

Troubleshooting Guide
Oracle Banking Electronic Data Exchange for Corporates
Patchset Release 14.7.2.0.0

Part No. F89453-01

November 2023

ORACLE®

Troubleshooting Guide

November 2023

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1. Preface

1.1 Purpose

This guide provides guidance to users for the issues within the application. It describes various methods to figure out the error and then troubleshoot it.

1.2 Audience

This guide is intended for the software developers and software testers.

1.3 Document Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

1.4 Acronyms and Abbreviations

The following acronyms/abbreviations are used in this guide:

Table 1: Acronyms and Abbreviations

Acronyms	Definition
SMS	Security Management System
CMC	Common Core
MOC	Mid office Common Core
ELK	Elasticsearch Logstash Kibana
OBEDX	Oracle Banking Electronic Data Exchange for Corporates

1.5 List of Topics

This guide is organized into the following topics. The chapters 1 to 3 are generic and applicable for Oracle Banking Microservice Architecture platform wide troubleshooting and chapter 4 to 7 are specific to Oracle Banking Electronic Data Exchange for Corporates product.

Table 2: List of Topics

Topic	Description
Preface	This chapter provides the information about this guide and intended audience. It also lists the various chapters covered in this User Manual.

Troubleshooting Technical Flows	This chapter describes the platform wide troubleshooting of technical flows and includes UI side checking and some environment issues of WebLogic.
Troubleshooting Kafka	This chapter describes the information on the troubleshooting kafka.
Health Checks	This chapter describes the health check measures and observability required.
Troubleshooting Functional Workflows	This chapter describes the Oracle Banking Electronic Data Exchange for Corporates specific troubleshooting of flows and specific data stores that can be checked for issues.
Troubleshooting OutOfMemory issues	This chapter describes about the information on troubleshooting OutOfMemory issues.
Troubleshooting Deployment Errors/Exceptions	This chapter describes about the information on troubleshooting Deployment Errors/Exceptions.
Business Error Codes	This chapter provides the list of error codes expected out of Oracle Banking Electronic Data Exchange for Corporates

1.6 Prerequisites

The prerequisites are as follows:

- Basic understanding of Event platform
- Basic understanding application log analysis using tools.
- Basic understanding DB changes.

The following softwares should be pre-installed.

- Zipkin
- Kafka
- ELK
- Any SQL Database like SQLDEVELOPER
- WinSCP

1.7 General Prevention

Do not make changes to Flyway scripts manually.

1.8 Best Practices

The best practices are as follows:

- It is ideal to have ELK stack installed on a separate VM outside the product VMs to ensure flow of logs in case of app crash.

- Log levels can be adjusted to INFO and above to enable relevant logs to flow in.

1.9 Related Documents

The related documents are as follows:

- Oracle Banking Common Core User Guide
- Getting Started User Guide
- Oracle Banking Security Management System User Guide
- Oracle Banking Electronic Data Exchange for Corporate User Guide

2. Troubleshooting Technical Flows

This chapter describes various programming issues, possible causes, and solutions to resolve the issues. This topic contains the following sections:

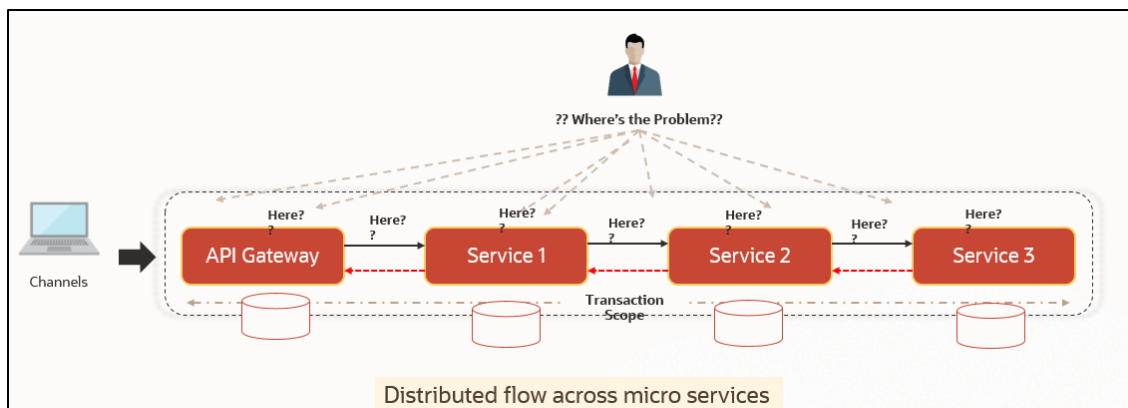
- [2.1 Where is the problem](#)
- [2.2 Preliminary checks from UI](#)
- [2.3 Troubleshooting Environmental Issues](#)

2.1 Where is the problem

Troubleshooting the problem in distributed system could be bit challenging if not understood fully. Each product has UI application components and service side application components. Each side requires different troubleshooting techniques and various logs that can be used to corroborate the problem.

The below picture shows that on service side, it is important to establish the area of the problem. This can be achieved by complete understanding of UI, Service side flows along with the data architecture of application.

Figure 1: Distributed Flow across Micro Services



2.2 Preliminary checks from UI

This section describes how to launch the application and check for the basic errors. Perform the following steps:

1. Launch the application with delegated URL.
2. Press **F12** key, and select **Inspect and See network** tab.
3. Verify that all the calls responses are successful. Usually RED color indicates non 2xx HTTP response.

Figure 2: Call Responses

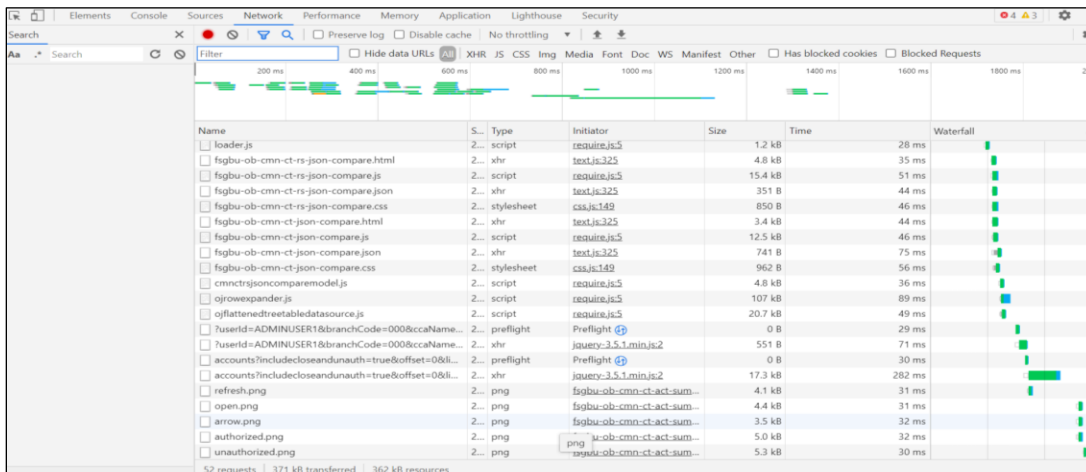
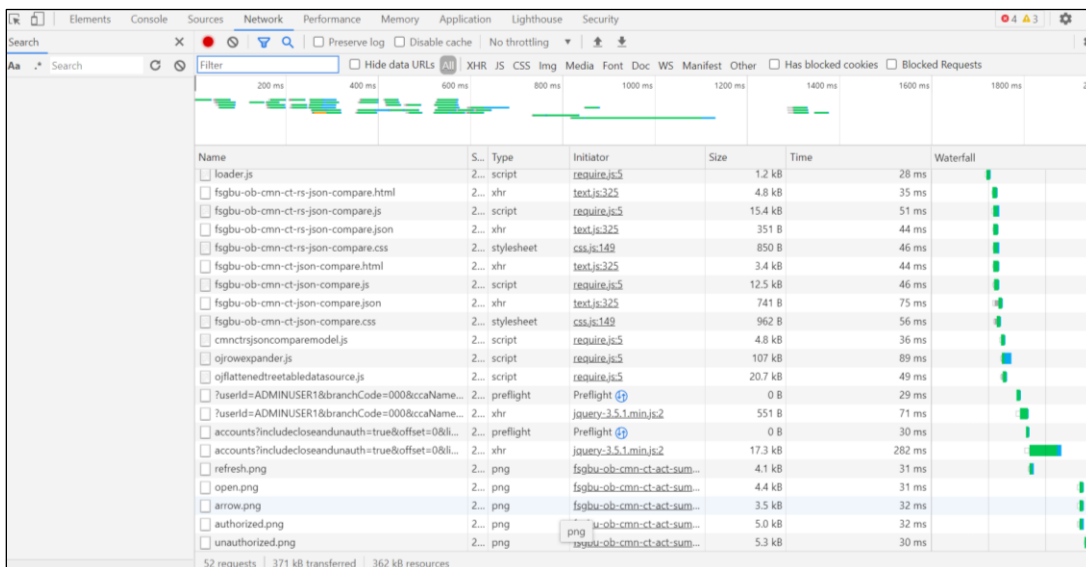
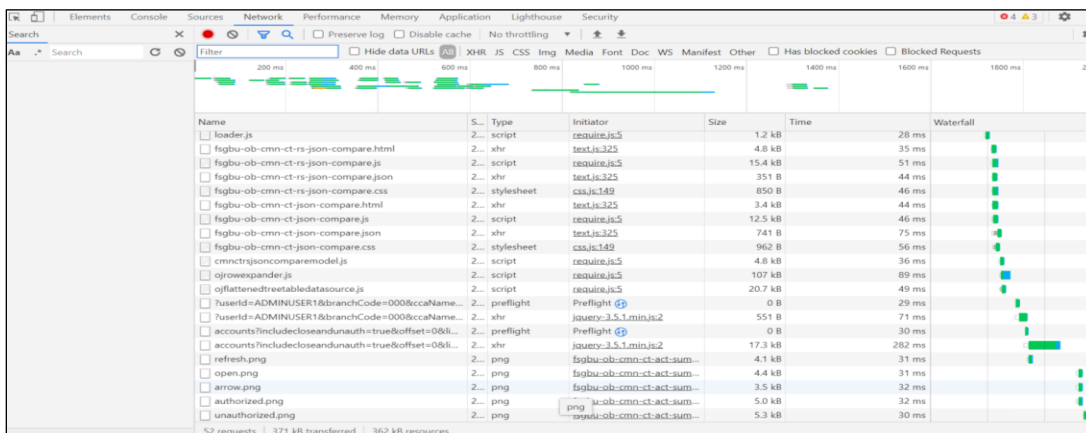
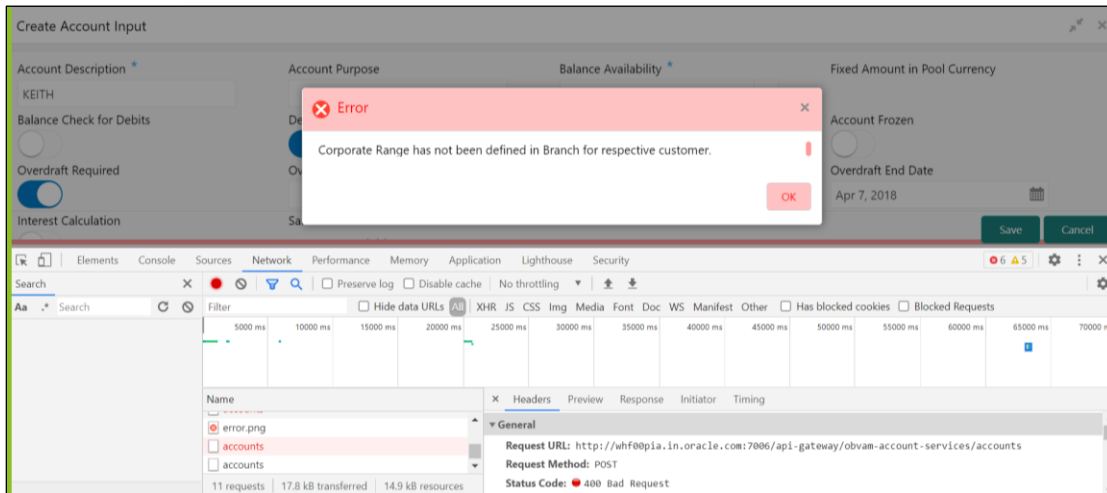
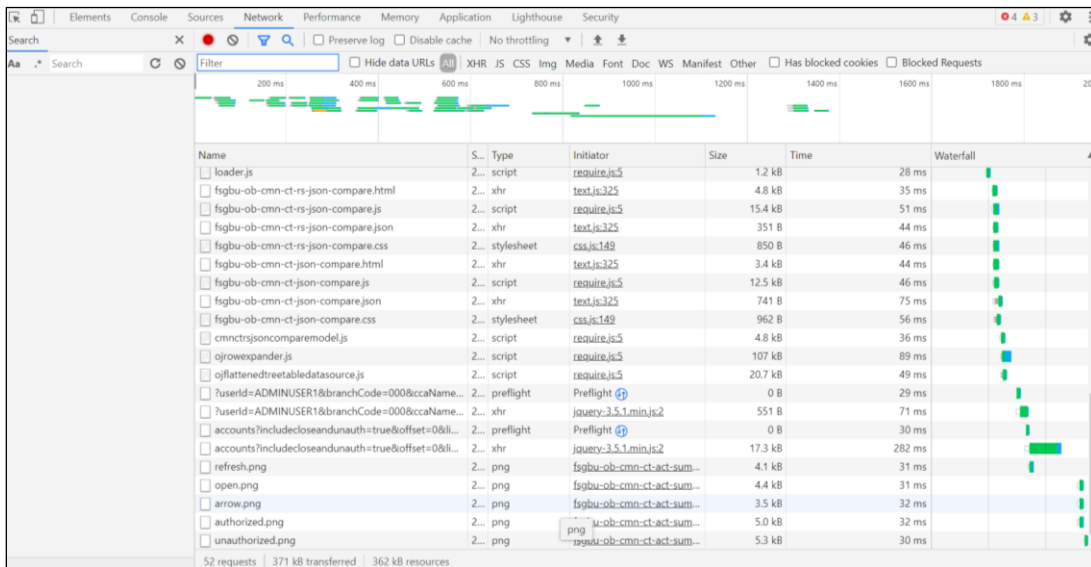


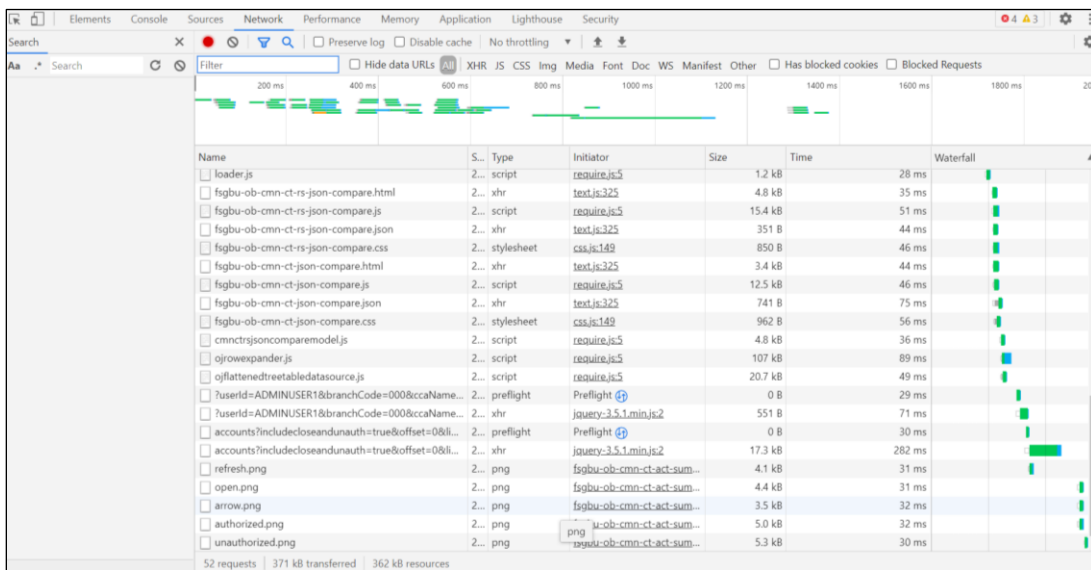
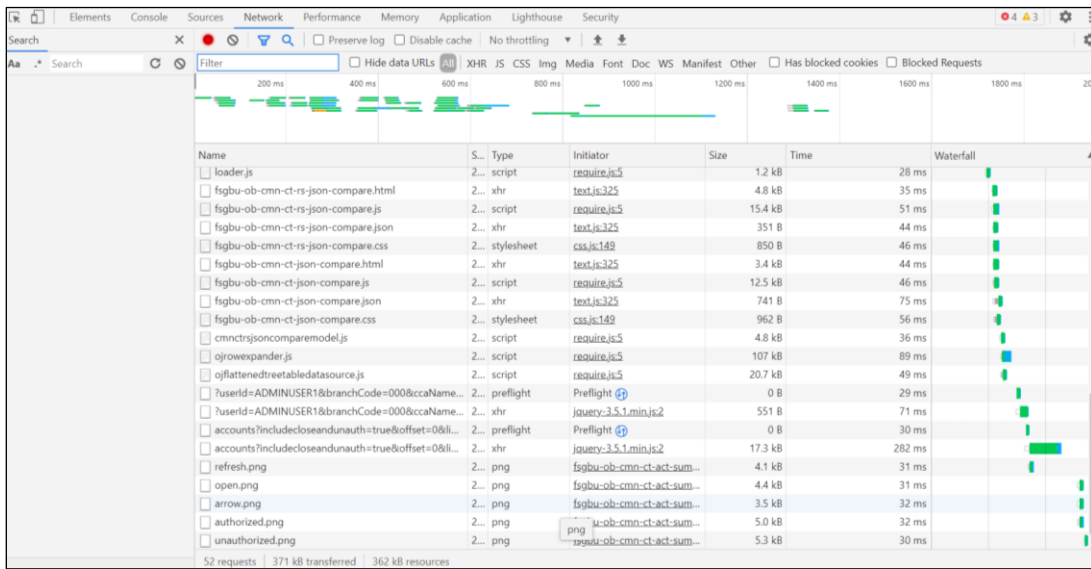
Figure 3: Non 2xx response

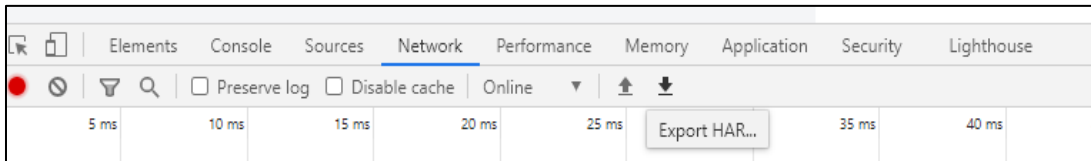
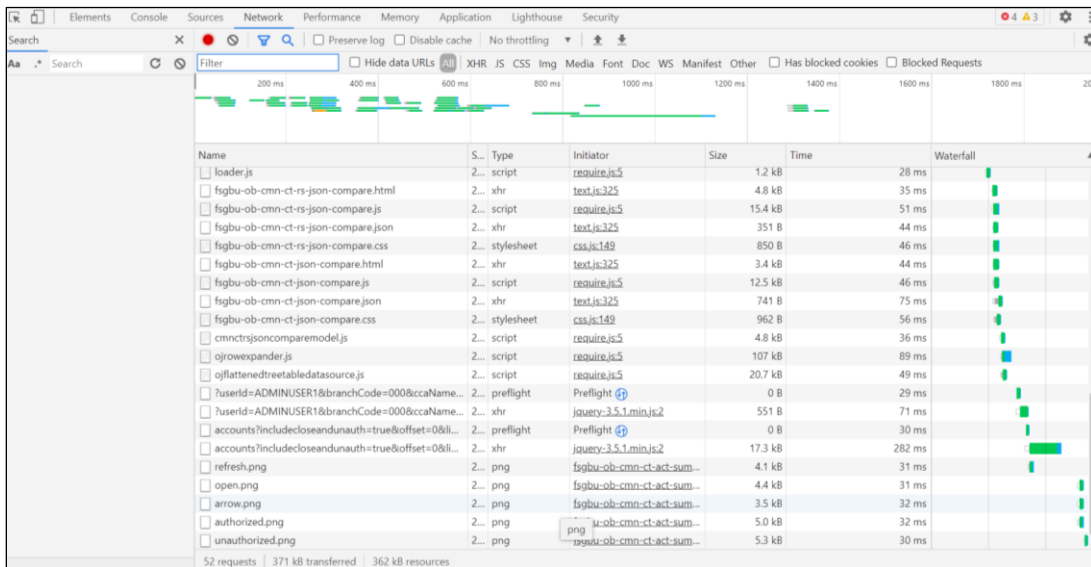




4. You can also export the trace using export option in browsers
5. Example in Chrome you would see this option as below

Figure 4: Export Option





NOTE: The tools such as **fiddler** and **wireshark** to get the browser to API gateway web traffic. This would help to investigate exact request and response payloads exchanged between UI and API Gateway.

2.3 Troubleshooting Environmental Issues

This section contains the following subsections:

- [2.3.1 Possible issues while deploying services](#)
- [2.3.2 Possible issues in login and screen launch](#)

2.3.1 Possible issues while deploying services

This subsection describes the possible issues that may occur in the environment.

2.3.1.1 Service deployment is failing due to flyway

If the service deployment is failing due to flyway, verify that the object or record is already present and make changes in the flyway scripts accordingly.

You may check **flyway_schema_history** table of the respective schema for finding the flyway script entries.

2.3.1.2 Other possible issues

The other possible issue while deploying services could be multiple versions of dependency jars present in the war file. For example, “weblogic.application.naming.EnvironmentException: duplicate persistence units with name PLATO in scope cmc-customer-services-{version}.war.”

2.3.2 Possible issues in login and screen launch

This subsection describes the possible issues that may occur while logging in and launching the screens.

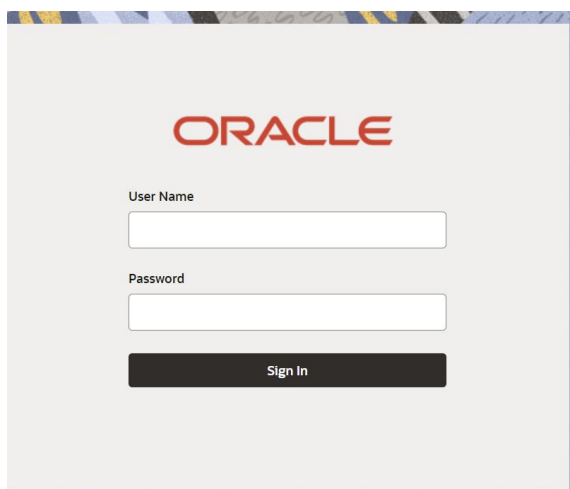
2.3.2.1 Login page is not launching

If the login page is not launching, check if the app-shell war file is deployed. If it is deployed, make sure that the war file is up and running in the deployed managed server and try to login. In addition, check if you are logged in with the appshell URL according to the war file deployed.

Also, check if the required component-server wars like cmc-component-server, obvam-component-server etc are also deployed along with the app-shell.

For example, <https://<ip-address>:<port>/appshell/index.jsp> will load the login page of the application.

Figure 5: Login Page



2.3.2.2 Unable to login after launching the application

If you are not able to login after the application is launched, make sure that the plato-api-gateway service, plato-ui-config service, sms-core-service, and common-core-services are up and running.

Figure 6: Services

PLATO-API-GATEWAY	n/a (1)	(1)	UP (1) -
PLATO-BATCH-SERVER	n/a (1)	(1)	UP (1) -
PLATO-DISCOVERY-SERVICE	n/a (1)	(1)	UP (1) -
PLATO-O	n/a (1)	(1)	UP (1) -
PLATO-ORCH-SERVICE	n/a (1)	(1)	UP (1) -
PLATO-UI-CONFIG-SERVICES	n/a (1)	(1)	UP (1) -
SMS-CORE-SERVICES	n/a (1)	(1)	UP (1) -

2.3.2.3 Unable to login after restarting the services

If you are not able to login after restarting the services, make sure that the LDAP server is up and running, and check if the entered credentials are correct.

2.3.2.4 Menus are not displayed after logging in

After you log in, if the menus are not displayed, map the functional activity codes in the table SMS_TM_ROLE_ACTIVITY. Once it is mapped, check if the corresponding role is assigned to your user id.

2.3.2.5 Screens are not launching after logging in

If you are not able to launch the screens after logging in, make sure that the respective services are up and running.

Note: Verify the VPN connection while trying to troubleshoot the issues related to page launching, etc.

3. Troubleshooting Kafka

3.1 Consumer Services

Oracle Banking Electronic Data Exchange for Corporates consumer service can be referred at <https://docs.oracle.com/cd/F73521-01/PDF/API/Async-API.zip>

3.2 Producer Services

Oracle Banking Electronic Data Exchange for Corporates Producer service can be referred at <https://docs.oracle.com/cd/F73521-01/PDF/API/Async-API.zip>

3.3 Debugging Consumer/Producer health and troubleshooting

3.3.1 Logs to analyze

1. Under the domain folder of Weblogic - Logs related to any issue in Kafka connection and authentication can be found here.
2. On a user defined log path - if we are facing issues in produce/consume operation of event

3.3.2 Tables to analyze

The below table provides the values to be verified to confirm accurate functioning of the consumer/producer service.

Table Name	Column Name	Possible Values
plato_eventhub_in_log		
plato_eventhub_out_log	status	SENT -> Published successfully

3.4 Configurations

For kafka setup, refer to **Oracle Banking Microservices Platform Foundation Installation Guide** and for the application-level setup, all the properties are declared in the yaml file of integration services.

4. Health Checks

4.1 Eureka Dashboard

Until we get health check APIs implemented, the health needs to be monitored using weblogic JVM managed server status and Eureka instance.

Figure 7: Health Checks

OBEDX-CORE-SERVICE	n/a (1)	(1)	UP (1) - ofss-mum-119.snbomprshared1.gbucdsint02bom.oraclevcn.com:obedx-core-service:16062
OBEDX-INQUIRY-SERVICE	n/a (1)	(1)	UP (1) - ofss-mum-119.snbomprshared1.gbucdsint02bom.oraclevcn.com:obedx-inquiry-service:16062
OBEDX-NOTIFICATION-SERVICE	n/a (1)	(1)	UP (1) - ofss-mum-119.snbomprshared1.gbucdsint02bom.oraclevcn.com:obedx-notification-service:16062
OBEDX-WORKFLOW-SERVICE	n/a (1)	(1)	UP (1) - ofss-mum-119.snbomprshared1.gbucdsint02bom.oraclevcn.com:obedx-workflow-service:16062

4.2 Application Services

Catalog of services required for Oracle Banking Electronic Data Exchange for Corporates to run

Table 3: Application Services

Group	Service List	Usage
OBEDX	obedx-core-service	Maintenance Service
OBEDX	obedx-workflow-service	Workflow Service
OBEDX	obedx-notification-service	For email alerts and output generation
OBEDX	obedx-inquiry-service	Inquiry
OBEDX	obedx-component-server	UI
PLATO	plato-config-service	Required for PLATO framework
PLATO	plato-alerts-management-services	Required for PLATO framework
PLATO	plato-api-gateway	Required for PLATO framework
PLATO	plato-batch-server	
PLATO	plato-discovery-service	Required for PLATO framework
PLATO	plato-feed-services	

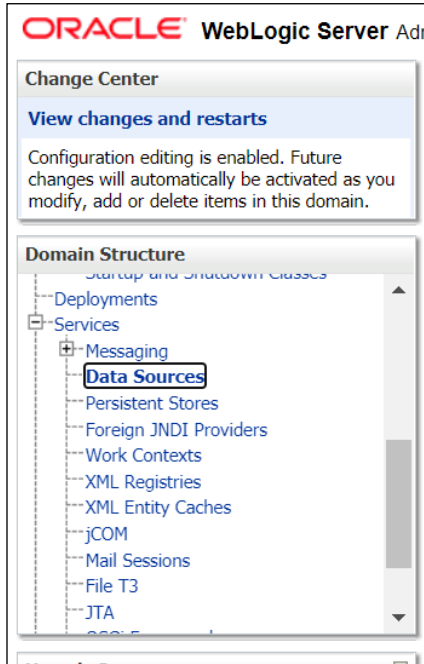
Group	Service List	Usage
PLATO	plato-orch-service	Required for PLATO framework
PLATO	plato-o	Required for PLATO framework
PLATO	plato-ui-config-services	Required for PLATO framework
SMS	sms-core-services-{version}.war	SMS services
SMS	sms-component-server-{version}.war	UI
CMC	cmc-account-services	Common Core Services
CMC	cmc-base-services	Common Core Services
CMC	cmc-branch-services	Common Core Services
CMC	cmc-businessoverrides-services	
CMC	cmc-currency-services	Common Core Services
CMC	cmc-customer-services	Common Core Services
CMC	cmc-datasegment-services	Common Core Services
CMC	cmc-obrh-service	Used for routing via OBRH
CMC	cmc-obrh-kafka-consumer	Used for routing via OBRH
CMC	cmc-resource-segment-orchestrator-service	Used in screens using gcs like maintenace screens
CMC	cmc-resourceclass-services	Common Core Services
CMC	cmc-screenclass-services	Common Core Services
CMC	cmc-transactioncontroller-services	Used in screens using gcs like maintenace screens
CMC	cmc-component-server-{version}.war	UI
PLATO	app-shell-{version}.war	UI

4.3 Database

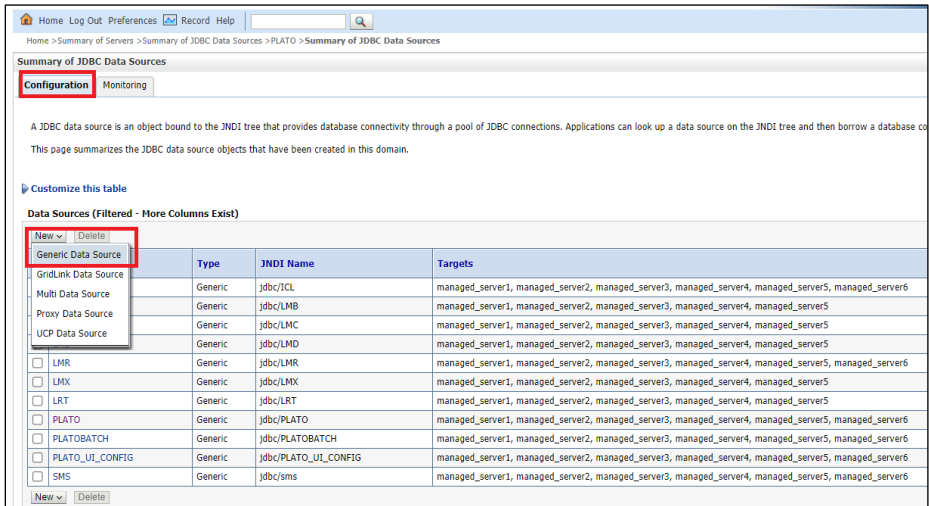
4.3.1 Configure Data Sources in WebLogic

To add the Data Sources, follow the below steps:

- Go to **Services**, select **Data Sources** option.



- Click **New** button and add the data source providing the required details.



Create a New JDBC Data Source

Back Next Finish Cancel

JDBC Data Source Properties

The following properties will be used to identify your new JDBC data source.
* Indicates required fields

What would you like to name your new JDBC data source?

*** Name:** PLATO

What scope do you want to create your data source in ?

Scope: Global

What JNDI name would you like to assign to your new JDBC Data Source?

JNDI Name: jdbc/PLATO

What database type would you like to select?

Database Type: Oracle

Home > Summary of Servers > Summary of JDBC Data Sources > PLATO > Summary of JDBC Data Sources

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: OBLMDB

What is the name or IP address of the database server?

Host Name: whf00bqa.in.oracle.com

What is the port on the database server 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: OBLM144DEVPLATO

What is the database account password to use to create database connections?

Password:

Confirm Password:

Additional Connection Properties:

oracle.jdbc.DRCPConnectionClass:

Back Next Finish Cancel

4.3.2 Day0 Scripts

Make sure that all the Day0 scripts available in the product package are run successfully.

5. Troubleshooting Application Workflows

This topic describes the troubleshooting functional workflows applicable to Oracle Banking Electronic Data Exchange for Corporates. It contains the following sections:

- 5.1 Oracle Banking [Electronic Data Exchange for Corporates](#) - Subdomains List
- [5.2 Troubleshooting SMS Errors](#)
- [5.3 Oracle Banking Routing Hub Configuration](#)

5.1 Oracle Banking Electronic Data Exchange for Corporates – Subdomains List

Figure 8: Subdomains



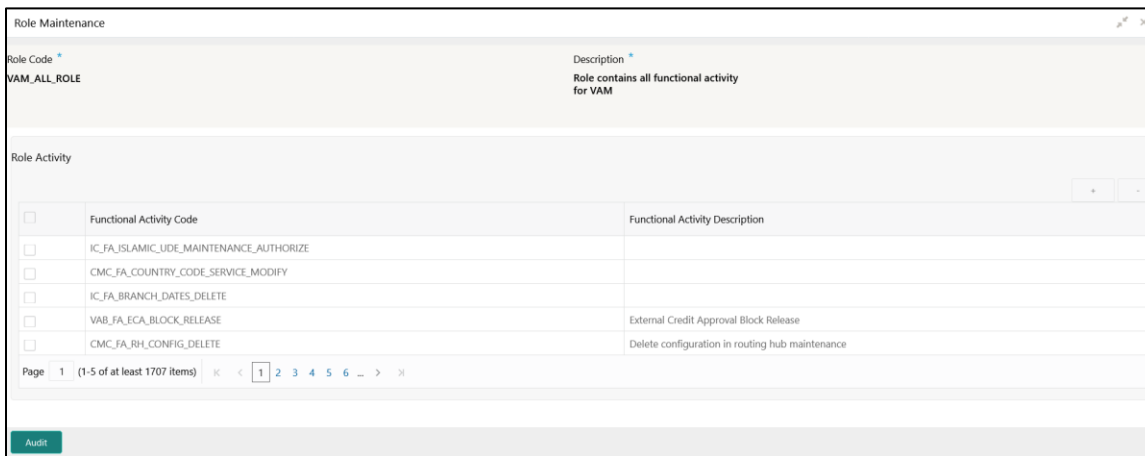
On successful login, the Oracle Banking Electronic Data Exchange for Corporates dashboard screen appears depending on the user privileges.

- **User Role Issues**

Role Profile includes access rights to the functional activities that are common to a group of users. A user can be linked to a Role Profile by which you give the user access rights to all the functional activities in the Role Profile.

Go to: **Security Management > Role** screen.

Figure 9: Role Maintenance



Only authorized users can access the system with the help of a unique User Login ID and password. The user profile of a user contains the details of the user in four sections - User details, Status, Other details and User role branches.

Go to: **Security Management > User** screen.

Figure 10- Users Maintenance

The screenshot displays the 'Users Maintenance' interface for user 'ESPUSER'. It is divided into several sections:

- UserDetails:** Username: ESPUSER, Login ID: ESPUSER, Home Branch: 000.
- Status:** User Status: Enable, Status Changed On: Apr 7, 2018, Is Supervisor: On, Manager ID: ADMINUSER1.
- Other Details:** Access to PII: On, Staff Customer Restriction Required: Off, Customer ID, Email ID: oracle.oracle@oracle.com, Telephone Number, Home Phone Number, Mobile Number, Fax, Theme: VAM, Language Code: ESP.
- User Role Branches:** A table listing roles for branch 000:

Branch Code	Role Code	Role Description
000	ADMIN_ROLE	Default role for initial login
000	ENTITY_ADMIN_ROLE	Default role for initial login
000	VAM_ALL_ROLE	Role contains all transactional activity for VAM
- User Applications:** A table listing applications:

Application Name	Application Description
VAP	VAP
VAB	VAB
VAE	VAE
VAS	VAS
VAI	VAI

Note: Make sure that the required Role and User Applications are mapped to the user.

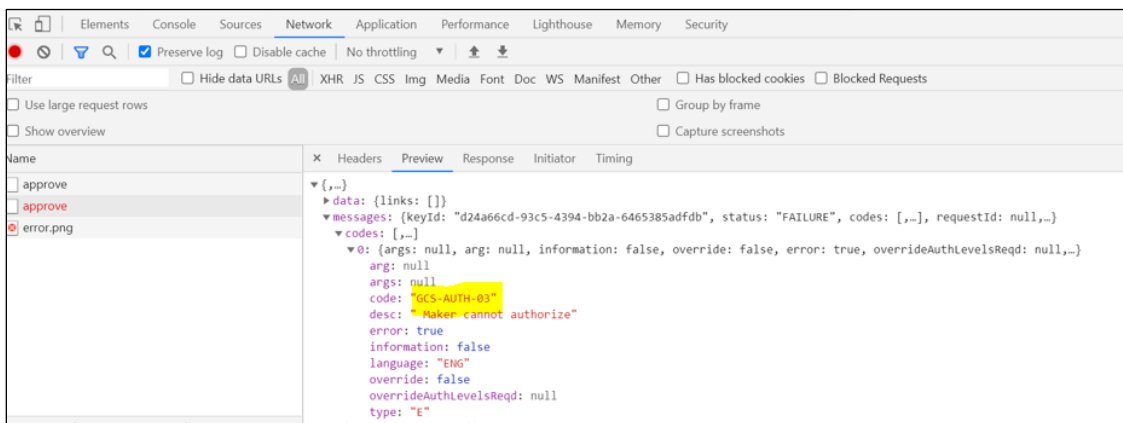
5.1.1 First level issues

This subsection describes the possible issues that may occur during the basic investigation.

5.1.1.1 Error Message not shown

If there is any improper calls, check ERTB_MSGS table of the respective schema to understand the cause of the error. Open the Networks tab (F12), check the error code in the response.

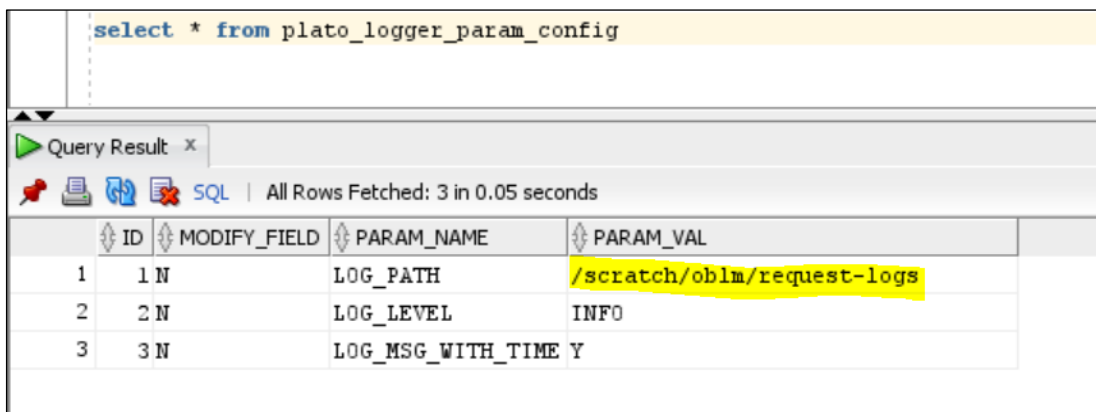
SELECT * FROM ERTB_MSGS WHERE ERR_CODE='GCS_AUTH-03'



5.1.1.2 Setting Log file path

Log generation path needs to be defined in **PLATO_LOGGER_PARAM_CONFIG** table of PLATO schema.

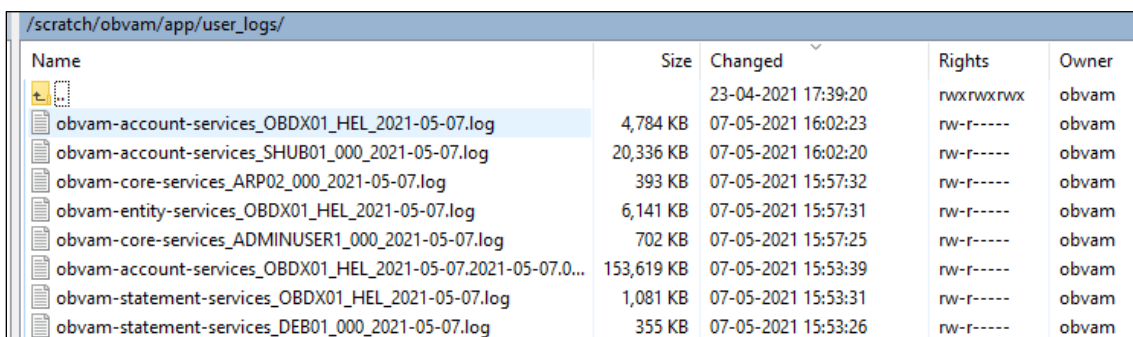
Select * from PLATO_LOGGER_PARAM_CONFIG;



5.1.1.3 Dynamic log generation issues

For generating dynamic service logs, you need to insert data to **PLATO_DEBUG_USERS** table as shown in below screenshot.

Select * from PLATO_DEBUG_USERS;



ID	DEBUG_ENABLED	SERVICE_CODE	USER_ID
25	42 Y	obvam-core-services	ARP1
26	2 Y	obvam-core-services	SHUB01
27	8 Y	obvam-core-services	KEITH01
28	38 Y	obvam-eca-services	ARP1
29	26 Y	obvam-eca-services	ADMINUSER1
30	30 Y	obvam-entity-services	DEB01
31	22 Y	obvam-entity-services	ARP2
32	55 Y	obvam-entity-services	SYSTEM
33	7 Y	obvam-entity-services	KEITH01
34	21 Y	obvam-entity-services	ARP1
35	12 Y	obvam-entity-services	ADMINUSER1
36	23 Y	obvam-entity-services	KEITH02
37	19 Y	obvam-identifier-services	ARP2
38	32 Y	obvam-identifier-services	DEB01
39	9 Y	obvam-identifier-services	SHUB01
40	20 Y	obvam-identifier-services	ADMINUSER1
41	18 Y	obvam-identifier-services	ARP1
42	24 Y	obvam-identifier-services	KEITH02
43	13 Y	obvam-identifier-services	KEITH01
44	77 Y	obvam-projection-services	ADMINUSER1
45	78 Y	obvam-projection-services	ADMINUSER2
46	14 Y	obvam-statement-services	ADMINUSER1
47	57 Y	obvam-statement-services	ARP2

5.1.1.4 Call is failing in Gateway

If any API call is failing in Gateway, hit the same API endpoint without passing through api-gateway via postman.

GET http://whf00bjp.in.oracle.com:7205/oblm-maintenance-services/account?customerId=HDFC

Params Authorization Headers (11) Body Pre-request Script Tests Settings

Headers 7 hidden

KEY	VALUE	DESCRIPTION
appld	LMM	
branchCode	LMB	

Body Cookies Headers (7) Test Results Status: 200 OK Time: 881 ms Size: 16.88 KB

```

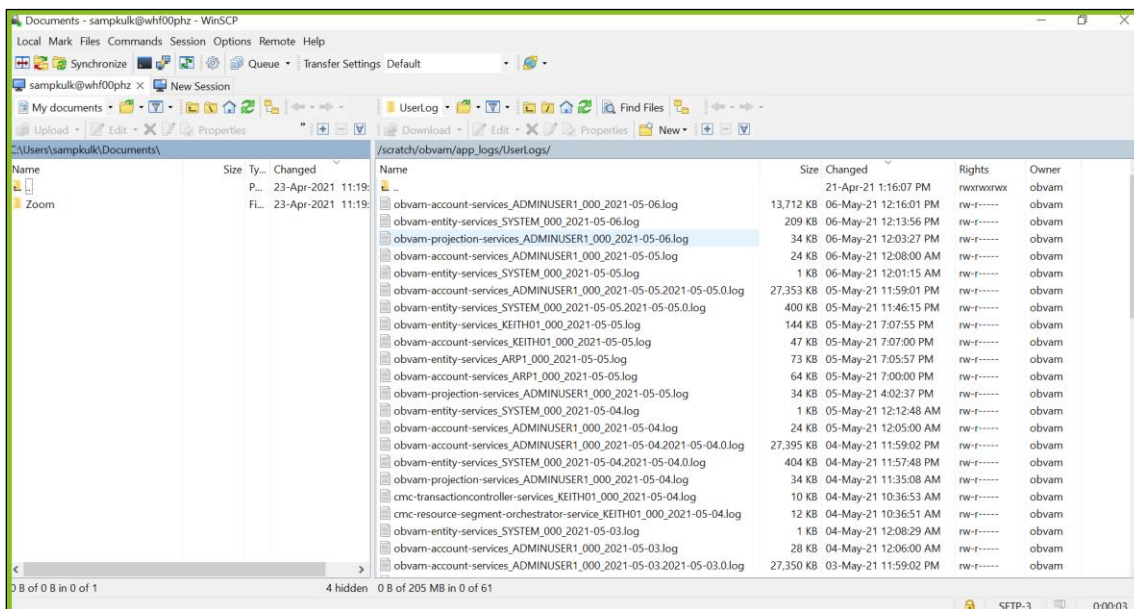
1 {
2   "data": [
3     {
4       "keyId": "668792b5-343e-4b19-8bf5-197a5fd91d5f",
5       "makerId": "KANNAN1",
6       "makerDateStamp": "2018-11-30T04:29:29.000+00:00",
7       "checkerId": "KANNAN2",
8       "checkerDateStamp": "2018-11-30T04:30:25.000+00:00",

```

Note: Restart the specific services if required.

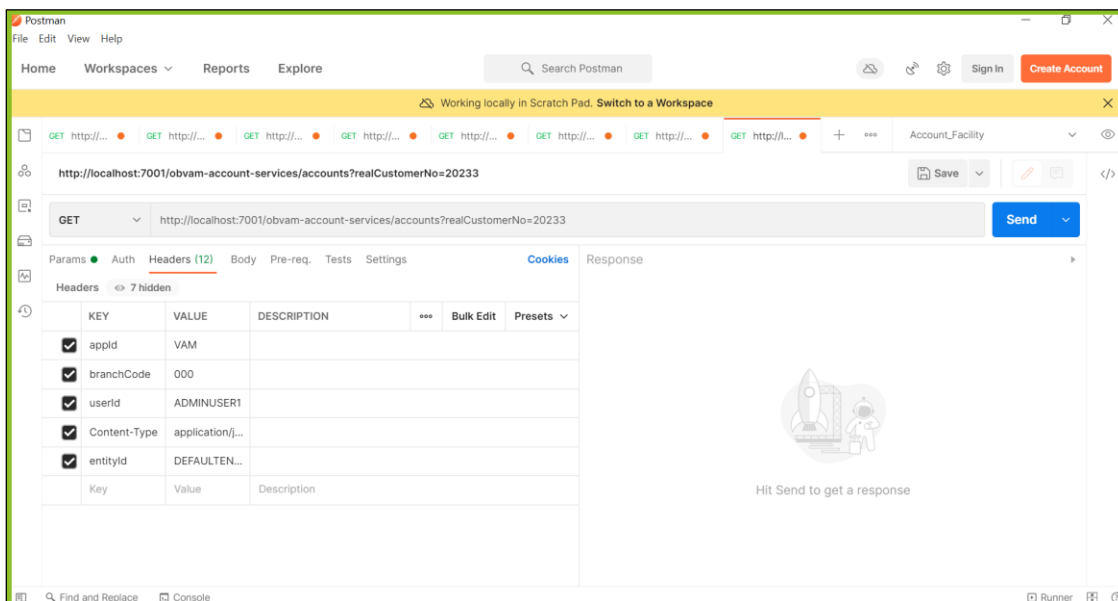
5.1.1.5 Exact error through exception log

If there is an exact error through exception log, login to WINSOCP and check server logs with NIS credentials. The path is /scratch/obvam/app_logs/UserLogs



5.1.1.6 Logs are not generated

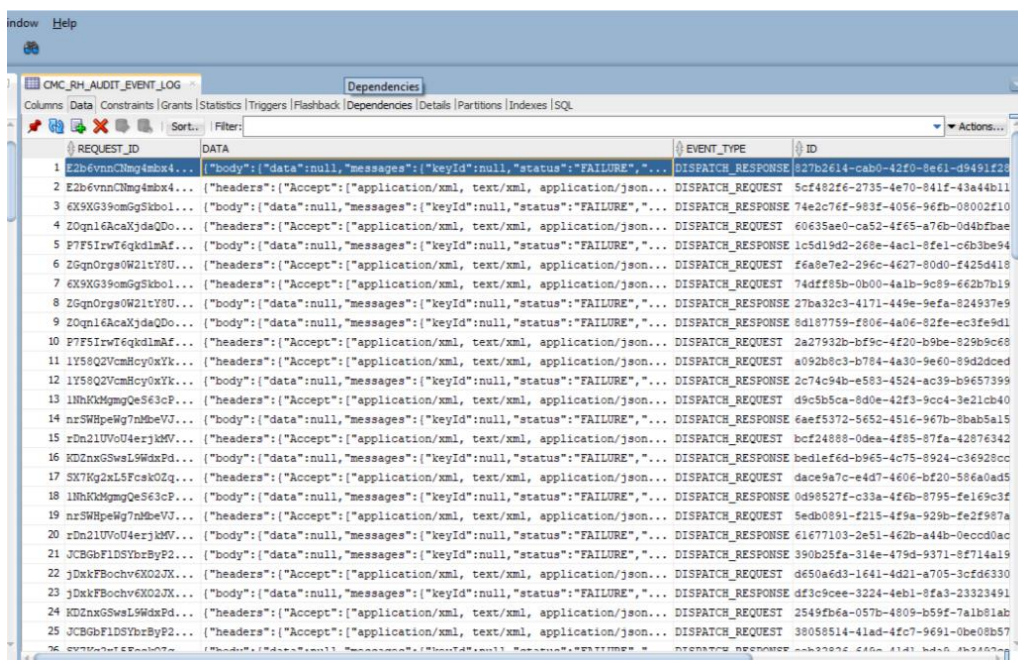
If you are not getting logs, put the loggers across API, hit through postman, and test again.



5.1.2 Call is failing in OBRH

If any call is failing in OBRH, open CMC_RH_AUDIT_EVENT_LOG for getting Gateway response (SUCCESS or FAILED). Select the following query to verify results:

select * from CMC_RH_AUDIT_EVENT_LOG



5.1.2.1 Code error in GCS side

If there is any error in GCS side codes, use java de-compiler to debug the error.

5.1.2.2 404 error

The possible causes for 404 error are as follows:

- Check service is not running on Eureka
- Check service is not deployed in Weblogic

5.1.2.3 500 internal error

The possible causes for 500 internal error are as follows:

- Issue with Plato entries
- Issue with Eureka
- Issue with any peace of code

The server-side debugging is needed for the above-mentioned issues, if it is not captured in logs.

5.2 Troubleshooting SMS Errors

The possible issues occur in Security Management System are mentioned below.

- Unable to login after launching the application
- Menus are not displayed after logging in

5.3 **Oracle Banking Routing Hub Configuration**

Refer to **Routing Hub Configuration User Guide** for the detailed explanation.

6. Troubleshooting OutOfMemory issues

6.1 Extracting Heapdump

If there is an error like GC Overhead limit exceeded or OutOfMemoryException is thrown while starting the services, the following details need to be shared.

6.1.1 Heap Dump

A heap dump is a snapshot of objects that are in memory in the JVM at a certain timestamp in a transaction. Heap dumps help to troubleshoot memory-leak problems and optimize memory usage in microservices. Heap dumps are usually stored in binary format hprof files.

The HeapDumpOnOutOfMemoryError command-line option that generates a heap dump when a java.lang.OutOfMemoryError is thrown can be used to generate heap dumps:

```
java -XX:+HeapDumpOnOutOfMemoryError -XX:HeapDumpPath=<file-or-dir-path>
```

6.1.1.1 Remote Heap Monitor setup

Alternatively, one can setup remote heap monitor to observe the memory leaks in the product. Perform the following steps:

1. To enable jmx, set the following environment variable to start jmx:
 - `-Dcom.sun.management.jmxremote`
 - `-Dcom.sun.management.jmxremote.port=8888`
 - `-Dcom.sun.management.jmxremote.authenticate=false`
 - `-Dcom.sun.management.jmxremote.ssl=false`

Note: If the above variable are set, a jmx service will start on specified port.

2. Setup JVisualVM as follows, to collect heap dumps:

Start *JVisualVM*.

Under "Remote" option, add a host.

Under new host, add new *jmx* connection.

Note: With this setup, the JAVA process can be monitored remotely.

6.2 JFR Tool in Java

Java Flight Recorder (JFR) is a **tool** for collecting diagnostic and profiling data about a running **Java** application. It is integrated into the **Java** Virtual Machine (JVM) and causes almost no performance overhead, so it can be used even in heavily loaded production environments.

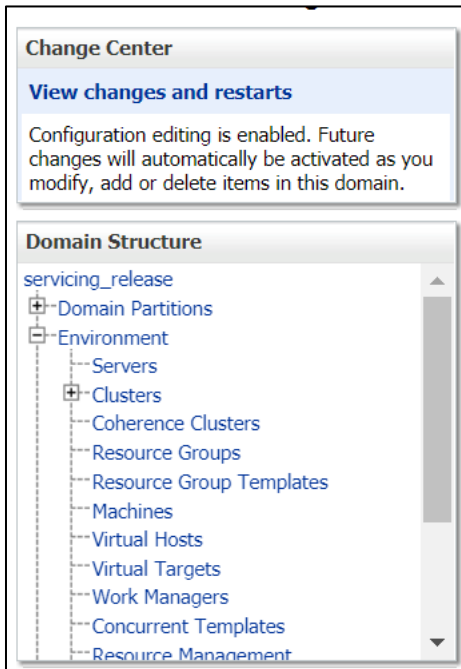
The below documentation provides steps to use JFRs to collect performance details and profiling data of services and can be used to report performance issues for OBMA services.

6.3 Quick Recovery

As a quick fix, try to restart the managed server or try to increase the memory allocated to the managed server. Perform the following steps to increase the memory:

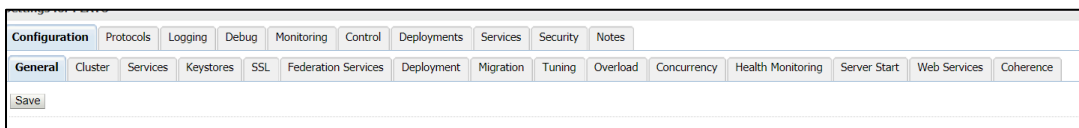
1. Click **Servers**.

Figure 11: Domain Structure



2. Select the managed server from which you are getting OutOfMemoryException or GC Overhead Limit exceeded, and click **Server Start** tab.

Figure 12: Server Start



3. Specify the memory (which needs to be increased) according to requirement in 512, 1024, 2048 etc., and restart the managed server to fix the issue.

Figure 13: Memory Requirements

```
Arguments:  
-Xmx2048m
```

7. Troubleshooting Deployment Errors/Exceptions

7.1 Solutions for Errors/Exceptions that can occur due to flyway while deployment

The Error Description is given below:

```
org.springframework.beans.factory.UnsatisfiedDependencyException
: Error creating bean with name 'application': Unsatisfied
dependency expressed through field 'flywayApplicationConfig';
nested exception is
org.springframework.beans.factory.BeanCreationException: Error
creating bean with name 'executeDomain' defined in class path
resource [org/plato/plato/flyway/FlywayConfig.class]: Bean
```

In the error, the bean-name can be any of the following:

- **executeDomain**
- executePlato
- executePlatoSec
- executePlatoUI
- executeSms
- executeCmc
- executeMidofcmc
- executePlatofeed
- executePlatobatch
- executePlatoorch

Solution:

1. At first for each case, it is to be checked that whether the service is pointing to the correct schema via the **plato-config-service**.
2. After checking that it is to be ensured that for that particular APPLICATION, the following entries are present in the PROPERTIES table in the plato schema.

executeDomain	flyway.domain.db.*
executePlato	flyway.plato.db.*
executePlatoSec	flyway.platosec.db.*
executePlatoUI	flyway.platoui.db.*

executeSms	flyway.sms.db.*
executeCmc	flyway.cmc.db.*
executeMidofcmc	flyway.domain.db.*
executePlatofeed	flyway.platofeed.db.*
executePlatobatch	flyway.platobatch.db.*
executePlatoorch	flyway.platoorch.db.*

- Depending on whether for the flyway db connection, JNDI name is being used or the JDBC URL and other details are used, each property set will look as follows:

CASE 1: USING JDBC

```
flyway.domain.db.username
flyway.domain.db.password
flyway.domain.db.jdbcUrl
flyway.domain.db.driver-class-
name
flyway.domain.schemas
flyway.domain.locations
flyway.domain.placeholderRepla
```

CASE 2: USING JNDI

```
flyway.domain.db.jndi
flyway.domain.schemas
flyway.domain.locations
flyway.domain.placeholderRepla
cement
flyway.domain.ignoreMissingMig
rations
```

- Make sure that in each case all the placeholders need to be present whichever are available in the scripts in the respective locations.

Error Description:

No value provided for placeholder: \${eureka.host}. Check your configuration!

5. In the above example, the error has occurred due to the absence of passing the following parameter in the properties table:

flyway.domain.placeHolders.eureka.host

Solution:

6. Similar to this, any placeholder for which the error occurs, that needs to be passed to the environment via the properties table or the command line arguments (as -D parameters).

8. Business Error Codes

This section list the possible error codes that you might receive and possible solutions.

Table 4: Error codes and Descriptions

Error Code	Message
GC-CLS-02	Record Successfully Closed
GC-REOP-03	Successfully Reopened
GCS-AUTH-01	Record Successfully Authorized
GCS-AUTH-02	Valid modifications for approval were not sent. Failed to match
GCS-AUTH-03	Maker cannot authorize
GCS-AUTH-04	No Valid unauthroized modifications found for approval.
GCS-CLOS-002	Record Successfully Closed
GCS-CLOS-01	Record Already Closed
GCS-CLOS-02	Record Successfully Closed
GCS-CLOS-03	Unauthorized record cannot be closed, it can be deleted before first authorization
GCS-COM-001	Record does not exist
GCS-COM-002	Invalid version sent, operation can be performed only on latest version
GCS-COM-003	Please Send Proper ModNo
GCS-COM-004	Please send makerId in the request
GCS-COM-005	Request is Null. Please Resend with Proper Values
GCS-COM-006	Unable to parse JSON
GCS-COM-007	Request Successfully Processed
GCS-COM-008	Modifications should be consecutive.
GCS-COM-009	Resource ID cannot be blank or "null".
GCS-COM-010	Successfully cancelled \$1.
GCS-COM-011	\$1 failed to update.

Error Code	Message
GCS-DEL-001	Record deleted successfully
GCS-DEL-002	Record(s) deleted successfully
GCS-DEL-003	Modifications didnt match valid unauthorized modifications that can be deleted for this record
GCS-DEL-004	Send all unauthorized modifications to be deleted for record that is not authorized even once.
GCS-DEL-005	Only Maker of first version of record can delete modifications of record that is not once authorized.
GCS-DEL-006	No valid unauthroized modifications found for deleting
GCS-DEL-007	Failed to delete. Only maker of the modification(s) can delete.
GCS-MOD-001	Closed Record cannot be modified
GCS-MOD-002	Record Successfully Modified
GCS-MOD-003	Record marked for close, cannot modify.
GCS-MOD-004	Only maker of the record can modify before once auth
GCS-MOD-005	Not amendable field, cannot modify
GCS-MOD-006	Natural Key cannot be modified
GCS-MOD-007	Only the maker can modify the pending records.
GCS-REOP-003	Successfully Reopened
GCS-REOP-01	Unauthorized Record cannot be Reopened
GCS-REOP-02	Failed to Reopen the Record, cannot reopen Open records
GCS-REOP-03	Successfully Reopened
GCS-REOP-04	Unauthorized record cannot be reopened, record should be closed and authorized
GCS-SAV-001	Record already exists
GCS-SAV-002	Record Saved Successfully.
GCS-SAV-003	The record is saved and validated successfully.

Error Code	Message
GCS-VAL-001	The record is successfully validated.
EDX-PAR-023	Failure in sending file to Parsing Service during try-\$1
EDX-FPS-000	Success
EDX-FPS-001	Failure
EDX-FPS-002	Channel Not Found
EDX-FPS-003	Configured Path is not accessible
EDX-FPS-004	File not found / Unable to read file size
EDX-FPS-005	Given file name, in request, is not found in filesystem
EDX-FPS-006	Unable to rename file
EDX-FPS-007	File size exceeds against configured size
EDX-FPS-008	Unable to put message in Kafka
EDX-FPS-009	File is under process via earlier request
EDX-FPS-010	File content type is not allowed
EDX-FPS-011	Unable to move file to backup area
EDX-FPS-012	Due to channel is closed, unable to process file
EDX-DBM-000	Success
EDX-DBM-001	Failure
EDX-DBM-002	Success
EDX-DBM-003	Update Success
EDX-DBM-004	No records found.
EDX-FLW-000	Success
EDX-FLW-001	Failure
EDX-FLW-002	Missing Mandatory parameter in input
EDX-FNM-000	Success
EDX-FNM-001	Failure

Error Code	Message
EDX-FNM-002	Channel maintenance not found
EDX-FNM-003	File name template not found
EDX-FNM-004	File Extension not found
EDX-FNM-005	File Extension does not match with configured data
EDX-FNM-006	File name not matched with configured attributes
EDX-FNM-007	Expecting Alphanumeric characters only for \$1
EDX-FNM-008	Expecting Alphanumeric and space characters only for \$1
EDX-FNM-009	Expecting Alphanumeric and spacial characters only for \$1
EDX-FNM-010	Expecting Numeric characters only for \$1
EDX-FNM-011	Expecting Numeric and . characters only for \$1
EDX-FNM-012	Expecting Alphabets characters only for \$1
EDX-FNM-013	Expecting Alphabets and space characters only for \$1
EDX-FNM-014	Expecting Alphabets and spacial characters only for \$1
EDX-FNM-015	Expecting valid date format for \$1
EDX-FNM-016	Expecting valid constant value \$1
EDX-FNM-017	Unable to move file to backup area
EDX-FNM-018	Transaction not Found
EDX-FNM-019	Format not Found
EDX-CRP-000	Success
EDX-CRP-001	Failure
EDX-CRP-002	Corporate Alias not found.
EDX-CRP-003	Channel maintenance not found
EDX-CRP-004	Transaction Name is not subscribed with corporate
EDX-CRP-005	Transaction Name and Channel's combination is not subscribed with corporate

Error Code	Message
EDX-CRP-006	Transaction, Channel and Format's unique combination is not subscribed with corporate
EDX-CRP-007	Unable to move file to backup area
EDX-PAR-000	PARSING SUCESS
EDX-PAR-001	PARSING DONE with exceptions
EDX-PAR-002	Channel maintenance not found for channel \$1
EDX-PAR-003	MT message parsing exception for tag \$1
EDX-PAR-004	MT tag \$1 is mandatory.
EDX-PAR-005	MT tag \$1 has max length \$2 allowed.
EDX-PAR-006	IO exception has occurred for mt file
EDX-PAR-007	File details not found in cache for id
EDX-PAR-008	File \$1 not found.
EDX-PAR-009	Paring failed for MX file
EDX-PAR-010	Missing or invalid closing bracket in block \$1
EDX-BAS-001	Enumeration is empty.
EDX-EXCE-001	Something went wrong.
EDX-EXCE-002	Error Message is \$1
EDX-OBDXUSR-001	User Creation has been failed in OBDX
EDX-OBDXUSR-002	Unable to save Record.Failed to Unlock the Corporate Channel User ID !
EDX-OBDXUSR-003	Unable to save Record.Failed to lock the Corporate Channel User ID !
EDX-OBDXUSR-004	Unable to save the Record due to failure in fetching Status for Corporate Channel User.
EDX-VLDN-001	Server Side validation Failed \$1
EDX-AVF-001	File Level Validations Failed.
EDX-AVF-002	Max Files per day count breached.
EDX-AVF-003	Max Records per file count breached.

Error Code	Message
EDX-AVF-004	Max Records per day count breached.
EDX-AVF-005	File Amount Limit breached.
EDX-AVF-006	Max Amount per day limit breached.
EDX-DUR-000	Record Dedupe Validation Passed
EDX-DUR-001	Record Dedupe Validation Failed
EDX-DUR-002	Record Dedupe Validation Failed Within Same File
EDX-DUR-003	Record Dedupe Validation Failed Across Files
EDX-DUR-004	No Record Dedupe rule defined
EDX-DUR-999	Record Dedupe partial failure
EDX-AVR-000	Record Level Validations Successful.
EDX-AVR-001	Record Level Validations Failed.
EDX-AVR-002	Record Amount Limit breached.
EDX-AVR-999	Record Level Validations Partially Successful.
EDX-CAC-001	Error In Approval Module
EDX-CAC-700	Approval Required
EDX-CAC-800	Approval Not Required
EDX-RAS-000	Approved
EDX-RAS-001	Rejected
EDX-RAS-200	Success
EDX-RAS-700	Partially Approved
EDX-TRS-002	Service Definition not found
EDX-TRS-003	Unable to derive key from given input
EDX-COF-000	Correlation Passed
EDX-COF-001	Correlation Failed
EDX-COF-002	No Correlation Rule defined

Error Code	Message
EDX-COF-003	No Attribute mapping found for transaction
EDX-COF-004	No File Correlated
EDX-COF-999	File partially correlated
EDX-COR-000	Correlation Pass
EDX-COR-001	Correlation Fail
EDX-PCB-000	Record Created successfully
EDX-PCB-001	Record Deleted successfully
EDX-PCB-002	All Records Deleted successfully
EDX-HCB-000	Record Created successfully
EDX-HCB-001	Record Deleted successfully
EDX-HCB-002	All Records Deleted successfully
EDX-COR-003	Exception from Host is: \$1
EDX-CRP-008	Transaction not Found
EDX-CRP-009	Format not Found
EDX-AVR-003	Real Customer Number does not match with File Corporate ID
EDX-PAR-024	Technical Error in Parsing
EDX-CRP-010	Technical Error in Corporate Preference Check
EDX-DUR-005	Technical Error in Record Dedupe Validation
EDX-DUF-004	Technical Error in File Dedupe Validation
EDX-FNM-020	Technical Error in File Name Validation
EDX-FPS-013	Technical Error in File Reception
EDX-COR-004	Accepted
EDX-COR-005	Processed
EDX-COR-006	Rejected
EDX-COR-007	In Progress

Error Code	Message
EDX-DBM-008	Invalid Action present in file
EDX-COR-008	Reconciled
EDX-COR-009	Reconciled
EDX-COR-010	Reconciled
EDX-COR-011	Reconciled
EDX-COR-012	Reconciled
EDX-COR-013	Reconciled
EDX-PPR-700	Handoff Creation In Progress
EDX-ADS-009	Response File request accepted
EDX-ADS-010	Response File request rejected
EDX-PAR-031	Expected value for \$1 is \$2, actual value provided \$3
EDX-PAR-032	Invalid date \$1
EDX-PAR-033	Max length of the field with value \$1 is breached. Expected max length is \$2
EDX-PAR-034	\$1 is mandatory
EDX-PAR-035	Invalid currency \$1
EDX-ADS-000	Notification success
EDX-ADS-001	Notification Failed
EDX-ADS-002	No Eligible Status Defined
EDX-ADS-003	Cache Id not generated from Canonical Service Router
EDX-ADS-004	No Action Defined to call file generator
EDX-ADS-005	No Product Processor defined for Handoff
EDX-ADS-006	Handoff Generation Failed
EDX-ADS-007	Unable to fetch Corporate Preference
EDX-ADS-008	No Filter Code Defined

Error Code	Message
EDX-PPR-007	Failure while generating handoff file
EDX-PPR-006	Failure in notifying host for handoff file
EDX-PAR-011	Block \$1 missing for the file
EDX-PAR-012	MT file type is \$1, expected file type is \$2
EDX-PAR-013	Invalid number of transactions \$1 in the File Header
EDX-PAR-014	Schema validation Error: \$1
EDX-PAR-016	Invalid control Sum \$1 in the File Header
EDX-PAR-017	Integration Preferences not found for the format \$1 and transaction \$2.
EDX-PAR-018	File is not Parsable
EDX-PAR-019	File Parsed
EDX-DBM-005	Datatype of the field with value \$1 is invalid. Expected datatype is \$2
EDX-DBM-006	Max length of the field with value \$1 is breached. Expected max length is \$2
EDX-DBM-007	Data Missing for certain fields
EDX-PPR-000	File Generation Success
EDX-PPR-001	File Generation Fail
EDX-PPR-002	File upload to PP failed
EDX-PPR-004	File Name template not found.
EDX-PPR-005	Backup File Generation Failed
EDX-PPR-999	Handoff created partially
EDX-RSC-000	RSC Success
EDX-RSC-001	RSC Failure
EDX-RSC-999	Response File Sent Partially
EDX-DUF-000	File Dedupe Validation Passed
EDX-DUF-001	File Dedupe Validation Failed

Error Code	Message
EDX-DUF-002	No File Dedupe rule defined
EDX-DUF-003	File Dedupe Validation Failed : Duplicate File Exist
EDX-AVF-000	File Level Validations Successful.