nize this table					
D	eployn	nents					
[Install	Update Delete Start v Stop v				Showing 1	to 5 of 5 Previous Next
	🗆 Na	ame 🗞	State	Health	Туре	Targets	Deployment Order
	•	datup-national-3.1.01.0001	Prepared	🖋 ок	Enterprise Application	National_DATUP	100

Figure 3-39. Summary of Deployments

- 24. Select the previously deployed DATUP deployment, click Start, and then select Servicing all requests from the drop-down list box.
- 25. WebLogic will now display the panel Start Application Assistant in the right column of the console for confirmation to start servicing requests. For reference, see Figure 3-40.

Start Application Assistant
Yes No
Start Deployments
You have selected the following deployments to be started. Click 'Yes' to continue, or 'No' to cancel. • datup-national-3.1.01.0001
Yes No

Figure 3-40. Start Application Assistant

- 26. Click Yes in the Start Application Assistant panel in the right column of the WebLogic console.
- 27. WebLogic now returns to the Summary of Deployments panel in the right column of the console. For reference, see Figure 3-41.

Sun	mary	of Deployments					
Co	ntrol	Monitoring					
T d T	his pag eleted i o instal	pe displays a list of Java EE applications and stand-alone application modules that have been installed t from the domain by first selecting the application name and using the controls on this page. Il a new application or module for deployment to targets in this domain, click the Install button.	to this dom	ain. Installed	d applications and modules c	an be started, stopped	I, updated (redeployed), or
Þ	ustom	ize this table					
D	eployn	nents					
D	install	Update Delete Start v Stop v				Showing	1 to 5 of 5 Previous Next
[Na	ame 🏟	State	Health	Туре	Targets	Deployment Order
0	∎	datup-national-3.1.01.0001	Active	🖋 ок	Enterprise Application	National_DATUP	100

Figure 3-41. Summary of Deployments – DATUP Deployment Active

28. Verify that the State of the DATUP deployment is Active.

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4 Upgrade Installation Instructions

The following instructions detail the steps required to perform an installation of a release for the DATUP software when an existing release is already deployed at a national site. These steps assume a fresh installation has been completed, following the steps in Section 3.

4.1 Uninstall Previous Release

The following steps detail the un-installation of the DATUP application. Prior to completing these steps, the DATUP application must have been deployed following the steps in Section 3. Complete the following steps to un-deploy DATUP:

- 1. Open and log into the WebLogic console. This is located at: http://<Deployment Machine>:7001/console.
- 2. Within the Domain Structure panel in the left column of the WebLogic console, click the Deployments node. For reference, see Figure 4-1.



Figure 4-1. Domain Structure

3. Within the Change Center panel in the left column of the WebLogic console, click Lock & Edit. For reference, see Figure 4-2.

change	center
View c	hanges and restarts
Click the	Lock & Edit button to modify, add or
delete i	tems in this domain.
delete i	tems in this domain. Lock & Edit

Figure 4-2. Change Center

4. WebLogic will now display the panel Summary of Deployments in the right column of the console, where all deployments for the WebLogic domain are listed. For reference, see Figure 4-3.

Summary of Deployments							
Control Monitoring							
This page displays a list of Java EE applicat deleted from the domain by first selecting I To install a new application or module for o Customize this table Deployments	iions and stand-alone application modules that have be the application name and using the controls on this pag deployment to targets in this domain, click the Install br	en installed t ge. utton.	to this dom	ain. Installe	d applications and modules c	an be started, stopped	, updated (redeployed), or
Install Update Delete Start ~	Stop ~					Showing	1 to 5 of 5 Previous Next
Name 🛞	When work completes		State	Health	Type	Targets	Deployment Order
	Force Stop Now		Juit		1100	Targets	ocprogramme of del
✓	Stop, but continue servicing administration requests		Active	🖋 ок	Enterprise Application	National_DATUP	100

Figure 4-3. Summary of Deployments – Stopping DATUP

5. Select the previously deployed DATUP deployment, click Stop, and then select Force Stop Now from the drop-down list box.

6. WebLogic will now display the panel Force Stop Application Assistant in the right column of the console for confirmation to start servicing requests. For reference, see Figure 4-4.

Force Stop Application Assistant
Yes No
Stop Deployments
You have selected the following deployments to be immediately stopped. Press 'Yes' to continue, or 'No' to cancel. • datup-national-3.1.01.0001
Yes No

Figure 4-4. Force Stop Application Assistant

- 7. Click Yes in the Force Stop Application Assistant panel in the right column of the WebLogic console.
- 8. WebLogic now returns to the Summary of Deployments panel in the right column of the console. For reference, see Figure 4-5.

Su	nmary	of Deployments					
C	ontrol	Monitoring					
	This pag deleted To insta	ge displays a list of Java EE applications and stand-alone application modules that have been installed t from the domain by first selecting the application name and using the controls on this page. Il a new application or module for deployment to targets in this domain, click the Install button.	to this domai	n. Installed a	applications and modules ca	n be started, stopped,	updated (redeployed), or
Þ	Custon	nize this table					
C	eployr	nents					
	Install	Update Delete Start V Stop V				Showing 1	to 5 of 5 Previous Next
	🗆 Na	ame 🗞	State	Health	Туре	Targets	Deployment Order
	•	datup-national-3.1.01.0001	Prepared	🖋 ок	Enterprise Application	National_DATUP	100

Figure 4-5. Summary of Deployments – DATUP Deployment Prepared

- 9. Verify that the State of the DATUP deployment is Prepared.
- 10. Select the previously deployed DATUP deployment, and then click Delete.

11. WebLogic will now display the panel Delete Application Assistant in the right column of the console for confirmation to start servicing requests. For reference, see Figure 4-6.

Delete Application Assistant
Yes No
Delete Deployments
You have selected the following deployments to be removed from this domain configuration. Click 'Yes' to continue, or 'No' to cancel. • datup-national-3.1.01.0001
Yes No

Figure 4-6. Delete Application Assistant

- 12. Click Yes in the Delete Application Assistant panel in the right column of the WebLogic console.
- 13. WebLogic now returns to the Summary of Deployments panel in the right column of the console. For reference, see Figure 4-7.

Summary	of Deployments				
Control	Monitoring				
This pag started, To insta	e displays a list of Ja stopped, updated (n II a new application or nize this table	va EE applications and stand- edeployed), or deleted from module for deployment to ta	-alone application modules t the domain by first selecting argets in this domain, click th	hat have been installe 9 the application name ne Install button.	ed to this domain. Installed applications and modules can be and using the controls on this page.
Install	Update Delete	Start 🕶 Stop 🛩			Showing 0 to 0 of 0 Previous Next
	Name 🚕	State	Health	Туре	Deployment Order
			There are no ite	ms to display	
Install	Update Delete	Start 🕶 Stop 🛩			Showing 0 to 0 of 0 Previous Next

Figure 4-7. Summary of Deployments – DATUP Deployment Deleted

14. Verify that the DATUP deployment is deleted and no longer present.

15. Within the Change Center panel in the left column of the WebLogic console, click Activate Changes. For reference, see Figure 4-8.

chung	center
View o	hanges and restarts
Pending	changes exist. They must be activated
to take	effect.
to take	effect.

Figure 4-8. Activate Changes

4.2 Deploy New Release

To deploy the new release, follow the same deployment steps found in Section 303.4.7.

4.3 Backout Build

To backout the current DATUP build, follow the steps in Section 4.1 to uninstall the build. Then, follow the steps in Section 4.2 to deploy the previous build.

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5 System Verification

The following section will verify that the DATUP system is up and running at a national site.

5.1 Verification

To verify that the national DATUP installation is up and running, navigate a web-browser to the logs directory on your server, example: /u01/app/OracleHome/user_projects/domains/ppsn/DATUPLOGS.

Verify that the server.log file has an entry indicating the next scheduled run time of the DATUP application. The server.log entry looks like:

DEBUG

```
[REDACTEDpharmacy.peps.updater.common.utility.DifUpdateScheduler:scheduleNextTimer]
Next scheduled DIF update time: Thu, 4/16/2010, 02:45:00 PM, CDT
```

This line indicates that the system is running.

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Appendix A: National DATUP Configuration

This appendix provides National configuration file examples based on the baseline fdb_datup_configuration.properties file. Configure the parameters in this file to match the settings of the particular environment into which you are installing. The sftp.hostname, sftp.port, sftp.username, sftp.password, sftp.base.directory, and sftp.fdb.directory much match the configuration of the sftp server.

The fdb.flag.provider.url value should be configured with the servername and port where DATUP National is running.

The file.name.fragment and file.search.type should be configured to match the environment in which DATUP is being installed.

Example National DATUP Configuration File

```
****
#----- Scheduler ------
****
****
# Scheduled nightly update time (military time).
#
# For example, "0230" schedules the nightly update
# for 2:30 am.
# *This parameter applies to National and Local.
*****
scheduled.time=0630
****
#----- sFTP Server -----
*****
****
# SFTP server hostname
#
# Specify the SFTP server hostname.
#
# *This parameter applies to National and Local.
*****
sftp.hostname=vaauspresftp01.aac.va.gov
*****
# SFTP server port number
#
# Specify the SFTP server port number.
# *This parameter applies to National and Local.
****
sftp.port=22
```

```
*****
# SFTP server username/password.
#
# Specify the anonymous account username/password.
#
# *These parameters apply to National and Local.
****
sftp.username=presftp
sftp.password=password
****
# SFTP server working directory
# Specify the SFTP working directory, relative to
# the SFTP root directory.
# *This parameter applies to National and Local.
****
sftp.base.directory=/home/presftp/pecs preprod/
****
# Pending FDB-DIF update storage directory.
#
# Specify the pending directory, relative to the
# working directory, to the location where FDB-DIF
# full, incremental, and custom ZIP files will be
# placed for processing.
#
# *This parameter applies to National.
****
sftp.fdb.directory=/home/presftp/pecs preprod/fdb dif
****
# File Name Fragment
#
# Specify the fragment of the file name to be used when searching for
files to process.
# Production Environment value of "UPD"
# All Other Environments value of "I"
# *The search is case insensitive.
# *This parameter is used in conjunction with File Search Type
(file.search.type)
# *This parameter applies to National.
****
#file.name.fragment=UPD
file.name.fragment=I
```

```
****
# File Search Type
# Specify the search type that should be used.
#
# Production Environment value of "contains"
# All Other Environments value of "starts with"
# *This parameter is used in conjunction with File Name Fragment
(file.name.fragment)
# *This parameter applies to National.
****
#file.search.type=contains
file.search.type=starts with
****
#---- FDB DIF -----
****
*****
# Number of random FDB-DIF verification tests
#
# Specify the number of random FDB-DIF verification
# tests to run. 10 is a reasonable number. However,
# do not specify a large number as it will cause an
# unacceptable delay for processing new VistA order
# checks during that time.
#
# *This parameter applies to National and Local.
****
fdb.verification.test.count=5
****
# Comparison Reports Property
#
# This property is to be set to true if DATUP will
# need to wait on the PECS Application to finish
# running the Comparison Reports.
#
# In environments where PECS is not installed,
# set this to false to eliminate the dependency
# on PECS Comparison Reports running.
#
# *This parameter applies to National.
****
comparison.reports=true
****
# FDB Comparison Report Created Flag
# This property sets the default value for a boolean
# JNDI resource that will be created on the Weblogic
```

```
# Domain at startup.
# This boolean value (or flag) will be used by both
# Datup National and PECS to coordinate the processing
# of fdb files so PECS can make appropriate use
# such files before they are deleted by DATUP.
# *If this property is not defined, the default value
# will be set to false.
# *This parameter applies to National.
****
fdb.comparison.report.created.flag=false
****
#fdb.flag.provider.url
#
# Specifies the URL of the WebLogic Server that
# provides the naming context where the
# fdb comparison report created flag resource resides.
# i.e. t3://servername:port (t3 is Weblogic's protocol)
# This property is also defined in PECS, so the
# value on both properties should be the same.
****
fdb.flag.provider.url=t3://vaauspecapp93.aac.va.gov:8007
****
# FDB wait time for PECS run
#
# Specify the number of minutes that DATUP will
# wait for PECS to generate its FDB Customization
# report before trying to process the FDB-DIF
# files again.
#
# Default value will be 20 minutes
# *This parameter applies to National.
****
fdb.pecs.wait.time=180
****
#----- Email Server -----
****
*****
# Email server hostname
# *This parameter applies to National and Local.
****
email.hostname=SMTP.VA.GOV
```

```
*****
# Email sender name
# For example, "noreply@va.gov".
#
# *This parameter applies to National and Local.
****
email.sender=PECS PreProd AITC@REDACTED
*****
# Email username/password
#
# May be necessary to relay email.
#
# *These parameters apply to National and Local.
****
email.username=
email.password=
*****
# Email list for success notifications
#
# Include individuals that should be notified about
# successful FDB/FDB-Custom updates.
# *This parameter applies to National and Local.
****
email.list.success=SDDPREArch@REDACTED
****
# Email list for failure notifications
#
# Include individuals that should be notified about
# failed FDB/FDB-Custom updates.
#
# *This parameter applies to National and Local.
****
email.list.failure=SDDPREArch@REDACTED
****
# Email list for available update notifications
# Include individuals that should be notified about
# available FDB/FDB-Custom updates once they are
# applied and tested and National. This list should
# include the local site managers.
#
# *This parameter applies to National.
****
email.list.update.available=SDDPREArch@REDACTED
```

```
****
#----- Locality ------
****
****
# Regional Data Center (RDC) name
#
# Specify the name of the RDC or leave blank if
# this installation is not part of a RDC.
# *This parameter applies to Local.
****
locality.rdc.name=
*****
# Site number(s)
#
# Specify the site number(s) for this installation.
# If more than one site is associated with this
# installation, separate the site numbers with a
# comma (e.g., 423,512,211).
#
# *This parameter applies to Local.
*****
locality.site.number=
****
# Number of retained FDB-DIF incremental archives
#
# Due to potential site outages, it is necessary
# to retain a certain number of FDB-DIF archives.
#
# *This parameter applies to National.
****
fdb.retention=20
*****
# Number of statements to batch before commit
#
# Specify the number of statements to batch before
# a commit to the database. This value is database
# vendor and JDBC driver dependent. A reasonable
# batch size is 500. However, tests show that Cache
# may throw system errors with a batch size greater
# than 200.
#
# Specify a batch size of 0 to disable batching. A
# single commit will be issued at the end of the
# incremental update.
#
# *This parameter applies to National and Local.
****
```

```
fdb.batch.commit.size=0
```

```
*****
#----- IMAGE PROCESSING------
****
image.processing.national=TRUE
image.processing.local=FALSE
****
# The location where the image files will be stored
#
#
# *This parameter applies to National only
****
image.directory.national=/tmp/imaging/
****
# The location where the image files will be stored
#
#
# *This parameter applies to local only
****
image.directory.local=/tmp/imaging/
*****
# The emai to send to names or group
#
#
# *This parameter applies to National only
****
image.email.sendto.national=SDDPREArch@REDACTED
****
# The emai to send to names or group
#
#
# *This parameter applies to local only
****
```

image.email.sendto.local=SDDPREArch@REDACTED

Appendix B: Combined DATUP / PECS Architecture

This appendix provides the combined DATUP / PECS architecture diagram for reference. The combined logical system components are:

- 1. DATUP Implements the FDB-DIF update business logic.
- 2. Scheduler Background process for scheduling DATUP.
- 3. WebLogic Application server environment.
- 4. Configuration File Defines the DATUP configuration settings.
- 5. Email Templates Templated emails for notifications sent to National/Local Managers.
- 6. Anonymous FTP Server FTP Server that hosts the FDB-DIF update archives.
- 7. Email Server Email relay server.
- 8. PECS Implements the FDB-Custom drug business logic.
- 9. CT Staging Database Stores PECS FDB-Custom modifications.
- 10. DATUP Database Stores DATUP site update history.
- 11. FDB-DIF Database Stores the FDB-DIF drug database.
- 12. Legacy VistA Existing VistA server.

Figure B–1 illustrates the logical system components for the National and Local environments. The National components are responsible for verifying and publishing FDB-DIF and FDB-Custom updates to the Anonymous FTP Server. The Local components then consume and apply the verified updates in an automated manner.



Figure B-1: Combined DATUP/PECS Architecture Diagram

Appendix C: log4j2

<?xml version="1.0" encoding="UTF-8"?>

<!-- Configuration has an attribute named status that you can set to trace or debug to get configuration messages from Log4J2. -->

<Configuration>

<Properties>

<Property name="logDir">DATUPLOGS</Property>

<Property name="maxFileSize">10 MB</Property>

<Property name="maxRolloverFiles">10</Property>

<Property name="logPattern">%d{DEFAULT} %-5p [%t] [%c:%M]

%m%n</Property>

</Properties>

<Appenders>

<Console name="ConsoleAppender" target="SYSTEM_OUT">

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

</Console>

<RollingFile name="ApacheAppender" filename="\${logDir}/apache.log" filePattern="\${logDir}/apache-%i.log">

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="\${maxFileSize}" />

</Policies>

<DefaultRolloverStrategy max="\${maxRolloverFiles}"/>

</RollingFile>

```
<RollingFile name="PepsAppender" fileName="${logDir}/peps.log" filePattern="${logDir}/peps-%i.log">
```

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="\${maxFileSize}" />

</Policies>

```
<DefaultRolloverStrategy max="${maxRolloverFiles}"/>
```

</RollingFile>

```
<RollingFile name="FileAppender" fileName="${logDir}/server.log" filePattern="${logDir}/server-%i.log">
```

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="\${maxFileSize}" />

</Policies>

<DefaultRolloverStrategy max="\${maxRolloverFiles}"/>

</RollingFile>

```
<RollingFile name="HibernateAppender" fileName="${logDir}/hibernate.log" filePattern="${logDir}/hibernate-%i.log">
```

<HTMLLayout>

<LocationInfo>true</LocationInfo>

<Title>DATUP Log</Title>

</HTMLLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="1000 MB" />

</Policies>

```
<DefaultRolloverStrategy max="${maxRolloverFiles}"/>
```

</RollingFile>

```
<RollingFile name="SpringAppender" fileName="${logDir}/spring.log" filePattern="${logDir}/spring-%i.log">
```

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="\${maxFileSize}" />

</Policies>

<DefaultRolloverStrategy max="\${maxRolloverFiles}"/>

</RollingFile>

<RollingFile name="StrutsAppender" fileName="\${logDir}/struts.log" filePattern="\${logDir}/struts-%i.log">

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

<SizeBasedTriggeringPolicy size="\${maxFileSize}" />

</Policies>

```
<DefaultRolloverStrategy max="${maxRolloverFiles}"/>
```

</RollingFile>

```
<RollingFile name="CT" fileName="${logDir}/ct_prod.log" filePattern="${logDir}/ct_prod-%i.log">
```

<PatternLayout>

<Pattern>\${logPattern}</Pattern>

</PatternLayout>

<Policies>

<OnStartupTriggeringPolicy />

```
<SizeBasedTriggeringPolicy size="${maxFileSize}" />
```

</Policies>

<DefaultRolloverStrategy max="\${maxRolloverFiles}"/>

</RollingFile>

</Appenders>

<Loggers>

```
<logger name="org.apache.commons" level="warm" additivity="false">
```

```
<AppenderRef ref="ApacheAppender" />
```

</logger>

```
<logger name="REDACTEDpharmacy.peps" level="debug" additivity="false">
<AppenderRef ref="PepsAppender" />
```

</logger>

<logger name="REDACTEDpharmacy.ct" level="debug" additivity="false">

```
<AppenderRef ref="PepsAppender" />
```

</logger>

```
<logger name="REDACTEDmonitor.time.AuditTimer" level="info" additivity="false">
```

<AppenderRef ref="FileAppender"/>

</logger>

```
<logger name="org.apache.beehive.netui.pageflow.internal.AdapterManager" level="warm" additivity="false">
```

<AppenderRef ref="FileAppender"/>

</logger>

```
<logger name="org.hibernate" level="error" additivity="false">
```

<AppenderRef ref="HibernateAppender" />

</logger>

```
<logger name="org.aspectj" level="error" additivity="false">
```

```
<AppenderRef ref="SpringAppender"/>
```

</logger>

```
<logger name="org.springframework" level="error" additivity="false">
```

```
<AppenderRef ref="SpringAppender"/>
```

</logger>

```
<logger name="org.apache.struts2" level="error" additivity="false">
```

```
<AppenderRef ref="StrutsAppender" />
```

</logger>

```
<logger name="com.opensymphony.xwork2" level="error" additivity="false">
```

```
<AppenderRef ref="StrutsAppender" />
```

</logger>

```
<logger name="org.apache.commons.digester" level="error" additivity="false">
<AppenderRef ref="StrutsAppender" />
```

</logger>

```
<logger name="org.apache.tiles" level="error" additivity="false">
```

```
<AppenderRef ref="StrutsAppender" />
```

</logger>

```
<logger name="net.sf.navigator" level="error" additivity="false">
```

```
<AppenderRef ref="StrutsAppender" />
```

</logger>

```
<Root level="error">
```
<AppenderRef ref="ConsoleAppender"/>

</Root>

</Loggers>

</Configuration>

Appendix D: Rollback Process

If the installation process must be stopped when updating an environment from a previous version of DATUP National, follow the steps outlined in order to rollback the application.

- 1. Follow the PECS and PPS-N Rollback Process. The PECS Rollback Process is found in the *PECS_Installation_Guide.docx*. The PPS-N Rollback Process is found in the PPS-N Install Guide, titled *PPS-N_V1.1.10_IG.docx*. Both documents can be found on the PECS TSPR site: http://tspr.vista.REDACTED/warboard/anotebk.asp?proj=1474&Type=Active
- 2. Deploy the old DATUP National EAR file.