EOD Configuration Guide

Oracle Banking Virtual Account Management

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EOD Configuration Guide

Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Gurgaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
https://www.oracle.com/industries/financial-services/index.html

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1   Preface

1.1   Background

Oracle Banking Virtual Account Management allows you 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.

1.2   Introduction

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 OBMA Orchestrator and Batch service for orchestrating all the jobs required to complete End of Day processing. This document helps in the required set up to run EOD.

1.3   Document Accessibility

1.   OBMA Orchestrator needs to be deployed as per installation guide.

2.   OBMA Batch needs to be deployed as per installation guide.

1.4   Acronyms, Abbreviations and Definitions

Acronyms	Definition
EOD	End of Day

1.5   Related Documents

The related documents are as follows:

• Oracle Banking Common Core User Guide

• Oracle Banking Virtual Account Management User Guides

2 EOD Configuration Steps

The following Functional Activities needs to be maintained in user's role to perform EOD operations

CMC_FA_BRANCH_EOD_PROCESS

1. Save the below attachment to 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.

EODWF.json   ResetSequenceSubW
                    F.json

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

→ **Product List** screen is displayed.

Figure 1: Process List
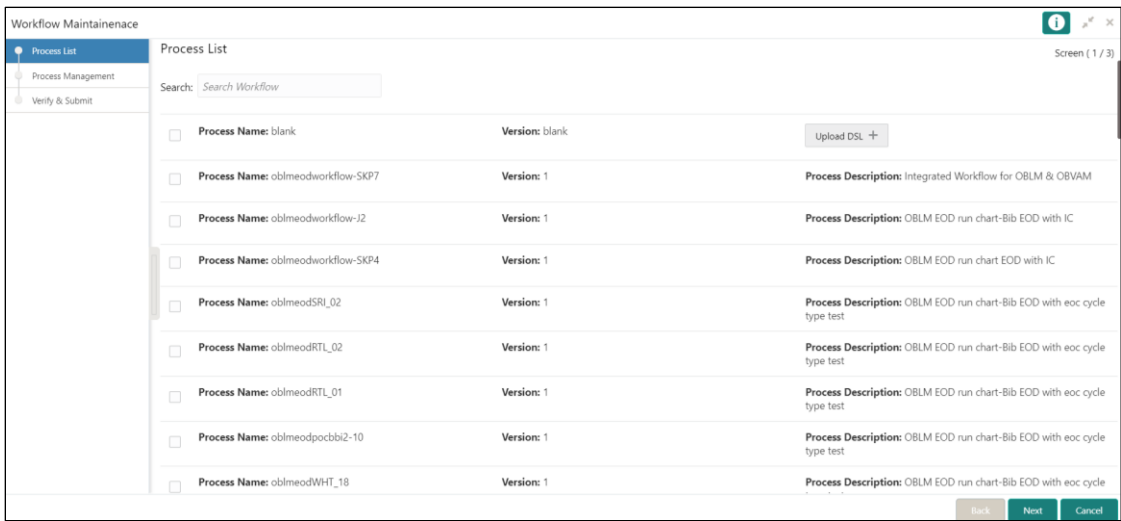
3. Select the **Process Name: blank** checkbox. Click on **Upload DSL+** button to upload batch process definition and choose file **ResetSequenceSubWF.json** and **EODWF.json** in order from the local folder.

Figure 2: Process List – Upload DSL
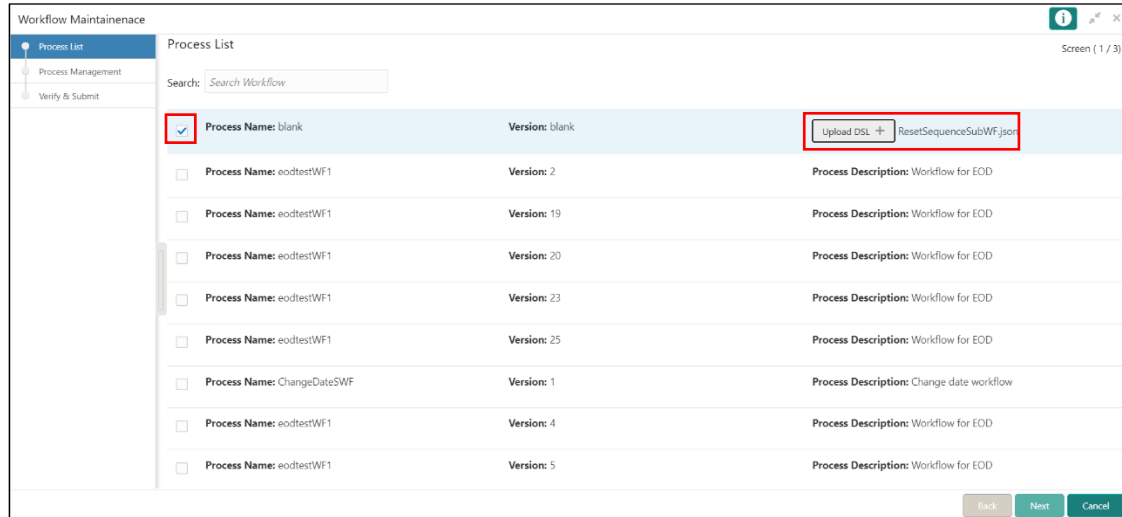
4. Click **Next** button.

→ **Product Management** screen is displayed.

Figure 3: Process Management
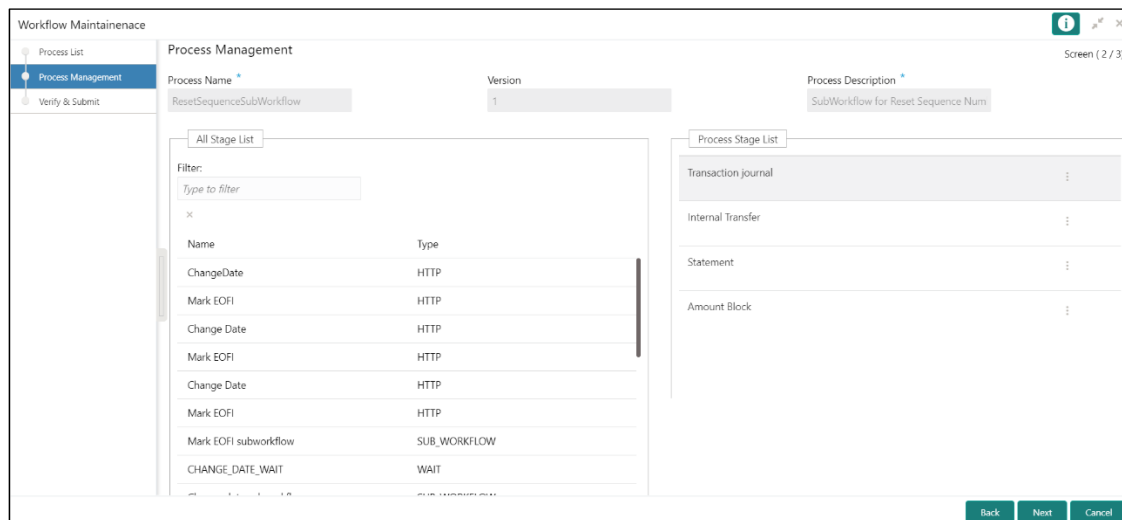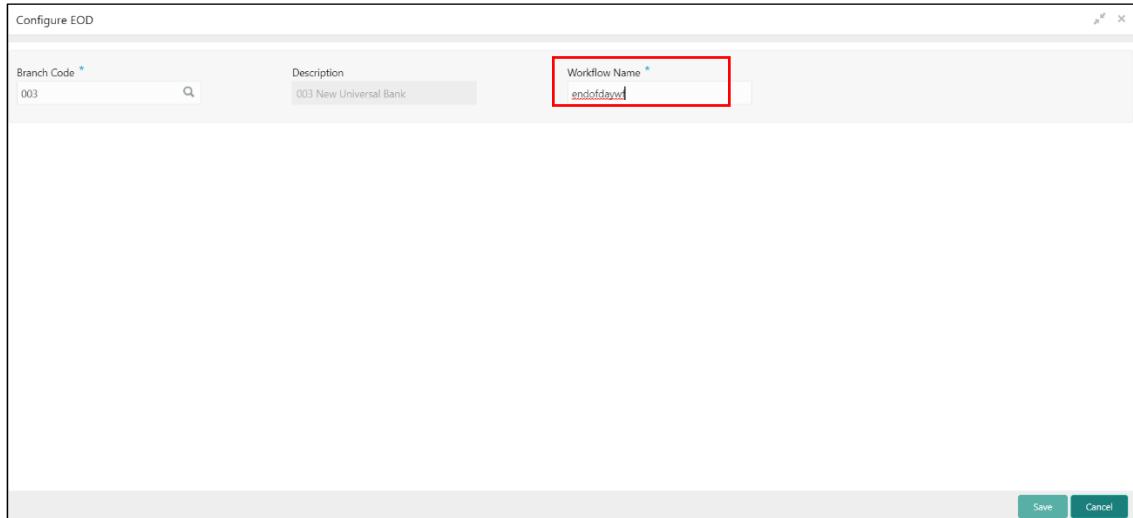
5. Click **Next** button and Click **Review** or **Create Process** in **Verify & Submit** screen to register the batch. Click **Process List** again to create new batch definition for **EODWF.json**.

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6. On **Core Maintenance** menu, under **Branch EOD,** click **Configure EOD** to configure batch for a branch. Refer **Section 2.5** in **Oracle Banking Common Core User Guide**.
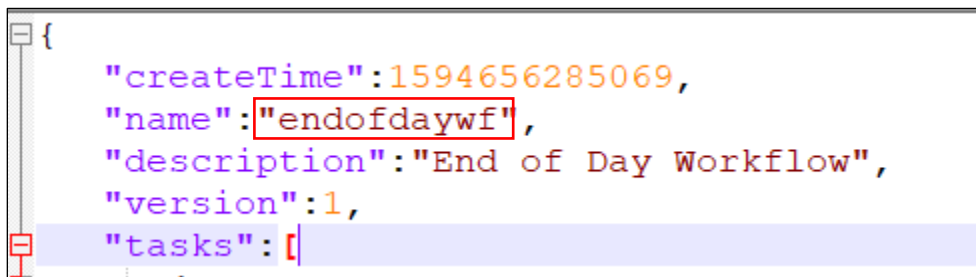
   → **Configure EOD** screen is displayed.

   Figure 4: Configure EOD

7. Select the **Branch Code** to configure the batch.

   Note: The value specified in **Workflow name** field in above screen must be exactly same as the **first name** attribute specified in batch process definition file **EODWF.json** file

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2.1 Steps to run EOD for a branch

1. On **Core Maintenance** menu, under **Branch EOD**, click **Invoke EOD.**

   → **Invoke EOD** screen is displayed.

   Figure 5: Invoke EOD
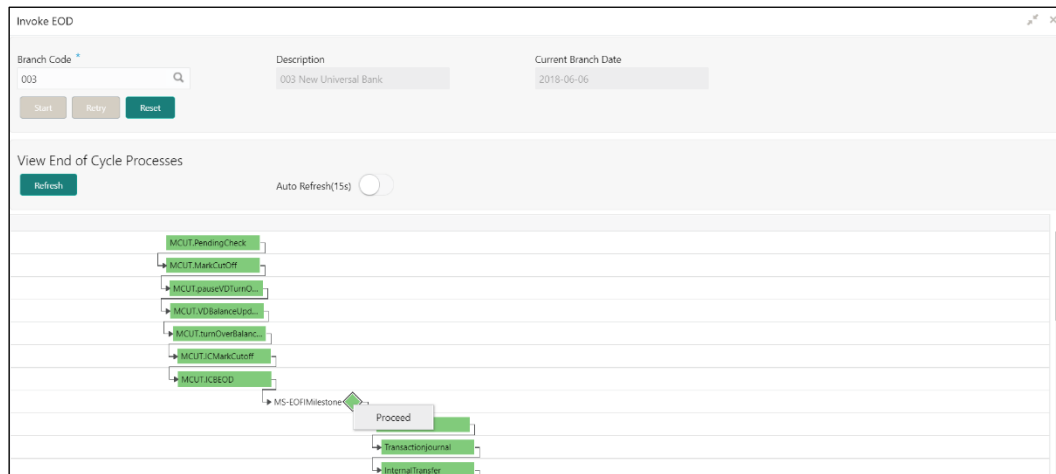
2. Select the branch to run EOD. Refer **Section 2.5** in **Oracle Banking Common Core User Guide.**

3. Click **Refresh** to view the current status of branch.

3 Job definition Naming Convention

Naming convention to be followed when a custom job is introduced as a task into EOD process

1. **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** in **Oracle Banking Common Core User Guide**.

Sample template for milestone stage

```json
{
    "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
},
```

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Steps to integrate Custom Jobs

1. If the custom job uses OBMA 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",
```

```json
    "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",
```

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```
                    "value":"PLATOORCH"

               }

            ]

         }

      },

      "asyncComplete":true

   },

   "startDelay":0,

   "optional":false,

   "asyncComplete":true

}
```

2. If the custom job doesn't use OBMA 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 OBMA 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

}
```

The following API should be used as a call back to update the status of a task.

S No	Milestone	Job Name
Url	http://<hostname>:<port>/plato-orch-service/api/tasks	
Headers	userId : <Logged in user id> branchCode : <Logged in branch code> appId : 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 and the task has to be updated explicitly by calling above update APIs. Only after successful update, next task will get executed.

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4 Oracle Banking Virtual Account Management Job

S No	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	pauseVDTurnOver	Job to pause Intraday VdBalance and Turnover job.
3	MCUT	VDBalanceUpdate	Job to calculate value dated balances for virtual accounts
4	MCUT	turnOverBalanceUpdate	Job to calculate turnover balance for a virtual account which is used for charge calculations
5	MCUT	ICMarkCutoff	Job to mark cutoff so that interest processing can start
6	MCUT	ICBEOD	Job to process interest calculations
7	EOFI	EodStatement	Job to generate EOD statement
8	EOFI	ForgetEntity	Job to forget virtual entity
9	EOFI	ForgetVirAccoun t	Job to forget virtual account
10	BOD	ICFlipDate	Job to change branch date

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S No	Milestone	Job Name	Description
11	BOD	ResetSequenceWorkflow	Job to reset the sequence used to generate processing reference number for transactions, amount block/eca, internal transfer and statements
12	RCUT	ICReleaseCutoff	Job to release cutoff after interest processing is done
13	RCUT	UntankBalance	Job to untank accounting entries
14	RCUT	MarkAccountInactive	Job to mark virtual accounts inactive
15	RCUT	AmountBlockExpiry	Job to mark amount block expired based on expiry date
16	RCUT	CreditlimitUtil	Job to re- valuate credit limit utilization based on updated exchange rates

S No	Milestone	Job Name	Description
11a	BOD	ResetSequenceSubWorkflow	Job to reset the sequence used to generate processing reference number for transactions, amount block/eca, internal transfer and statements

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5   Intraday Jobs

5.1   Create Task

Oracle Banking Virtual Account Management Intraday jobs required the following tasks to be created:

1. On **Home** screen, under **Task Management** menu, click Create **Task**.

   → The Create **Task** screen displays.

   Figure 6: Create Task

2. On **Create Task** screen, Specify the values mentioned in the following table.

   Note: The fields which are marked with asterisk are mandatory.

   For more information on fields, refer to the field description table below.

   Table 1: Create Task – Field Description

Sl. no	Task Name	Description	Task Definition
1	savetoChargeCalCollJobSchedule	Intraday job to process entries (customer/structure/ decision/preferential decision) enabled for charges and push the data to charge computation tables	appId:::VAMLMCHG;microServiceName:::vamlm-charge-services;contextRoot:::vamlm-charge-services;jobName:::savetoChargeCalCollJob;appCode :::VAMCHG;type:::schedule;cronExpression:::0 0 */3 ? * *;

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Sl. no	Task Name	Description	Task Definition
2	entityPositionsUpdateJobSchedule	Intraday job to update the inter entity positions	appId:::VIE;microServiceName:::obvam-iep-services;contextRoot:::obvam-iep-services;jobName:::entityPositionsUpdateJob;appCode:::VIE;type:::schedule;cronExpression:::0 */7 * ? * *;
3	valueDateUpdateJobSchedule	Intra day job to process the transaction entries and updated the value dated balance of virtual account based on specific flag	appId:::VAM;microServiceName:::obvam-account-services;contextRoot:::obvam-account-services;jobName:::valueDateUpdateJob;appCode:::VAM;vdBatchCount:::1;type:::schedule;cronExpression:::0 */5 * ? * *;
4	virtualAccountCloseJobSchedule	Intra day job to process closure of virtual account that includes checks in other domain, balance transfer , interest liquidation and updating the status of account	appId:::VAM;microServiceName:::obvam-account-services;contextRoot:::obvam-account-services;jobName:::virtualAccountCloseJob;type:::schedule;cronExpression:::0 */3 * ? * *;

3. Click **Create** to create the task for each intraday job.

5.2 Configure Task

The Configured intra-day jobs will get triggered as per the specified Cron Expression, for the Create Task the scheduler needs to be configured as shown as follows.

4. On **Home** screen, under **Task Management** menu, click **Configure Tasks**.

→ The **Configure Tasks** screen displays.

Figure 7: Configure Tasks

Note: The fields which are marked with asterisk are mandatory.

5. Select the **Schedule** option.

6. Click the Search icon and select the **Task Name** from the drop-down list.

7. Specify the trigger name in **Task Trigger Name** field.

8. Specify the required CRON expression in **CRON Expression** field.

9. Click Save to configure the task.

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6 Error Codes and Messages

This section contains error codes and messages.

Error Code	Message
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 BOD stage. Cannot release cutoff
CMC-EOD-015	Released cutoff for the branch successfully
CMC-EOD-016	Branch cutoff not released. Cannot mark Transaction Input

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Error Code	Message
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's 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	EOFI 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 EOFI
CMC-BRN-EOD13	Branch status not in EOFI, cannot change Date
CMC-BRN-EOD14	Branch status for next working date update to BOD
CMC-BRN-EOD15	Branch status not in BOD, cannot mark TI
CMC-BRN-EOD16	Branch status for next working date update to TI

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Error Code	Message
CMC-BRN-EOD17	Branch Status Changed to EOFI
CMC-BRN-EOD18	Invoke Mark TI failed
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 Eoti retry intiated
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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