CustomerValidationService Technical Documentation

Overview

The **CustomerValidationService** is a composite service that orchestrates the identity and AML validation of a customer during onboarding. It does not contain any business logic of its own but simply calls the downstream services and returns their results. It calls IdentityValidationService first then calls AmlValidationService if the identity check passes.

API Endpoint

POST `/`

Request Schema:

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

Response Fields:

- `identityValidation`: object
- `amlValidation`: `object`
- `timestamp`: ISO-8601

Common Error Patterns

1. HTTP 400 Bad Request

Symptoms:

- Malformed JSON or missing required fields

Logs:

```
Unset
ERROR [aml-service] - Missing required input: customerId
```

Root Causes:

- Client sends incomplete or improperly formatted payload

Resolution:

- Validate all required fields are included and types are correct

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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	Meaning	Suggested Action
`Error calling downstream service`	Failed to call downstream service	Check URL, service availability
`NullPointerException`	Incorrect JSON template or unquoted interpolation (unexpected error)	Check indentation and syntax

Contact

For integration queries, contact the Customer Onboarding Platform team via
`#cust-validation-core` or raise a ticket under `CV-COMPOSITE` JIRA queue.

OpenAPI Spec

```yaml
openapi: 3.0.0
info:
  title: Customer Validation Service
  version: 1.0.0
  description: >
    Composite service that orchestrates customer identity and AML
validations by
    invoking downstream services. This service does not perform any
internal validation
    or error handling and transparently returns the output or error from
underlying services.

paths:
  /validateCustomer:
    post:
      summary: Perform composite validation of a customer
      requestBody:
        required: true
        content:
          application/json:
            schema:
              $ref: "#/components/schemas/CustomerValidationRequest"
      responses:
        '200':
          description: Combined result from identity and AML validation
          content:
            application/json:
              schema:
                $ref: "#/components/schemas/CustomerValidationResponse"
```

```yaml
        '400':
          description: Validation error from identity or AML service
          content:
            application/json:
              schema:
                $ref: "#/components/schemas/ErrorResponse"
        '422':
          description: Business validation failed from downstream service
          content:
            application/json:
              schema:
                $ref: "#/components/schemas/ErrorResponse"
        '500':
          description: Internal server or integration error
          content:
            application/json:
              schema:
                $ref: "#/components/schemas/ErrorResponse"

components:
  schemas:
    CustomerValidationRequest:
      type: object
      required:
        - customerId
        - fullName
        - nationalId
        - birthDate
      properties:
        customerId:
          type: string
          example: "CUST-102938"
        fullName:
          type: string
          example: "Alice Smith"
        nationalId:
          type: string
          example: "XYZ987654"
        birthDate:
          type: string
```

```yaml
        format: date
        example: "1985-07-15"

CustomerValidationResponse:
  type: object
  properties:
    customerId:
      type: string
    identityValidation:
      type: object
      properties:
        status:
          type: string
          enum: [VERIFIED, FAILED, REVIEW_REQUIRED]
        identityType:
          type: string
        verificationScore:
          type: integer
      required:
        - status
        - verificationScore
    amlValidation:
      type: object
      properties:
        status:
          type: string
          enum: [PASS, FAIL]
        riskScore:
          type: integer
        riskLevel:
          type: string
          enum: [LOW, MEDIUM, HIGH]
      required:
        - status
        - riskScore
    timestamp:
      type: string
      format: date-time

ErrorResponse:
```

```yaml
type: object
properties:
  error:
    type: string
    example: "Business Validation Error"
  message:
    type: string
    example: "Document has expired"
```