

# Oracle® Banking Virtual Account Management EOD Configuration Guide



Release 14.7.2.0.0  
F88407-01  
November 2023

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# Preface

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## Purpose

This guide provides the information on the required set up to run the End of Day process.

## Audience

This guide is primarily intended for the following user/user roles:

**Table 1 Audience**

Role	Function
Implementation and IT Staff	Implementation and maintenance of the software

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## 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.

## Related Resources

The related documents are as follows:

- *Oracle Banking Security Management System User Guide*
- *Oracle Banking Common Core User Guide*
- *Oracle Banking Getting Started User Guide*

## 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.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

## 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.

## Acronyms and Abbreviations

The list of acronyms and abbreviations that are used in this guide are as follows:

**Table 2 Acronyms and Abbreviations**

Abbreviation	Description
API	Application Programming Interface
EOD	End of Day

# 1

## Introduction

This guide provides the background information on EOD process.

Oracle® Banking Virtual Account Management allows the user to execute several functions every day on a routine basis as part of the End of Day (EOD) process. These functions can be run at various stages of the EOD process.

The End of Day process is to tie up all the operations for a financial day and prepare the system for the next day. The EOD process should be defined for a branch and executed separately for each branch. When the process is running, you could choose to monitor it from Invoke EOD screen.

EOD uses Oracle Banking Microservice Architecture Orchestrator and Batch service for orchestrating all the jobs required to complete End of Day processing.

# 2

## EOD Configuration

This topic describes the systematic instructions to configure EOD operations.

Specify **User ID** and **Password**, and login to **Home** screen.

The following functional activities needs to be maintained in user's role to perform EOD operations

### CMC\_FA\_BRANCH\_EOD\_PROCESS

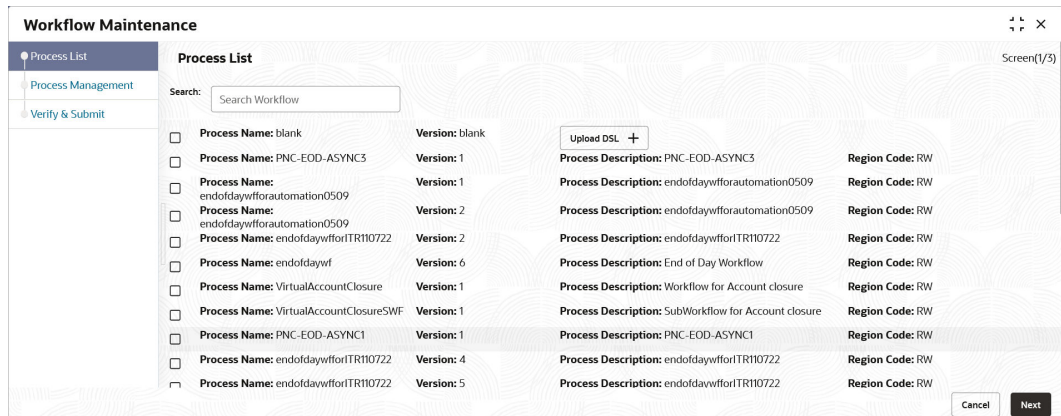
1. Download the [ResetSequenceSubWF.JSON](#) and [EODWF.JSON](#) files and save in the local folder.

This is a standard batch process definition script for Oracle Banking Virtual Account Management that includes the list of batch tasks to be automatically executed in a sequence.

2. On **Home** screen, under **Tasks** menu, click **Business Process Maintenance** to import, create or modify batch process definition.

The **Product List** screen displays.

Figure 2-1 Product List



3. Select the **Process Name: blank** checkbox.
4. Click **Upload DSL+** button to upload batch process definition.
5. Select the **ResetSequenceSubWF.JSON** file from the local folder.
6. Click **Next** button.

The **Process Management** screen displays.

Figure 2-2 Process Management

7. Click **Next** button.  
The **Verify & Submit** screen displays.

Figure 2-3 Verify &amp; Submit

8. Click **Preview** or **Create Process** to register the batch.
9. Repeat the step 2 to 8 to create new batch definition for **EODWF.JSON** file.
10. On **Core Maintenance** menu, under **Branch EOD**, click **Configure EOD** to configure batch for a branch.

Refer the **Configure EOD** in *Oracle Banking Common Core User Guide*.

The **Configure EOD** screen displays.



**Figure 2-4 Configure EOD**

11. Click the **Search** icon and select the **Branch Code** to configure the batch.
12. Specify the **Workflow Name** in the respective field.

 **Note:**

The value specified in **Workflow name** field must be exactly same as the **first name** attribute specified in batch process definition file (**EODWF.JSON**).

**Figure 2-5 Workflow Name**

```
{
  "createTime":1594656285069,
  "name":"endofdaywf",
  "description":"End of Day Workflow",
  "version":1,
  "tasks": [
```

- [Steps to run EOD for branch](#)  
This topic describes the systematic instructions to run EOD for a branch.

## 2.1 Steps to run EOD for branch

This topic describes the systematic instructions to run EOD for a branch.

Specify **User ID** and **Password**, and login to **Home** screen.

1. On **Home** screen, click **Core Maintenance**. Under **Core Maintenance** menu, click **Branch EOD**.
2. Under **Branch EOD**, click **Invoke EOD**.

The **Invoke EOD** screen displays.

Figure 2-6 Invoke EOD

The screenshot shows the 'Invoke EOD' interface. It has a header 'Invoke EOD' with a close icon. Below is the 'Initiate End of Day Batch Operation' section with three input fields: 'Branch Code' (018), 'Description' (EODBRANCH), and 'Current Branch Date' (2018-04-09). There are 'Start', 'Retry', and 'Reset' buttons. Below that is the 'View End of Cycle Processes' section with a 'Refresh' button and an 'Auto Refresh(60s)' toggle. The bottom part shows a list of processes with green progress bars and arrows pointing right.

3. Click the search icon and select the **Branch Code** to run EOD.  
Refer the **Branch EOD** in *Oracle Banking Common Core User Guide*.
4. Click **Refresh** to view the current status of branch.

# 3

## Job Definition Naming Convention

This topic describes about the naming convention to be followed when a custom job is introduced as a task into EOD process.

**Milestone task name** and **taskReferenceName** must be same and prefixed with “MS-“. Ex: MS- EOFIMilestone

### Milestone

EOD run pause at each **Milestone** shall be resumed by clicking **Proceed** button manually.

Refer **Section 2.5 Branch EOD** in *Oracle Banking Common Core User Guide*.

**Figure 3-1** Sample template for Milestone stage

```
{
  "type": "HTTP",
  "name": "MS-EOFIMilestone",
  "taskReferenceName": "MS-EOFIMilestone",
  "inputParameters": {
    "http_request": {
      "connectionTimeout": "0",
      "readTimeout": "0",
      "vipAddress": "CMC-BRANCH-SERVICES",
      "uri": "/cmc-branch-services/brancheod/milestone",
      "method": "POST",
      "headers": {
        "appId": "CMNCORE",
        "branchCode": "${workflow.input.branchCode}",
        "userId": "${workflow.input.userId}"
      }
    },
    "body": {
      "data": [
        {
          "workflowId": "${workflow.workflowId}",
          "taskId": "${CPEWF_TASK_ID}",
          "waitTime": "5000"
        }
      ]
    }
  },
  "asyncComplete": true
},
"startDelay": 0,
"optional": false,
"asyncComplete": true
},
```

### Steps to integrate Custom Jobs

1. If the custom job uses Oracle Banking Microservices Architecture Batch service, then use the below template to include the job as a task in EOD Flow definition.

```

{
  "type": "HTTP",
  "name": "<MilestoneCode.JobName>",
  "taskReferenceName": "<MilestoneCode.JobName>",
  "inputParameters":
  {
    "http_request":
    {
      "connectionTimeout": "0",
      "readTimeout": "0",
      "vipAddress": "PLATO-BATCH-SERVER",
      "uri": "/plato-batch-server/jobLauncher/launch/",
      "method": "POST",
      "headers":
      {
        "appId": "${workflow.input.appId}",
        "branchCode": "${workflow.input.branchCode}",
        "userId": "${workflow.input.userId}"
      },
      "body":
      {
        "jobName": "<JobName>",
        "jobParameters":
        [
          {
            "key": "appId",
            "value": "<Application ID of microservice>"
          },
          {
            "key": "microServiceName",
            "value": "<Microservice name>"
          },
          {
            "key": "contextRoot",
            "value": "<Context root of microservice>"
          },
          {
            "key": "workflowId",
            "value": "${workflow.workflowId}"
          },
          {
            "key": "referenceTaskName",
            "value": "<MilestoneCode.JobName>"
          },
          {
            "key": "userId",
            "value": "${workflow.input.userId}"
          },
          {
            "key": "branchCode",
            "value": "${workflow.input.branchCode}"
          },
        ],
      }
    }
  }
}

```

```

    {
      "key": "isCallback",
      "value": "Y"
    },
    {
      "key": "callbackType",
      "value": "PLATOORCH"
    }
  ]
}
},
"asyncComplete": true
},
"startDelay": 0,
"optional": false,
"asyncComplete": true
}

```

2. If the custom job doesn't use Oracle Banking Microservices Architecture Batch service and the Batch API is implemented as a synchronous call, then use the below template to include the job as a task in EOD Flow definition.

```

{
  "type": "HTTP",
  "name": "<MilestoneCode.JobName>",
  "taskReferenceName": "<MilestoneCode.JobName>",
  "inputParameters":
  {
    "http_request":
    {
      "connectionTimeout": "0",
      "readTimeout": "0",
      "vipAddress": "<Microservice name registered in eureka>",
      "uri": "<relative URL>",
      "method": "<HTTP Method>",
      "headers":
      {
        "appId": "${workflow.input.appId}",
        "branchCode": "${workflow.input.branchCode}",
        "userId": "${workflow.input.userId}"
      }
    }
  },
  "asyncComplete": false
},
"startDelay": 0,
"optional": false,
"asyncComplete": true
}

```

 **Note:**

HTTP Method - One of the GET, PUT, POST, DELETE, OPTIONS, HEAD

3. If the custom job doesn't use Oracle Banking Microservices Architecture Batch service and if the Batch API is implemented as an asynchronous call, then call back needs to be implemented in the respective API. Please use the below template to include the job as a task in EOD Flow Definition.

```
{
  "type": "HTTP",
  "name": "<MilestoneCode.JobName>",
  "taskReferenceName": "<MilestoneCode.JobName>",
  "inputParameters":
  {
    "http_request":
    {
      "connectionTimeout": "0",
      "readTimeout": "0",
      "vipAddress": "<Microservice name registered in eureka>",
      "uri": "<relative URL>",
      "method": "<HTTP Method>",
      "headers":
      {
        "appId": "${workflow.input.appId}",
        "branchCode": "${workflow.input.branchCode}",
        "userId": "${workflow.input.userId}"
      }
    }
  },
  "asyncComplete": true
},
"startDelay": 0,
"optional": false,
"asyncComplete": true
}
```

**Table 3-1 Batch API**

Serial Number	Milestone	Job Name
URL	http://<hostname>:<port>/plato-orch-service/api/tasks	–
Headers	userId : <Logged in user id> branchCode : <Logged in branch code> appld : platoorch Content-Type : application/json Accept : application/json	userId – User who updates the task branchCode – Branch where the update is performed
Body	{ "workflowInstanceId": "<EOD_Workflow_ID", "taskId": "<Task_ID>", "status": "<Status>" }	EOD_Workflow_ID – A Workflow ID gets generated when EOD is invoked Task_ID – Unique task ID gets generated for each task once it starts Status – COMPLETED / FAILED_WITH_TERMINAL_ERROR / FAILED / IN_PROGRESS

 **Note:**

asyncComplete – field in EOD workflow definition should be set to true, if the Http task makes an asynchronous call. The task has to be updated explicitly by calling the above update APIs. Only after successful update, the next task will get executed.

## 4

# Oracle® Banking Virtual Account Management Job

This topic describes about Oracle® Banking Virtual Account Management Job names and its description.

**Table 4-1 Oracle® Banking Virtual Account Management Job**

Serial Number	Milestone	Job Name	Description
1	MCUT	Pending Check	Task to check if any pending maintenance or transaction exist. This pending check task will fail if there is any unauthorized maintenance or transaction. If pending check task fails, you should check for unauthorized maintenance or transaction and take necessary action. This action could be authorizing/ deleting maintenance/ transaction.
2	MCUT	MarkCutOff	Job to mark cut off.
3	MCUT	pauseVDTurnOver	Job to pause Intraday VdBalance and Turnover job.
4	MCUT	VDBalanceUpdate	Job to calculate value dated balances for virtual accounts.
5	MCUT	entityPositionsUpdate	Job to calculate Inter Entity Positions for a customer.
6	MCUT	VamIcMaintQueueUpdate	Job to update IC maintenance queue for value dated balance changes.
7	EOD	ChargeCalculation	Job to run charge calculation.
8	EOD	ChargePosting	Job to run charge posting.
9	MCUT	turnOverBalanceUpdate	Job to calculate turnover balance for a virtual account which is used for charge calculations.
10	MCUT	ICMarkCutoff	Job to mark cutoff so that interest processing can start.
11	MCUT	ICBEOD	Job to process interest calculations.
12	EOFI	MarkEOFI	Job to mark EOFI.
13	EOFI	EodStatement	Job to generate EOD statement.
14	EOFI	InitiateAccountStatement	Initiate Account Statement Generation.
15	EOFI	ForgetEntity	Job to forget virtual entity.
16	EOFI	ForgetVirAccount	Job to forget virtual account.
17	EOFI	ForgetCoreCustomer	Job to forget core customer.
18	EOFI	ForgetCoreAccount	Job to forget core account.
19	BOD	ChangeDate	Job to change branch date.
20	BOD	UncollectedAmount	Job to release the uncollected amount.
21	BOD	ICFlipDate	Job to change branch date.



**Table 4-1 (Cont.) Oracle® Banking Virtual Account Management Job**

Serial Number	Milestone	Job Name	Description
22	BOD	ResetSequenceWorkflow	Job to reset the sequence used to generate processing reference number for transactions, amount block/eca, internal transfer and statements.
22a	BOD	ResetSequenceSubWorkflow	Job to reset the sequence used to generate processing reference number for transactions, amount block/eca, internal transfer and statements.
23	RCUT	ReleaseCutOff	Job to release cutoff after interest processing is done.
24	RCUT	ICReleaseCutoff	Job to release IC cutoff after interest processing is done.
25	RCUT	resumeVDTurnOver	Resume VD Balance Turnover.
26	RCUT	UntankBalance	Job to untank accounting entries.
27	RCUT	MarkAccountInactive	Job to mark virtual accounts inactive.
28	RCUT	AmountBlockExpiry	Job to mark amount block expired based on expiry date.
29	RCUT	CreditlimitUtil	Job to re- valuate credit limit utilization based on updated exchange rates.
30	RCUT	VATxnUtilization	Job to reset the virtual account level transaction limit restriction and move existing to history.

 **Note:**

The **Charge Calculation** (ChargeCalculation) and **Charge Posting** (ChargePosting) jobs are allowed to be configured either before date flip (EOD) or after date flip (BOD). Based on the bank's requirement, this can be configured. By default, these jobs are shipped with EOD configuration.

# A

## Error Codes and Messages

This topic provides the error codes and messages found in the application.

**Table A-1 Error Codes and Messages**

Error Code	Messages
CMC-EOD-001	Invoked EOD successfully.
CMC-EOD-002	Failed while resolving current date.
CMC-EOD-003	EOD flow is not maintained for \$1 branch.
CMC-EOD-004	EOD already invoked for today.
CMC-EOD-005	Unable to invoke EOD.
CMC-EOD-006	Retried EOD successfully.
CMC-EOD-007	Failed to retry EOD.
CMC-EOD-008	Pending maintenances exist. Failed to start EOD.
CMC-EOD-009	Failed during pending maintenance check.
CMC-EOD-010	Pending transactions exist. Failed to start EOD.
CMC-EOD-011	Failed during pending transaction check.
CMC-EOD-012	Marked cutoff for the branch successfully.
CMC-EOD-013	Branch not in Transaction Input. Cannot mark cutoff.
CMC-EOD-014	Branch not in EOD stage. Cannot release cutoff.
CMC-EOD-015	Released cutoff for the branch successfully.
CMC-EOD-016	Branch cutoff not released. Cannot mark Transaction Input.
CMC-EOD-017	Branch cutoff not marked. Cannot mark End of Transaction Input.
CMC-BRN-EOD01	Branch Status not in TI, cannot initiate EOD.
CMC-BRN-EOD02	EOD invoked for the branch.
CMC-BRN-EOD03	Invalid Branch Code.
CMC-BRN-EOD04	EOD Requested on Date is not Branch Today.
CMC-BRN-EOD05	EOD cannot be invoked on a holiday.
CMC-BRN-EOD06	Date changed successfully.
CMC-BRN-EOD07	EOD not invoked, cannot initiate change date.
CMC-BRN-EOD08	EOF1 job not completed, cannot initiate change date.
CMC-BRN-EOD09	EOD not invoked, cannot initiate mark TI.
CMC-BRN-EOD10	Date Change job not completed, cannot initiate TI for next day.
CMC-BRN-EOD11	Mark TI successful.
CMC-BRN-EOD12	Branch status not in TI, cannot initiate Mark EOF1.
CMC-BRN-EOD13	Branch status not in EOF1, cannot change Date.
CMC-BRN-EOD14	Branch status for next working date update to EOD.
CMC-BRN-EOD15	Branch status not in EOD, cannot mark TI.
CMC-BRN-EOD16	Branch status for next working date update to TI.
CMC-BRN-EOD17	Branch Status Changed to EOF1.
CMC-BRN-EOD18	Invoke Mark TI failed.

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

<b>Error Code</b>	<b>Messages</b>
CMC-BRN-EOD19	Date change completed cannot retrigger.
CMC-BRN-EOD20	Mark TI completed cannot retrigger.
CMC-BRN-EOD21	Date changed failed.
CMC-BRN-EOD30	Invalid requested date, failed to parse.
CMC-BRN-EOD31	Mark EOFI retry initiated.
CMC-BRN-EOD32	Cannot retry Mark EOFI which has not failed.
CMC-BRN-EOD33	Date Changed successfully. \$1
CMC-BRN-EOD34	BOD Batches completed successfully.
CMC-BRN-EOD35	BOD Batches retriggered successfully. \$1.
CMC-BRN-EOD36	\$1. Hence EOFI Failed.
CMC-BRN-EOD37	Failed in getting current date.

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