

Installation Guide

Administration and Set-up Guide v2.0

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Revision History

Name	Date	Reason for Changes
J Basart	29/4/2014	Finalized guide with newest changes.
J Jiang	18/7/2014	Updating with new changes for (M3.2) R10.1 release
J Basart	17/9/2014	Updated and checked for (M3.3) R11 release.
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About this Guide

This guide describes how to install the Workflow™ application server on Linux 64-bit systems and outlines installing and configuring the application servers.

We want to make the initial installation of Workflow as simple as possible. This preface introduces the content and structure of this guide; it also includes a brief explanation of how to use it.

These instructions outline a baseline setup and do not include any performance tweaks or configuration updates that may be required for the application to run at its full potential in your specific environment.

Before Getting Started

Prior to performing any procedures, the following is recommended:

- Review and familiarize yourself with each section of this guide.
- Print and organize all the chapters relevant to your system.
- Use your printed guide as a checklist.

Please read these important notes before beginning installation!
This document assumes that you are installing the Workflow application for the first time. Please contact Syscon if a re-installation is required upon a failed installation.

Another assumption is that all necessary connection details; such as URL locations and drivers, as well as requisite data source locations are known and available prior to beginning installation procedures.

After reviewing and printing your guide, you are ready to begin the setup process.

The installation process covers:

- Database preparation and configuration, using one of the following RDBMS used in the Workflow application installation and configuration:
    - Oracle Schemas
    - SQL Server Security Logins and User Mapping.
- User and JDBC Connection in Oracle Business Intelligence Publisher.
- JBoss Enterprise Application Platform Servers (EAP).
    - Installing Java Development Kit 1.7.0_21.
    - Package extraction
    - Customized configuration
- Importing Workflow Database.
    - Deploying Workflow Reports.
- JBoss Fuse Server/Enterprise Service Bus (ESB) Integration and Configuration.
    - Package extraction
    - Customized configuration
    - Start JBoss-Fuse server.

Typographical Conventions

The following typographical conventions are used:

Convention	Purpose
Bold	Executable names, including titles of items you must select. For example: • Click a **button** on the screen with the mouse. • Press a **key.** • Type **information** in a field. • Select a **function** from a pull-down menu.
Italics	Important notes
Title Case	Proper names Names of Workflow features, for example, 'Toolbar,' 'Header' block, 'Schedule Inquiry' button.
Other	Symbols are utilized to illustrate a procedure or other relevant information.

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Prerequisites

This installation guide specifies all directory structures on the Linux platform. The instructions are written based on an installation to **/u01.**

Audience

This document is intended for any individual with network, operating system and RDBMS experience who is going to install Workflow. Users may include:

- System Configuration Engineers
- System Administrators
- Technical Support Engineers

To perform this installation, you require experience in the following areas:

- Installing and configuring Red Hat Enterprise Linux Server.
- Installing and configuring Oracle Database if using Oracle database.
- Installing and configuring SQL Server Database.
- Installing and configuring Microsoft Internet Information Service (IIS).
- Installing and configuring Oracle Business Intelligence Publisher.
- Network and network issues.

Pre-installed Software Requirements

The following software and physical servers are required before you install the application:

- Database Server:
    - Oracle Database Server, if used by Workflow application - Contains both Red Hat 6.2 x64-bit and Oracle 11g R2 (11.2.0.3) x64-bit.
    - SQL Server 2012 x64-bit on Windows 2012 Standard or Enterprise Server x64bit
- Oracle Business Intelligence Publisher Server: Contains both Red Hat 6.2 x64-bit and Oracle Business Intelligence Publisher 11.1.1.7.131017
- Microsoft Windows with IIS installed and configured.

Note: *For more detailed installation procedures on Red Hat Enterprise Linux Server, Oracle Database, SQL Server database, Microsoft Windows, Microsoft Internet Information Service, Oracle Business Intelligence Publisher, and JBoss Fuse Server, refer to the vendor installation and configuration documents.*
The Table on Page 9 *contains more information about software installation.*

- Red Hat Enterprise Linux 6.2 x64-bit.
- Oracle Database 11g R2 (11.2.0.3) x64-bit.
- Oracle Business Intelligence Publisher 11g R1 11.1.1.7.131017
- JBoss EAP Server 6.2.0 x64-bit.
- JBoss Fuse Server 6.0.0 GA
- Drools 6 Community Edition.
- Java 1.7.0_21 _ x64.
- Neurotechnology Biometric 4.5 SDK Revision 105894

Note: *To work with Neurotec Biometric 4.5SDK, a license dongle must be used with at least one license for running NServer and N Workstation licenses.*

- CrossMatch Driver USB_SDK5-3-1 for Windows 7 Workstation.
- Oracle Instance Client 11.2.0.1.0_x86_64.
- SQL Server 2012 x64-bit
- SQL Server ODBC Driver for Linux

Note:

For installation with Oracle database, create an Oracle instance prior to installing Workflow. The instance name ***e2workflow*** *is used as an example in the procedures related to data source configuration. For installation with SQL Server database, create a SQL Server 2012 server prior to installing Workflow.*

Note: For installation with Oracle, i*f you are sharing the database instance with the BI Publisher platform schemas, the database character set must be* ***ALUTF8*** *as it is required by Publisher.*

If you need to support multiple languages, the database character set must be set to ***ALUTF8****.*

It is recommended to create the Oracle database instance with the ***ALUTF8*** *character set marked as default to avoid future migration problems with the various character sets.*

For installation with SQL Server, character set is configured by collation setting for each individual database. Oracle BI Publisher has a special requirement on database collation. Please refer to Oracle BI Publisher installation and configuration document for more details

	Requirement	Description
☐	Red Hat Enterprise Linux 6.2 x64-bit	https://access.redhat.com/site/documentation/Red_Hat_Enterprise_Linux/
☐	Oracle Database 11g R2 (11.2.0.3) x64-bit	http://docs.oracle.com/cd/E11882_01/nav/portal_11.htm
☐	Oracle Business Intelligence Publisher 11g R1 (11.1.1.7)	http://docs.oracle.com/cd/E28280_01/bi.htm http://docs.oracle.com/cd/E28280_01/bi.1111/e10539/toc.htm
☐	Java 1.7.0_21 _ _x64	http://java.com/en/download/help/download_options.xml http://java.com/en/download/help/linux_install.xml
	SQL Server 2012	http://technet.microsoft.com/en-us/library/bb500469.aspx

Hardware Requirements

The minimum hardware requirements must be met for the servers below:

	Requirement	Description
☐	JBoss Enterprise Server	Have at least 4Gb of memory and a 100Gb hard disk available for hosting JDK, JBoss Server, and the application.
☐	Oracle Database	Follow the minimum requirements described in the Oracle Database installation guide. http://docs.oracle.com/cd/B28359_01/install.111/b32281.pdf
☐	Oracle Business Intelligence Publisher	Follow the minimum requirements described in the Oracle Business Intelligence Publisher installation guide. http://www.oracle.com/technetwork/middleware/bi-publisher/documentation/index.html
	SQL Server 2012	Follow the minimum requirements described in hardware and software requirements for installing SQL Server 2012 published on Microsoft MSDN http://msdn.microsoft.com/en-us/library/ms143506.aspx
	Biometric License Server	To use the Biometric License Server, the server must have a USB port available, and the USB dongle must be correctly mounted. The biometric configuration can be hosted on the JBoss application server or on its own.
	JBoss Enterprise Application Platform Server 6.2.0 x64-bit	https://access.redhat.com/site/documentation/en-US/JBoss_Enterprise_Application_Platform/6/html-single/Installation_Guide/index.html
	Microsoft Internet Information Service	http://www.iis.net/learn/install

Installing Application

Database Configuration with Oracle Database

Oracle Schemas

The Oracle Database is an object-relational database management system produced and marketed by Oracle Corporation. Most Oracle database installations traditionally include a default schema**.**

During installation, two separate oracle schemas are used in the same instance for business processes and services:

Schema Name	Purpose
Arbutus	Services and business processes
Arbutusrpt	Report Objects Owner

Data Source	Data Source Purpose
ArbutusDS	The data source used to connect to schema **arbutus** to store business data.

Note: *Data sources are pre-configured inside the JBoss server and updated to connect with your target database during JBoss server configuration.*

Sample scripts **CR_TABLESPACES.sql** and **CR_SCHEMA_ROLE.sql** are provided to assist with creating schemas. Modify the scripts prior to running them based on your database and storage structure requirements.

Please copy the scripts from the delivery folder **./Database/InitialScripts/** to your database server. Then you can run the scripts against the database.

1. Log in sys as **sysdba** and run **CR_TABLESPACES.sql** to create table spaces and data files. Schemas store objects inside this location.
2. Log in sys as **sysdba** and run **CR_SCHEMA_ROLE.sql** to create these schemas:
   - Arbutus
   - Arbutusrpt

If not using the default schema names, you need to modify ***CreatePublicSynonym.sql*** *to grant access to the correct users.*

Database Configuration with SQL Server

Workflow Databases and Users

Workflow default installation requires three SQL Server databases for its various components. The following chart lists the three databases installed and the users configured for each database.

Database Name	Purpose	Preconfigured user
ArbutusService	Services	arbutus (objects owner) arbutusrpt (objects viewer)
ArbutusRPT	Report objects	arbutusrpt

SQL Server Security Logins and User Mappings

User access to SQL Server is controlled by SQL Server user authentication configuration. Workflow default installation uses SQL Server user authentication. The following chart lists the default SQL Server security logins required by Workflow application as well as their mappings to pre-configured Workflow application database users

Security Login Name	Database	Map to preconfigured database user
arbutus	ArbutusService	arbutus
arbutusrpt	ArbutusService	arbutusrpt
	ArbutusRPT	arbutusrpt

Oracle Business Intelligence User and Java Database Connectivity

Oracle provides a single, Web-based platform for authoring, managing, and delivering interactive reports, dashboards, and all types of highly formatted documents.

You first need to create an Oracle BI Publisher user who is used by the Workflow Application to call the Oracle BI Publisher API to display reports.

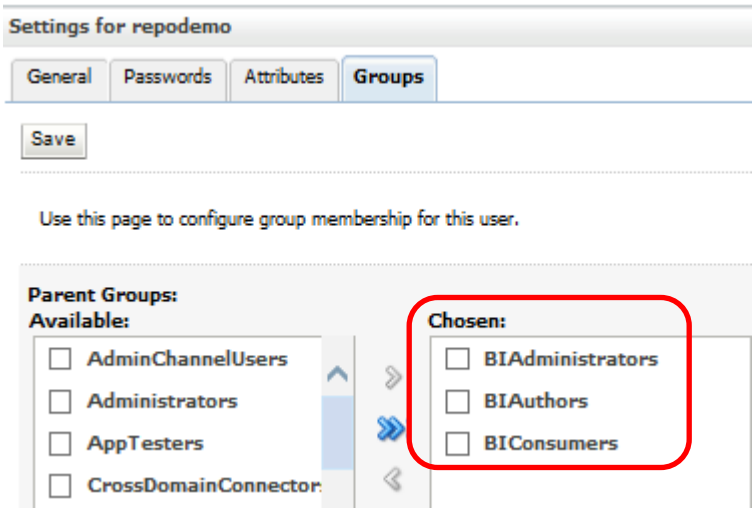
Oracle Business Intelligence User

To create a BI user **rptuser** with links to the **BIAuthors, BIConsumers** and **BIAdministrators** groups:

1. Launch the **BI WebLogic Console** using the **WebLogic Administrative User**.
   Example: http://yourbiserver:7001/console
2. In the **Domain Structure** tab, click **Security Realms**.
3. Click **myrealm**.
4. Select **Users** and **Groups**.
5. Click the **New** button to add a new user.
6. Complete the following fields:

Name**:**	**rptuser**
Description:	**Report user which is used by web application.**
Provider**:**	**DefaultAuthenticator**
Password	**Your Password**
Confirm Password	**Your Password**

7. Click **OK** to save.
8. Select **rptuser**.
9. Click **Groups** and select **BIAuthors**, **BIConsumers** and **BIAdministrators**.



10. Click **Save**.

Java Database Connectivity

JDBC (Java Database Connectivity) is a Java-based data access technology from Oracle Corporation. It is a Java programming language API that defines how a client accesses a database. It provides methods for querying and updating data in a database.

A JDBC connection to the Workflow Report User Schema must be configured and the user privilege must be assigned to the above BI Publisher User. This JDBC connection must be named **ARBUTUSRPTDS.**

Note: *Select the value for the targeted database for "Driver Type" and "Database Driver Class".*

1. Launch **BI Publisher Console** with **WebLogic Administrative User**.
   Example: http://yourbiserver:9704/xmlpserver
2. Click **Administration**.
3. Select **JDBC Connection**.
4. Click **Add Data Source**.

Data Source Name**:**	**ARBUTUSRPTDS**
Driver Type:	Oracle 11g or SQL Server 2012
Database Driver Class:	oracle.jdbc.OracleDriver or com.microsoft.sqlserver.jdbc.SQLServerDriver

   Connection String: jdbc:oracle:thin:@databaseservername:listenerport:databaseinstance or jdbc:sqlserver://databaseservername:listenport;databaseName=databasename

   Example:

   Oracle: jdbc:oracle:thin:@db-oracle.syscon.ca:1521:e2workflow

   SQL Server:jdbc:sqlserver://db-sql.syscon.ca:1433;databaseName=ArbutusService

Username**:**	**arbutusrpt**
Password**:**	**Password for arbutusrpt**

5. Click **Apply**.

Import Workflow Database

Import Workflow Database into Oracle Database Server

The next step involves importing the Workflow database.

The database is imported using the Oracle Data Pump Import command**: impdp**

1. Download Workflow Database Dump file **JMS1.0.dmp** from the delivery folder:

   ```
   ./Database/DataDump/Oracle
   ```

2. Upload the file onto the **Oracle Database server**. For example: **/u01/dmpfile**
3. Log into the database as user **sys** with **SYSBA** privileges and run the following command:

   ```
   SQL>CREATE DIRECTORY datapump AS '/u01/dmpfile';
   ```

4. Edit the following sample import statement to fit your environment and use it to import:

   ```
   impdp system/system schemas=arbutus,arbutusrpt dumpfile=
   JMS1.0.dmp logfile=JMS1.0_imp_YYYYMMDD.log directory=datapump
   ```

5. To create a public synonym for the Workflow application reporting, obtain the public synonym creation utility script **CreatePublicSynonym.sql** from the installation/deployment package in the **UtilityScripts** folder.
6. On the Oracle database server, log in sys as **sysdba** role and run the **CreatePublicSynonym.sql** script with the following command:

   ```
   @CreatePublicSynonym.sql;
   ```

Import Workflow Database into SQL Server

The Workflow application database is imported using the SQL Server Import and Export wizard.

1. Log in to the database server using the SQL Server management studio with system administration level privileges, or a user with a system backup and restore role.
2. In the Object Explorer window, right-click **Databases** and select the **Restore Databases…** option.
3. In the database restoration dialog window, load the Workflow service database backup set, **JMS1.0.ServiceDB.bak** and then restore it. If the database already exists, select **Overwrite the existing database (WITH REPLACE)** option in the **Options** tab.
4. Repeat the above steps to load the Workflow report database - **JMS1.0.ReportDB.bak**.
5. Review/Reset the SQL Server login user mappings to ensure users have the correct access to the Workflow database.

JBoss EAP6 (Enterprise Application Platform) Server

The JBoss Enterprise platform 6.2.0 is the application server used to certify Workflow production. The JBoss application server is authored by JBoss, now developed by Red Hat. Features include clustering, deployment API, distributed deployment, and Java management.

In Workflow, both the Web Application layer and Service layer are installed and deployed into the JBoss EAP server; however, they are physically separated.

Important: *Java must be installed before JBoss.*

Install Java 1.7.0_21_x64

1. Upload **jdk-7u21-linux-x64.bin** from \\syscon.ca\software\sun\java\jdk\7_21 to **/u01/software**.
2. Change privileges to enable **jdk-7u21-linux-x64.bin** as executable:

   ```
   #chmod 755/u01/software/ jdk-7u21-linux-x64.bin
   ```

3. Install **jdk-7u21-linux-x64. bin** by executing:

   ```
   ./jdk-7u21-linux-x64.bin
   ```

4. Configure **.bash_profile** to add **$JAVA_HOME** and modify **$PATH** to add **$JAVA_HOME/bin** to point to the location you installed **java 1.7.0_21**

   Example**:**

   ```
   JAVA_HOME=/u01/jdk1.7.0_21
   export JAVA_HOME
   PATH=$JAVA_HOME/bin:$ANT_HOME/bin:$PATH:$HOME/bin
   export PATH
   ```

Install and Configure JBoss EAP 6.2.0

1. Upload the package **./ jboss_R10.1_rev46384_20140729.tar gz** from the delivery folder (for example, **./Workflow/Oracle** for Oracle installation and **./Workflow/MSSQL** for SQL Server installation) onto the server in the **/u01** folder.
2. Extract the package with the Linux command:

   ```
   tar –vxzf jboss_R10.1_rev46384.tar.gz
   ```

Note: *It is recommended that you create a JBoss user with a user group. For example:* ***jboss****, and running Workflow with the* ***jboss*** *user identity.*

To make ***jboss*** *the owner of the application, run the Linux command:*
chown –R jboss.jboss /u01/jboss

3. Customize the installation parameters with the **install/.properties** file.
4. To customize the settings of Workflow, manually modify the installation and configuration parameters in the **install/.properties** file.

Note: Appendix A *summarizes the initial parameters that can be configured for a customized installation.*

5. Run **/u01/jboss/install.pl** to configure Workflow with the customized configuration settings.
6. Open the Terminal, and run:

```
#/u01/jboss/install.pl
```

Note: *The script resets the following configuration based on the values provided in* ***install.properties:***

./jboss-eap-6.2/bin/ service-ha.sh

./jboss-eap-6.2/standalone/configuration/reporting.properties

./jboss-eap-6.2/standalone/configuration/workflow.properties

./jboss-eap-6.2/standalone/configuration/biometric.properties

Modify JBoss Server configuration file standalone-ha.xml

1. Locate the Workflow JBoss server configuration file, **standalone-ha.xml**, in the **/u01/jboss/EAP-6.2.0/jboss-eap-6.2/standalone/configuration/** folder.
2. Open **standalone-ha.xml** with text editor and make the following changes:
    a. Locate the XA data source element named **java:/ArbutusDS** by finding the line similar to **<xa-datasource jndi-name="java:/ArbutusDS".** Modify the value of its sub-element **<xa-datasource-property name="URL">** to point to the database server.
    b. Find the security sub-element of the XA data source and supply the real database user name and password that are used.
    c. Locate the element **<outbound-socket-binding name="remote-ejb">** and change the value of its sub-element **remote-destination** to point to the JBoss server.

Configure Workflow to Point to Correct GUVNOR URL

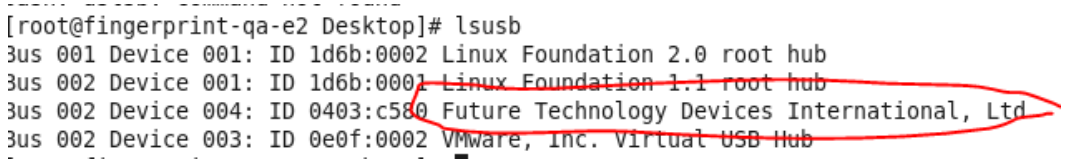
1. Locate the Workflow service JAR file, **ArbutusService-1.0-SNAPSHOT.jar**, in the **/u01/jboss/EAP-6.2.0/jboss-eap-6.2/standalone/deployments/** folder.
2. Open this Workflow service JAR file using 7Zip or WinZip and modify the file named **changeset-syscon.xml**.
3. In **changeset-syscon.xml**, locate all lines like: "<resource source='http://localhost:8080/guvnor……" and replace the **local host** with a **FQDN** or the Workflow application **IP address.**
4. Save the modified **changeset-syscon.xml** and ensure the Workflow service JAR file is updated.

Biometric Server

Our biometric solution requires a license dongle for it to operate. If you license server is hosted on a Virtual Linux Server, ensure that the dongle is correctly mounted using these steps:

1. Open the terminal and switch user to “root”.
2. Enter **lsusb**

If the dongle has been correctly mounted, the following output is displayed:



License Server Configuration

Note: *The user running the License* ***pgd*** *process must have* ***su*** *access privileges.*

The server must be able to read the USB port.

1. Copy the **iAFSServer** folder from the delivered package **./Biometric** to the Biometric Server.
2. Locate the license server utility folder **Activation,** e.g. /u01/eliteiAFS/iAFISServer/bin/Linux_x86_64/Activation. Modify the configuration file, **pgd.conf** by replacing settings with proper values that match your environment settings as following:
    a. Mode = Server
    b. LicenseFile = YOUR_LICENSE_FILE
    c. LicenseUsageLogFile = LOG_FILE

NServer Configuration

1. Copy the **iAFSServer** folder from the delivered package **./Biometric** to the Biometric Server.
2. Locate the NServer utility folder **NServer**, for example:
   /u01/eliteiAFS/iAFISServer/bin/Linux_x86_64/NServer
   Modify the configuration file, **NServer.conf** by replacing settings with the values matching your environment settings.
   There are configuration templates provided for different RDBMS, for example, MySQL, Oracle, PostgreSQL, MSSQL, etc.

   It is recommended that you create your NServer configuration file to match the RDBMS you are using by duplicating the configuration template from the corresponding template file and modifying it to use the settings that match your environment settings.

Start Workflow Application

1. To start Workflow, run the command:

```
cd /u01/jboss/EAP-6.2.0/jboss-eap-6.2/bin
./service-ha.sh &
```

Install BI Publisher Plugins and Extension

Install Workflow Application BI Publisher Plugins

1. Copy all JavaScript files in the **BIReports\OracleBIPublisher\Plugins** folder in the installation deployment package to the Oracle BI Publisher server.

   This Oracle BI Publisher folder is located in the: **/u01/app/oracle/Middleware/user_projects/domains/bifoundation_domain/config/bipublisher/repository/Admin/Plugins** folder.
   Or
2. If this folder does not exist, then create it.

Install Workflow Application BI Publisher Extension

1. Login into the Weblogic Server console. For example,

   ```
   http://yourbiserver:7001/console/login/LoginForm.jsp
   ```

2. Navigate to **Services** and select **Data Sources**.
3. Click **Lock & Edit** on the top left-hand panel.
4. Create a new **Generic Data Source**. Define both the **Name** and **JNDI** as "Arbutusrpt"
5. Click **Apply Changes**.
6. Locate the BI publisher extension folder in the installation deployment package: **BIReports\BIPublisherExtension**
7. Execute command:

   ```
   java -cp
   /u01/app/oracle/Middleware/wlserver_10.3/server/lib/weblogic.jar weblogic.Deployer -adminurl t3://YOUR_BI_SERVER:7001 -user USERNAME -password PASSWORD –targets bi_cluster,AdminServer -deploy ./BIPublisherExtension-0.0.1-SNAPSHOT.war -remote -upload
   ```

Upload Workflow Reports

1. Log into Oracle BI Publisher console with a user who has the BI Administrator role.
   For example: http://YOUR_SERVER:9704/xmlpserver
2. Click **Catalog** from the menu.
3. From the Navigation Panel, click **Shared Folders**.
4. From the Task Panel, click **Upload**.
5. In the dialog click the **Choose File** button to open the file browser and select **Workflow.xdrz** in the **BIReports/Reports** folder. Ensure the **Overwriting existing file** option is checked, and then click the **Upload** button.

JBOSS Fuse Server Installation and Configuration

Install and Configure JBoss Fuse 6.0.0.GA Server

1. Upload the package **./jboss-fuse.tar.gz** from the delivery folder **./Application** onto the server to the **/u01** folder.
2. Extract the package with the Linux command:

```
tar –vxzf jboss-fuse.tar.gz
```

Note: *It is recommended that you create a JBoss user with a user group.*
For example: ***jboss,*** *and running JBoss Fuse with the* ***jboss*** *user identity.*

To make ***jboss*** *the owner of the application, run the Linux command:*
chown –R jboss.jboss /u01/jboss-fuse-6.0.0.redhat-024

3. Customize your installation by modifying the following property files:
   a. Navigate to **/u01/jboss-fuse-6.0.0.redhat-024/etc** and modify **system.cfg**.

   b. Navigate to **/u01/jboss-fuse-6.0.0.redhat-024/usr/arbutus/conf** and modify **workflow-service.properties:**

Property	Value
arbutus.jdbc.connection.driver	Oracle.jdbc.OracleDriver for Oracle installation OR com.microsoft.sqlserver.jdbc.SQLServerDriver for SQL Server installation
arbutus.jdbc.connection.url	jdbc:oracle:thin:@DB_SERVER:PORT:SID for Oracle installation OR jdbc:sqlserver://DB_SERVER:PORT;databaseName=DB_NAME for SQL Server installation
arbutus.jdbc.connection.username	DB_LOGIN_USER_NAME
arbutus.jdbc.connection.password	DB_LOGIN_USER_PASSWORD
remote.connection.default.host	JBOSS_SERVER_NAME_IP
remote.connection.web.jbpm	JBPM URL For example: http://JBOSS_SERVER:PORT/Workflow/ExternalJbpmServlet
email.host	Email Server Name.

email.username	Email User Name.
email.password	Email User Password.

c. Navigate to **/u01/jboss-fuse-6.0.0.redhat-024/usr/arbutus/mail** and modify **email-grievance.txt properties** by changing the following line so that it points to the correct Workflow application URL matching the installation.

For example:
***Grievance
***

d. Navigate to **/u01/jboss-fuse-6.0.0.redhat-024/usr/cactas/conf** and modify **cactas-service:**

Property	Value

Note: *The following step only applies **ONLY** to SQL Server installation.*

e. Navigate to **/u01/jboss-fuse-6.0.0.redhat-024/usr/arbutus/sql/mssql** and copy all SQL statements in the folder to **/u01/jboss-fuse-6.0.0.redhat-024/usr/arbutus/sql/**

Start the JBoss-Fuse Server

1. To start the JBoss-Fuse server, run the command:

```
cd /u01/jboss-fuse-6.0.0.redhat-024/bin
./start
```

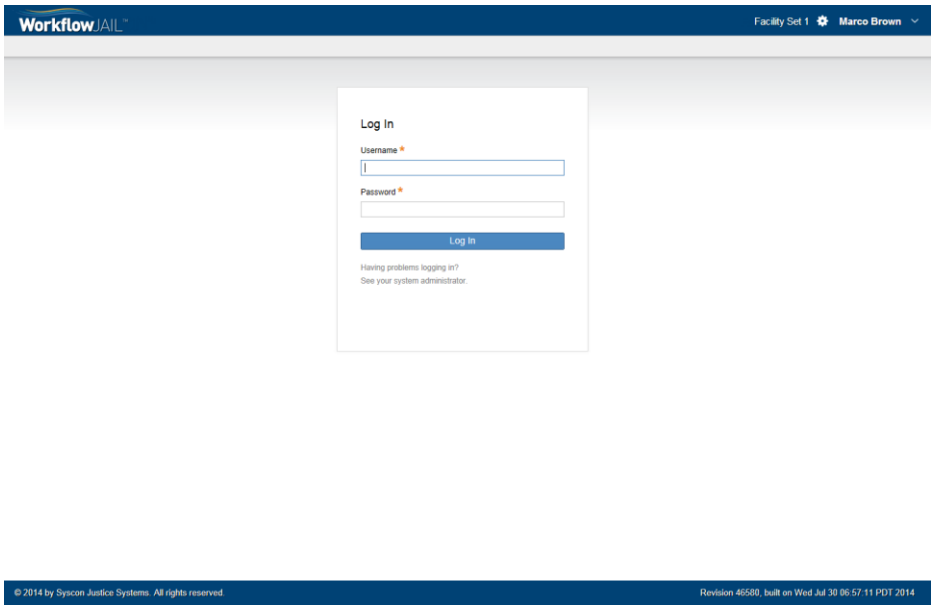
Verify Installation

To ensure Workflow is properly installed, start the application in a web browser.

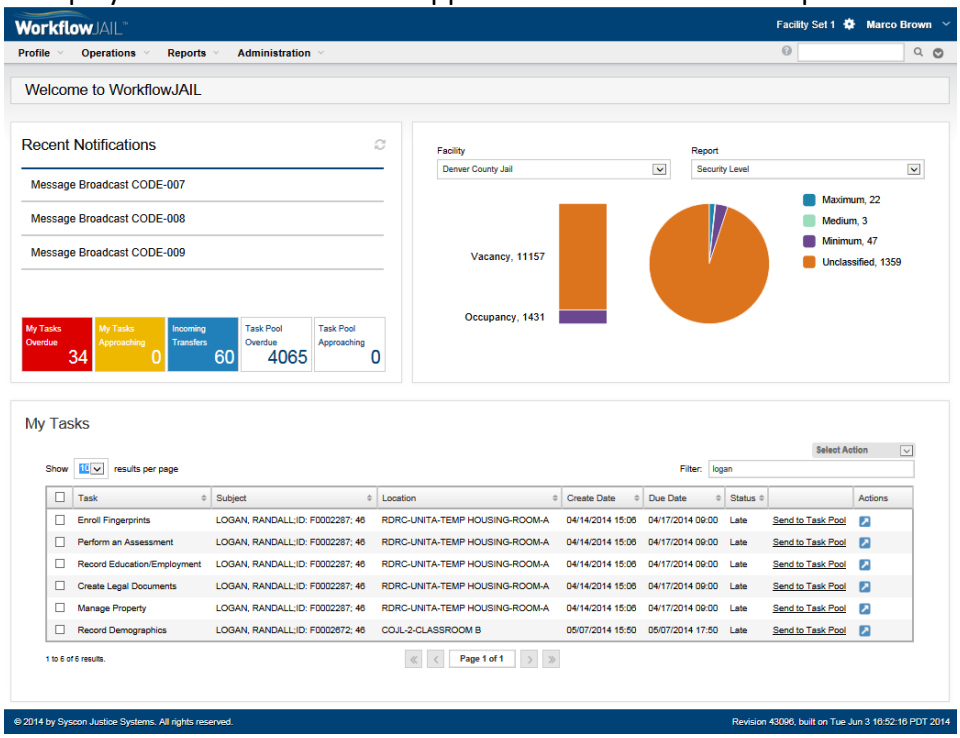
1. Open a web browser (Google Chrome recommended) and type in the Workflow URL: http://SERVERNAME:8080/Workflow

   Important: *Replace SERVERNAME above with the actual server name.*

   The login page is displayed:



2. Enter your **Username** and **Password** to login. If the login is successful and the following screen is displayed then the Workflow application installation is complete.



Contact Information

To contact Syscon Justice Systems for more information on Workflow:

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Troubleshooting

If you require further assistance beyond the scope of this guide, Syscon provides technical support.

Contact Syscon Technical Support using your System Administrator or Designated Trainer for your office/area.

Email: support@syscon.net
Toll-free: +1 (888) 479-7266
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Appendix A: Installation Configuration Parameters

Parameter Name	Description	Example
APPLICATION_BIND_ADDRESS	Machine name or IP address Workflow runs on	Workflow.domain.ca or 10.10.117.15
APPLICATION_PORT	TCP port number	Ports-default or ports-01 or ports-02. Port number increased by 100.
JBOSS_MANAGEMENT_ADDRESS	Machine name or IP address to access JBoss management console	Workflow.domain.ca or 10.10.117.15
DB_JBPM_URL	JBPM Database connection URL	jdbc:oracle:thin:@db-qa-e2.elite2.local:1521:e2qa
DB_JBPM_PASSWORD	JBPM database user password	password
DB_SERVICE_URL	Workflow Service database connection URL	jdbc:oracle:thin:@db-qa-e2.elite2.local:1521:e2qa
DB_SERVICE_PASSWORD	Service database user password	password
BIP_URL	Oracle BI Publisher URL	http\://bi-eap6-qa1.syscon.ca\:9704/xmlpserver/
BIP_REPORTSERVICE_URL	Oracle BI Publisher report service URL	http\://bi-eap6-qa1.syscon.ca\:9704/xmlpserver/services/v2/ReportService?wsdl
BIP_CATALOGSERVICE_URL	Oracle BI Publisher catalog service URL	http\://bi-eap6-qa1.syscon.ca\:9704/xmlpserver/services/v2/CatalogService?wsdl
BIP_USER	BI Publisher user name	reportuser
BIP_PASSWORD	BI Publisher user password	password
BIP_WORKFLOW_ROOT	Root path for Workflow reports	/
BIP_WORKFLOW_CATALOG	Root path for Workflow report catalog	Workflow/Reports/

Parameter Name	Description	Example
REPORT_DB_URL	Report schema database connection URL	jdbc:oracle:thin:@db-qa-e2.elite2.local:1521:e2qa
REPORT_DB_USERNAME	Report schema user name	reportuser
REPORT_DB_PASSWORD	Report schema password	Password
MODEL_SCRIPT_LOCATION	Report data model DDL scripts location	../OracleDataBase/sqlScript/serviceIDB/
MODEL_FILE_LOCATION	Report definition file location	../OracleBIPublisher/Workflow/Reports/
HIBERNATE_DIALECT	Hibernation dialect	org.hibernate.dialect.Oracle10gDialect
BIO_ADMIN_ADDRESS	FQDN/IP of the Biometric administration server	10.10.13.13
BIO_ADMIN_PORT	Biometric administration server port	24932
BIO_CLIENT_PORT	Biometric client port	25452
BIO_LICENSE_ADDRESS	FQDN/IP of the Biometric license server	10.10.13.13
BIO_LICENSE_PORT	Biometric license server port	5000
BIO_SERVLET_PORT	Biometric finger printing Java servlet port	8080
BIO_SERVLET_ADDRESS	URL of the server on which Biometric finger printer Java servlet stores	http://10.10.13.23
BIO_SERVLET_URI	URI of the Biometric finger printing Java servlet	/Workflow/service/biometric/connect

Glossary

Term	Definition
App	Short for “application.” A collection of components such as task pages, tabs, reports, and dashboards, that address a specific business need.
Deploy	To bring into effective action. Deploying an application includes required activities that make software available for use.
Directory Structure	In computing, a directory structure is the way an operating system's file system and its files are displayed to the user. Files are typically displayed in a hierarchical tree structure.
Drivers	In computing, a device driver is a computer program that operates or controls a particular type of device that is attached to a computer. A driver typically communicates with the device through the computer bus or communications subsystem to which the hardware connects.
Import	Introduce an entity from a different context into the current context.
Installation	Installation (or setup) of a computer program (including device drivers and plugins), is the act of making the program ready for execution.
JBoss EAP6.2 (Enterprise-platform) Server	JBoss is an application server authored by JBoss, now developed by Red Hat. WildFly is written in Java and is executable on top of the Java Platform, Enterprise Edition (Java EE), which is available cross-platform. Features include clustering, deployment API, distributed deployment, and java management.
License Management	A software license manager is a software management tool used by Independent software vendors or by end-user organizations to control where and how software products are able to run. License managers protect software vendors from losses due to software piracy and enable end-user organizations to comply with software license agreements. License managers enable software vendors to offer a wide range of usage-centric software licensing models, such as product activation, trial licenses, subscription licenses, feature-based licenses, and floating licensing from the same software package they provide to all users.
Oracle Schemas	The Oracle Database is an object-relational database management system produced and marketed by Oracle Corporation. Database schema: most Oracle database installations traditionally came with a default schema.
Oracle Business Intelligence User	The user who has permissions to use the Oracle BI application.

Term	Definition
Oracle BI Publisher	Provides a single, Web-based platform for authoring, managing, and delivering interactive reports, dashboards, and all types of highly formatted documents.
Package Installation	Installation incorporates the contents of a package into your Salesforce organization. A package on the AppExchange can include an app, a component, or a combination of the two. After you install a package, you may need to deploy components in the package to make it generally available to the users in your organization.
Package Version	A package version is a number that identifies the set of components uploaded in a package. The version number has the format *majorNumber.minorNumber.patchNumber* (for example, 2.1.3). The major and minor numbers increase to a chosen value during every major release. The *patchNumber* is generated and updated only for a patch release. Unmanaged packages are not upgradeable, so each package version is simply a set of components for distribution.
Parameters	A numerical or other measurable factor forming one of a set that defines a system or sets the conditions of its operation.
Table Spaces	A tablespace is a storage location where the actual data underlying database objects can be kept. It provides a layer of abstraction between physical and logical data, and serves to allocate storage for all DBMS managed segments. A database segment is a database object which occupies physical space such as table data and indexes. Once created, a tablespace can be referred to by name when creating database segments.
Uploading	Uploading a package in WFJ provides an installation URL so other users can install it.
Java Database Connectivity	JDBC is a Java-based data access technology (Java Standard Edition platform) from Oracle Corporation. This technology is an API for the Java programming language that defines how a client may access a database. It provides methods for querying and updating data in a database. JDBC is oriented towards relational databases.