HHS HR SCMS Induction Web Service Client Interface Deployment Guide

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# Introduction

This document describes how to deploy the SCMS Induction Web Service Client interface to the HHS BizFlow HR system. It is assumed that there are 3 environments, DEV, QA, and PROD for HHS BizFlow. There are only 2 environments, TEST and PROD, for the SCMS. The SCMS TEST environment will be connected with both the HHS BizFlow DEV and QA enviornments. Meanwhile, the SCMS PROD environment only feeds into the HHS BizFlow PROD environment. The instructions for deployment for each environment will be the same except for configuration. Configuration should be done specifically for each target environment.

# Required system version information

1. BizFlow: BizFlow Server version 12.4
2. Database: Oracle 12c
3. Java: JDK 1.7
   1. Confirm that the JAVA\_HOME system variable points to the correct JDK 1.7 path
4. Apache ANT version 1.9.1
   1. Confirm that the ANT\_HOME system variable points to the ANT path
5. Apache Tomcat version 8.0.37

# Development directory structure

The following directory capture will be delivered as part of the release of the system.

/scmsswsc/

/scmsswsc/src/main/java/

/scmsswsc/src/main/resources/

/scmsswsc/lib/

## Root Directory Contents

The /scmsswsc/ directory contains the build script, build.xml, required for building the source code with Apache Ant. The dependency jars will be copied into the generated war file when the build script is run. A new war file for the interface application is created and will be stored in the /scmsswsc/dist/ directory with the dependency jars. The root directory also stores a scmsswsc.properties file which contains the JDK path.

## Source Code Directory Contents

The /scmsswsc/src/main/java/ directory contains the java source code for running the interface as SOAP client web application.

## Resources Directory Contents

The /scmsswsc/src/main/resources/ directory contains the application.properties file which have configurable properties that need to be updated based on the target execution environment. There is a bindings.xjb file which helps with processing the WSDL (XML documents) and generating corresponding Java classes to be used by the application.The resources directory also has the log4j.properties, logback.xml and manifest files used to execute the web application.

## Library Directory Contents

The /scmsswsc/lib/ directory contains the dependency jar files needed to run the application. These jar files will be copied onto the generated war file when the code is compiled with Apache Ant.

## Logs Directory Contents

The *<tomcat\_dir>*/logs/ directory will contain the scms-induction-YYYY-MM-DD.log file which contains logging information for the web application for specific day.

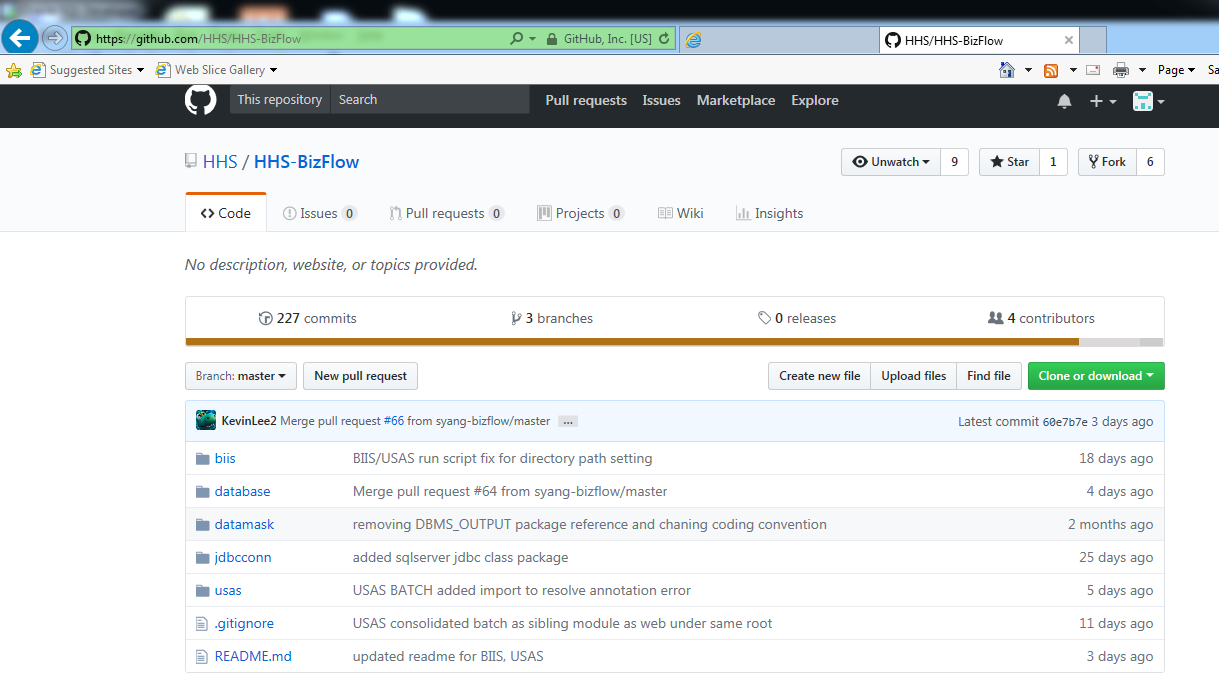
# Methods of deployment file delivery

The following methods of deployment file delivery may be considered:

* USB drive to HHS team
* Upload to a designated ftp/sftp site in HHS network by authorized Deloitte team
* Upload from HHS issued laptop by authorized Deloitte team
* Download from the HHS-BizFlow GitHub site (https://github.com/HHS/WHRSC-BizFlow) by HHS personnel

## Development file location in GitHub

1. Log in to GitHub and navigate to the WHRSC-BizFlow repository
2. The SCMS Web Services Client web application code is in the scmsswsc directory.
3. Download or clone the application code by clicking the ‘Clone or Download’ button, shown in the image below (the green button).



# Deployment Steps

## Configuration

The application.properties file need to be updated depending on the target environment the interface is deployed. The file is located in the /scmsswsc/src/main/resources/ directory.

### Log Properties

#Logging properties

logging.config=path to logback.xml

### SCMS Induction Service Properties

The following group of properties are used to prepare the HTTP request for SCMS Induction Service. Other than the highlighted properties, these properties should not be changed.

#request.transactionID.appender=EWITS2

request.transactionOrg=HHS

request.systemID=EWITS2.0

request.organization=HHS

request.personSponsored=false

request.emergencyResponder=N

request.credentialCategory=FEDERAL\_EMPLOYEE

#For testing purposes, use false, For production, use true

mode.secure=true

#SCMS endpoint URL

induction.url=SCMS Induction Service URL

#JAXB Context Path (Package name comprising Classes generated from WSDL using JAXB)

jaxb.context.path=gov.hhs.induction.schema

#Secure Connection Properties - keystore/truststore

ssl.key-store-type=jks

ssl.key-store=keystore name

ssl.key-store-password=password

ssl.trust-store=truststore name

ssl.trust-store-password=password

#absolute path to keystore and truststore

ssl.cert.path=path to keystore and truststore

### Error Handling Properties

The following set of properties are used for error handling and used to display error messages to the end user.

#Error Handling Properties

#custom error messages

error.soapfault=Invalid response received from Induction service. Please check the logs.

error.webserviceIO=Error in connecting to Induction Service. Please check the logs.

error.illegalArgument=Invalid request sent to Induction Service. Please correct the values on the request form.

error.other=An error occurred. Please check the logs.

code.error=Failed

### Response Messages

The following response messages are used to be displayed to the end user.

#custom result messages

message.duplicate=Found one existing record for FIRST\_NAME LAST\_NAME. Double check names to ensure you have linked to the correct individual.

message.success=A new HHSID has been generated for FIRST\_NAME LAST\_NAME.

## Build the Source Code

As a system administrator, complete the following steps to build the source code using Apache Ant:

1. Open up a command terminal.
2. Change the directory to the scms directory, ex: ‘cd scms’
3. Using a text editor, open the scmsswsc.properties file and modify the JDK location in the following property

jdk.home.1.7=<full\_path\_to\_jdk\_home\_dir>

1. In the command line, run the ant build script, ex: ‘ant package’
2. Capture the generated WAR file to run the module.

scms/dist/scmsswsc-<version>.war

1. Following are the contents of the WAR after it gets published.

META-INF/MANIFEST.MF

WEB-INF/classes

WEB-INF/classes/application.properties

WEB-INF/classes/log4j.properties

WEB-INF/classes/logback.xml

WEB-INF/classes/bindings.xjb

WEB-INF/lib

## Deployment on Server

1. Log in to the target environment server as the BizFlow service owner (or sudo).
2. Navigate to the Apache Tomcat installation directory. Copy the module WAR file to the designated web application (i.e., tomcat/webapps) directory. Make sure exclude the version number part of the WAR file since the file name will become the application context name.

* From (build machine):
  + scms/dist/scmsswsc-<version>.war
* To (target environment):
  + <webapps\_dir>/scmsswsc.war

1. Make sure Tomcat web server is running. If the Tomcat server is not running, start the Tomcat server by running the startup script located at <tomcat\_dir>/bin/startup.
2. Wait until the web application is fully deployed. You may watch that the usasrwsc directory is created under the web application directory, and check properties file under it.

<tomcat\_dir>/webapps/scmsswsc

<tomcat\_dir>/webapps/scmsswsc/WEB-INF/classes/application.properties

1. Configure the properties as outlined above by opening and editing the application.properties file.

## Starting and Testing

After the SCMS Induction Web Service Client web application is deployed and configured, perform the following steps:

1. Stop the Tomcat server by running the shutdown script located at <tomcat\_dir>/bin/shutdown.
2. Wait until the Tomcat process (i.e. the java process that runs the Tomcat service) is completely shut down.
3. Start the Tomcat by running the startup script located at <tomcat\_dir>/bin/startup.
4. The deployed module can be accessed by web service call with the designated service URL and parameters. For example,
   * https://localhost:8080/scmsswsc/induction/test

Replace the protocol, server DNS name, port, and report identifying information as appropriate.

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