

# Oracle® Banking Origination Troubleshooting Guide



Release 14.7.1.0.0

F88883-01

May 2023

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

ORACLE®

Copyright © 2021, 2023, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

# Contents

## Preface

---

Purpose	v
Audience	v
Documentation Accessibility	v
Diversity and Inclusion	v
Conventions	vi

## 1 Troubleshooting Technical Flows

---

1.1	Where is the Problem	1-1
1.2	Preliminary Checks from UI	1-2
1.3	Preliminary Checks from Service Log Files	1-3
1.4	Login to Zipkin	1-4
1.5	Troubleshooting Logs using ELK Stack	1-7
1.5.1	Set Up ELK	1-7
1.5.2	Access Kibana	1-9
1.6	Check if Kafka is Running	1-10
1.7	Troubleshooting Environmental Issues	1-11
1.7.1	Possible Issues While Deploying Services	1-11
1.7.2	Possible Issues While Logging in and Launching Screen	1-11

## 2 Health Checks

---

2.1	WebLogic	2-1
2.2	Configure Data Sources in WebLogic	2-1

## 3 Troubleshooting Application Workflows

---

3.1	First level issues	3-3
3.2	Transaction data verification	3-5
3.3	Party Module Integration Troubleshooting	3-6
	Existing Customer Details Fetch is failing	3-6
	Customer Information Data-segment Drop-downs not Fetching	3-8

3.4	FLEXCUBE Host Integration Troubleshooting	3-9
	Host Calls Failing	3-9

## 4 Business Error Codes

---

### Index

---

# Preface

- [Purpose](#)
- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Conventions](#)

## 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.

## Audience

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

## Documentation 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>.

### **Access to Oracle Support**

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

---

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# 1

## Troubleshooting Technical Flows

This topic describes about various programming issues, possible causes, and solutions to resolve the issues.

This topic contains the following subtopics:

- [Where is the Problem](#)  
This topic describes about troubleshooting the problem in the distributed system
- [Preliminary Checks from UI](#)  
This topic provides systematic instructions to launch the application and check for the basic errors.
- [Preliminary Checks from Service Log Files](#)  
This topic describes about preliminary checks from service log files.
- [Login to Zipkin](#)  
This topic describes the systematic instructions to troubleshoot the errors using the Zipkin Traces.
- [Troubleshooting Logs using ELK Stack](#)  
This topic describes about Troubleshooting Logs using ELK Stack.
- [Check if Kafka is Running](#)  
This topic provides information about Kafka is Running.
- [Troubleshooting Environmental Issues](#)  
This topic describes about the troubleshooting environmental issues.

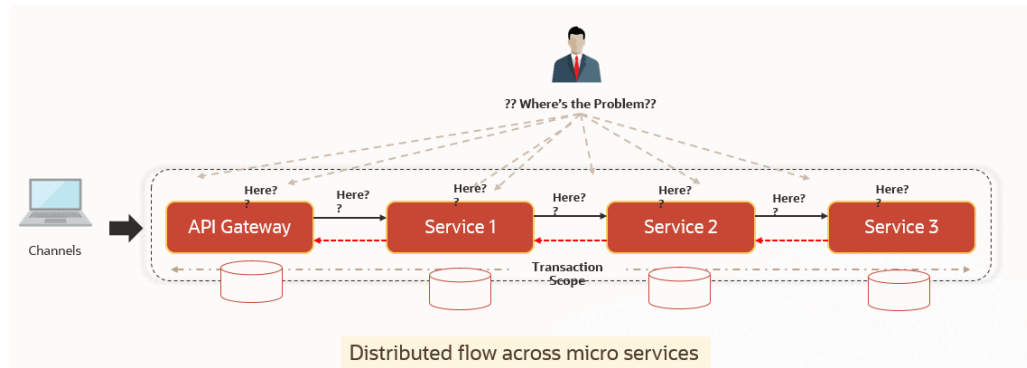
### 1.1 Where is the Problem

This topic describes about troubleshooting the problem in the distributed system

Troubleshooting the problem in the distributed system can be 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.

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 1-1 Distributed Flow across Micro Services

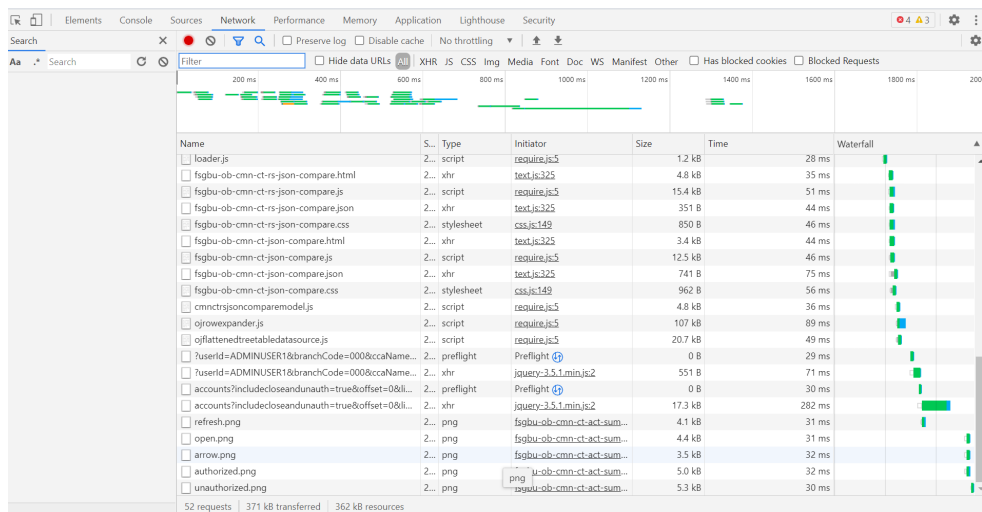


## 1.2 Preliminary Checks from UI

This topic provides systematic instructions to launch the application and check for the basic errors.

1. Launch the application with delegated URL.
2. Press **F12** key and select **Inspect and See network**.
3. Verify that all the call responses are successful.

Figure 1-2 Call Responses

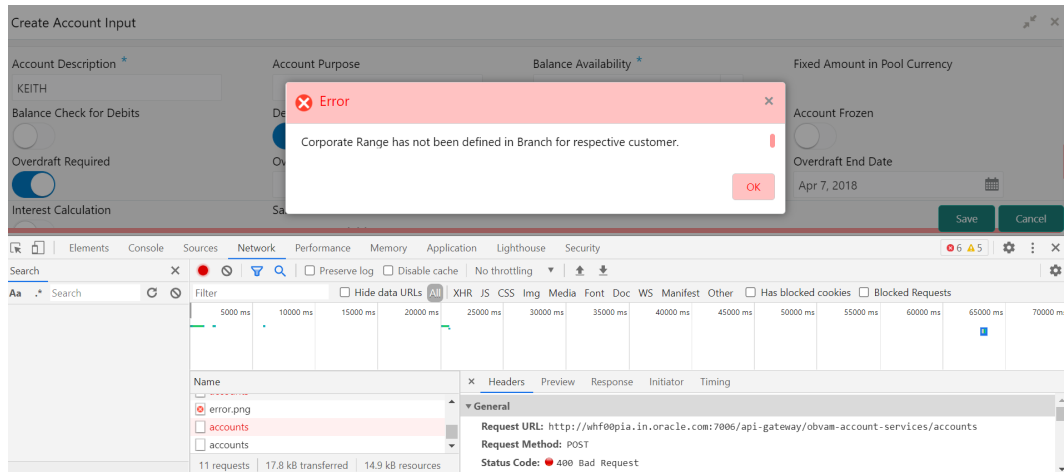


**Note:**

Usually red color indicates a non-2xx HTTP response.



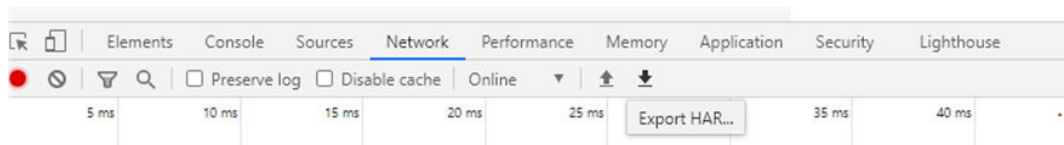
**Figure 1-3 Non-2xx Response**



4. Export the trace using the **Export** in browsers.

**Example:** The user can see the export option as shown below in Chrome.

**Figure 1-4 Export Option**



**Note:**

The tools such as **Fiddler** and **Wireshark** can be used to get the browser to API gateway web traffic. This helps to investigate the exact request and response payloads exchanged between UI and API Gateway.

## 1.3 Preliminary Checks from Service Log Files

This topic describes about preliminary checks from service log files.

The war deployments for each microservice sub-domain can generate the log files in the WebLogic server.

The configuration of this log can be found at `logback.xml`:

```
<root level="INFO">
    <appender-ref ref="FILE" />
</root>
```

In production scenarios, make sure that the root level is configured as **ERROR** so that log files do not get overwhelmed.

**Note:**

Refer to **Oracle WebLogic Server Documentation Library** to know the path where these files are generated. In on-premises cases, the log files can be zipped and sent for remote troubleshooting purposes.

## 1.4 Login to Zipkin

This topic describes the systematic instructions to troubleshoot the errors using the Zipkin Traces.

1. Launch the Zipkin URL.

**Note:**

The basic layout of Zipkin displays.

**Figure 1-5** Layout of Zipkin

The screenshot shows the Zipkin search interface. At the top, there are navigation links: 'Investigate system behavior', 'Find a trace', 'View Saved Trace', and 'Dependencies'. To the right, there are buttons for 'Try Lens UI', 'Go to trace', and 'Search'. Below this is a search form with the following fields:

Service Name	Span Name	Remote Service Name	Lookback
zipkin	all	all	15 minutes
Annotation Query		Duration (µs) >=	Limit
For example: http.path=/foo/bar/ and cluster=foo and cache.miss		Ex: 100ms or 5s	10
			Sort
			Longest First

Below the form is a blue 'Find Traces' button with a help icon. At the bottom, there is a light blue message box that says: 'Please select the criteria for your trace lookup.'

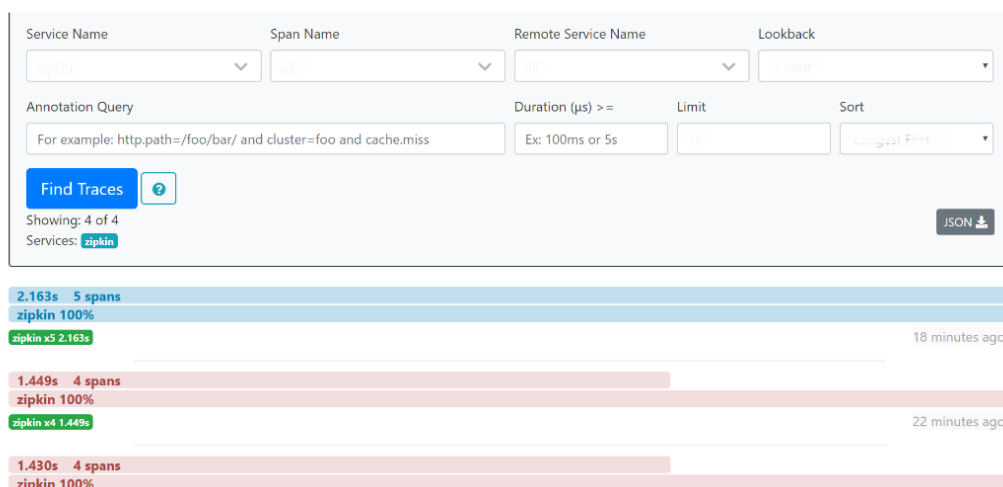
2. Use **Search** to find the traces of required API calls and services.

**Note:**

The search options given in the user interface are self-explanatory, and there is another UI option (**Try Lens UI**). It is given a different user interface with the same functionality.

Some error API calls are made to showcase how to track errors. The blue listing shows the successful API hits, and the red listing indicates the errors. Each block indicates a single trace in the listing. The below figure shows the list of traces.

Figure 1-6 List of Traces



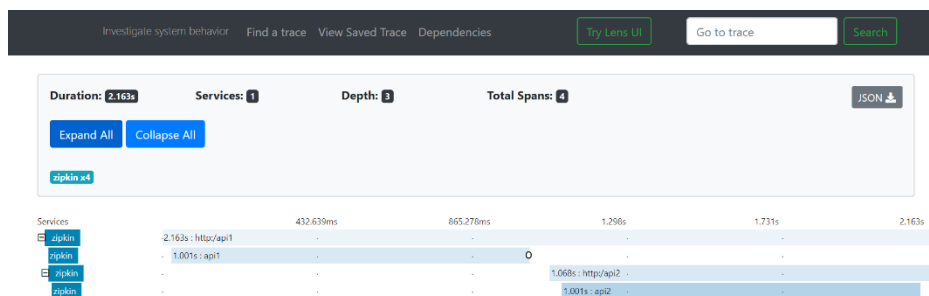
3. Open the individual trace.

It describes the time taken for each block. As the two custom spans are created inside two service calls, user can find a total of four blocks.

The time taken for an individual block is shown below.

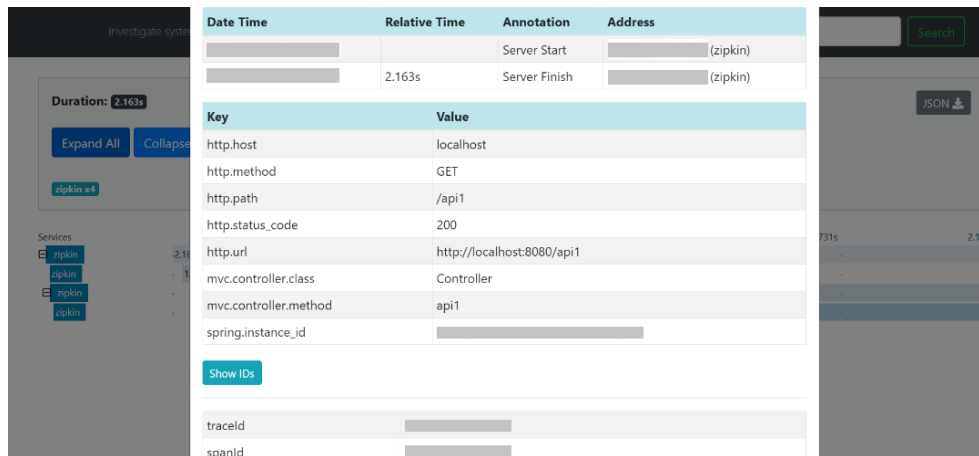
The details of an individual trace displays.

Figure 1-7 Individual Trace



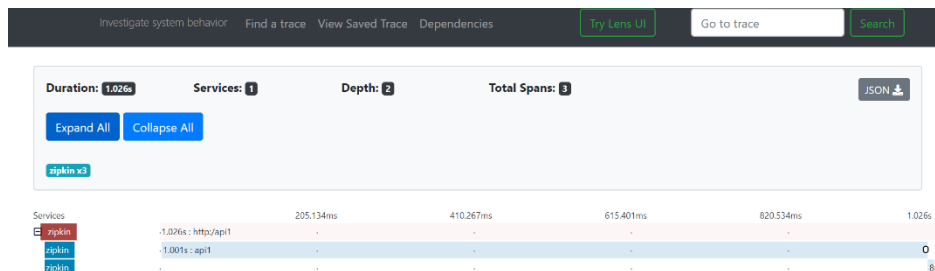
4. Click on the individual block to display the details.

**Figure 1-8 Details of Individual Block**



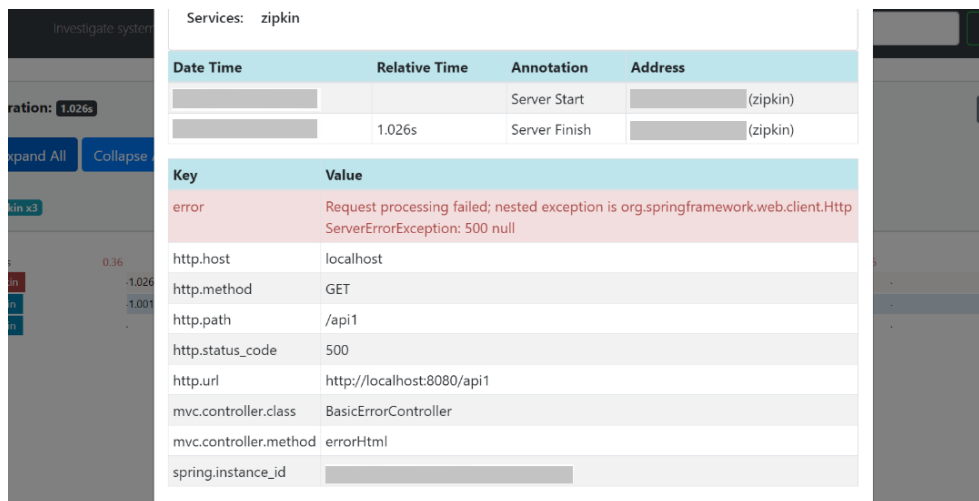
The user can also view the logging events in the Zipkin UI as small circular blocks. An example of an error log is shown below.

**Figure 1-9 Sample Error Log**



5. Click the error to get clear details and place of the error.

**Figure 1-10 Details of Error**

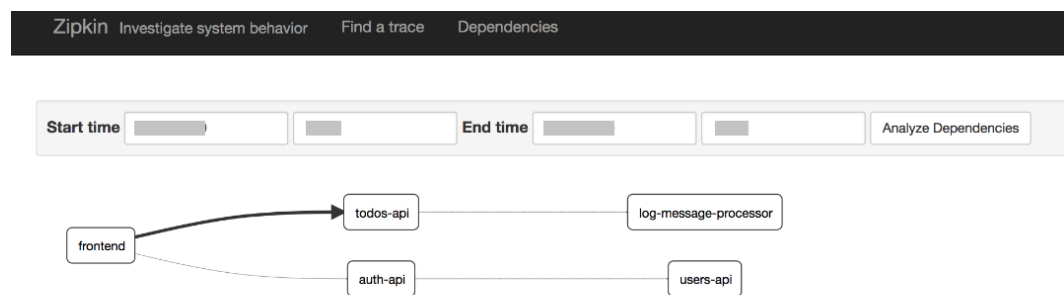


**Note:**

If the **Lens UI** is used in Zipkin, the above figures are not applicable but are relatable to the **Lens UI** as well. Traces of the application can be found using **Traceld**. The **Traceld** can be found in the debug logs of the deployment when `spring-cloud-sleuth` is included in the dependencies (included in `spring-cloud-starter-zipkin` dependency).

6. Click the **Dependencies** to get the dependency graph information between micro-services.

**Figure 1-11 Sample Dependency Graph**



## 1.5 Troubleshooting Logs using ELK Stack

This topic describes about Troubleshooting Logs using ELK Stack.

This topic contains the following subtopics:

- [Set Up ELK](#)  
This topic provides the links to setup ELK.
- [Access Kibana](#)  
This topic provides systematic instructions to access Kibana.

### 1.5.1 Set Up ELK

This topic provides the links to setup ELK.

1. Download the Elastic search from <https://www.elastic.co/downloads/elasticsearch><https://www.elastic.co/downloads/elasticsearch>.
2. Download the Kibana from <https://www.elastic.co/downloads/kibana><https://www.elastic.co/downloads/kibana>.
3. Download the Logstash from <https://www.elastic.co/downloads/logstash><https://www.elastic.co/downloads/logstash>.

 **Note:**

The default ports are as follows:

- Elastic search - 9200
- Kibana - 5601

**Step to run ELK:**

4. Run the `elasticsearch.sh` file present in the folder path `/scratch/software/ELK/elasticsearch-6.5.1/bin`.
  - Edit **network.host** to **localhost** and port if necessary. This should be enough for it to run.
  - Start: **nohup bin/elasticsearch &**
5. Configure the Kibana to point the running instance of elastic search in the `kibana.yml` file.

**Figure 1-12 Logstash Configuration**

```
# Kibana is served by a back end server. This setting specifies the port to use.
#server.port: 5601

# Specifies the address to which the Kibana server will bind. IP addresses and host names are both valid values.
# The default is 'localhost', which usually means remote machines will not be able to connect.
# To allow connections from remote users, set this parameter to a non-loopback address.
server.host: "whf00peb"

# Enables you to specify a path to mount Kibana at if you are running behind a proxy.
# Use the 'server.rewriteBasePath' setting to tell Kibana if it should remove the basePath
# from requests it receives, and to prevent a deprecation warning at startup.
# This setting cannot end in a slash.
#server.basePath: ""

# Specifies whether Kibana should rewrite requests that are prefixed with
# 'server.basePath' or require that they are rewritten by your reverse proxy.
# This setting was effectively always 'false' before Kibana 6.3 and will
# default to 'true' starting in Kibana 7.0.
#server.rewriteBasePath: false

# The maximum payload size in bytes for incoming server requests.
#server.maxPayloadBytes: 1048576

# The Kibana server's name. This is used for display purposes.
#server.name: "your-hostname"

# The URL of the Elasticsearch instance to use for all your queries.
elasticsearch.url: "http://localhost:9200"

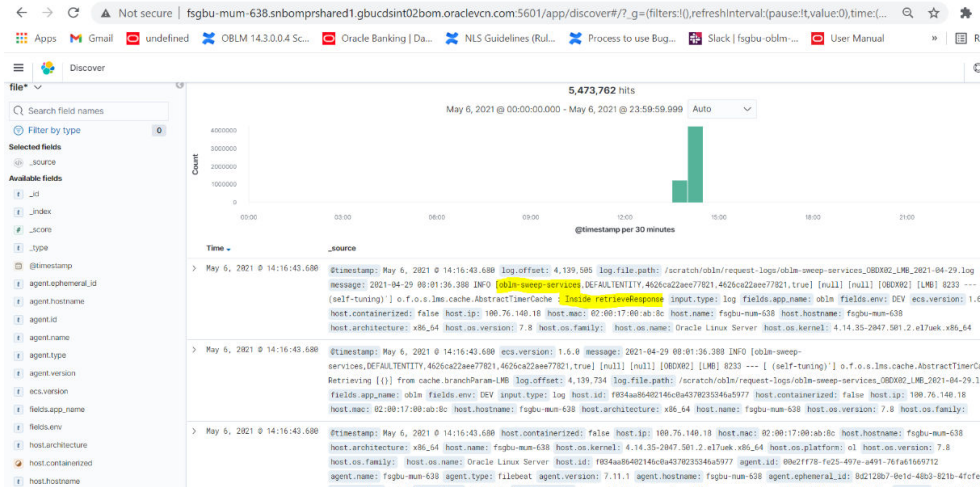
# When this setting's value is true Kibana uses the hostname specified in the server.host
```

6. Follow the below steps to configure the Logstash.
  - a. **Input:** This configuration is required to provide the log file location for the Logstash to read from.
  - b. **Filter:** Filters in Logstash is basically used to control or format the read operation (Line by line or Bulk read).
  - c. **Output:** This provides the running elastic search instance to send the data for persisting.



3. Validate elasticsearch properties - it defaults to localhost:9200
4. Go to **http://host:port** you should be able to see the Kibana console UI. Kibana needs elasticsearch to be UP as it creates indexes & fetches logs from it.
5. Start the nohup bin/kibana &

Figure 1-15 Kibana



## 1.6 Check if Kafka is Running

This topic provides information about Kafka is Running.

1. Run the cmd `$ netstat -tlnp | grep :9092.`

 **Note:**

9092 is default port of kafka.

### Possible issue while starting kafka

2. Kafka is not starting may be because zookeeper is not yet started.

- Run the cmd `$ netstat -tlnp | grep :2181.`

 **Note:**

2181 is default port of zookeeper.

if any services is not running on this port means, zookeeper is down.

3. Check if any permission issue is there for kafka log folder.



 **Note:**

To Create console producer and consumer for troubleshooting, refer to <http://cloudurable.com/blog/kafka-tutorial-kafka-from-command-line/index.html>.

 **Note:**

Some references that can be useful [https://docs.cloudera.com/documentation/kafka/latest/topics/kafka\\_faq.html](https://docs.cloudera.com/documentation/kafka/latest/topics/kafka_faq.html)

## 1.7 Troubleshooting Environmental Issues

This topic describes about the troubleshooting environmental issues.

This topic contains the following subtopics:

- [Possible Issues While Deploying Services](#)  
This topic describes the possible issues that may occur in the environment.
- [Possible Issues While Logging in and Launching Screen](#)  
This topic describes the possible issues that may occur while logging in to the application and launching the screens.

### 1.7.1 Possible Issues While Deploying Services

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

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

#### 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.

#### 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 the name PLATO in scope cmc-customer-services-5.3.0.war.`

### 1.7.2 Possible Issues While Logging in and Launching Screen

This topic describes the possible issues that may occur while logging in to the application and launching the screens.

#### Login Page is not Launching

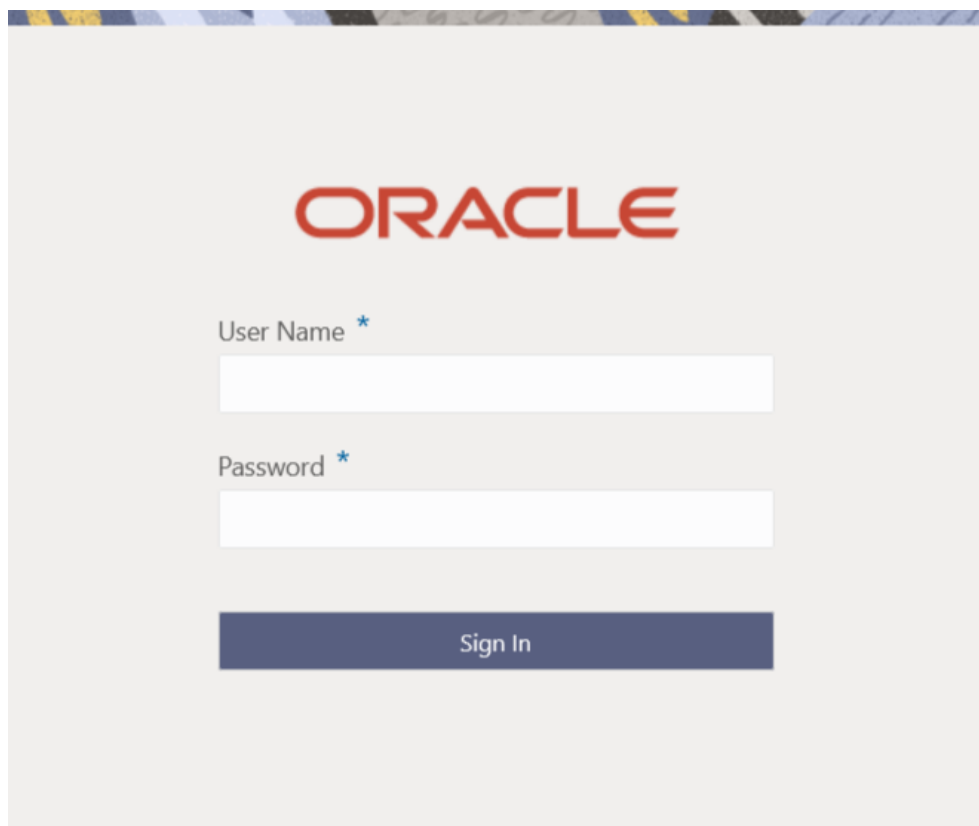
Perform the following checks if the login page is not launching.

1. Check whether the `app-shell` war file is deployed.
2. Make sure that the war file is up and running in the deployed managed server and try to login again.
3. Check whether the user has logged in with the appshell URL according to the war file deployed.
4. Check whether the required component-server wars like `cmc-component-server`, `obvam-component-server` etc are also deployed along with the `app-shell`.

**Example:** `http://<ip-address>:<Port>/app-shell/index.jsp` will load the login page of the application.

In the above URL, the name `app-shell` is dynamic which depends on the name of war file deployed.

**Figure 1-16 Sign In**



### Unable to login after launching the application

Perform the following check 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 1-17 Services**

PLATO-API-GATEWAY	n/a (1) (1)	UP (1) - fsgbu-phx-54.snphxprshared1.gbucdsint02phx.oraclevcn.com:plato-api-gateway:5012
PLATO-DISCOVERY-SERVICE	n/a (1) (1)	UP (1) - fsgbu-phx-54.snphxprshared1.gbucdsint02phx.oraclevcn.com:plato-discovery-service:5012
PLATO-UI-CONFIG-SERVICES	n/a (1) (1)	UP (1) - fsgbu-phx-54.snphxprshared1.gbucdsint02phx.oraclevcn.com:plato-ui-config-services:5012
SMS-CORE-SERVICES	n/a (1) (1)	UP (1) - fsgbu-phx-54.snphxprshared1.gbucdsint02phx.oraclevcn.com:sms-core-services:5012

### Unable to login after restarting the services

Perform the following check 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.

### Retail Banking menus are not displayed after logging in

After you log in, if the Retail Banking 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.

### 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.

# 2

## Health Checks

This topic provides information about health checks.

Until the health check APIs are implemented, the health need to be monitored using WebLogic JVM managed server status and Eureka instance.

**Figure 2-1 Health Checks**

Application	AMIs	Availability Zones	Status
CMC-ACCOUNT-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-account-services:7005
CMC-ADVICE-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-advice-services:7005
CMC-BASE-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-base-services:7005
CMC-BRANCH-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-branch-services:7005
CMC-BUSINESSOVERRIDES-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-businessoverrides-services:7005
CMC-CHECKLIST-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-checklist-services:7005
CMC-COMMENTS-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-comments-services:7005
CMC-CURRENCY-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-currency-services:7005
CMC-CUSTOMER-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-customer-services:7005
CMC-DATASEGMENT-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-datasegment-services:7005
CMC-DOCUMENT-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-document-services:7005
CMC-EXTERNAL-CHART-ACCOUNT-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-external-chart-account-services:7005
CMC-OBCBS-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-obcbs-services:7005
CMC-OB RH-SERVICES	n/a (1)	(1)	UP (1) - whf00cdl.in.oracle.com:cmc-obrh-services:7005

This topic contains the following subtopics:

- [WebLogic](#)  
This topic describes about the Weblogic details.
- [Configure Data Sources in WebLogic](#)  
This topic describes systematic instructions to configure the data sources in WebLogic.

### 2.1 WebLogic

This topic describes about the Weblogic details.

This topic contains the following subtopics:

### 2.2 Configure Data Sources in WebLogic

This topic describes systematic instructions to configure the data sources in WebLogic.

1. On the WebLogic console, in the **Domain Structure** panel, click **Data Sources**.
2. On the **Summary of JDBC Data Sources** screen, click **New** and add the data source providing the required details.

Figure 2-2 Summary of JDBC Data Sources

Summary of JDBC Data Sources

Configuration Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from the pool.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

Data Sources (Filtered - More Columns Exist)

Name	Type	JNDI Name	Targets
Generic Data Source	Generic	jdbc/JCL	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
GridLink Data Source	Generic	jdbc/LMB	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5
Multi Data Source	Generic	jdbc/LMC	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5
Proxy Data Source	Generic	jdbc/LMD	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5
UCP Data Source	Generic	jdbc/LMR	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
LMR	Generic	jdbc/LMX	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5
LMX	Generic	jdbc/LRT	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5
LRT	Generic	jdbc/PLATO	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
PLATO	Generic	jdbc/PLATOBATCH	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
PLATOBATCH	Generic	jdbc/PLATO_UI_CONFIG	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
PLATO_UI_CONFIG	Generic	jdbc/sms	managed_server1, managed_server2, managed_server3, managed_server4, managed_server5, managed_server6
SMS	Generic		

Figure 2-3 Create a New JDBC Data Source

### 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

**Figure 2-4 Create a New JDBC Data Source**

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

---

**Create a New JDBC Data Source**

---

**Connection Properties**  
Define Connection Properties.

---

What is the name of the database you would like to connect to?

**Database Name:**

---

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

**Host Name:**

---

What is the port on the database server used to connect to the database?

**Port:**

---

What database account user name do you want to use to create database connections?

**Database User Name:**

---

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

**Password:**

**Confirm Password:**

---

Additional Connection Properties:

**oracle.jdbc.DRCPConnectionClass:**

---

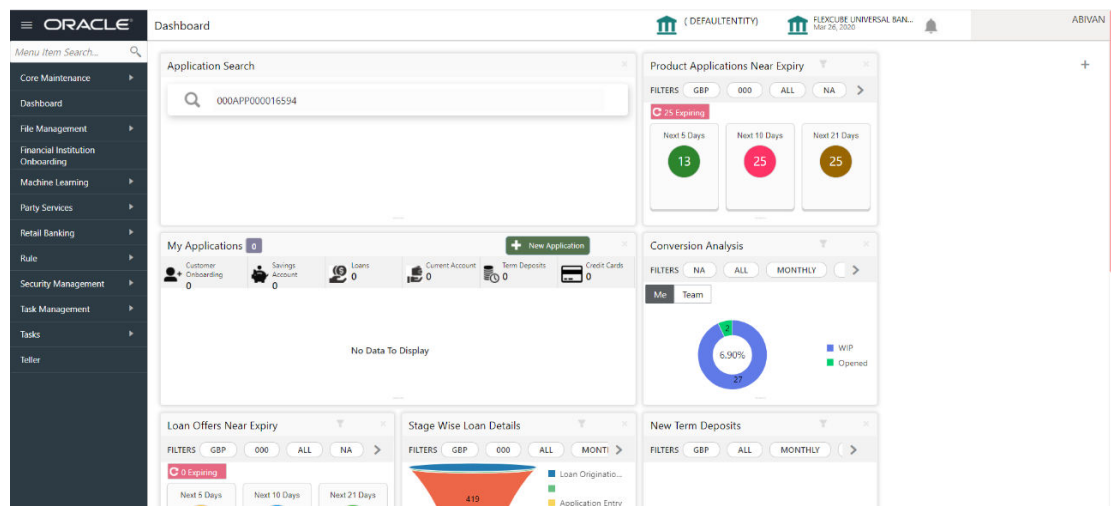
# 3

## Troubleshooting Application Workflows

This topic provides information about troubleshooting application workflows.

On successful login, the Oracle Banking Origination dashboard screen displays depending on the user privileges.

**Figure 3-1 Oracle Banking Origination Dashboard**



### 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.



#### Note:

Only authorized users can access the system with the help of a unique User Login ID and password.

- On **Security Management**, click **Role** screen.

Figure 3-2 Role Maintenance

Role Maintenance

Role Code: ADMIN\_ROLE Description: Default role for initial login

Role Activity

<input checked="" type="checkbox"/>	Functional Activity Code	Functional Activity Description
<input checked="" type="checkbox"/>	CMC_FA_BRANCH_EOD_PROCESS	Branch EOD process
<input checked="" type="checkbox"/>	SMS_FA_USER_NEW	User Create
<input checked="" type="checkbox"/>	SMS_FA_ROLE_AMEND	Role Amend
<input checked="" type="checkbox"/>	SMS_FA_ROLE_CLOSE	Role Close
<input checked="" type="checkbox"/>	SMS_FA_ROLE_REOPEN	Role ReOpen

Page 1 (1-5 of at least 35 items)

The user profile of a user contains the details of the user in four sections - User details, Status, Other details and User role branches.

- On **Security Management**, click **User** screen.

Figure 3-3 Users Maintenance

ORACLE Dashboard

Users Maintenance

User Details

Username: ODL003 Login ID: ODL003 Home Branch: LMS

Status

User Status: Active Status Changes On: Sep 10, 2020 In Subcenter:  Manager ID: LMSADMIN

Start Date: 10/10/2018 End Date: Sep 30, 2021

Other Details

Access to All:  Staff Customer Restriction Required:  Customer ID: Email ID: ocd003@gnat.com

Telephone Number: Home Phone Number: Mobile Number: Fax:

Theme: WHITE Language Code: ENG

User Role Branches

<input type="checkbox"/>	Branch Code	Role Code	Role Description
<input type="checkbox"/>	LMS	ADMIN_ROLE	Default role for initial login

Page 1 of 1 (1-2 of 2 items)

User Applications

<input type="checkbox"/>	Application Name	Application Description
<input type="checkbox"/>	OBDM	Oracle Banking Liquidity Management System
<input type="checkbox"/>	UAM	OBDM Integration
<input type="checkbox"/>	UAC	OBDM Cash Concentration
<input type="checkbox"/>	OBCC	Oracle Banking Interest and Charges System
<input type="checkbox"/>	UAP	OBDM Tool

Page 1 (1-5 of at least 14 items)

### Note:

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

- **First level issues**  
This topic provides information about the first level issues.
- **Transaction data verification**  
This topic provides information about the transaction data verification.



- [Party Module Integration Troubleshooting](#)  
This topic describes the possible issues that may occur in Party Module integration.
- [FLEXCUBE Host Integration Troubleshooting](#)  
This topic describes the possible issues that may occur in FLEXCUBE Universal Banking Solution integration.

## 3.1 First level issues

This topic provides information about the first level issues.

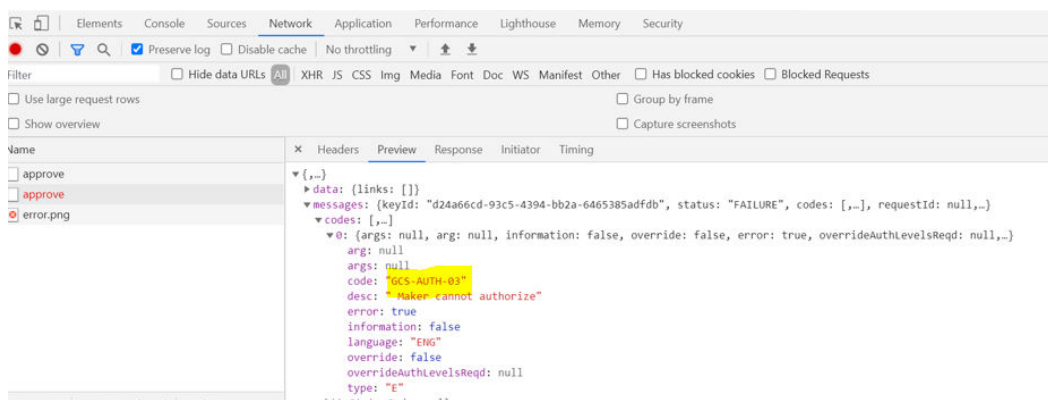
### Error Message not Shown

If there are any improper calls, check the ERTB\_MSGS table of the respective schema to understand the cause of the error.

1. Press **F12** to open the **Networks**.
2. Check the error code in the response.

**Query:** SELECT \* FROM ERTB\_MSGS WHERE ERR\_CODE='GCS\_AUTH-03'

**Figure 3-4 Error Message not Shown**



### Setting Log File Path

Log generation path needs to be defined in PLATO\_LOGGER\_PARAM\_CONFIG table of PLATO schema.

**Query:** Select \* from PLATO\_LOGGER\_PARAM\_CONFIG;

**Figure 3-5 Setting Log File Path**

ID	MODIFY_FIELD	PARAM_NAME	PARAM_VAL
1	N	LOG_PATH	/scratch/weblogic/logs
2	N	LOG_LEVEL	INFO
3	N	LOG_MSG_WITH_TIME	Y

### Dynamic Log Generation Issues

For generating dynamic service logs, insert the data to **PLATO\_DEBUG\_USERS** table.

Figure 3-6 Dynamic Log Generation Issues

The screenshot shows a SQL query window with the following query: `select * from plato_debug_users;` The query result is displayed in a table with the following columns: ID, DEBUG\_ENABLED, SERVICE\_CODE, and USER\_ID. The results are as follows:

ID	DEBUG_ENABLED	SERVICE_CODE	USER_ID
1	95 Y	plato-orch-service	ABIVAN
2	96 Y	plato-orch-service	ABIVAN2
3	97 Y	plato-o	ABIVAN
4	98 Y	plato-o	ABIVAN2
5	99 Y	plato-alerts-management-services	ABIVAN
6	100 Y	plato-alerts-management-services	ABIVAN2

Query: Select \* from PLATO\_DEBUG\_USERS;

**Note:**

Login to WINSOCP and check server logs. Log files for each service will be generated based on the user\_id, branch\_code and date at the path provided in the plato\_logger\_param\_config table.

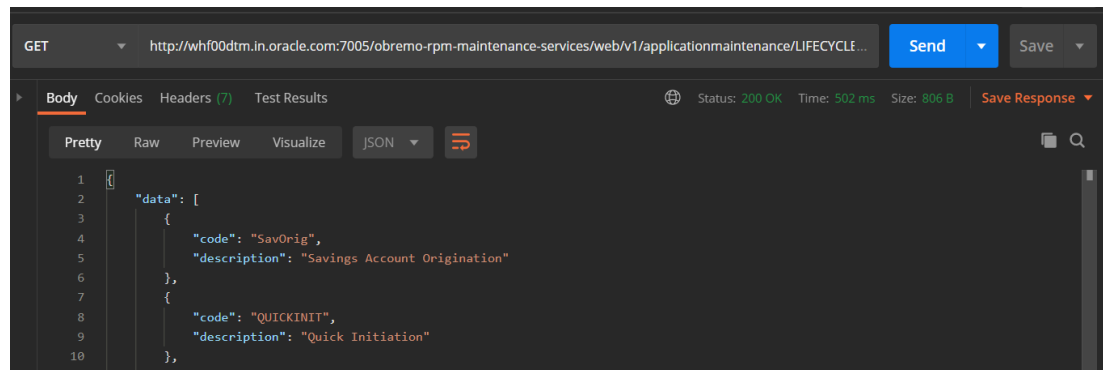
Figure 3-7 Server Logs

The screenshot shows a file explorer view of the directory `/scratch/weblogic/logs/`. The files listed are:

Name	Size	Changed
obremo-rpm-projection-services_ABIVAN_000_2021-05-07.log	173 KB	5/10/2021 11:37:10 AM
obremo-rpm-cmn-applicantservices_ABIVAN_000_2021-05-07.log	96 KB	5/10/2021 11:37:09 AM
obremo-rpm-maintenance-services_ABIVAN_000_2021-05-07.log	285 KB	5/10/2021 11:37:08 AM
obremo-rpm-maintenance-services_ABIVAN_000_2021-05-10.log	69 KB	5/10/2021 11:37:07 AM
cmc-transactioncontroller-services_ABIVAN_000_2021-05-10.log	130 KB	5/10/2021 10:21:51 AM

### Call is Failing in Gateway

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

**Figure 3-8 Call is Failing in Gateway**

```
GET http://whf00dtm.in.oracle.com:7005/obremo-rpm-maintenance-services/web/v1/applicationmaintenance/LIFECYCLE... Status: 200 OK Time: 502 ms Size: 806 B Save Response
```

```
1 {
2   "data": [
3     {
4       "code": "SavOrig",
5       "description": "Savings Account Origination"
6     },
7     {
8       "code": "QUICKINIT",
9       "description": "Quick Initiation"
10    }
11  ]
12 }
```

**Note:**

Restart the specific services if required.

**Code error in GCS side**

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

**404 error**

The possible causes for 404 error are as follows:

- Check service is not running on Eureka
- Check if service is deployed in WebLogic

**500 internal error**

The possible causes for 500 internal error are as follows:

- Issue with Oracle Banking Microservices Architecture entries
- Issue with Eureka
- Service may not be up
- Issue with any piece of code

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

## 3.2 Transaction data verification

This topic provides information about the transaction data verification.

Follow the best practices mentioned below to avoid getting any errors:

- In the IN request and OUT response, verify that all the field data is going to service side.
- If there is any error related to SMS, check for the availability of SMS entries.
- Validate the endpoints and data.

- Validate the request headers passed during the API call.
- Verify that the data entered in the screen is accurate.

### Apply Now is Failing in Product Catalogue

If **Apply Now** in Product Catalogue is failing, troubleshoot using the below points:

- Check if conductor war and plato-orch-service war is deployed in WebLogic.
- Check whether PLATO-O and PLATO-ORCH-SERVICE is registered in Eureka.

PLATO-O	n/a (1) (1)	UP (1) - plato-o:8001
PLATO-ORCH-SERVICE	n/a (1) (1)	UP (1) - whf00dtm.in.oracle.com:plato-orch-service:7011

- Check whether the INITIATION workflow DSL is imported.
  - Front-End Menu: Tasks ▢ Business Process Maintenance ▢ Search for INITIATION workflow
- Check whether obremo-rpm-projection-services is up and running as this service is required during INITIATION(Apply Now).
- Check whether Sequence Generator service is up and running.

SEQUENCEGENERATORSERVICE	n/a (1) (1)	UP (1) - whf00dtm.in.oracle.com:sequencegeneratorservice:7020
--------------------------	-------------	---



#### Note:

Refer [Preliminary Check for UI](#) topic to see if any API call is failing

## 3.3 Party Module Integration Troubleshooting

This topic describes the possible issues that may occur in Party Module integration.

The possible issues and causes are described in the following subsections:

### Existing Customer Details Fetch is failing

This topic describes the systematic instructions to fetch the existing customer details.

If in **Customer Information** data-segment, the existing customer details is not fetching, follow the below steps:



#### Note:

Refer to [Preliminary Check for UI](#) to see if any Party API is failing.

1. Check Oracle Banking Routing Hub Audit Request to see if any Oracle Banking Routing Hub calls to Party Module has failed.

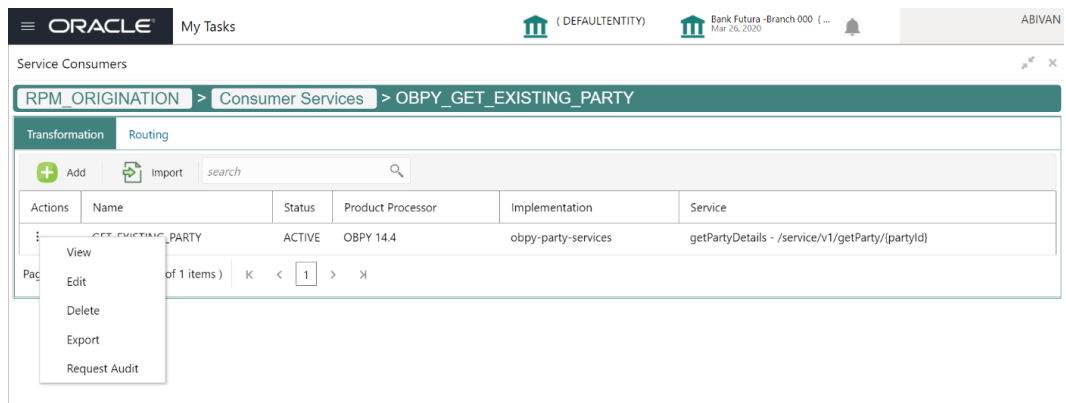
- a. On **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Routing**.
- b. Under **Routing**, click **Service Consumers**. Under **Service Consumers**, Click **RPM\_ORIGINATION**.
- c. Under **RPM\_ORIGINATION**, click **Consumer Services**. Under **Consumer Services**, click **OBPY\_GET\_EXISTING\_PARTY**

 **Note:**

If you do not find any Oracle Banking Routing Hub configuration named **OBPY\_GET\_EXISTING\_PARTY**, that means, the Oracle Banking Routing Hub configurations are not fully imported. Import the Oracle Banking Routing Hub configuration available in the source folder.

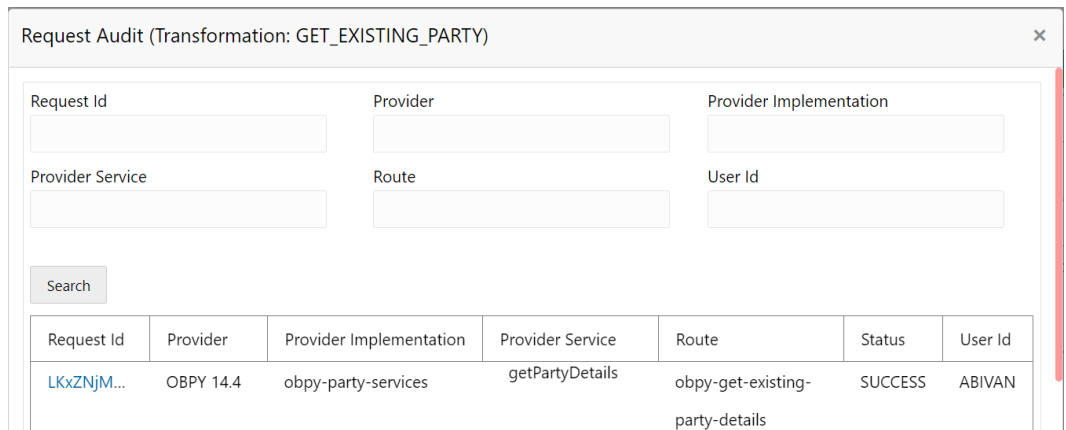
2. From the **Actions**, click on **Request Audit**.

**Figure 3-9 Service Consumers**



3. Check the latest **getPartyDetails** Oracle Banking Routing Hub call.
4. Click on the **Request ID** and check the **Provider Response** to check for any errors.

**Figure 3-10 Request Audit**



**Figure 3-11 Request Audit Details**



## Customer Information Data-segment Drop-downs not Fetching

This topic describes the systematic instructions to fetch the existing customer details.

If in **Customer Information** data-segment, the existing customer details is not fetching, follow the below steps:



### Note:

Refer to **Preliminary Check for UI** to see if any Party API is failing.

1. Check Oracle Banking Routing Hub Audit Request to see if any Oracle Banking Routing Hub calls to Party Module has failed.
  - a. On **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Routing**.
  - b. Under **Routing**, click **Service Consumers**. Under **Service Consumers**, Click **RPM\_ORIGINATION**.
  - c. Under **RPM\_ORIGINATION**, click **Consumer Services**. Under **Consumer Services**, click **OBPY\_GET\_EXISTING\_PARTY**



### Note:

If you do not find any Oracle Banking Routing Hub configuration named **OBPY\_GET\_EXISTING\_PARTY**, that means, the Oracle Banking Routing Hub configurations are not fully imported. Import the Oracle Banking Routing Hub configuration available in the source folder.

2. From the **Actions**, click on **Request Audit**.
3. Check the latest **getPartyMaintenance** Oracle Banking Routing Hub call.

4. Click on the **Request ID** and check the **Provider Response** to check for any errors.

## 3.4 FLEXCUBE Host Integration Troubleshooting

This topic describes the possible issues that may occur in FLEXCUBE Universal Banking Solution integration.

The possible issues and causes are described in the following subsections:

- [Host Calls Failing](#)

### Host Calls Failing

This topic describes the systematic instructions to solve the Host calls issue.

Host call failure may be due to various reasons ranging from improper Oracle Banking Routing Hub configuration to absence of maintenance in the Oracle FLEXCUBE Universal Banking environment. Host call may fail during Business Product Host Product listing, Interest or Charge Details data-segment fetch or during Oracle FLEXCUBE Universal Banking Account creation time.

To find the root issue, follow the below steps:

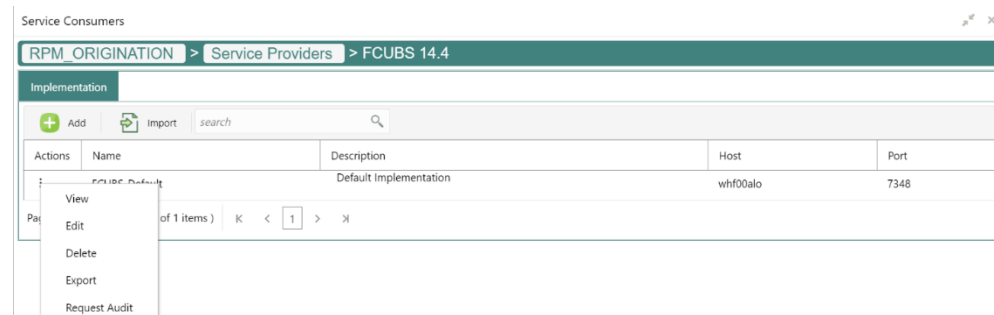
1. Check Oracle Banking Routing Hub Audit Request to see if any Oracle Banking Routing Hub calls to Oracle FLEXCUBE Universal Banking Module has failed.
  - a. On **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Routing**.
  - b. Under **Routing**, click **Service Consumers**. Under **Service Consumers**, Click **RPM\_ORIGINATION**.
  - c. Under **RPM\_ORIGINATION**, click **FCUBS**.

#### Note:

If you do not find any Oracle Banking Routing Hub configuration for Oracle FLEXCUBE Universal Banking, that means, the Oracle Banking Routing Hub configurations are not fully imported. Import the Oracle Banking Routing Hub configuration available in the source folder.

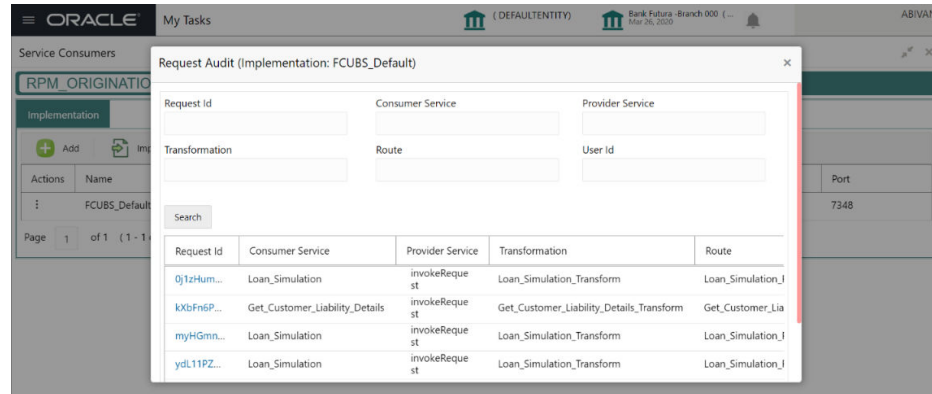
- d. From the **Actions**, click on **Request Audit**.

**Figure 3-12 Service Consumer**



- e. Check the latest Transformation for which you have performed the operation.

**Figure 3-13 Request Audit**



- f. Click on the **Request ID** and check the **Provider Response** to check for any errors.
2. If there is no Oracle Banking Routing Hub call but, still Host call is failing (especially for Account Creation), then failure might be in the workflow task level. In order to debug this scenario, follow the below steps:

- a. Using the Application Number, call the `plato-orch-service` search API (API details given below) using Postman.

**API Url:** `http://whf00dtm.in.oracle.com:7011/plato-orch-service/api/v1/extn/custom-actions/queries/tasks?offset=0&limit=100`

**Figure 3-14 Body**

```
{
  "q": "applicationNumber eq 000APP000006967",
  "queryType": [
    "ACQUIRED",
    "AVAILABLE",
    "HOLD",
    "COMPLETED"
  ]
}
```

**Headers:**

Content-Type:application/json

userId:

appld:platoorch

branchCode:

entityId:DEFAULTENTITY

- b. From the response, search for **subWorkflowId**.



**Figure 3-15** subWorkflowId

```
"taskType": "SUB_WORKFLOW",
"status": "COMPLETED",
"inputData": {
  "workflowInput": {
    "TASK_DESCRIPTION": "Savings Origination
    HandOff",
    "applicationDate": 1585218545000,
    "applicationNumber": "000APP00016729",
    "processRefNumber": "000INSTAS0007184",
    "branch": "000",
    "user": "ABIVAN",
    "processName": "INSTANTACCOUNT",
    "processCode": "SavOrig",
    "stage": "Account Creation",
    "stageCode": "RPM_INSTACC_HNDOFF",
    "currentBranchCode": "000"
  },
  "subWorkflowId":
    "ad194dd5-738f-4ce3-b9b9-2a9f72bb59c6",
  "subWorkflowName": "CASAHOSTORCH",
```

- c. Use this subWorkflowId as parameter in the below API.

**API Url:** <http://whf00dtm.in.oracle.com:7011/plato-orch-service/api/workflow/ad194dd5-738f-4ce3-b9b9-2a9f72bb59c6>

**Headers:**

Content-Type:application/json

userId:

appId:platoorch

branchCode:

entityId:DEFAULTENTITY

- d. The response shows the actual error for HTTP task to fail.

# 4

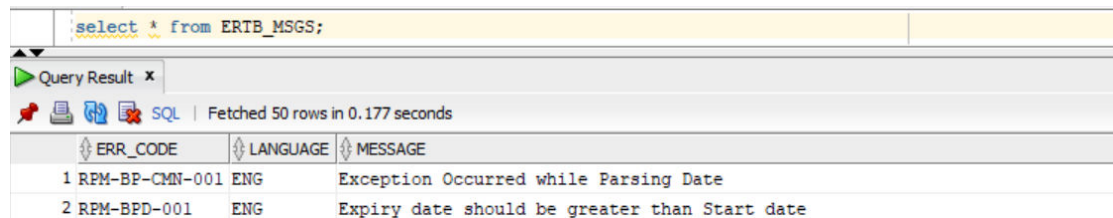
## Business Error Codes

This topic provides information about business error codes.

The list of overrides/information/error codes that might be faced during usage of the application can be found in the table `ERTB_MSGS` of the corresponding service schema being operated on.

For example, if you face an error in Business Product maintenance screen and you want to see the error code in the table, you should connect to your Business Product schema and search for that particular error code in the `ERTB_MSGS` table.

**Figure 4-1 Error Codes and Messages**



The screenshot shows a SQL query execution interface. The query entered is `select * from ERTB_MSGS;`. The result set contains two rows of data. The first row has an error code of '1 RPM-BP-CMN-001', language 'ENG', and message 'Exception Occurred while Parsing Date'. The second row has an error code of '2 RPM-BPD-001', language 'ENG', and message 'Expiry date should be greater than Start date'.

ERR_CODE	LANGUAGE	MESSAGE
1 RPM-BP-CMN-001	ENG	Exception Occurred while Parsing Date
2 RPM-BPD-001	ENG	Expiry date should be greater than Start date

# Index

## A

---

Access Kibana, [1-9](#)

## B

---

Business Error Codes, [4-1](#)

## C

---

Check if Kafka is Running, [1-10](#)  
Configure Data Sources in WebLogic, [2-1](#)  
Customer Information Data-segment Drop-downs  
not Fetching, [3-8](#)

## E

---

Existing Customer Details Fetch is failing, [3-6](#)

## F

---

First level issues, [3-3](#)  
FLEXCUBE Host Integration Troubleshooting,  
[3-9](#)

## H

---

Health Checks, [2-1](#)  
Host Calls Failing, [3-9](#)

## L

---

Login Page is not Launching, [1-11](#)

Login to Zipkin, [1-4](#)

## P

---

Party Module Integration Troubleshooting, [3-6](#)  
Possible Issues While Deploying Services, [1-11](#)  
Possible Issues While Logging in and Launching  
Screen, [1-11](#)  
Preliminary Checks from Service Log Files, [1-3](#)  
Preliminary Checks from UI, [1-2](#)

## S

---

Set Up ELK, [1-7](#)

## T

---

Transaction data verification, [3-5](#)  
Troubleshooting Application Workflows, [3-1](#)  
Troubleshooting Environmental Issues, [1-11](#)  
Troubleshooting Logs using ELK Stack, [1-7](#)  
Troubleshooting Technical Flows, [1-1](#)

## U

---

Unable to login after launching the application,  
[1-12](#)  
Unable to login after restarting the services, [1-13](#)

## W

---

WebLogic, [2-1](#)  
Where is the Problem, [1-1](#)