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FINANCIAL SERVICES

Java Accounting Installation
Oracle FLEXCUBE Universal Banking
Release 14.4.0.3.0
[February] [2021]

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1. Java Accounting Installation

1.1 Introduction

This chapter explains the steps to configure Application Server for Java Accounting Integration with FCUBS.

1.2 Pre-Requisites

For Java Accounting Installation, a Weblogic domain is required.

NOTE: In the following sections, the IP address 10.10.10.10 and port 1010 are used as an example. Please use valid IP address and Port of corresponding server.

1.3 Server Setup

This section contains following sub-sections:

- Java Accounting Setup

- Deploying INFRA Services and Java Accounting Services

- Verifying Arguments for Reference Number Generation

1.3.1 Java Accounting Setup

Java Accounting Setup includes two sets of services:

- **INFRA Services** - There are two services under this category, which are described below:

    - **Discovery Service:**
      This service is required for Java Accounting Services Registration. On start-up, all the Java Accounting services will be registered with Discovery Service. The registered services can make inter service calls by making use of Discovery Service.
      Service Name: plato-discovery-services-5.0.0.war

    - **Config Service:**
      All the configuration related details will be stored in a database table (table name: PROPERTIES). Config service provides the required configuration details for the corresponding Java Accounting Services during service start up.
      Service Name: plato-config-services-5.0.0.war

- **Java Accounting Service** - This is the Accounting Functional Service with customer balance update and deferred processing.
  Service Name: fcubs-ext-accounting-services-5.0.0.war

1.3.2 Deploying INFRA Services and Java Accounting Services

INFRA Services and Java Accounting Services must be deployed on two separate Managed Servers (Any name can be given to Managed Servers).

- **Config Server:** In this managed server, the INFRA Services must be deployed (plato-discovery-services-5.0.0.war and plato-config-services-5.0.0.war).

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- **Java Accounting Server:** In this managed server, the Java Accounting Service must be deployed.
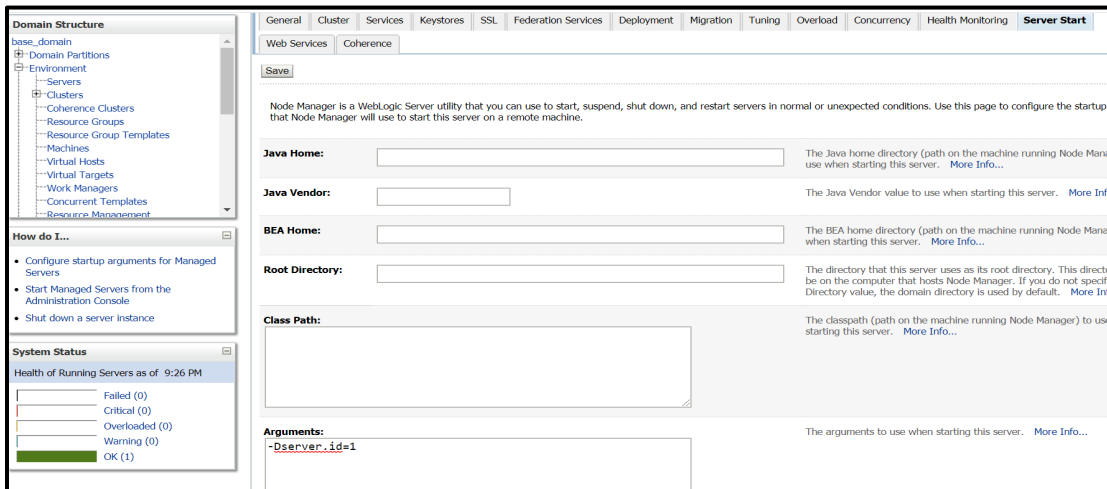
1.3.3 <u>Verifying Arguments for Reference Number Generation</u>

Do the following steps, to verify the arguments:

1. Click **Managed Server**.
2. Under **Configuration** tab, **Navigate to Server Start** tab.
3. Verify the Arguments.

NOTE: Parameter '-Dserver.id=1' is required for the Reference Number Generation in Java Accounting services. If it is not set, the accounting service will fail to generate the necessary reference numbers.

Figure 1: Verify Arguments (-Dserver.id=1)

The data sources needs to be created for INFRA Services and Java Accounting Services. For more information on data sources refer to table.

Data Source JNDI Name	Type	Targets
jdbc/OBAC	Non-XA Datasource	Java Accounting Server
jdbc/PLATO	Non-XA Datasource	Java Accounting Server, ConfigServer
jdbc/PLATOBATCH	Non-XA Datasource	Java Accounting Server

The specific lines for Linux Server/Windows Server must be included in setDomainEnv.cmd or setDomainEnv.sh of the Weblogic domain:

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1.3.3.1 <u>Scripts for Linux Server</u>

JAVA_OPTIONS="${JAVA_OPTIONS} ${JAVA_PROPERTIES} -Dflyway.enabled=false -Dspring.flyway.enabled=false -Dplato.services.config.uri=http://<config-server-ip>:<config-server-port> -Dplato.service.logging.path=<Debug Path where Logs are to be written>"

export JAVA_OPTIONS

For example,

JAVA_OPTIONS="${JAVA_OPTIONS} ${JAVA_PROPERTIES} -Dflyway.enabled=false -Dspring.flyway.enabled=false -Dplato.services.config.uri=http://10.10.10.10:1010 -Dplato.service.logging.path=/mnt/FC144/ACLogs"

export JAVA_OPTIONS

1.3.3.2 <u>Scripts for Windows Server</u>

set JAVA_OPTIONS=%JAVA_OPTIONS% %JAVA_PROPERTIES% -Dplato.services.config.uri=http://<config-server-ip>:<config-server-port> -Dflyway.enabled=false -Dspring.flyway.enabled=false -Dplato.service.logging.path=<Debug Path where Logs are to be written>

For example,

set JAVA_OPTIONS=%JAVA_OPTIONS% %JAVA_PROPERTIES% -Dflyway.enabled=false -Dspring.flyway.enabled=false -Dplato.services.config.uri=http://whf00bir:9005 -Dplato.service.logging.path=D:/ACLogs
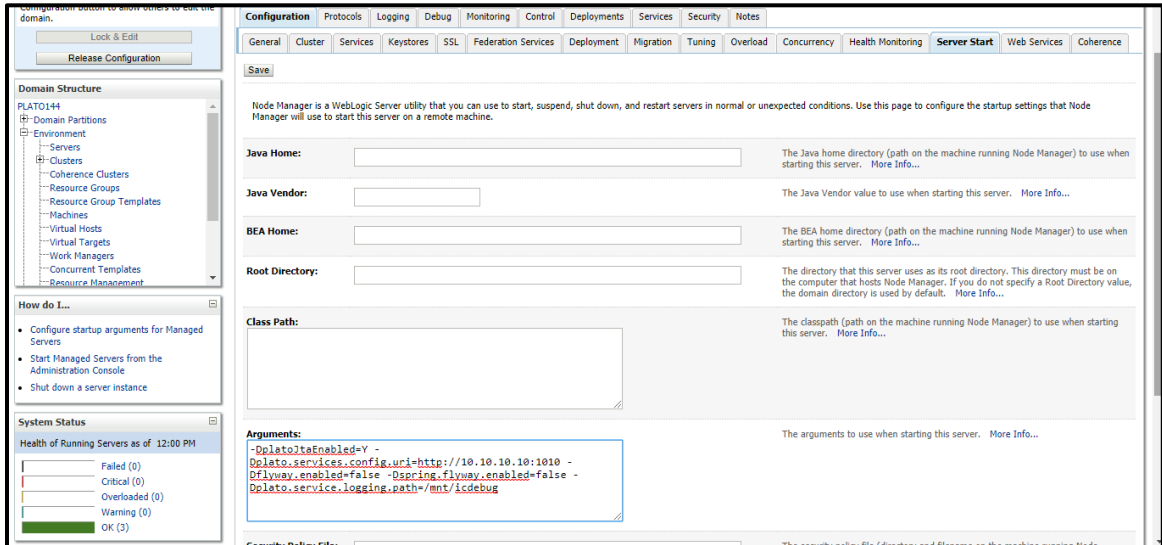
1.3.3.3 <u>Alternate Method</u>

Alternatively, if the parameters are to be set specific to a Managed Server where Services are deployed, then set these properties as follows:

1. Select **Servers**.
2. Under **Servers**, select **Managed Server**.

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3. Under **Managed Server**, select **Server Start** in the argument section.

   NOTE: It will be useful only if Node-Manager is used to start managed servers.

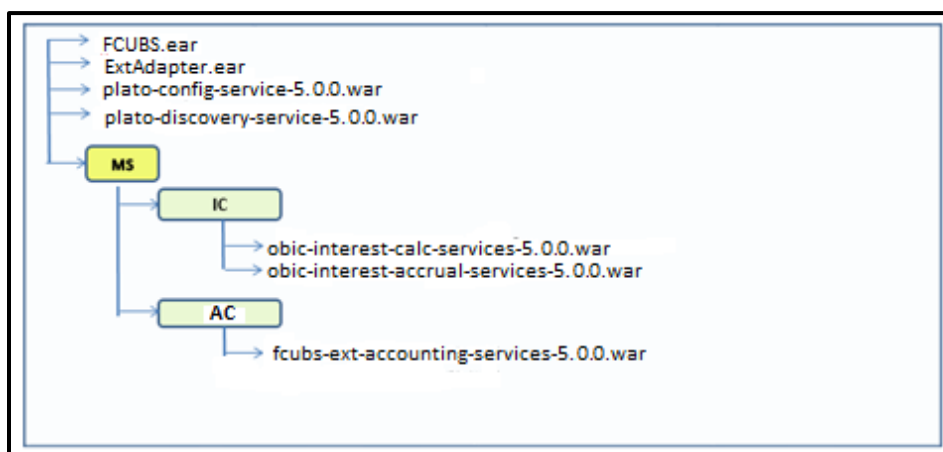**Figure 2: Setting Servers**

1.4 WAR Deployment after Build

In addition to FCUBS EAR, the Java Accounting Service war and INFRA war will get copied into the destination location, as a part of the FCUBS EAR build. The wars will be copied after build in the locations mentioned below:

- **FCUBS Application EAR and All Adapter EARs:** Available in the destination folder.

- **INFRA Service WARs:** Plato-discovery-services-5.0.0.war and plato-config-services-5.0.0.war will be available in the destination folder.
  Deploy all the INFRA Service WARs in **ConfigServer**.

- **Java Accounting Service WAR:** All the Java Accounting Service WAR will be copied in "AC" folder under the destination folder.
  Deploy the Java Accounting Service WAR are in **Java Accounting Server**.

Figure 3: WAR Deployment After Build

1.5 Order of Server Start

After deployment or server restart, the services needs to be started in following sequence:

1. plato-config-service

2. plato-discovery-service

3. Java Accounting Service

When the servers are restarted, make sure to start ConfigServer first and then the Java Accounting Server.

On every restart of ConfigServer, the plato-discovery-service must be stopped and started. This is required, as the Discovery needs property entries for self-registration to be picked from plato-config-service.

To check if all the services have started, the below discovery URL can be checked:

http://<config-server-ip>:<config-server-port>/plato-discovery-service

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For example,

http://10.10.10.10:1010/plato-discovery-service

All the deployed Java IC Services should get listed in the service discovery URL.

1.6 Accounting Maintenance in FCUBS

The maintenances mentioned below are required in FCUBS:

- PROPERTIES Table
- Transaction Reference Number

1.6.1 PROPERTIES Table

Since the properties table stores the properties required by the Services, you need to run the update scripts. The following placeholders needs to be replaced in the update scripts:

- <config-server-ip> with ip or hostname of ConfigServer Managed Server.
- <config-server-port> with port of ConfigServer Managed Server.
- <accounting-server-port> with port of Java Accounting Server Managed Server.

1.6.1.1 Update Scripts

update properties set value = 'http://<config-server-ip>:<config-server-port>/plato-discovery-service/eureka' where key ='plato.services.eureka.uri';

update properties set value = '< accounting-server-port>' where key in ('server.port', 'plato.services.entityservices.port');

For example,

update properties set value = 'http://${eureka.host}:${eureka.port}/plato-discovery-service/eureka' where key ='plato.services.eureka.uri' and application='fcubs-ext-accounting-services';

update properties set value = '${'fcubs-ext-accounting-services.server.port}' where key in ('server.port', 'plato.services.entityservices.port') and application='fcubs-ext-accounting-services'

1.6.2 Transaction Reference Number

If the Transaction reference number needs to be generated by DDA system, maintain the corresponding details using ACDPARAM with key id as PRM.

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Version 14.4.0.3.0

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