**Payment Initiation Sandbox API - Unit Testing Results**

**Payment API Details:**

**POST** : Protocol://HostName:port/payment/v1.0.0/initiate-payment

For eg., **POST : http://localhost:8080/payment/v1.0.0/initiate-payment**

**Common Headers:**

Below headers are used in all the Payment API requests.

|  |  |  |
| --- | --- | --- |
| **No** | **Header Name** | **Header Value** |
| 1 | Content-Type | application/json |
| 2 | X-Request-Id | 29318e25-cebd-498c-888a-f77672f66449 |
| 3 | Signature-Certificate | -----BEGIN CERTIFICATE----------END CERTIFICATE----- |
| 4 | Signature | AlFr/WbYiekHmbB6XdEO/7ghKd0n6q/bapENAYsL86KoYHqa4eP34xfH9icpQRmTpH0qOkt1vfUPWnaqu+vHBWx/gJXiuVlhayxLZD2w41q8ITkoj4oRLn2U1q8cLbjUtjzFWX9TgiQw1iY0ezpFqyDLPU7+ZzO01JI+yspn2gtto0XUm5KuxUPK24+xHD6R1UZSCSJKXY1QsKQfJ+gjzEjrtGvmASx1SUrpmyzVmf4qLwFB1ViRZmDZFtHIuuUVBBb835dCs2W+d7a+icGOCtGQbFcHvW0FODibnY5qq8v5w/P9i9PSarDaGgYb+1pMSnF3p8FsHAjk3Wccg2a1GQ== |

**Validations**

**1. White listed certificates validation**

**Case 1 :** When the request with valid Signature certificate

**Request :** {"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response** :

**Headers :** X-Request-Id, Signature-Certificate, Signature

{"paymentId":"a384a0bc-01f6-4dd6-81d3-ec22a020a8ab","status":"ACCEPTED"}

**Case 2 :** When the request with invalid Non-TPP Signature certificate

Modify only the signature certificate header as below,

|  |  |
| --- | --- |
| Signature-Certificate | -----BEGIN CERTIFICATE----------END CERTIFICATE----- |

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

**Headers** : X-Request-Id, Signature-Certificate, Signature

{"status":"REJECTED","reason":"UNKNOWN CERTIFICATE","reasonCode":"UNKNOWN\_CERTIFICATE"}

**2. Signature validation**

**Case 1 :** When the request with valid Signature

**Request :** {"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response :**

Headers : X-Request-Id, Signature-Certificate, Signature

{"paymentId":"a384a0bc-01f6-4dd6-81d3-ec22a020a8ab","status":"ACCEPTED"}

**Case 2 :** When the request with invalid Signature

Modify only the signature header as below,

|  |  |
| --- | --- |
| Signature | alFr/WbYiekHmbB6XdEO/7ghKd0n6q/bapENAYsL86KoYHqa4eP34xfH9icpQRmTpH0qOkt1vfUPWnaqu+vHBWx/gJXiuVlhayxLZD2w41q8ITkoj4oRLn2U1q8cLbjUtjzFWX9TgiQw1iY0ezpFqyDLPU7+ZzO01JI+yspn2gtto0XUm5KuxUPK24+xHD6R1UZSCSJKXY1QsKQfJ+gjzEjrtGvmASx1SUrpmyzVmf4qLwFB1ViRZmDZFtHIuuUVBBb835dCs2W+d7a+icGOCtGQbFcHvW0FODibnY5qq8v5w/P9i9PSarDaGgYb+1pMSnF3p8FsHAjk3Wccg2a1GQ== |

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Headers : X-Request-Id, Signature-Certificate, Signature

{"status":"REJECTED","reason":"INVALID SIGNATURE","reasonCode":"INVALID\_SIGNATURE"}

**3. Request validations**

**Case 1 :** Request with xRequestId header is empty / without passing xRequestId header

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Status : 400 Bad Request

{"status":"REJECTED","reason":"INVALID REQUEST","reasonCode":"INVALID\_REQUEST"}

**Case 2 :** Request with Signature-Certificate header is empty / without passing Signature-Certificate header

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Status : 400 Bad Request

{"status":"REJECTED","reason":"INVALID REQUEST","reasonCode":"INVALID\_REQUEST"}

**Case 3 :** Request with Signature header is empty / without passing Signature header

Request:

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Status : 400 Bad Request

{"status":"REJECTED","reason":"INVALID REQUEST","reasonCode":"INVALID\_REQUEST"}

All the other request validations are handled through the Junit integration test.

**File Name :** PaymentInitiationControllerTest.java

Some of the sample request/response details are below,

**Case 1:** When the request with invalid Debtor IBAN

**Request:**

{"debtorIBAN":"","creditorIBAN":"NL94ABNA1008270121","amount":"1.0","endToEndId":"1"}

**Response:**

{"timeStamp":"2020-09-06 07:05:04.618","status":400,"error":"INVALID REQUEST","message":"","details":["Debtor IBAN must be a valid number"]}

**Case 2:** When the request with invalid Creditor IBAN

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"","amount":"1.0","endToEndId":"1"}

**Response:**

{"timeStamp":"2020-09-06 07:05:04.618","status":400,"error":"INVALID REQUEST","message":"","details":["Creditor IBAN must be a valid number"]}

**Case 3:** When the request with invalid amount

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"","endToEndId":"1"}

**Response:**

{"timeStamp":"2020-09-06 07:05:04.618","status":400,"error":"INVALID REQUEST","message":"","details":["Amount is required", "The amount must be a valid number"]}

**4. Various response scenarios**

**201\_PaymentAccepted:**

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Headers : X-Request-Id, Signature-Certificate, Signature

Status : 201 Created

{"paymentId":"2816b01d-179e-4932-9bdd-2065743f28a6","status":"ACCEPTED"}}

**400\_PaymentRejected:**

Request with xRequestId header is empty / without passing xRequestId header

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Headers : X-Request-Id, Signature-Certificate, Signature

Status : 400 Bad Request

{"paymentId":"2816b01d-179e-4932-9bdd-2065743f28a6","status":"ACCEPTED"}}

**422\_PaymentRejected:**

As the given xRequestId, certificate & signature combinations only work for positive scenarios. Hence this case covered in Junit.

**File Name :** PaymentInitiationControllerTest.java

**Request:**

{"debtorIBAN":"NL02RABO0022222222","creditorIBAN":"NL94ABNA1008270121","amount":"1.0","endToEndId":"1"}

**Response:**

Headers : X-Request-Id, Signature-Certificate, Signature

Status : 422 Unprocessable Entity

{"status":"REJECTED","reason":"LIMIT EXCEEDED", "reasonCode":"LIMIT\_EXCEEDED"}

**500\_GeneralError:**

Add some unwanted text in the valid certificate & getting an exception while reading this. Use the below chunk in the certificate header.

|  |  |
| --- | --- |
| Signature-Certificate | -----BEGIN CERTIFICATE----------END CERTIFICATE----- |

**Request:**

{"debtorIBAN":"NL02RABO7134384551","creditorIBAN":"NL94ABNA1008270121","amount":"1.00"}

**Response:**

Headers : X-Request-Id, Signature-Certificate, Signature

Status : 500 Internal Server Error

{"status":"REJECTED","reason":"GENERAL ERROR","reasonCode":"GENERAL\_ERROR"}