Oracle® Banking Branch

Troubleshooting Guide

14.7.0.0.0
F75193-01
November 2022

Oracle Banking Branch Troubleshooting Guide, 14.7.0.0.0

F75193-01

Contents

Preface

This guide helps users with the issues in the application. It describes various methods to troubleshoot the issues.

This topic contains the following subtopics:

Audience

This guide is intended for the implementation teams.

Related Resources

For more information, see these Oracle resources:

- *Getting Started User Guide*
- *Oracle Banking Microservices Platform Foundation User Guide*
- *Oracle Banking Common Core User Guide*
- *Routing Hub Configuration User Guide*
- *Oracle Banking Security Management System User Guide*
- *Teller User Guide*
- *Retail 360 User Guide*
- *Retail Onboarding User Guide*
- *Corporate 360 User Guide*
- *Corporate Onboarding User Guide*
- *Small and Medium Business 360 User Guide*
- *Small and Medium Business Onboarding User Guide*
- *Small and Medium Enterprise 360 User Guide*
- *Small and Medium Enterprise Onboarding User Guide*
- *Servicing Configurations User Guide*
- *Current Account and Savings Account User Guide*

- *Loan Service User Guide*
- *Deposit Services User Guide*
- *Observability User Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	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.

Acronyms and Abbreviations

The following acronyms and abbreviations are used in this guide:

Table Acronyms and Abbreviations

Acronyms	Definition
API	Application Programming Interface
CMC	Common Core
ELK	Elasticsearch Logstash Kibana
HTTP	Hypertext Transfer Protocol
LDAP	Lightweight Directory Access Protocol
MOC	Mid-office Common Core
SMS	Security Management System
SSL	Secure Sockets Layer
UI	User Interface
URL	Uniform Resource Locator
VPN	Virtual Private Network

List of Topics

This guide is organized into the following topics:

Table List of Topics

Topic	Description
Troubleshooting Technical Flows	This topic describes the Oracle Banking Microservices Architecture platform-wide troubleshooting of technical flows. It includes User Interface (UI) side checking, Service side logs, tracing using Zipkin, debugging with the use of ELK stack, and environment issues of WebLogic.
Health Checks and Verifications	This topic describes the health check measures and observability required. This topic is applicable for Oracle Banking Microservices Architecture platform-wide troubleshooting.
Troubleshooting Functional Workflows	This topic describes the troubleshooting functional workflows applicable to Oracle Banking Branch.
Troubleshooting Deployment Errors/ Exceptions	This topic provides the troubleshooting information for Errors/Exceptions that can occur due to flyway while deployment.

Prerequisites for End Users

The prerequisites are as follows:

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

General Prevention

Do not make any changes to Flyway scripts manually.

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 the flow of logs in case of app crashes.
- Log levels can be adjusted to INFO and above to enable relevant logs to flow in.

Screenshot Disclaimer

Personal information used in the interface or documents are dummy and does not exist in the real world. It is only for reference purposes.

1

Troubleshooting Technical Flows

You can use the technical flow to know about various programming issues, possible causes, and solutions to resolve the issues.

This topic contains the following subtopics:

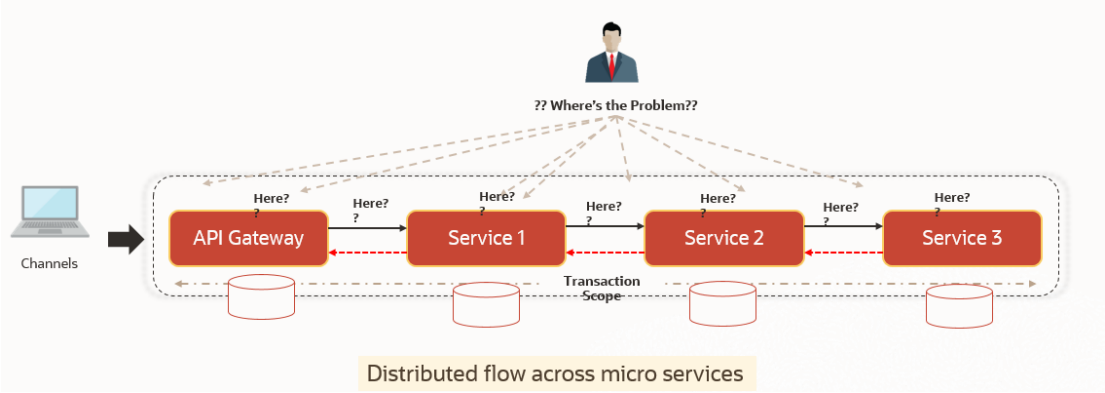
- Where is the Problem
  Troubleshooting the problem in a distributed system could be challenging if not understood fully.
- Preliminary Checks from UI
  Users can launch the application and check for basic errors.
- Preliminary Checks from Service Log Files
  The war deployments for each microservice subdomain can generate the log files in the WebLogic server.
- Troubleshooting Using Zipkin Traces
  You can find the required traces and troubleshoot the errors using the Zipkin Traces.
- Troubleshooting Logs using ELK Stack
  You can use ELK Stack to access Kibana, search logs in Kibana, and export logs.
- Troubleshooting Environmental Issues
  You can troubleshoot various issues you may encounter while deploying services, logging in, or launching a screen.

1.1 Where is the Problem

Troubleshooting the problem in a distributed system could 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.

Figure 1-1 Distributed Flow across Micro Services



The Figure 1-1 shows that it is important to establish the area of the problem on the service side. This can be achieved by a complete understanding of UI, Service side flows along with the data architecture of the application.

1.2 Preliminary Checks from UI

Users can launch the application and check for basic errors.

Log in to the application homepage. For information on how to log in, refer to the *Getting Started User Guide*.

To perform the preliminary checks:

1. Press the **F12** key, and select **Inspect and See Network** tab.
2. Verify that all the calls responses are successful.

> **Note:**
>
> Usually red color indicates a non-2xx HTTP response.

Figure 1-2 Network - Call Responses

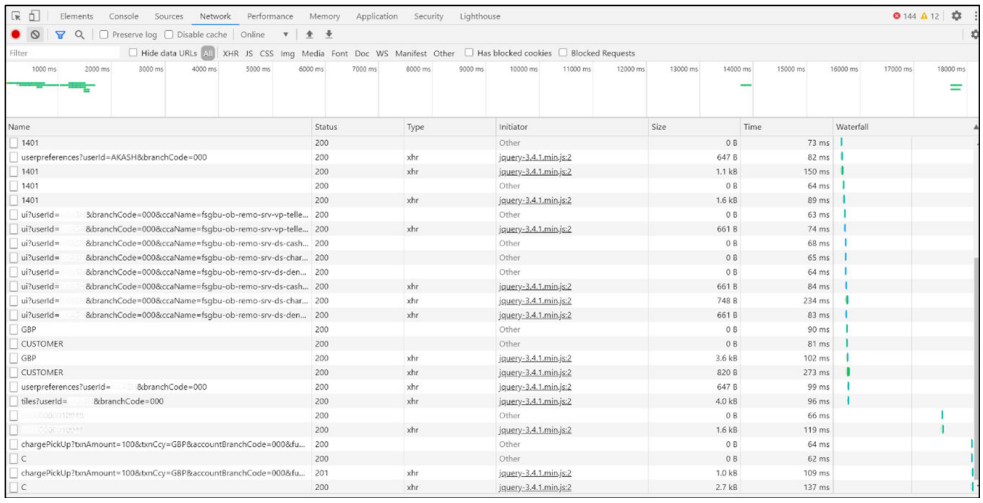


Figure 1-3 Non-2xx Response

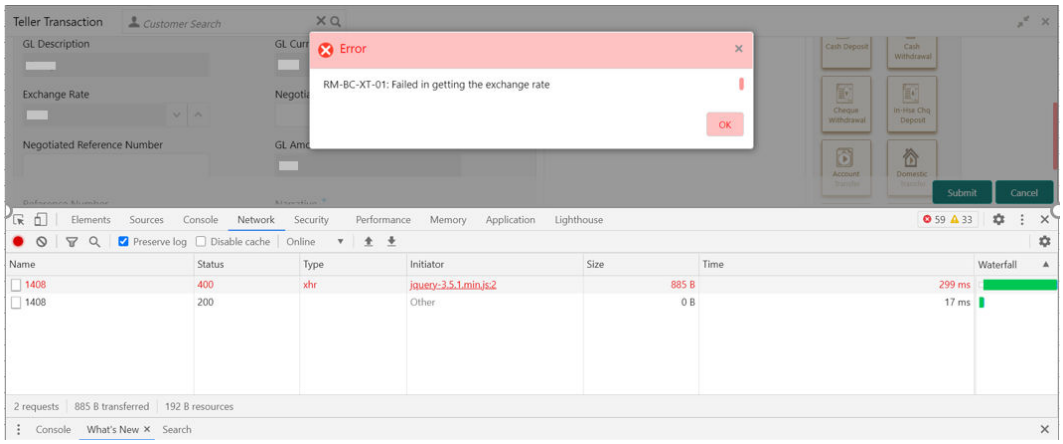
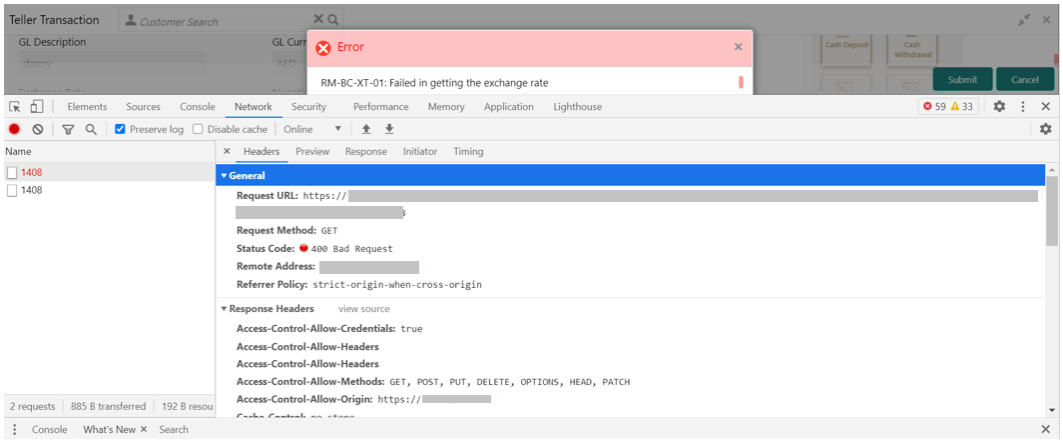
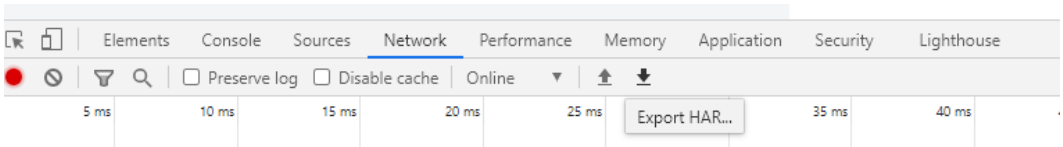


Figure 1-4 Details of Non-2xx Response



> **Note:**
>
> You can also export the trace using the export option in browsers. For example, in Chrome browser, you can see this option below.

Figure 1-5 Export Option



> **Note:**
>
> The tools such as *fiddler* and *wireshark* can be used to get the browser to API gateway web traffic. It helps to investigate the exact request and response payloads exchanged between UI and API Gateway.

1.3 Preliminary Checks from Service Log Files

The war deployments for each microservice subdomain 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. 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 Troubleshooting Using Zipkin Traces

You can find the required traces and troubleshoot the errors using the Zipkin Traces.

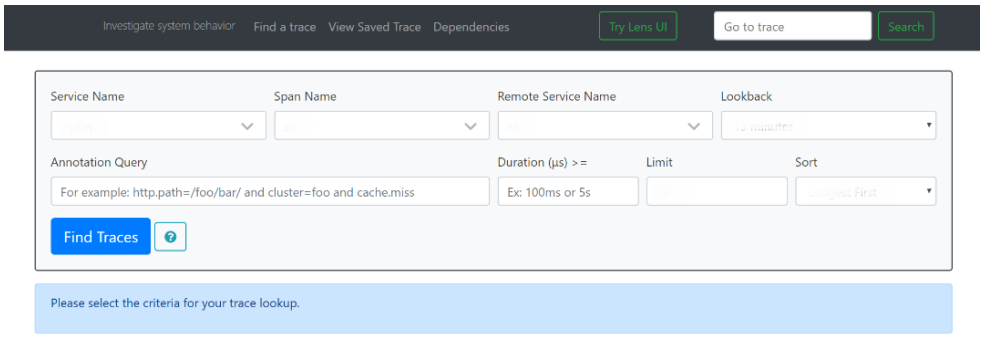
Set up the Zipkin server. For information on how to set it up, refer to the Observability User Guide.

To perform troubleshooting using Zipkin Traces:

1. Launch the Zipkin URL.

   The basic layout of Zipkin is displayed.

Figure 1-6 Layout of Zipkin

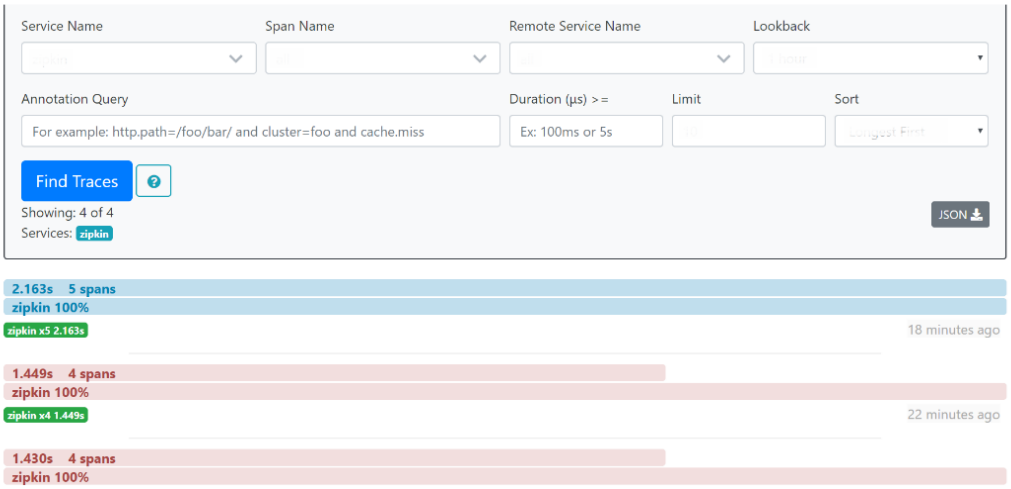


2. Use the search option to find the traces of required API calls and services.

> **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. The list of the traces can be seen as shown in Figure 1-7. Error API calls are made to showcase how to track errors. The blue listings show successful API hits, and the red listings indicate errors. Each block indicates a single trace in the listings.

The search results are displayed.

Figure 1-7 List of Traces

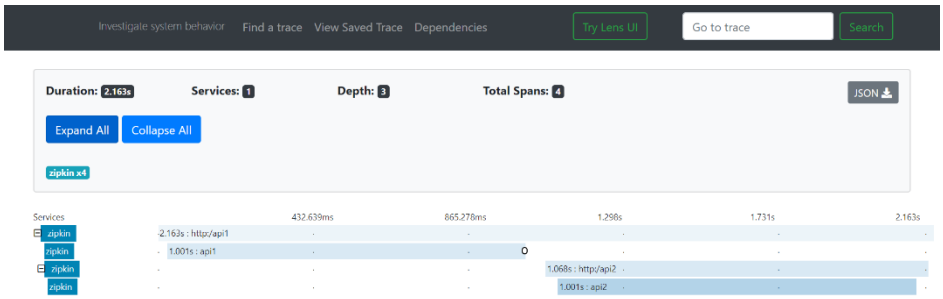


3. Open the individual trace.

> **Note:**
>
> Figure 1-8 shows an individual trace when it is opened. It also describes the time taken for each block. As the two custom spans are created inside two service calls, you can find a total of four blocks. The time taken for an individual block can be seen in Figure 1-8.

The details of an individual trace are displayed.

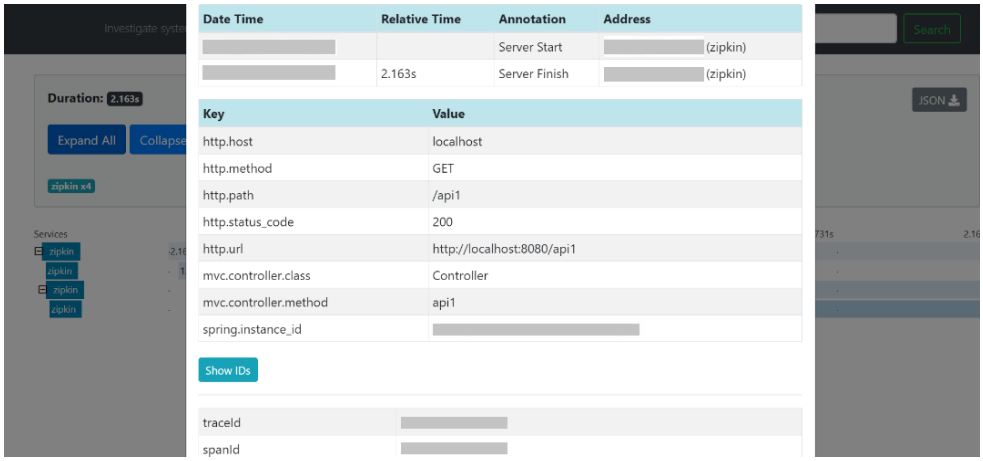
Figure 1-8 Individual Trace



4. Click on the individual block.

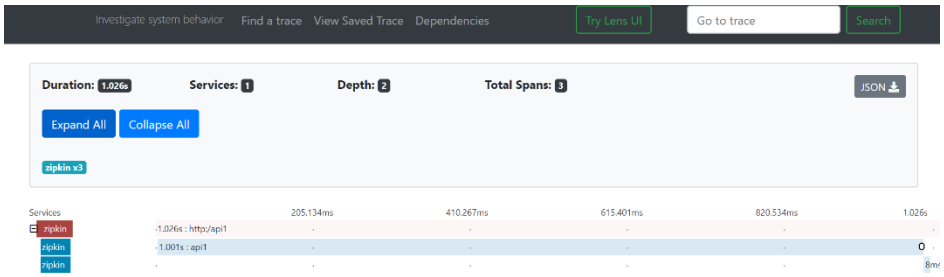
   The details of an individual block are displayed.

Figure 1-9 Details of Individual Block



> **Note:**
>
> The details of the specific span block are shown in Figure 1-9 and the logging events can also be seen in the Zipkin UI as small circular blocks. An example of an error log is shown in Figure 1-10.

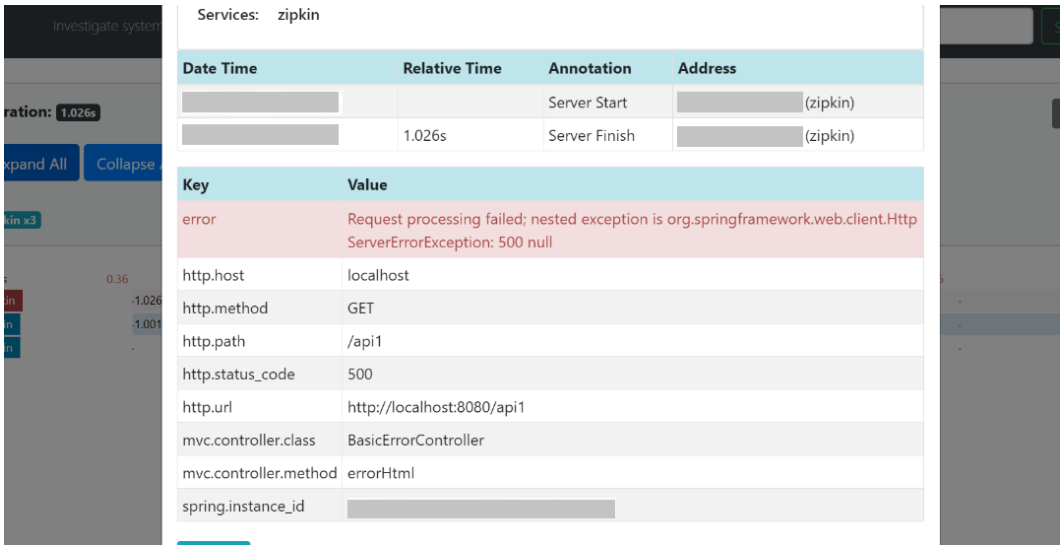
Figure 1-10 Sample Error Log



5. Click on the error portion.

   The details about the error and where the error has arisen are displayed.

Figure 1-11 Details of Error

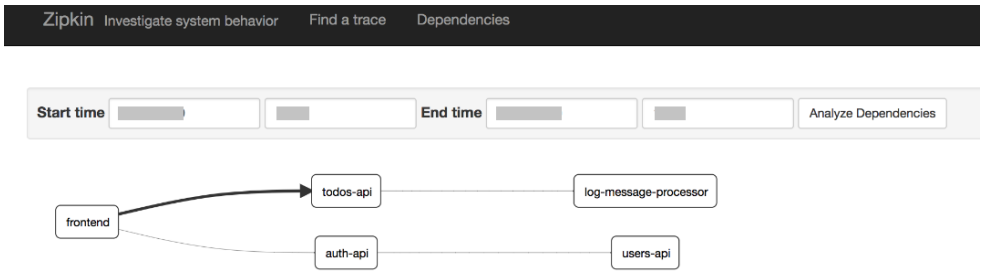


> **Note:**
>
> If the *Lens UI* is used in Zipkin, the above figures are not applicable but are relatable to the *Lens UI* as well. Traces of the application can be found using *TraceId*. The *TraceId* can be found in the debug logs of the deployment when `spring-cloud-sleuth` is included in the dependencies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

6. Click the **Dependencies** tab.

   The dependency graph information between micro-services is displayed.

Figure 1-12 Sample Dependency Graph



- Known Issues for Zipkin
  Learn about the issues you may encounter when using Zipkin and how to work around them.

1.4.1 Known Issues for Zipkin

Learn about the issues you may encounter when using Zipkin and how to work around them.

Topics:

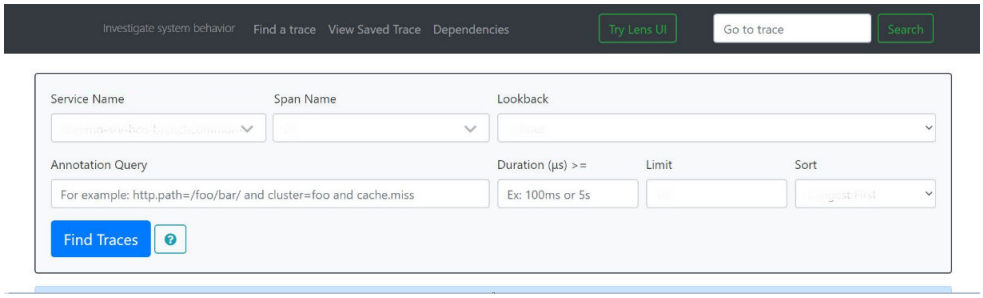
- Application Service is not Registered
- 404 Error
- Unable to Change Zipkin Default Port Number

Application Service is not Registered

Perform the following steps to find the cause of this error:

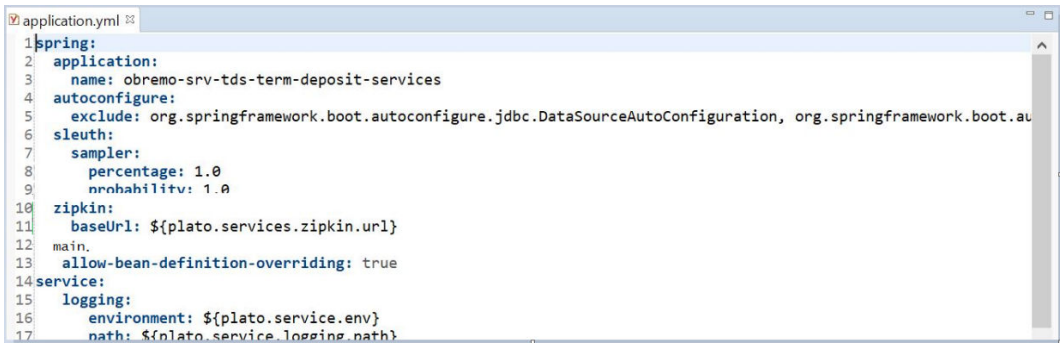
1. Check the applications, which are sending the trace report to the Zipkin server from **Service Name** drop-down list.

Figure 1-13 Find Traces



2. If the required application is not listed in Zipkins, check the `application.yml` file for Zipkin base URL configuration.

Figure 1-14 `application.yml` File



> **Note:**
>
> The shipped `application.yml` should have the Zipkin entry. Every service should have `spring-cloud-sleuth-zipkin` dependency added in the build gradle file for the service to generate and send *trace Id* and *span Id*.

3. The necessary values are as follows:
   - Compile group: `org.springframework.cloud`
   - name: `spring-cloud-sleuth-zipkin`
   - version: `2.1.2.RELEASE`

Figure 1-15 Branch Common Services

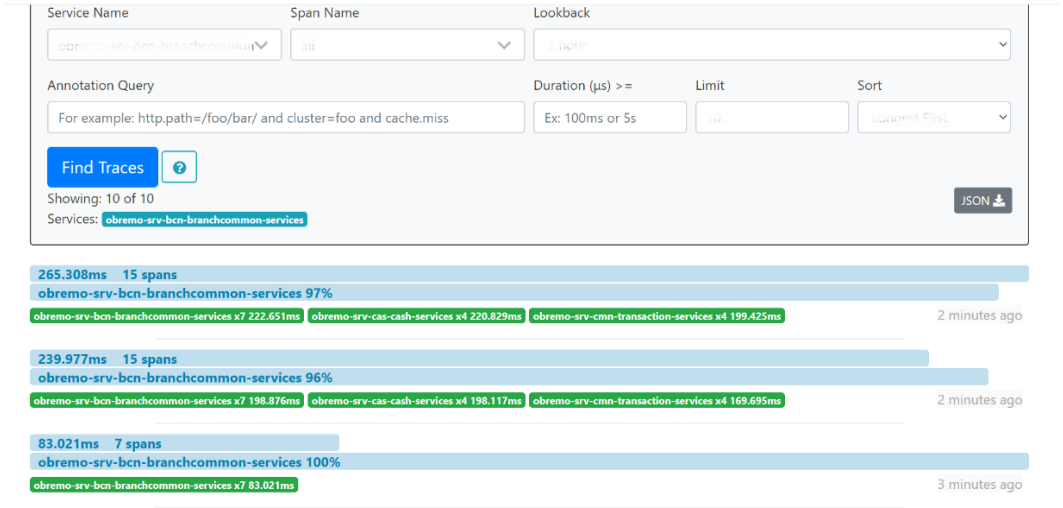
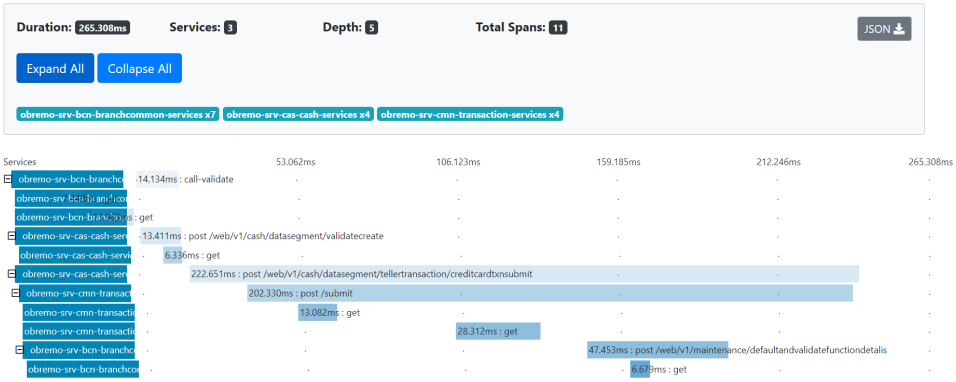


Figure 1-16 Branch Common Services Trace



404 Error

If there is a 404 error, check if the `zipkin-server.jar` is running in the system where the application is deployed. To check this, execute the following command:

```
netstat -ltnup | grep ':9411'
```

A sample output is shown below:

```
tcp6    0    0    :::9411    :::*    LISTEN    10892/java
```

> **Note:**
>
> In the sample output, `10892` is the PID.

Unable to Change Zipkin Default Port Number

The default port number of the Zipkin is not editable. Hence, make sure that port *9411* is available to start the `Zipkin-server.jar` file.

1.5 Troubleshooting Logs using ELK Stack

You can use ELK Stack to access Kibana, search logs in Kibana, and export logs.

This topic contains the following subtopics:

- Set Up ELK
  You need to set up ELK for troubleshooting the logs using ELK stack.
- Export Logs in Kibana
  You can use Kibana to search for the required logs and export the logs for tickets.

1.5.1 Set Up ELK

You need to set up ELK for troubleshooting the logs using ELK stack.

The prerequisites are as follows:

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

Figure 1-17 ELK Setup

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

# 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: "        "

# 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
```

> **Note:**
>
> The default ports are as follows:
>
> - Elastic search - *9200*
> - Kibana - *5601*

To run the ELK:

1. Run the `elasticsearch.sh` file present in the folder path `/scratch/software/ELK/elasticsearch-6.5.1/bin`.
2. Configure Kibana to point the running instance of elastic search in the `kibana.yml` file.
3. Configure Logstash. For more information on configurations, refer to the table below.

Table 1-1 Configurations for Logstash

Configuration	Description
Input	This configuration is required to provide the log file location for the Logstash to read from.

Table 1-1 (Cont.) Configurations for Logstash

Configuration	Description
Filter	Filters in Logstash are used to control or format the read operation (Line by line or Bulk read).
Output	In this section, provide the running elastic search instance to send the data for persisting.

Figure 1-18 Logstash Configuration

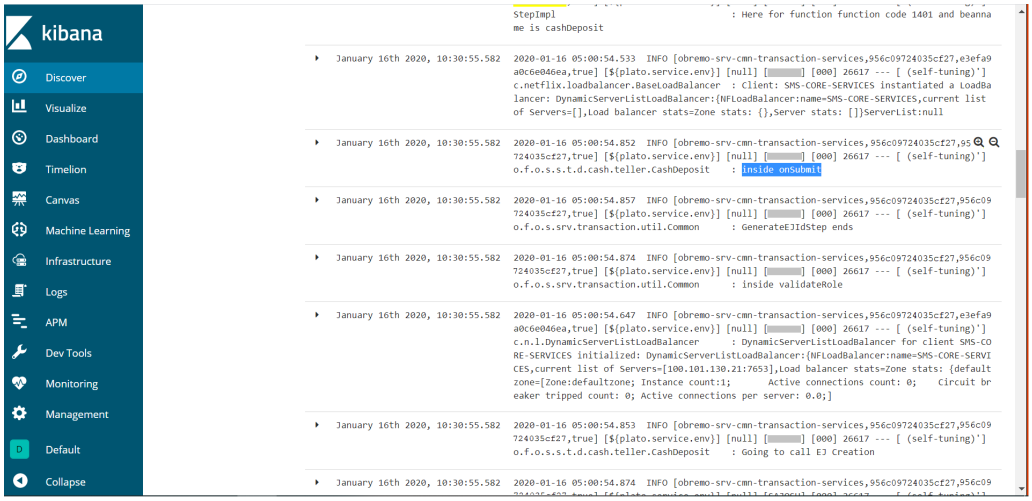
```
input {
  file {
    type => "java"
    path => "/scratch/Software/Weblogic_Installation/user_projects/domains//base_domain/logs/obremo-srv-cmn-transaction-services.log"
    codec => multiline {
      pattern => "Transaction Ended!"
      negate => "true"
      what => "next"
    }
  }
}

filter {
  #If log line contains tab character followed by 'at' then we will tag that entry as stacktrace
  if [message] =~ "\tat" {
    grok {
      match => ["message", "^(\tat)"]
      add_tag => ["stacktrace"]
    }
  }

}

output {

  stdout {
    codec => rubydebug
  }

  # Sending properly parsed log events to elasticsearch
  elasticsearch {
    hosts => ["localhost:[redacted]"]
  }
}
```

1.5.2 Export Logs in Kibana

You can use Kibana to search for the required logs and export the logs for tickets.

Download and access the Kibana as shown below:

Figure 1-19 Kibana



To search and export logs for tickets:

1. Open URL for searching logs in Kibana.
2. Click **Share** from the top menu bar.
3. Select the **CSV Reports** option.
4. Click **Generate CSV**.

1.6 Troubleshooting Environmental Issues

You can troubleshoot various issues you may encounter while deploying services, logging in, or launching a screen.

This topic contains the following subtopics:

- Possible Issues While Deploying Services
  Learn about the issues you may encounter while deploying services and how to work around them.
- Possible Issues While Logging in and Launching Screen
  Learn about the issues you may encounter while logging in to the application or launching a screen, and how to work around them.
- Troubleshooting Network Issues in Advice
  You can troubleshoot the network issue with advice.

1.6.1 Possible Issues While Deploying Services

Learn about the issues you may encounter while deploying services and how to work around them.

Topics:

- Service deployment is failing due to flyway
- Other possible issues

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.

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`.

1.6.2 Possible Issues While Logging in and Launching Screen

Learn about the issues you may encounter while logging in to the application or launching a screen, and how to work around them.

Topics:

- The login page is not launching

- Unable to login after launching the application
- Unable to login after restarting the services
- Teller menus are not displayed after logging in
- Screens are not launching after logging in

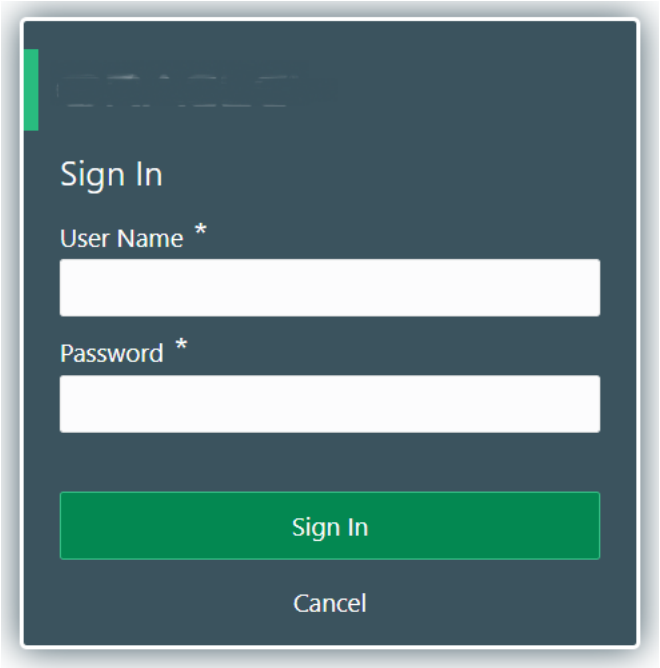
The login page is not launching

If the login page is not launching, check if the `app-shell` and `obbrn-component-server1` war files are deployed. If it is deployed, make sure that the war file is up and running in the deployed managed server, and log in again.

In addition, check if you are logged in with the `appshell` URL according to the war file deployed. For example, `http://<localhost>:<port>/obremo-app-shell-snapshot/`.

> **Note:**
>
> In this URL, the name `app-shell-snapshot` is dynamic, which depends on the name of the war file deployed.

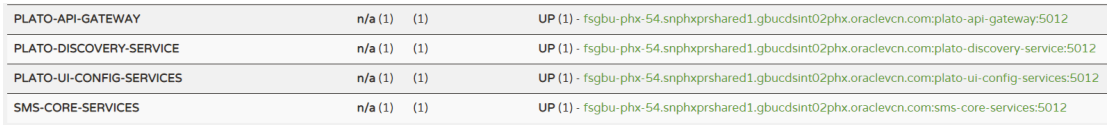
Figure 1-20 Login Page



Unable to login after launching the application

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

Figure 1-21 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

Before logging in, make sure that the below maintenances are completed:

- In the table *PRODUCT_SERVICES_ENV_LEDGER* from the Plato UI schema, update the host name and port number, where `plato-api-gateway` services are deployed. If SSL is enabled for the setup, it should be maintained with the SSL URL.
- In the table *SECURITY_CONFIG* from the security schema of Oracle Banking Microservices Architecture, make sure that the data is updated as shown in Figure 1-22.

Figure 1-22 Security Configuration Table

	ID	KEY	VALUE
1	185	PASSWORD_ATTRIBUTE	userPassword
2	167	USER_STORE	LDAP
3	168	CORS_ALLOWED_ORGINS	hostname.in.oracle.com
4	169	LDAP_SERVER_CREDENTIAL_SALT	0.9412345671234567
5	170	USER_HEADER_ATTRIBUTE_KEY	userId
6	171	USER_HEADER_ATTRIBUTE_REQUIRED	Y
7	172	JWT_EXP_SECONDS	360000000
8	173	JWT_ALGORITHM	HS512
9	174	LDAP_URL	ldap://hostname.in.oracle.com:7001
10	175	LDAP_SERVER_USER	cn=admin
11	176	LDAP_SERVER_BASE	dc=BRANCH
12	177	LDAP_SERVER_CREDENTIAL	51kCLASj1Bj0S2GPt0sYMg==
13	178	LDAP_USER_SEARCH_BASE	ou=people,ou=myrealm
14	179	LDAP_USER_PREFIX	uid
15	180	LDAP_PROVIDER	EMBEDDED_WEBLOGIC
16	181	AUTO_TOKEN_REGENERATE_MODE	true
17	182	IS_SSO_CONFIGURED	false
18	183	REGENERATE_TOKEN_ALWAYS	true

Note:

To enable SSL in Oracle Banking Branch, refer to *Oracle Banking Branch Installation Guide* and *SSL Configurations Setup Guide*.

Unable to login after restarting the services

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

Teller menus are not displayed after logging in

After you log in, if the teller 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.

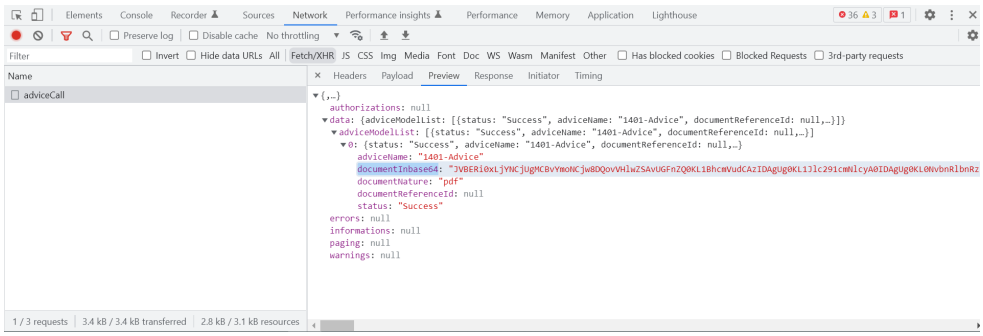
1.6.3 Troubleshooting Network Issues in Advice

You can troubleshoot the network issue with advice.

To resolve this error:

1. If advice not getting loaded, check the network tab in response is documentInbase64 is coming or not.
2. If it is null, then check if BIP/FOP server is up and running.
3. If BIP/FOP server is properly configured and running, then check in the CMC-report-service logs.
4. Check for value for document type should be pdf and not PDF.
5. Advice functionality flow UI ⇄ branchcommon ⇄ CMC-advice service ⇄ CMC-report service ⇄ oracle BIP server/FOP server.

Figure 1-23 Network Issues

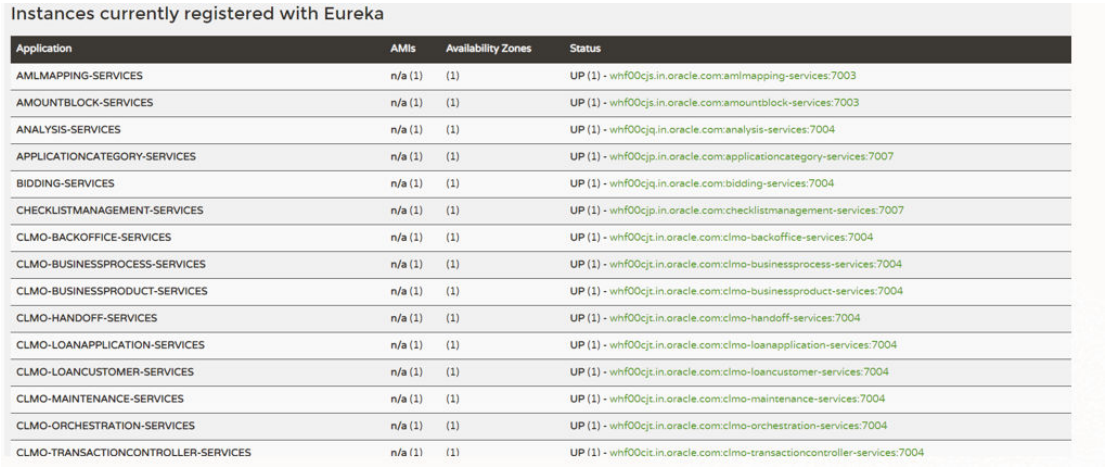


2

Health Checks and Verifications

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

Figure 2-1 Health Checks



Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
AMLMAPPING-SERVICES	n/a (1)	(1)	UP (1) - whf00cjs.in.oracle.com:amlmapping-services:7003
AMOUNTBLOCK-SERVICES	n/a (1)	(1)	UP (1) - whf00cjs.in.oracle.com:amountblock-services:7003
ANALYSIS-SERVICES	n/a (1)	(1)	UP (1) - whf00cjq.in.oracle.com:analysis-services:7004
APPLICATIONCATEGORY-SERVICES	n/a (1)	(1)	UP (1) - whf00cjp.in.oracle.com:applicationcategory-services:7007
BIDDING-SERVICES	n/a (1)	(1)	UP (1) - whf00cjq.in.oracle.com:bidding-services:7004
CHECKLISTMANAGEMENT-SERVICES	n/a (1)	(1)	UP (1) - whf00cjp.in.oracle.com:checklistmanagement-services:7007
CLMO-BACKOFFICE-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-backoffice-services:7004
CLMO-BUSINESSPROCESS-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-businessprocess-services:7004
CLMO-BUSINESSPRODUCT-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-businessproduct-services:7004
CLMO-HANDOFF-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-handoff-services:7004
CLMO-LOANAPPLICATION-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-loanapplication-services:7004
CLMO-LOANCUSTOMER-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-loancustomer-services:7004
CLMO-MAINTENANCE-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-maintenance-services:7004
CLMO-ORCHESTRATION-SERVICES	n/a (1)	(1)	UP (1) - whf00cjt.in.oracle.com:clmo-orchestration-services:7004
CLMO-TRANSACTIONCONTROLLER-SERVICES	n/a (1)	(1)	UP (1) - whf00cit.in.oracle.com:clmo-transactioncontroller-services:7004

This topic contains the following subtopics:

- Known Issues for WebLogic
  Learn about the issues you may encounter when using WebLogic and how to work around them.
- Application Services

2.1 Known Issues for WebLogic

Learn about the issues you may encounter when using WebLogic and how to work around them.

Topics:

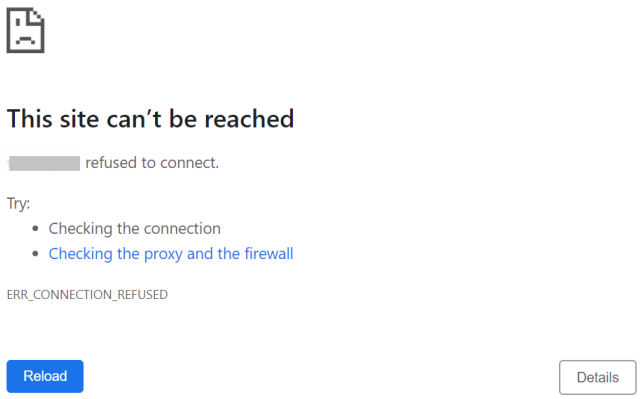
- Unable to log in to Weblogic Console
- Unable to Stop a Service
- GC Overhead limit exceeded/OutOfMemoryException error
- Managed Server is Failed or Not Reachable
- weblogic.application.ModuleException Error
- Multi Node Setup - Additional Configuration

Unable to log in to Weblogic Console

If you are unable to log in to WebLogic Console or the console is down when trying to deploy/re-deploy services, restart the WebLogic domain from the server. Perform the following steps to restart the WebLogic domain:

1. To stop the WebLogic server, which is already running, go to path `/Oracle_Home/user_projects/domains/bin` and execute the `sh` file with "`./` " prefixing to it. For example, `./stopWebLogic.sh`.
2. Once the server is stopped, try to start the server by using `nohup`, so that it can run in the background. For example, `nohup ./startWebLogic.sh`.

Figure 2-2 Error Message



Unable to Stop a Service

If you are not able to stop a service, which is already running, bring down the managed server, and remove the war file.

GC Overhead limit exceeded/OutOfMemoryException error

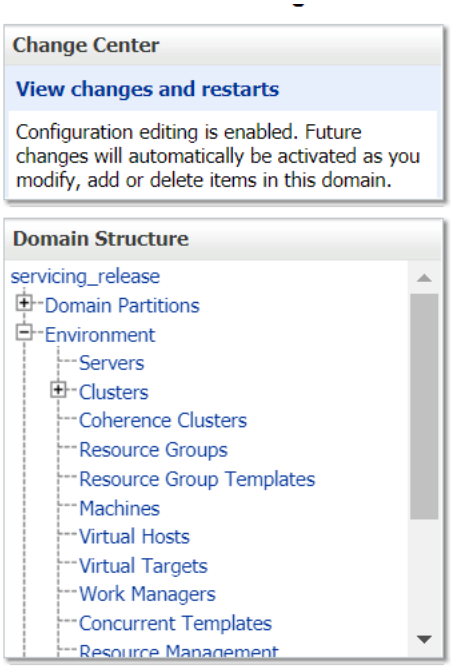
If there is an error like *GC Overhead limit exceeded* or *OutOfMemoryException* is thrown while starting the services, the following details need to be shared.

- Heap dump
- Configuration of environment

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

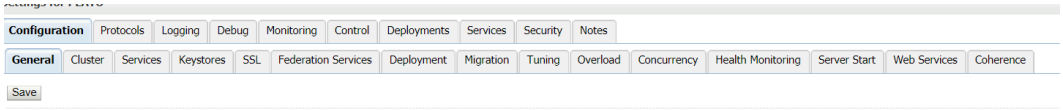
1. On the WebLogic console, in the **Domain Structure** panel, click **Servers**.

Figure 2-3 Domain Structure



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

Figure 2-4 Managed Servers



3. Specify the memory (which needs to be increased) according to the requirement in 512, 1024, 2048, etc.

Figure 2-5 Arguments for Memory Update

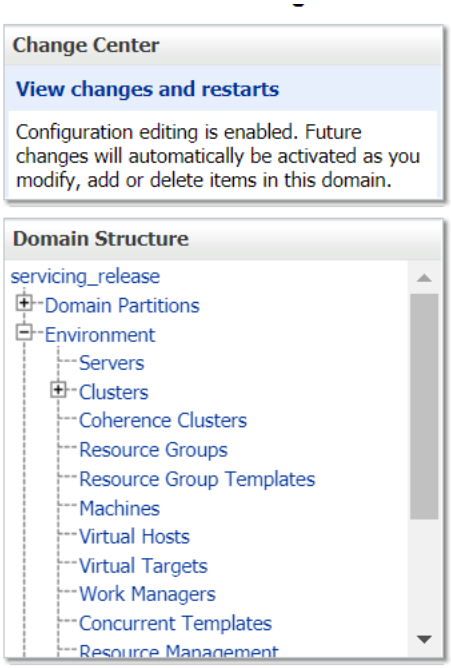
4. Restart the managed server to fix the issue.

Managed Server is Failed or Not Reachable

If the managed server is in *Failed* or *Not Reachable* state, perform the following steps to restart the managed server:

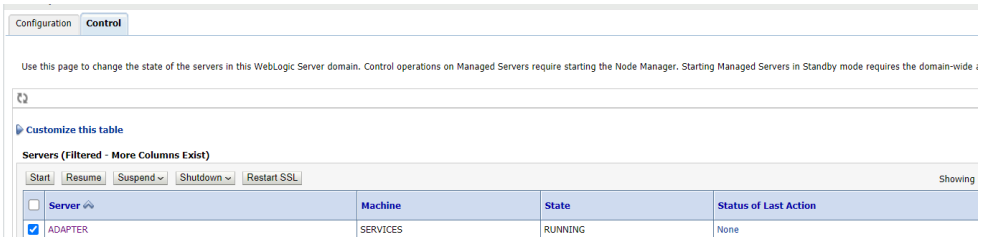
1. On the WebLogic console, in the **Domain Structure** panel, click **Servers**.

Figure 2-6 Domain Structure



2. On the **Servers** screen, select the **Control** tab, and then select the managed server.
3. Click **Shutdown**.

Figure 2-7 Control Tab



4. After you bring down the server, click **Start** to restart the server.

weblogic.application.ModuleException Error

If there is an error like *weblogic.application.ModuleException: Context path '/obremo-srv-cmn-transaction-services' is already in use by the module*, make sure that the redeploying service is removed properly. If the issue persists, try to restart the managed server.

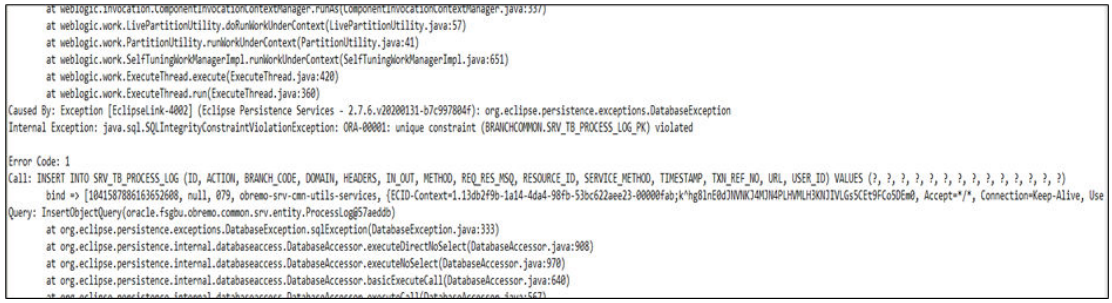
Multi Node Setup - Additional Configuration

If you are planning to achieve a high availability setup in OBBRN, add the following Dparams in managed server start arguments where the port number should be unique for each managed server.

- -Dsnowflake.ipaddress= 10.10.10.10
- Dsnowflake.port = 8001

The below is the possible error in case the params are missed to add:

Figure 2-8 Error – Missing Params



2.2 Application Services

The catalog of services required for the Oracle Banking Branch are as follows:

Table 2-1 Application Services

Group	Service List	Required for Servicing	Usage
Oracle Banking Branch	obbrn-srv-biz-businessprocess-services	Yes	Used for Process Runtime based screens
Oracle Banking Branch	obremo-srv-adp-adapter-services	Yes	Used across all transactions
Oracle Banking Branch	obremo-srv-bcn-branchcommon-services	Yes	Used across all transactions and maintenance screens
Oracle Banking Branch	obremo-srv-cas-cash-services	Yes	Used for cash, TILL, VAULT and miscellaneous transactions
Oracle Banking Branch	obremo-srv-cmn-ml-processing	Yes	Used across transactions that use Machine Learning (ML)
Oracle Banking Branch	obremo-srv-cmn-transaction-services	Yes	Used across all transactions, enquiries, batches, Electronic Journal
Oracle Banking Branch	obremo-srv-cmn-utils-services	Yes	Used across all transactions
Oracle Banking Branch	obremo-srv-cus-customer-services	Yes	Used for Customer Servicing Screens

Table 2-1 (Cont.) Application Services

Group	Service List	Required for Servicing	Usage
Oracle Banking Branch	`obremo-srv-ext-common-txn`	Yes	Used across all transactions
Oracle Banking Branch	`obremo-srv-pay-payment-services`	Yes	Used for remittance transactions
Oracle Banking Branch	`obremo-srv-prj-projection-services`	Yes	Used across all transactions
Oracle Banking Branch	`obremo-srv-tds-term-deposit-services`	Yes	Used for Term Deposit (TD) transactions
Oracle Banking Branch	`extended-cluster.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-batch-futuremavprocess-extended-services-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-mavbatchprocess-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-cirularchq-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-mrfpaymenttxn-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-blockmavnos-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-mrfparams-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-batch-cancelmavbatch-extended-services-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-endtellerlargedenom-service-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obremo-statictype-service-{version}.war`	Required for Italy Cluster	Italy Cluster

Table 2-1 (Cont.) Application Services

Group	Service List	Required for Servicing	Usage
Oracle Banking Branch	`obremo-issuemav-extended-services-{version}.war`	Required for Italy Cluster	Italy Cluster
Oracle Banking Branch	`obbrn-component-server-{version}.war`	Yes	User Interface (UI)
Oracle Banking Microservices Architecture	`plato-batch-server`	No	
Oracle Banking Microservices Architecture	`plato-feed-services`	No	
Oracle Banking Microservices Architecture	`plato-alerts-management-services`	Yes	Required for Oracle Banking Microservices Architecture framework
Oracle Banking Microservices Architecture	`plato-api-gateway`	Yes	Required for Oracle Banking Microservices Architecture framework
Oracle Banking Microservices Architecture	`plato-config-service`	Yes	Required for Oracle Banking Microservices Architecture framework
Oracle Banking Microservices Architecture	`plato-discovery-service`	Yes	Required for Oracle Banking Microservices Architecture framework
Oracle Banking Microservices Architecture	`plato-orch-service`	Yes	Required for Oracle Banking Microservices Architecture framework
Oracle Banking Microservices Architecture	`plato-ui-config-services`	Yes	Required for Oracle Banking Microservices Architecture framework
Security Management System (SMS)	`sms-core-services-{version}.war`	Yes	SMS services
SMS	`sms-component-server-{version}.war`	Yes	UI
Common Core (CMC)	`cmc-fc-ai-ml-services`	Yes	Used in ML
CMC	`cmc-nlp-dashboard-widget-services`	Yes	Used in ML
CMC	`cmc-nlp-maintenance-services`	Yes	Used in ML
CMC	`cmc-nlp-pipeline-services`	Yes	Used in ML

Table 2-1 (Cont.) Application Services

Group	Service List	Required for Servicing	Usage
CMC	cmc-nlp-text-extraction-services	Yes	Used in ML
CMC	cmc-obrh-service	Yes	Used for routing via Oracle Banking Routing Hub
CMC	cmc-report-service	Yes	Used for Advices
CMC	cmc-resource-segment-orchestrator-service	Yes	Used in screens using GCS like maintenance screens
CMC	cmc-screenclass-services	Yes	Used for screen handling
CMC	cmc-settlements-services	No	
CMC	cmc-transactioncontroller-services	Yes	Used in screens using GCS like maintenance screens
CMC	cmc-txn-code-services	Yes	Common Core Services
CMC	cmc-account-services	Yes	Common Core Services
CMC	cmc-additional-attributes-services	Yes	Common Core Services
CMC	cmc-advice-services	Yes	Used for Advices
CMC	cmc-base-services	Yes	Common Core Services
CMC	cmc-batch-services	No	
CMC	cmc-branch-services	Yes	Common Core Services
CMC	cmc-businessoverrides-services	No	
CMC	cmc-charges-calculation-services	Yes	Common Core Services
CMC	cmc-corebanking-adapter-service	No	
CMC	cmc-currency-services	Yes	Common Core Services
CMC	cmc-customer-services	Yes	Common Core Services
CMC	cmc-datasegment-services	Yes	Common Core Services

Table 2-1 (Cont.) Application Services

Group	Service List	Required for Servicing	Usage
CMC	cmc-external-chart-account	Yes	Common Core Services
CMC	cmc-external-system-services	No	Common Core Services
CMC	cmc-external-virtual-account-services	Yes	Virtual account management services
CMC	cmc-facilities-service	No	
CMC	cmc-component-server-{version}.war	Yes	UI
CMC	app-shell-{version}.war	Yes	UI
Mid-office Common Core (MOC)	moc-component-server-{version}.war	Yes	UI
MOC	cmc-applicationcategory-services	No	
MOC	cmc-checklist-services	No	
MOC	cmc-checklistmanagement-services	No	
MOC	cmc-comments-services	No	
MOC	cmc-document-services	Yes	Process Runtime and ML Screens
MOC	cmc-documentmanagement-services	Yes	Process Runtime and ML Screens
MOC	cmc-earmark-services	No	
MOC	cmc-kyccheck-services	No	
MOC	cmc-mailnotification-services	No	
MOC	cmc-priority-service	No	

Table 2-1 (Cont.) Application Services

Group	Service List	Required for Servicing	Usage
MOC	`cmc-processcode-service`	Yes	Business Process Definition for Process Runtime based screens
MOC	`cmc-queue-service`	No	
MOC	`cmc-sequencegenerator-services`	No	

3
Troubleshooting Functional Workflows

Learn about the functional workflows applicable to Oracle Banking Branch, required configurations, and issues you may encounter when using the application and how to work around them.

This topic contains the following subtopics:

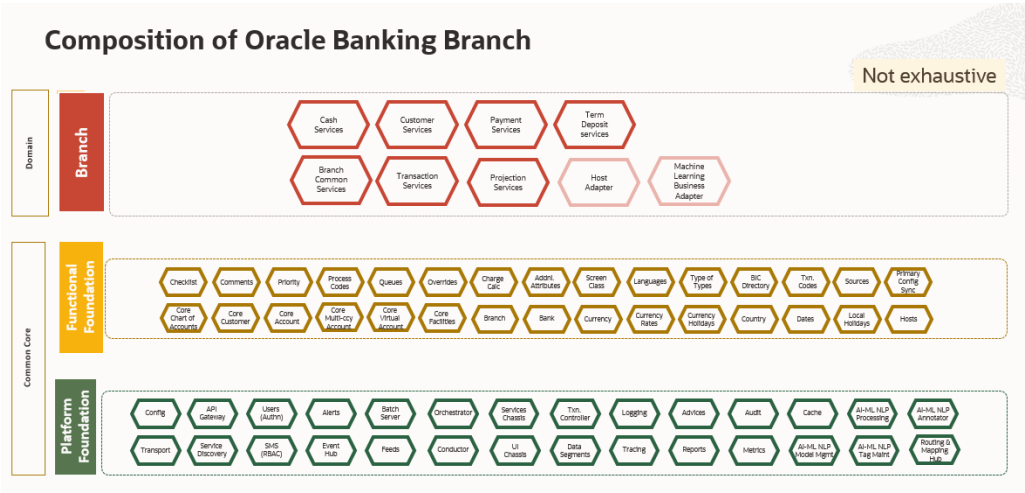
- Subdomains of Oracle Banking Branch
  Oracle Banking Branch is powered by modern cloud-native and micro-services architecture.
- High-Level Flow for Cash Deposit
  The high-level flow helps you understand the transaction screen launch and processing of transaction submission.
- Update Process Log Table
  You need to run the specific query to update the process log table.
- Troubleshooting Payment Service Integration
  Learn about the issues you may encounter when using payment service integration and how to work around them.
- Configure Oracle Banking Routing Hub
  You need to configure the Oracle Banking Routing Hub to ensure all the calls are wired through the microservice of Oracle Banking Routing Hub.
- Purging and Archival
- Troubleshooting Process Runtime Screens
  Learn about the issues you may encounter when using process runtime flow screens and how to work around them.
- EOD Configuration
  You need to create the EOD workflow and related terminologies for the EOD function to work. It is assumed that the set-up and configuration of `plato-batch-server` and `plato-orchestration` services are completed.
- Troubleshooting Projection Schema Failure
  You can troubleshoot the failure of the projection service by updating the flyway scripts in the database.

3.1 Subdomains of Oracle Banking Branch

Oracle Banking Branch is powered by modern cloud-native and micro-services architecture.

The subdomains of the Oracle Banking Branch are shown below:

Figure 3-1 Composition of Oracle Banking Branch

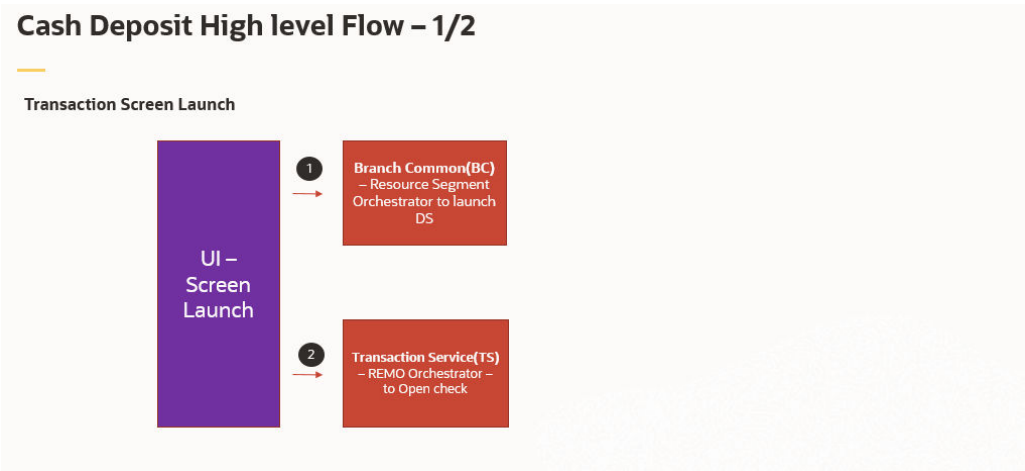


3.2 High-Level Flow for Cash Deposit

The high-level flow helps you understand the transaction screen launch and processing of transaction submission.

The high-level flow diagram for screen launch of the cash deposit transaction is shown below:

Figure 3-2 Cash Deposit - Transaction Screen Launch



For information on the callouts/process steps, refer to the description table below:

Table 3-1 Transaction Screen Launch - Description of Callouts

Callout/Process Step	Description
1 (Branch Common)	Teller virtual page queries BC screen class service (1401) and then loads related data segments.
2 (Transaction Service)	After the data segments are painted, transaction services REMO orchestrator is called for user open check to ensure batch has opened.

The high-level flow diagram for the submit processing of the cash deposit transaction is shown below:

Figure 3-3 Cash Deposit - Transaction Submit Processing

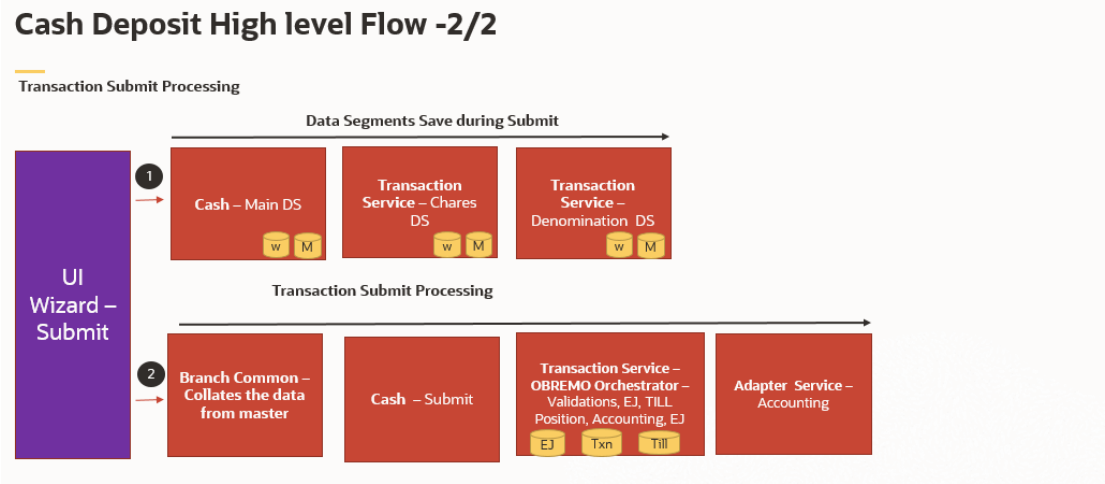


Table 3-2 Transaction Submit Processing - Description of Callouts

Callout/Process Step	Description
1 (Data Segments Save)	Teller virtual page queries BC screen class service (1401) and then loads related data segments.
2 (Transaction Submit Processing)	After the data segments are painted, transaction services REMO orchestrator is called for user open check to ensure batch has opened.

This topic contains the following subtopics:

- First Level Issues
  Learn about the issues you may encounter when using during the basic investigation and how to work around them.
- Verify Transaction Data
  You need to follow the best practices and verify the transaction data entered on the screen to avoid getting errors.

3.2.1 First Level Issues

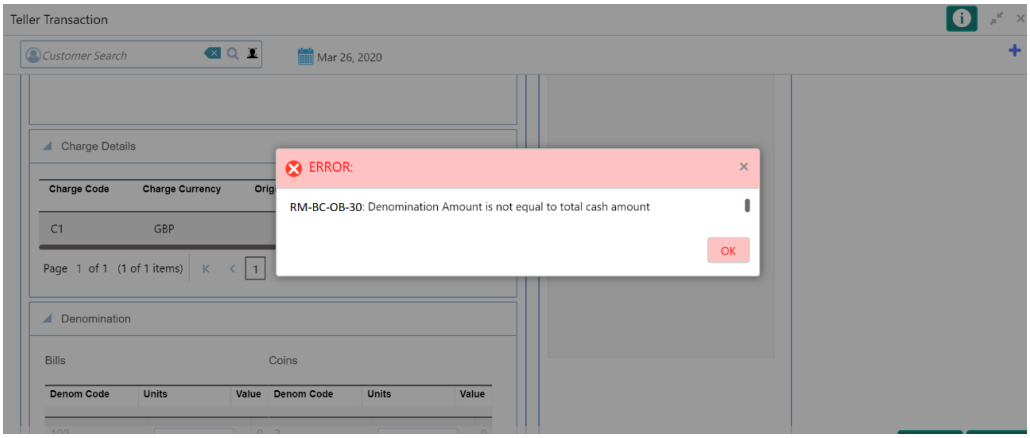
Learn about the issues you may encounter when using during the basic investigation and how to work around them.

Topics:

Calls are not sent properly

If there are any improper calls, check the *ERTB_MSGS* table to understand the cause of the error. In addition, you can find displayed error code from the list of existing codes.

Figure 3-4 Improper Calls



Null pointer or branch common exception error

If there is a null pointer exception or branch common exception error, go to the process log table and exception log table, and select the following queries to verify the results.

Table 3-3 Queries to Verify Results

Query	Reference for Sample Log
`select * from SRV_TB_PROCESS_LOG order by timestamp desc`	Figure 3-5
`select * from SRV_TB_EXCEPTION_LOG order by timestamp desc`	Figure 3-6

Figure 3-5 TB Process Log

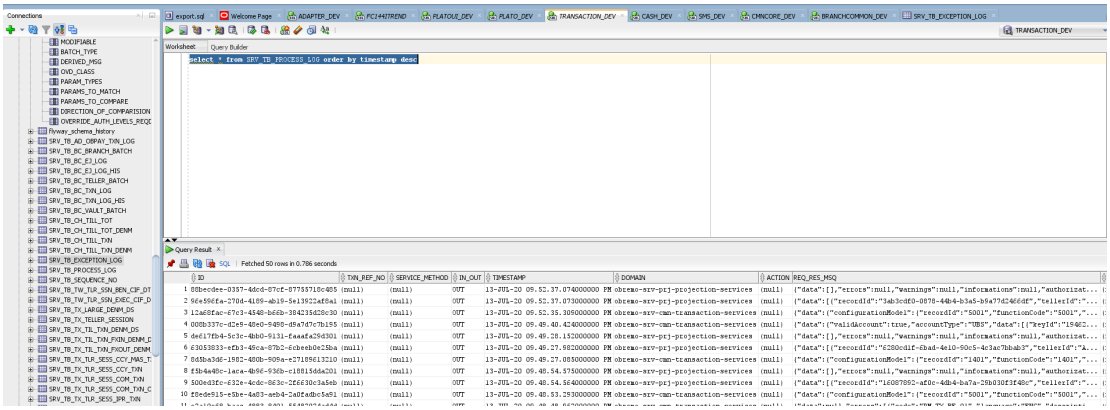
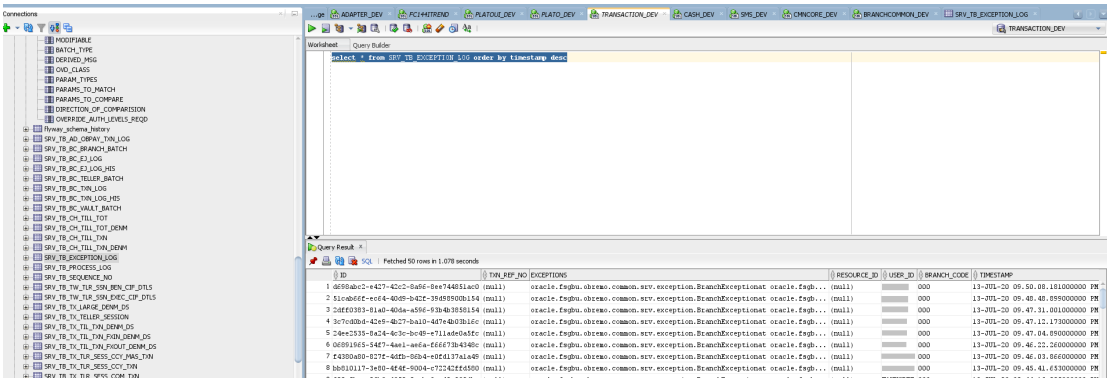
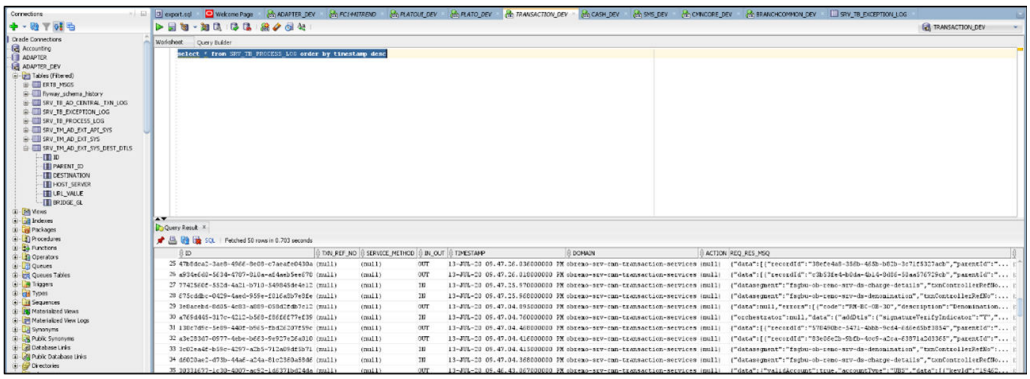


Figure 3-6 TB Exception Log



> **Note:**
>
> Process log contains request payload, which will help you to hit service through postman and for getting the response.

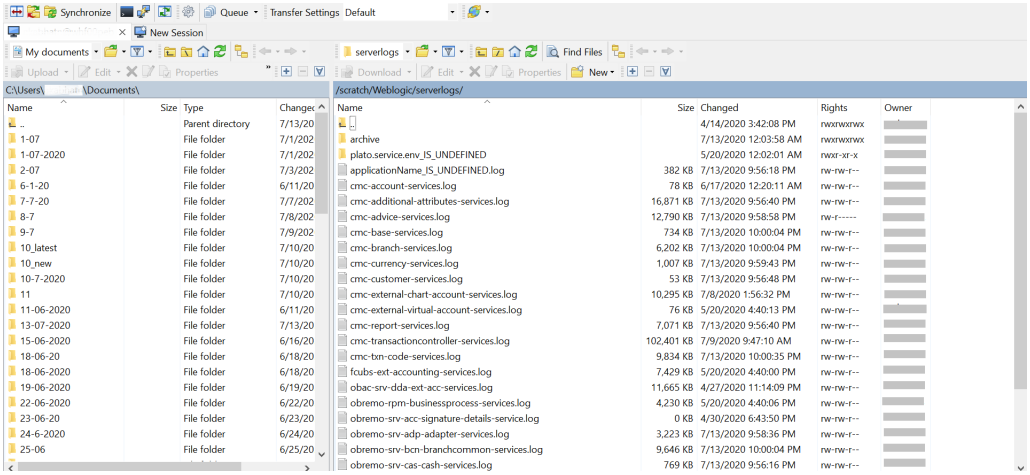
Figure 3-7 Process Log Responses



Exact error through exception log

If there is an exact error through the exception log, log in to *WINSCP*, and check server logs with NIS credentials. The path can be defined in –`Dplato.service.logging.path` variable in the `setEnv.sh`. For example, the path is `/scratch/Weblogic/serverlogs`.

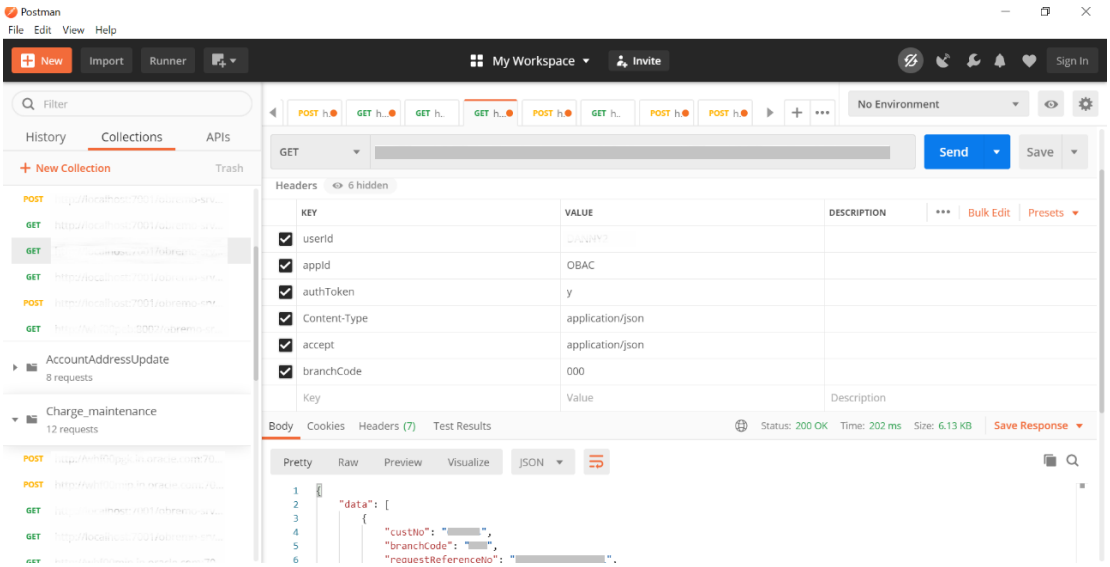
Figure 3-8 Exception Error Log



Logs are not generated

If you are not getting logs, include debug statements in services and hit through postman, and test again.

Figure 3-9 Postman



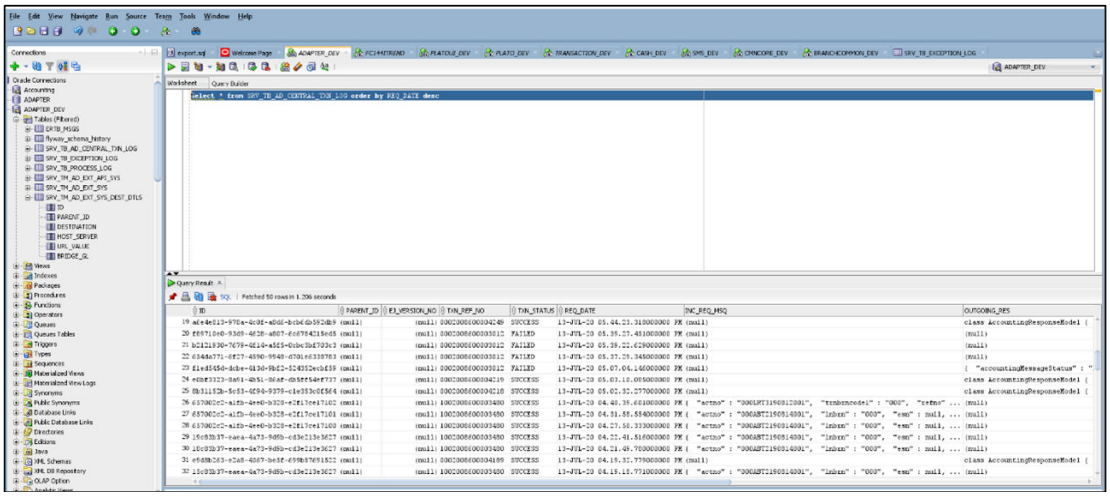
The call is failing in the adapter

If any call is failing in call to Product Processor Gateway, open *SRV_TB_AD_CENTRAL_TXN_LOG* in Adaptor for getting Gateway response (*SUCCESS* or *FAILED*). Select the following query to verify results.

```
select * from SRV_TB_AD_CENTRAL_TXN_LOG order by REQ_DATE desc
```

A sample transaction log is shown below:

Figure 3-10 TB AD Central Transaction Log



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

500 Internal Error

The possible causes for 500 internal errors are as follows:

- Issues with entries of Oracle Banking Microservices Architecture
- Issues with Eureka
- Issues with any piece of code

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

3.2.2 Verify Transaction Data

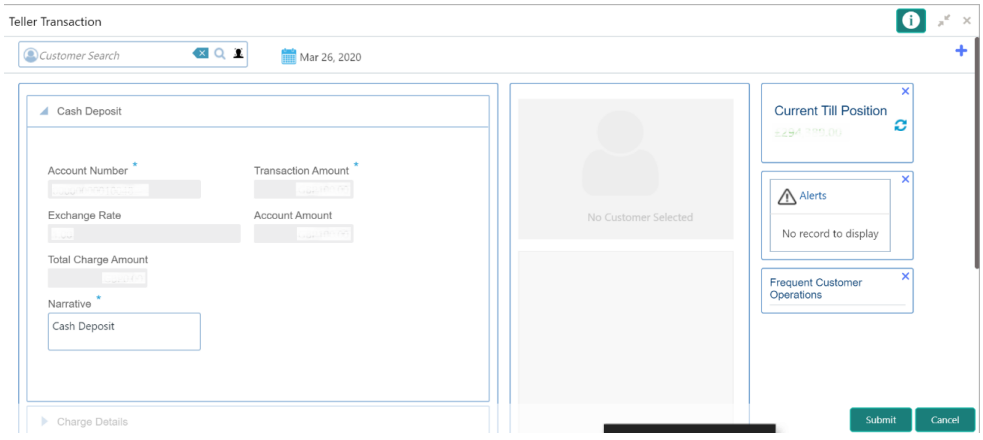
You need to follow the best practices and verify the transaction data entered on the screen to avoid getting errors.

It is assumed that the user is performing a transaction using the screen in the Oracle Banking Branch application.

To avoid getting any errors, follow the best practices:

1. In the *IN* request and *OUT* response, make sure that all the field data is going to the service side.
2. If there are errors related to SMS, check for the availability of SMS entries.
3. Validate the endpoints and data.
4. Make sure that the data entered on the screen is accurate. For example, the **Account Number** should be valid.

Figure 3-11 Teller Transaction Screen



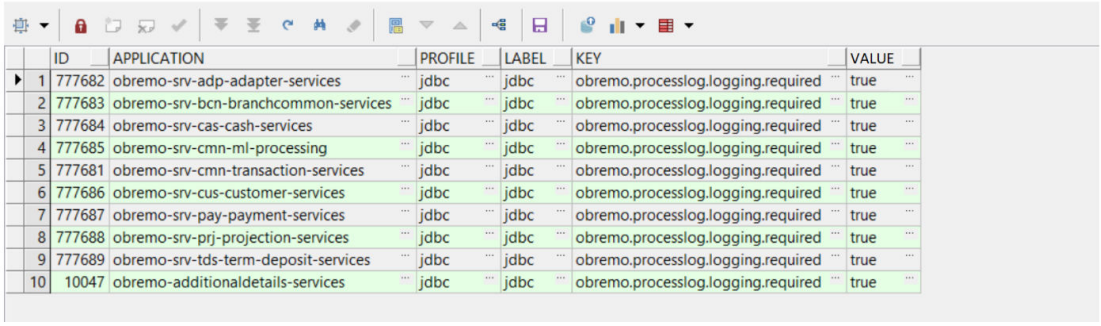
3.3 Update Process Log Table

You need to run the specific query to update the process log table.

To update the process log, select the following query:

```
select * From properties where upper(key) like upper('%processlog%')
```

Figure 3-12 Process Log Table Update



	ID	APPLICATION	PROFILE	LABEL	KEY	VALUE
1	777682	obremo-srv-adp-adapter-services	jdbc	jdbc	obremo.processlog.logging.required	true
2	777683	obremo-srv-bcn-branchcommon-services	jdbc	jdbc	obremo.processlog.logging.required	true
3	777684	obremo-srv-cas-cash-services	jdbc	jdbc	obremo.processlog.logging.required	true
4	777685	obremo-srv-cmn-ml-processing	jdbc	jdbc	obremo.processlog.logging.required	true
5	777681	obremo-srv-cmn-transaction-services	jdbc	jdbc	obremo.processlog.logging.required	true
6	777686	obremo-srv-cus-customer-services	jdbc	jdbc	obremo.processlog.logging.required	true
7	777687	obremo-srv-pay-payment-services	jdbc	jdbc	obremo.processlog.logging.required	true
8	777688	obremo-srv-prj-projection-services	jdbc	jdbc	obremo.processlog.logging.required	true
9	777689	obremo-srv-tds-term-deposit-services	jdbc	jdbc	obremo.processlog.logging.required	true
10	10047	obremo-additionaldetails-services	jdbc	jdbc	obremo.processlog.logging.required	true

> **Note:**
>
> If the value is false, the process log will not be updated. This is for audit and tracing purposes during error investigation.

3.4 Troubleshooting Payment Service Integration

Learn about the issues you may encounter when using payment service integration and how to work around them.

Topics:

The screen is not launching

If the screen is not launching, check the networks logs to verify if `open check` call is failing. The open check URL is *https://<host>:<port>/obremo-srv-cmn-transaction-services/obremo-srv-cmn-transaction-services/open/1006*.

> **Note:**
>
> Network logs can be viewed by launching the browser debugger window (*F12*) and viewing the network tab.

Submit is failing

If submit is failing, check the network logs and check if CREATE call is failing. The *CREATE* URL is *https://<host>:<port>/obremo-srv-bcn-branchcommon-services/web/orchestrator/submit/CREATE*.

500 internal server error

The issues in the following services can cause 500 internal server errors:

- `OBREMO-SRV-BCN-BRANCHCOMMON-SERVICES`
- `OBREMO-SRV-CMN-TRANSACTION-SERVICES`
- `OBREMO-SRV-PAY-PAYMENT-SERVICES`
- `OBREMO-SRV-ADP-ADAPTER-SERVICES`

Check the process log table and exception log table from the respective schema. Select the following query to verify results.

Table 3-4 Queries to Verify Results

Query	Reference for Sample Log
`select * from SRV_TB_PROCESS_LOG order by timestamp desc;` (or) `select * from SRV_TB_PROCESS_LOG where user_id ='user_id' order by timestamp desc;`	Figure 3-13
`select * from SRV_TB_EXCEPTION_LOG order by timestamp desc;` (or) `select * from SRV_TB_EXCEPTION_LOG where user_id ='user_id' order by timestamp desc;`	Figure 3-14

Figure 3-13 Process Log Table

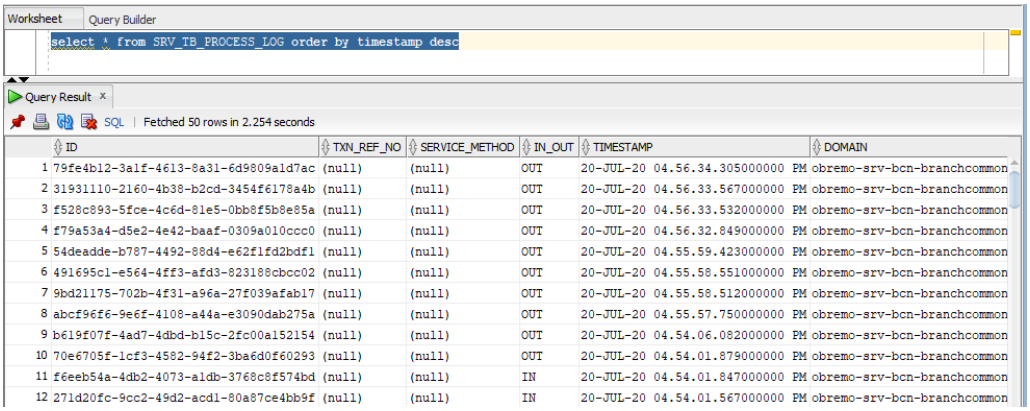
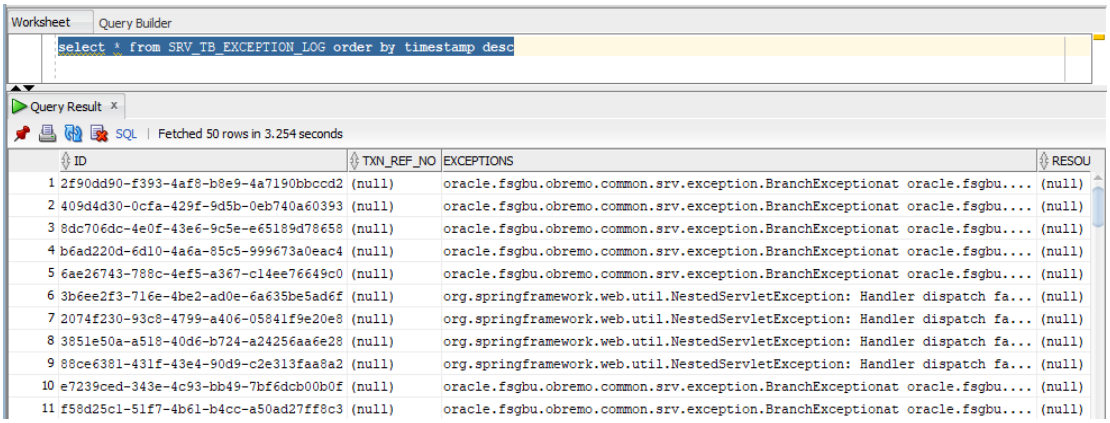


Figure 3-14 Exception Log Table

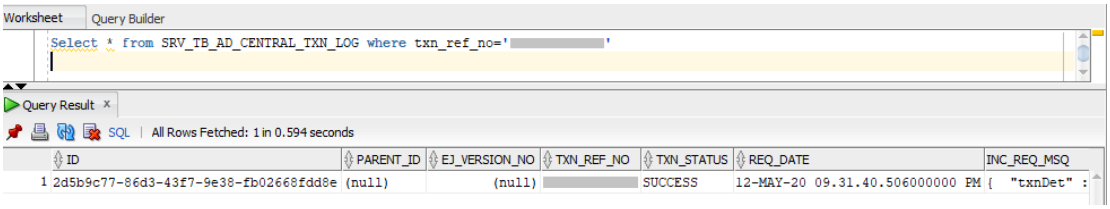


Accounting call to FLEXCUBE Universal Banking is failing

If accounting call to FLEXCUBE Universal Banking is failing, check the *SRV_TB_AD_CENTRAL_TXN_LOG* in *ADAPTER-SERVICES* schema for getting Gateway response (`SUCCESS` or `FAILURE`). Select the following query to verify results.

```
select * from SRV_TB_AD_CENTRAL_TXN_LOG where txn_ref_no='XXXXXXXXXXXX';
```

Figure 3-15 Transaction Log Table - AD Central

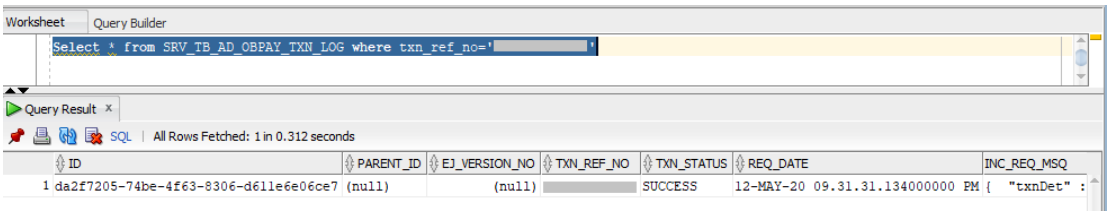


Oracle Banking Payments call is failing

If the call to Oracle Banking Payments is failing, check the *SRV_TB_AD_CENTRAL_TXN_LOG* and *SRV_TB_AD_OBPAY_TXN_LOG* in *ADAPTER-SERVICES* schema for getting Gateway response (`SUCCESS` or `FAILURE`). Select the following query to verify results.

```
select * from SRV_TB_AD_OBPAY_TXN_LOG where txn_ref_no='XXXXXXXXXXXX';
```

Figure 3-16 Oracle Banking Payments - Transaction Log Table

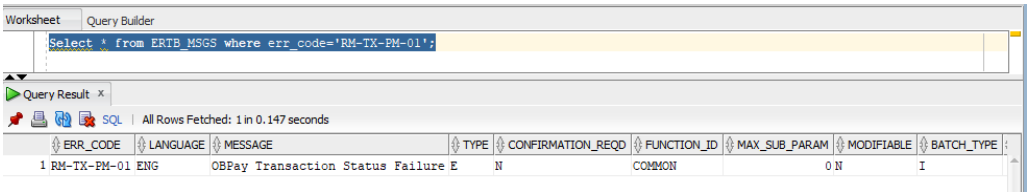


Error During Transaction Submission

If any error occurred while submitting the transaction from the **Teller Transaction** screen, check the error code and the error message. Error code will be available in *ERTB_MSGS*. Select the following query to verify results.

```
select * from ERTB_MSGS where err_code='RM-BC-PM-01';
```

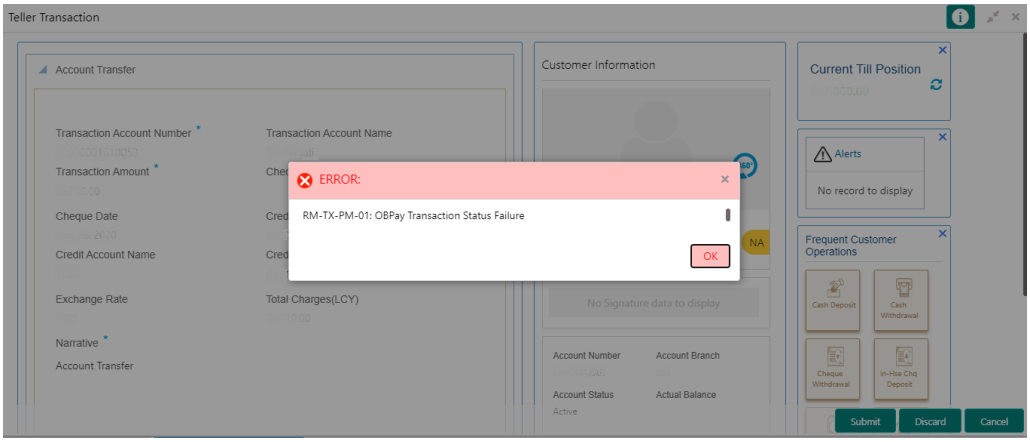
Figure 3-17 ERTB Messages



Error RM-TX-PM-01

This error may occur while submitting the transaction from **Teller Transaction** screen. A sample of this error is shown below:

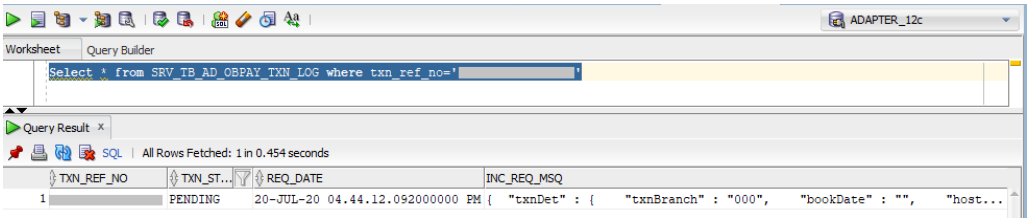
Figure 3-18 RM-TX-PM-01 Error



To resolve this error, validate the *SRV_TB_AD_OBPAY_TXN_LOG* in *ADAPTER-SERVICES* schema. If the transaction status is not `PENDING` or `FAILURE`, it can cause this error. Select the following query to verify results:

```
select * from SRV_TB_AD_OBPAY_TXN_LOG where txn_ref_no='XXXXXXXXXXXXXXXX';
```

Figure 3-19 Oracle Banking Payments - Transaction Log Table



3.5 Configure Oracle Banking Routing Hub

You need to configure the Oracle Banking Routing Hub to ensure all the calls are wired through the microservice of Oracle Banking Routing Hub.

To configure Oracle Banking Routing Hub, specify the value for `srv_tm_bc_function_indicator.IS_ROUTING_ENABLED` as *Y*. This will ensure all the calls are wired through the microservice of Oracle Banking Routing Hub.

The below table contains the factory-shipped data for producer and consumer combination of integrations made through Oracle Banking Routing Hub.

SRV_TM_BC_FUNCTION_INDICATOR_ROUTE_DTLS

3.6 Purging and Archival

For Oracle Banking Branch, purge days are maintained for each branch in the table *SRV_TB_BC_ARCHIVAL*. As a part of Branch Batch closure (happens every day), the program purges the following tables to history tables:

- *SRV_TB_BC_EJ_LOG*
- *SRV_TB_BC_TXN_LOG*

3.7 Troubleshooting Process Runtime Screens

Learn about the issues you may encounter when using process runtime flow screens and how to work around them.

The process runtime flow screens are as follows:

- Customer Address Update
- Customer Contact Details Update
- Account Address Update

Topics:

For additional details, refer to Additional details of business process.

The screen is not launching

If the screen is not launching, go to network logs and check if the *initiate* call is failing. If it is failing, see the displayed error code. The causes and fixes for the possible error codes are described below:

Table 3-5 Causes and Resolutions

Cause	Resolution
Error code 404	If the error code is 404, the entry `/obremo-srv-cus-customer-services/web/v1/initiate` may be missing in the product services ledger table.
Error code 504	If the error code is 504, the `plato-orch-service` may be down or respond very late. Restart `plato-orch-service` to fix this error.
Error code 400	If the business process data is not posted properly or altered by a user, it may be causing this error. Check the business process data through the postman or the UI if the menu is configuration menu is enabled. The business process data can be verified through the Postman validation as described below.

To resolve the error code 400, verify the business process data through Postman.

Table 3-6 Business Process Data

Variable	Value
Endpoint URL	`/obbrn-srv-biz-businessprocess-services/businessprocess?businessProductCode=ALL&lifeCycleCode=AauSav`
Life Cycle Code	`CcuSav/AauSav/CauSav`

Table 3-7 Applicable Headers

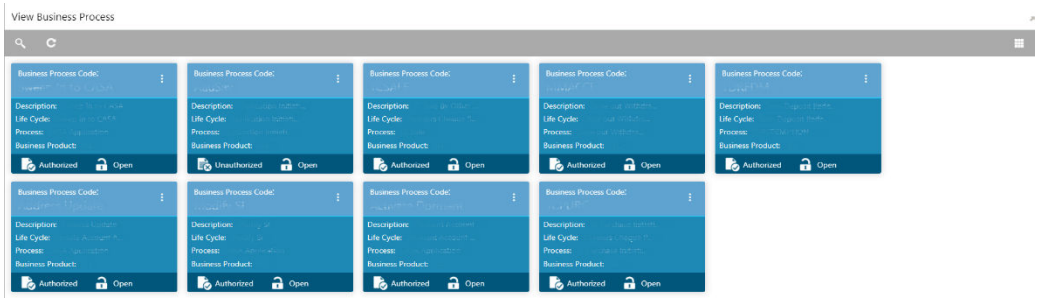
Header	Value
userId	`ADMINUSER`
branchCode	`000`
appId	`BIZPRC`
authToken	`Y`
Content-Type	`application/json`
Accept	`application/json`
Method	`GET`

To open and verify the business process data through the User Interface (UI):

1. Log in to the application homepage. For information on how to log in, refer to the *Getting Started User Guide*.
2. On the Homepage, click **Retail Banking**. Under **Retail Banking**, click **Configurations**.
3. Under **Configurations**, click **Business Process**.
4. Under **Business Process**, click **View Business Process**.

   A list of business process tiles is displayed.

Figure 3-20 View Business Process



5. Click **CAU/CCU/AAU**.
6. Verify the business process data.

The first stage submit is failing

This error may be caused due to the issue/failure with *GET* stage summary in the previous call before you submit (when you click **Next**). To resolve this error, validate the get summary call failure.

The Free Tasks screen is not launching

Make sure that the endpoints entries in the product service ledger are correct. The endpoints entries as shown below:

Figure 3-21 Endpoint Entries

ID	PROD...	ENDPOINT_KEY	ENDPOINT_VALUE	REQUEST_TYPE	SERVICE_NAME
462	CORE	REASSIGN_USERS	/api/v1/extn/users/subordinates?action=SUPERVISOR	GET	plato-orch-service
110	CORE	RELEASE_TASK	/api/v1/extn/tasks	PUT	plato-orch-service
105	CORE	TASK_SEARCH	/api/v1/extn/custom-actions/queries/tasks	POST	plato-orch-service
106	CORE	ACQUIRE_TASK	/api/v1/extn/tasks	PUT	plato-orch-service
8822	CORE	TASK_QUEUE	/api/v1/extn/tasks?type={dashboardQueueName}	GET	plato-orch-service

The transaction is not listed in Free Tasks/Unable to see major fields

If the submitted transaction is not listed in the **Free Tasks** or if you are unable to see created transaction major fields (**Reference Number**, **Application Number**, etc.) in the **Free Tasks** screen table, validate the posted workflow definition to process runtime server with the help of postman. Do the validation as follows:

The endpoint URL is `http://<host>:<port>/plato-orch-service/api/metadata/workflow/AauSav`

The applicable headers are as follows:

Table 3-8 Applicable Headers

Header	Value
userId	ADMINUSER
branchCode	000
appId	platoorch
authToken	Y

Table 3-8 (Cont.) Applicable Headers

Header	Value
Content-Type	`application/json`
Accept	`application/json`
Method	`GET`

Getting validation errors on the second stage submit

These errors may be caused by the FLEXCUBE Universal Banking system validation errors, such as `name is missing`, `X field cannot be modified`. In such cases, verify that the data you have submitted for modification and the customer/ account has all the required information.

Additional details of business process

The workflow definitions are stored in the `META_WORKFLOW_DEF` of the `platoOrch` schema. The business process is stored in the 24 different tables of `rpm` schema. Currently, the Teller transactions' business process data persisted in the eight tables out of 24 tables. The business process does not have data related to the checklist, documents, advice list, and clauses list.

The tables are as follows:

- *RPM_TM_BUSINESS_PROCESS, RPM_TW_BUSINESS_PROCESS*
- *RPM_TM_BP_STAGE, RPM_TW_BP_STAGE*
- *RPM_TM_BP_STAGE_DSCC, RPM_TW_BP_STAGE_DSCC*
- *RPM_TM_BP_STAGE_DSCC_PC, RPM_TW_BP_STAGE_DSCC_PC*

3.8 EOD Configuration

You need to create the EOD workflow and related terminologies for the EOD function to work. It is assumed that the set-up and configuration of `plato-batch-server` and `plato-orchestration` services are completed.

This topic contains the following subtopics:

- Before You Begin
  Before you begin performing EOD configuration:
- Create EOD Workflow
  You can create the EOD workflow through the **Workflow Maintenance** screen.
- Configure EOD Batch
  You can configure the EOD batch through the **Configure EOD** screen.
- Run EOD Batch
  You can run the batch for a branch through the **Invoke EOD** screen.

3.8.1 Before You Begin

Before you begin performing EOD configuration:

Log in to the application homepage. For information on how to log in, refer to the *Getting Started User Guide*.

3.8.2 Create EOD Workflow

You can create the EOD workflow through the **Workflow Maintenance** screen.

To create the EOD workflow:

1. Create a JSON with the batch job definition.

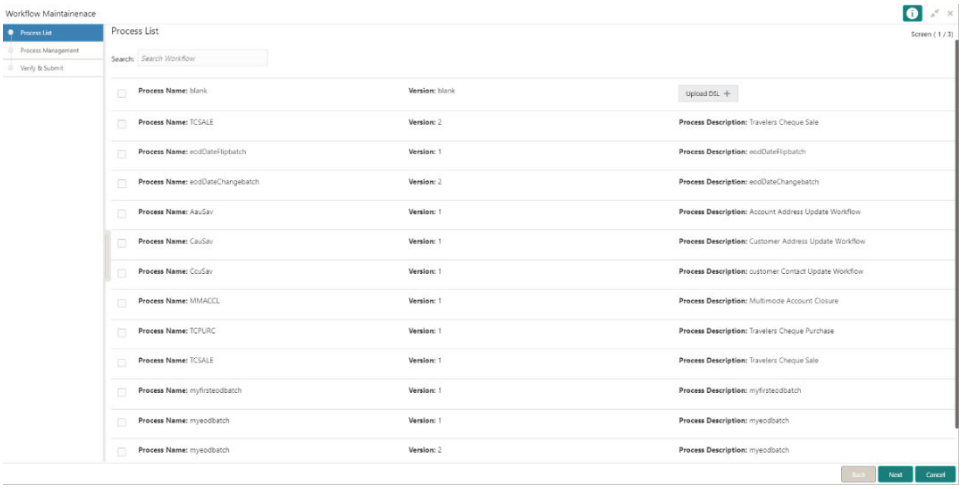
   The `eodWorkflow.json` is the JSON used for date change

2. Upload a sample batch script as follows:

   a. On the Homepage, click **Tasks**. Under **Tasks**, click **Business Process Maintenance** to import, create or modify batch process definition.

      The Workflow Maintenance screen is displayed.

Figure 3-22 Workflow Maintenance



   b. Click **Upload DSL +**.

   c. Choose file `eodDateFlipbatch.json` from the local folder.

   d. Click **Next**.

> **Note:**
>
> If required, you can also click **Create Stage** to create a new stage.

   e. Click **Create Process** to create the process and close the screen.

3.8.3 Configure EOD Batch

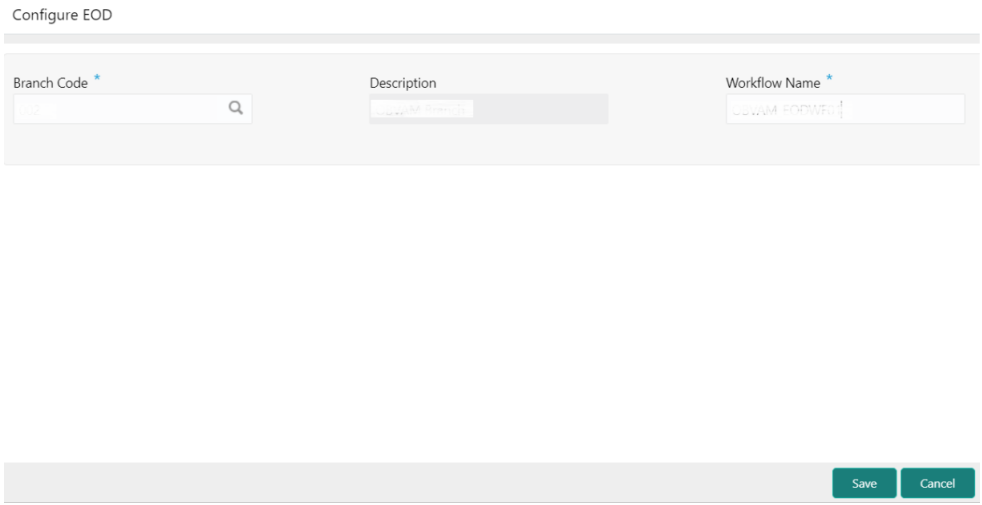
You can configure the EOD batch through the **Configure EOD** screen.

To configure the EOD batch:

1. On the Homepage, click **Core Maintenance**. Under **Core Maintenance**, click **Branch EOD**, and then select **Configure EOD**.

   The Configure EOD screen is displayed.

Figure 3-23 Configure EOD



2. On the Configure EOD screen, specify the fields. For more information on fields, refer to the field description table.

> **Note:**
>
> The fields, which are marked with an asterisk, are mandatory.

Table 3-9 Configure EOD - Field Description

Field	Description
Branch Code	Select branch code to link with the batch process definition.
Description	Displays the description of the selected branch code.

Table 3-9 (Cont.) Configure EOD - Field Description

Field	Description
Workflow Name	Specify the workflow name (`eodDateFlipbatch`) as mentioned in the first line of `eodDateFlipbatch.json`. **Note:** The workflow name should be the same as the value for the name tag in the JSON file. A sample workflow name from a JSON file is shown in the below figure.

Figure 3-24 Sample Workflow Name

```
{
    "name": "eodDateFlipbatch",
    "description": "This is my first EOD batch",
    "tasks": [
        {
            "name": "EOD.DATEFLIP",
            "taskReferenceName": "EOD.DATEFLIP",
            "inputParameters": {
                "http_request": {
                    "connectionTimeOut": "0",
                    "readTimeOut": "0",
                    "vipAddress": "CMC-BRANCH-SERVICES",
                    "uri": "/cmc-branch-services/batch/flipdate?eodBranch=${workflow.input.branchCode}",
                    "method": "POST",
                    "headers": {
```

3. Save and authorize the record.

3.8.4 Run EOD Batch

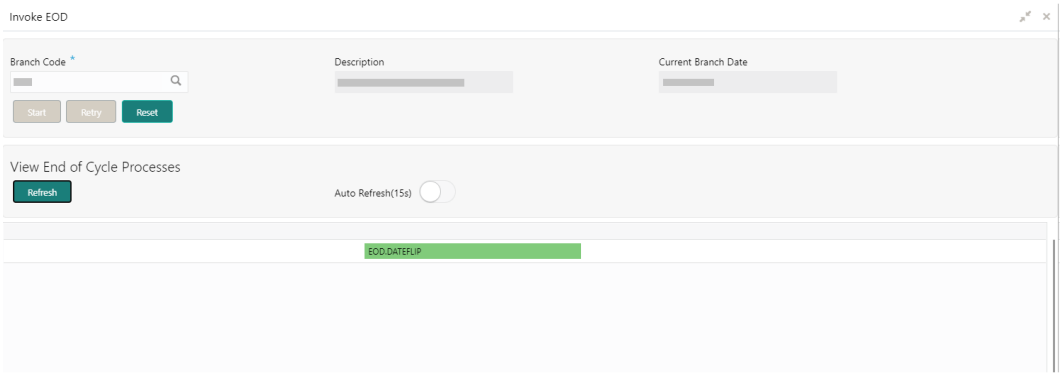
You can run the batch for a branch through the **Invoke EOD** screen.

To run the EOD batch:

1. On the Homepage, click **Core Maintenance**. Under **Core Maintenance**, click **Branch EOD**, and then select **Invoke EOD**.

   The Invoke EOD screen is displayed.

Figure 3-25 Invoke EOD



2. On the Invoke EOD screen, click the  icon and select the **Branch Code**. For more information on fields, refer to the *Oracle Banking Common Core User Guide*.

> **Note:**
>
> The fields, which are marked with an asterisk, are mandatory.

3. Click **Start** to start end of day batch.
4. Click **Refresh** to view the current status of the batch.

3.9 Troubleshooting Projection Schema Failure

You can troubleshoot the failure of the projection service by updating the flyway scripts in the database.

The projection service war may fail while deployment with the following error message:

```
org.flywaydb.core.api.FlywayException: Validate failed: Migration
checksum mismatch for migration version 507.108.5.1.0.14.507108014.1.0
-> Applied to database : 107501546 ->
Resolved locally : -643401112 Detected failed migration to version
101.32.7.3.0.1.00101001001.3.1 (ERTB MSGS)
:org.flywaydb.core.api.FlywayException:Validate failed: Migration
checksum mismatch for migration version 507.108.5.1.0.14.507108014.1.0
-> Applied to database : 107501546 -> Resolved locally : -643401112
Detected failed migration to version 101.32.7.3.0.1.00101001001.3.1
(ERTB MSGS)
```

To resolve this error:

1. Connect to the projection schema in the database.
2. Run the following script in the projection schema:

```
update "flyway_schema_history" set "checksum" = '-643401112' where
"script" = 'V507_108_5.1.0_14_507108014_1_0__ERTB_MSGS.sql'; delete
from "flyway_schema_history" where "success" = 0; ALTER TABLE
ERTB_MSGS MODIFY ERR_CODE VARCHAR2(15);
```

> **Note:**
>
> The value of the checksum in this script should match the value in the error message.

4

Troubleshooting Deployment Errors/ Exceptions

This topic describes the troubleshooting information for Errors/Exceptions that can occur due to flyway while deployment.

Errors / Exceptions on Flyway 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
[oracle/fsgbu/plato/flyway/FlywayConfig.class]: Bean instantiation via
factory method failed; nested exception...SQL State : 42000
```

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

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

Solution for Errors/Exceptions

- At first for each case,, the service through Plato-configuration-service should be checked to see if it is suggesting the correct scheme via the **plato-config-service**.
- After checking that it is to be ensured for that particular APPLICATION, the following entries are present in the PROPERTIES table in the plato Schema.

Table 4-1 Properties Table

BEAN	PROPERTY_SET NEED TO BE PRESENT
executeDomain	flyway.domain.db.*
executePlato	flyway.plato.db.*

Table 4-1 (Cont.) Properties Table

BEAN	PROPERTY_SET NEED TO BE PRESENT
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.placeholderReplacement
flyway.domain.ignoreMissingMigrations
flyway.domain.outOfOrder
```

CASE 2: USING JNDI

```
flyway.domain.db.jndi
flyway.domain.schemas
flyway.domain.locations
flyway.domain.placeholderReplacement
flyway.domain.ignoreMissingMigrations
flyway.domain.outOfOrder
flyway.jndi.datasource.enabled
```

In each case, make sure that all the relevant placeholders are available in the scripts in the respective locations.

Error Description:

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

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

```
flyway.domain.placeHolders.eureka.host
```

Solution:

Similarly, any placeholder where the error occurred must pass to the environment through the properties table or the command line arguments (as -D parameters).

A

Error Codes and Messages

You might receive any error codes and messages while using the application. The error codes with the prefix GCS are applicable only to the maintenance screens, and the remaining error codes are applicable to all the transaction screens.

Table A-1 Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
CLMO-AC-003	Source stage value should be either Y/N not valid	E
CLMO-AC-017	DatasegmentCode not valid	E
CLMO-AC-018	DocumentType Code not valid	E
CLMO-AC-020	Life cycle not valid	E
CLMO-AC-023	Unable to $1 Business Process as $2 data segment has the following dependencies $3 in lifecycle $4 ,which have not been mapped prior to it!	E
CLMO-AC-024	Unable to $1 Business Process as the mandatory data segments $2 for the $3 lifecycle have not been mapped!	E
CLMO-AC-026	In $1 stage of $2 Business Process,duplicate data segements - $3 are not allowed	E
CLMO-AC-027	Record already exist with same Lifecycle and Business Product	E
CLMO-AC-028	At $1 in $2 stage of $3 Business Process,duplicate record for - $4 exist	E
CLMO-AC-029	At $1 in $2 stage of $3 Business Process,Business Product List is invalid.	E
CLMO-AC-030	Business Product Code is Invalid	E
GCS-AUTH-01	Record Successfully Authorized	I
GCS-AUTH-02	Valid modifications for approval were not sent. Failed to match	E
GCS-AUTH-03	Maker cannot authorize	E
GCS-AUTH-04	No valid unauthorized modifications found for approval.	E
GCS-CLOS-002	Record Successfully Closed	I
GCS-CLOS-01	Record Already Closed	E
GCS-CLOS-02	Record Successfully Closed	I
GCS-CLOS-03	Unauthorized record cannot be closed, it can be deleted before first authorization	E
GCS-COM-001	Record does not exist	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
GCS-COM-002	Invalid version sent, operation can be performed only on latest version	E
GCS-COM-003	Please Send Proper ModNo	E
GCS-COM-004	Please send makerId in the request	E
GCS-COM-005	Request is Null. Please Resend with Proper Values	E
GCS-COM-006	Unable to parse JSON	E
GCS-COM-007	Request Successfully Processed	I
GCS-COM-008	Modifications should be consecutive.	E
GCS-COM-009	Resource ID cannot be blank or "null".	E
GCS-COM-010	You have successfully cancelled $1.	I
GCS-COM-011	Argghhh, $1 failed to update.	E
GCS-DEL-001	Record deleted successfully	I
GCS-DEL-002	Record(s) deleted successfully	I
GCS-DEL-003	Modifications didnt match valid unauthorized modifications that can be deleted for this record	E
GCS-DEL-004	Send all unauthorized modifications to be deleted for record that is not authorized even once.	E
GCS-DEL-005	Only Maker of first version of record can delete modifications of record that is not once authorized.	E
GCS-DEL-006	No valid unauthorized modifications found for deleting	E
GCS-DEL-007	Failed to delete. Only maker of the modification(s) can delete.	E
GCS-MOD-001	Closed Record cannot be modified	E
GCS-MOD-002	Record Successfully Modified	I
GCS-MOD-003	Record marked for close, cannot modify.	E
GCS-MOD-004	Only maker of the record can modify before once auth	E
GCS-MOD-005	Not amendable field, cannot modify	E
GCS-MOD-006	Natural Key cannot be modified	E
GCS-MOD-007	Psssttt, only the maker can modify the pending records.	E
GCS-OPEN-01	Teller Batch Record Already Opened	E
GCS-OPEN-01	Record Already Opened	E
GCS-REOP-003	Successfully Reopened	I
GCS-REOP-004	Unauthorized record cannot be reopened, record should be closed and authorized	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
GCS-REOP-01	Unauthorized Record cannot be Reopened	E
GCS-REOP-02	Failed to Reopen the Record, cannot reopen Open records	E
GCS-REOP-03	Successfully Reopened	I
GCS-SAV-001	Record already exists	E
GCS-SAV-002	Record Saved Successfully.	I
GCS-SAV-003	Congratulations!! The record is saved and validated successfully.	I
GCS-SAV-004	Currency Code should be unique	E
GCS-SAV-005	Min cash holding should be lesser than Max cash holding	E
GCS-VAL-001	Congratulations!! Your record is successfully validated.	I
ML-TS-001	Invalid Data Source	E
ML-TS-002	Invalid datatype for case ID	E
ML-TS-003	Timeseries Model Training Failed	E
RM-AD-EC-01	Failed in ECA	E
RM-AD-HH-01	Failed in Host Handoff	E
RM-AD-PM-03	Failed in payment	E
RM-AD-UB-01	Failed in DDA system	E
RM-AD-VM-01	Invalid Account Number	E
RM-AD-VM-02	VAM Service is down	E
RM-BC-AC-01	Failed in Accounting	E
RM-BC-BP-01	Please Enter the entire Branch Parameter Detail values	E
RM-BC-CH-01	Minimum Charge Greeater Than Maximum Charge	E
RM-BC-CH-02	Please Enter the proper charge code	E
RM-BC-CH-03	Charge Fields Cannot be empty	E
RM-BC-CH-04	Please Enter Mininmum and Maximum Charges	E
RM-BC-CP-03	Function code should not be empty	W
RM-BC-EJ-01	Record Not Found	E
RM-BC-EJ-02	Record Updation Failed..	E
RM-BC-EJ-02	Failed to Update the Record	E
RM-BC-EJ-02	Failed in Updating Record..	E
RM-BC-EX-01	Unhandled Exception Occured	E
RM-BC-EX-02	Transaction Timed Out	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-BC-EX-03	Unhandled Exception Occured	E
RM-BC-ML-01	Email Account not Valid	E
RM-BC-OB-01	Branch batch is already open for the current date	E
RM-BC-OB-02	Branch batch can be opened only by supervisor	E
RM-BC-OB-03	Vault batch is open for the current or previous date	E
RM-BC-OB-04	User does not have rights to access this screen	E
RM-BC-OB-04	User do not have rights to access this screen	E
RM-BC-OB-05	Teller batch is open for the current or previous date	E
RM-BC-OB-06	Please complete the pending transactions in the Electronic Journal log	E
RM-BC-OB-07	Branch batch is not opened	E
RM-BC-OB-08	Please close the previous day batch	E
RM-BC-OB-10	Teller batches should be closed before closing the branch/vault batch	E
RM-BC-OB-11	Vault batch should be closed before closing the branch batch	E
RM-BC-OB-16	Teller batch is closed, do you want to reopen	W
RM-BC-OB-17	Teller batch is closed	E
RM-BC-OB-18	Teller batch is already open	E
RM-BC-OB-19	Teller batch is closed	I
RM-BC-OB-20	Invalid Currency Code	E
RM-BC-OB-21	Authlimit Breached	E
RM-BC-OB-22	Transaction limit breached at role level	A
RM-BC-OB-23	Wrong token	E
RM-BC-OB-24	Branch batch is already closed	E
RM-BC-OB-25	Vault batch is already closed	E
RM-BC-OB-26	User is not allowed to open/close the teller batch	E
RM-BC-OB-27	Vault batch is not opened	E
RM-BC-OB-29	Please maintain denomination tracking in Branch Parameter	E
RM-BC-OB-30	Denomination Amount is not equal to total cash amount	E
RM-BC-OB-31	Insufficient Amount available in Till/Vault	E
RM-BC-OB-32	Logged in user ID and Teller Id cannot be same	E
RM-BC-OB-33	Invalid Input TellerId	E
RM-BC-OB-34	Current Denomination balance is less than zero for $1	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-BC-PM-01	Record Successfully Updated	I
RM-BC-RT-01	Failed in getting the exchange rate	E
RM-BC-RT-02	Failed to fetch Branch Accounting Tags	E
RM-BC-TF-01	User not Verified Signature	E
RM-BC-TF-02	Transaction involves Inter Bank Accounts	W
RM-BC-TF-03	Default Charge Amount was modified	W
RM-BC-TF-04	Default Exchange Rate was modified	W
RM-BC-TF-05	Amount exceeds limit for this transaction	W
RM-BC-TF-06	Authorisation required. Amount exceeds limit for the transaction	A
RM-BC-TF-07	Transaction & Electronic Journal ID needs to be Enter..	E
RM-BC-TF-08	Invalid Txn_Ref_Number found for given EJId	E
RM-BC-TR-07	Invalid Input!!	E
RM-BC-UL-01	User Limit Transaction Amount breached	W
RM-BC-UL-02	Authorizer Limit Transaction Amount breached	E
RM-BC-UL-03	User Limit Holding Minimum Amount breached	W
RM-BC-UL-04	User Limit Holding Maximum Amount breached	W
RM-BC-UP-01	Amount exceeds limit for this transaction	W
RM-BC-UP-02	Minimum charge amount should be applied	E
RM-BC-UP-03	Amount exceeds limit for this transaction	A
RM-BC-UP-04	Authorisation amount breached.	E
RM-BC-UP-05	Till maximum balance breached	W
RM-BC-UP-06	Till minimum balance breached	W
RM-BC-UP-07	Authoriser role limit breached	A
RM-BC-UP-08	Teller role limit breached	A
RM-BC-UP-09	Transaction requires approval.	A
RM-BC-UR-01	Submit URL not maintained	E
RM-BC-VA-01	Till open	E
RM-BC-VA-02	Vault Open	E
RM-BC-VA-03	Pending txn	E
RM-BC-VA-10	Invalid Status	E
RM-BC-XR-01	Exchange not Maintained	E
RM-BC-XT-01	Failed in getting the exchange rate	E
RM-CH-LM-01	Channel limit not found for Account class group	E
RM-CH-LM-02	Channel limit details not found	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-CH-LM-03	Channel limit details found for transaction currency	E
RM-CH-LM-04	Number of Withdrawal breached	E
RM-CH-LM-05	Withdrawal Limit breached	E
RM-CM-OR-001	Failed to initiate.	E
RM-CM-OR-002	Transaction is successfully initiated.	I
RM-CM-OR-003	Invalid action, failed to initiate.	E
RM-CM-OR-004	$1 is not submitted, transaction remains the same.	I
RM-CM-OR-005	Cannot proceed with submit as the action is not initiated.	E
RM-CM-OR-006	Cannot proceed with submit as the information is incomplete.	E
RM-CM-OR-007	Failed to submit.	E
RM-CM-OR-008	Record successfully submitted.	I
RM-CM-OR-009	$1 is in-progress, failed to initiate.	E
RM-CM-OR-010	Aw, snap! An unexpected exception occurred, try again.	E
RM-CM-OR-011	Invalid request.	E
RM-CM-OR-012	Cannot proceed with submit as the action is not initiated.	E
RM-CM-OR-013	Cannot find the provided information.	E
RM-CM-OR-014	Record is not yet submitted by $1, cannot initiate the action.	E
RM-CM-OR-015	Record already unlocked by $1.	E
RM-CS-OB-01	Invalid denomination found	E
RM-CS-OB-02	Invalid denomination found for given currency or denomination type	E
RM-CS-OB-03	Transaction Number Already Exist	E
RM-CS-OB-04	Data Not Found	E
RM-CS-OB-05	Amount Mismatch	E
RM-CS-OB-50	SanctionRefNo is already Present.	E
RM-CS-TF-07	MinCash excedes the MaxCash Value	W
RM-CT-AC-01	Charges are not maintained	E
RM-CT-AC-02	Charges should not be maintained	E
RM-CT-AC-04	Failed to get the account	E
RM-EX-CS-01	User is an Invalid User	E
RM-EX-CS-02	Account number is invalid.	E
RM-EX-CS-03	Source Reference Number Already Present	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-EX-CS-05	NegotiatedExchangeRate is not provided	E
RM-EX-CS-06	NegotiationReferenceNumber is not provided	E
RM-EX-PY-05	NegotiatedExchangeRate is not provided	E
RM-EX-PY-06	NegotiationReferenceNumber is not provided	E
RM-PA-EQ-01	Record not Found.	E
RM-PY-AC-01	From account and to account are same	E
RM-PY-AC-02	Account number not entered for field $1	E
RM-PY-BC-01	Bank code or bank BIC code not entered	E
RM-PY-BC-02	Please enter either bank code or bank BIC code	E
RM-PY-CL-01	Payee account and drawer account are same	E
RM-PY-CL-02	Drawer account number and instrument number combination are same	E
RM-PY-CL-03	Invalid Batch Number	E
RM-PY-CR-01	Remittance number not found	E
RM-PY-CR-02	Remittance number is already issued/used	E
RM-PY-CR-03	Please provide Remittance number/Test Key number	E
RM-PY-CR-04	Invalid Remittance number/Test Key number	E
RM-PY-IN-01	Instrument details not found	E
RM-TD-SL-01	No Maintanance found for Term Deposit opening	E
RM-TD-SL-02	Offset GL account not found	E
RM-TN-RV-02	The transaction Status should be pending	E
RM-TR-EX-01	Unhandled Exception Occured	E
RM-TS-TB-10	Teller batch not opened yet	E
RM-TX-BE-01	Unhandled Exception Occured	E
RM-TX-CA-01	Charge amount limit Breached from Min Max Amount	E
RM-TX-CA-02	Charge amount limit Breached from Min Max Pecentage	E
RM-TX-CC-01	Add provided Currency to the Till	E
RM-TX-ET-01	Session should be Opened before closing.	E
RM-TX-ET-02	Amount $1 $2 has to be given by the customer.	I
RM-TX-ET-03	Amount $1 $2 has to be given to the customer.	I
RM-TX-ET-04	The incoming cash amount in the session is exceeding by $1 $2.Do you want to proceed.	W
RM-TX-ET-05	Open Teller Sessions are present. Cannot proceed with the operation.	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-TX-ET-06	Teller Session Transactions not completed.Cannot proceed with the operation.	E
RM-TX-EX-01	Unhandled Exception Occured	E
RM-TX-HH-01	Failed in Host Handoff	E
RM-TX-LC-01	Transaction is locked	E
RM-TX-LI-00	Amount exceeds the limit of transaction.	E
RM-TX-NL-01	Unhandled Exception Occured	E
RM-TX-OC-01	Branch Info not available	E
RM-TX-OC-02	Function Code definition not maintained	E
RM-TX-OC-03	Function Code preferences not maintained	E
RM-TX-OC-04	Branch Parameter maintenance not found	E
RM-TX-OC-05	User preferences not maintained	E
RM-TX-OC-06	Default authorizer not maintained for the user	E
RM-TX-OC-07	Function Indicator entry not found	E
RM-TX-OC-08	Record status is null in Function Code Definition Screen	E
RM-TX-OC-09	Record status is closed in Function Code Definition Screen	E
RM-TX-OC-10	Record status is null in User Preferences Screen	E
RM-TX-OC-11	Record status is closed in User Preferences Screen	E
RM-TX-OC-12	Record status is null in Function Code Preferences Screen	E
RM-TX-OC-13	Record status is closed in Function Code Preferences Screen	E
RM-TX-PM-01	Transaction status is pending, waiting for the notification from payment system	E
RM-TX-PM-03	Failed in payment system	E
RM-TX-RV-01	The transaction Status should be completed	E
RM-TX-RV-02	Only maker can reverse the transaction	E
RM-TX-RV-03	Authorization required for reversal	A
RM-TX-RV-04	Minimum teller branch ccy holding limit breached	E
RM-TX-RV-05	Maximum teller branch ccy holding limit breached	E
RM-TX-SL-01	Unhandled Exception Occured	E
RM-TX-ST-01	The incoming cash amount in the session is exceeding by $1.Do you want to proceed.	W
RM-TX-ST-02	Total inflow cash amount remaining after this transaction is $1.	I

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RM-TX-ST-03	Another open session in progress for the entered Customer No	E
RM-TX-ST-04	Another open session in progress for the Teller	E
RM-TX-ST-05	Teller session needs to be opened to perform this transaction.	E
RM-TX-ST-06	This transaction is not allowed inside the teller session	E
RM-TX-TO-01	Unhandled Exception Occured	E
RM_BC_CV_01	Amount Limit Exceeded for Account Number	E
RM_BC_CV_02	Amount Limit Exceeded for Customer Type	E
RM_BC_CV_03	Amount Limit Exceeded for Product Class	E
RM_BC_MA_01	Netting Charges Required Should be (Y/N).	E
RM_BC_MA_02	Main Leg Accounting Required Should be (Y/N).	E
RM_BC_MN_01	Invalid function code for till/vault indicator	E
RM_BC_MN_02	Invalid transaction type for till/vault indicator	E
RM_BC_OB_08	Please close the previous day batch	E
RM_BC_OB_09	User is not allowed to open the Teller batch	E
RM_BC_OB_10	Teller batches should be closed before closing the branch/vault batch	E
RM_BC_OB_11	Vault batch should be closed before closing the branch batch	E
RM_BC_TB_10	Teller batch is already opened	E
RM_BC_TB_11	Teller batch is already closed	E
RM_BC_VA_01	Supervisor Id is not present for manual assignment.	E
RM_CS_BC_01	Invalid Instrument No	E
RM_CS_BC_02	Instrument is already in Used status	E
RM_CS_BC_03	Instrument is not in INIT status to Print/Reprint	E
RM_CS_BC_04	Instrument Number Already Liquidate	E
RM_CS_DD_04	Incorrect DD details	E
RM_CT_AC_03	Account Type mismatch.... Exception Occured	E
RM_CT_AC_04	Invalid Account Number	E
RM_CT_AC_06	Both Account cannot be Customer Accounts	E
RM_TR_EX_01	Unhandled Exception Occured	E
RM_TX_CX_01	Authorization required for Charge Amendment.	A
RM_TX_EX_01	Authorization required for inter branch Transaction.	A
RPM-AC-003	Source stage value should be either Y/N not valid	E

Table A-1 (Cont.) Error Codes and Messages

Error code	Description	Type [E-Error, W-Warning, I-Information]
RPM-AC-017	DatasegmentCode not valid	E
RPM-AC-018	DocumentType Code not valid	E
RPM-AC-020	Life cycle not valid	E
RPM-AC-023	Unable to $1 Business Process as $2 data segment has the following dependencies $3 in lifecycle $4 ,which have not been mapped prior to it!	E
RPM-AC-024	Unable to $1 Business Process as the mandatory data segments $2 for the $3 lifecycle have not been mapped!	E
RPM-AC-026	In $1 stage of $2 Business Process,duplicate data segements - $3 are not allowed	E
RPM-AC-027	Record already exist with same Lifecycle and Business Product	E
RPM-AC-028	At $1 in $2 stage of $3 Business Process,duplicate record for - $4 exist	E
RPM-AC-029	At $1 in $2 stage of $3 Business Process,Business Product List is invalid.	E
RPM-AC-030	Business Product Code is Invalid	E
RT-F23-001	Error. Enter at least one row in Payment Data Details	E
RT-F23-002	Error. Cannot enter more than eight records in Payment Data Details	E
RT-F23-006	Error. Mandatory Field Payment Type Cannot be Null.	E
RT-F23-007	Error. Fiscal Code has to be 11 or 16 character long.	E
RT-F23-008	Error. Fiscal code does not meet checksum algorithm validations	E
RT-F23-017	Error. Enter at least one field in either Reference Number Available or Reference Number Not Available.	E
RT-F23-019	Error. Both Reference Number and Primary fiscal code cannot be null.	E
RT-F23-020	Invalid character entered for Tax Code	E
RT-F24-099	Payment Amount Cannot be Zero/Negative	E
RT-F24-101	Payment amount should not Be Blank ,Please Click on Refresh Button	E
RT-F24-114	Principal fiscal code is mandatory	E
UBS-BC-UB-01	No More Payments	E
UBS-BC-UB-02	Invalid Settlement Account for the Contract	E