

CustomerOnboardingService Technical Documentation

Overview

The **CustomerOnboardingService** is the main entry point for onboarding new customers in a banking context. It coordinates the overall onboarding workflow by:

- Accepting customer identity details
- Delegating identity and AML verification to the **CustomerValidationService**
- Not performing its own validation or scoring logic
- Returning the result of the validation step and onboarding decision

API Endpoint

POST /

Request Schema:

- `customerId` (string)
- `fullName` (string)
- `nationalId` (string)
- `birthDate` (date)

Response Fields:

- `onboardingStatus`: String
- `validationDetails`: Object
- `timestamp`: ISO-8601

Common Error Patterns

1. HTTP 400 Bad Request

Symptoms:

- Malformed JSON or missing required fields

Logs:

```
Unset  
ERROR - Missing required input: customerId
```

Root Causes:

- Client sends incomplete or improperly formatted payload

Resolution:

- Validate all required fields are included and types are correct

2. HTTP 404 Not Found

Symptoms:

- Endpoint returns 404

Logs:

```
Unset  
WARN [platform-http] - No consumers available on endpoint:  
platform-http:/
```

Root Causes:

- Camel route not active or incorrectly mapped

Resolution:

- Check YAML DSL route definition, ensure `path: /` matches actual request URL

3. HTTP 500 Internal Server Error

Symptoms:

- Runtime failure during external service dependency failure

Logs:

Unset

```
ERROR [camel] - Error evaluating choice block:  
java.lang.NullPointerException
```

Root Causes:

- Incorrect use of Camel Simple expressions (`random()` or string interpolation)
- Unexpected downstream error

Resolution:

- Add fallback logic for downstream errors

Log Interpretation Guide

Log Pattern	Error code	Error Message	Meaning	Suggested Action
Error calling downstream service	500	Error calling downstream service , errorCode=500	Failed to call downstream service	Check URL, service availability

Invalid Input JSON	500	Invalid Input JSON, errorCode=500	Incorrect Input Json	Check indentation and syntax
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Contact

For ownership or incident escalation, contact the Customer Onboarding Team via [#cust-onboarding-core](#) or log an issue in the [ONBOARDING-SVC](#) JIRA project.

OpenAPI Spec

```

openapi: 3.0.0
info:
  title: Customer Onboarding Service
  version: 1.0.0
  description: >
    API to initiate customer onboarding by calling identity and AML
validation
    services. Returns a combined result with onboarding decision.
paths:
  /onboardCustomer:
    post:
      summary: Start onboarding process for a customer
      requestBody:
        required: true
        content:
          application/json:
            schema:
              $ref: '#/components/schemas/CustomerOnboardingRequest'

```

```
responses:
  '200':
    description: Onboarding completed successfully
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/CustomerOnboardingResponse'
  '400':
    description: Bad request or malformed input
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/ErrorResponse'
  '422':
    description: Validation failure from downstream service
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/ErrorResponse'
  '500':
    description: Internal server error
    content:
      application/json:
        schema:
          $ref: '#/components/schemas/ErrorResponse'
```

```
components:
  schemas:
    CustomerOnboardingRequest:
      type: object
      required:
        - customerId
        - fullName
        - nationalId
        - birthDate
      properties:
        customerId:
          type: string
          example: "CUST-102938"
          description: Unique identifier for the customer
```

```
fullName:
  type: string
  example: "Alice Smith"
  description: Full legal name of the customer
nationalId:
  type: string
  example: "XYZ987654"
  description: Government-issued national identity number
birthDate:
  type: string
  format: date
  example: "1985-07-15"
  description: Customer's date of birth
```

CustomerOnboardingResponse:

```
type: object
properties:
  customerId:
    type: string
    example: "CUST-102938"
    description: Unique identifier for the customer
  onboardingStatus:
    type: string
    enum: [ACCEPTED, REJECTED]
    example: "ACCEPTED"
    description: Final onboarding result
  validationDetails:
    type: object
    description: Results from identity and AML validation services
    properties:
      identityStatus:
        type: string
        enum: [VERIFIED, FAILED, REVIEW_REQUIRED]
        example: "VERIFIED"
        description: Identity validation result
      amlStatus:
        type: string
        enum: [PASS, FAIL]
        example: "PASS"
        description: AML screening result
```

```
timestamp:
  type: string
  format: date-time
  example: "2025-05-15T08:55:00Z"
  description: ISO-8601 timestamp of onboarding completion
```

ErrorResponse:

```
type: object
properties:
  error:
    type: string
    example: "Validation Error"
    description: General classification of the error
  message:
    type: string
    example: "Customer matched the OFAC sanctions list."
    description: Detailed explanation of the error
  code:
    type: string
    example: "AML-VALIDATION-001"
    description: Application-specific error code
  timestamp:
    type: string
    format: date-time
    example: "2025-05-15T08:12:00Z"
```