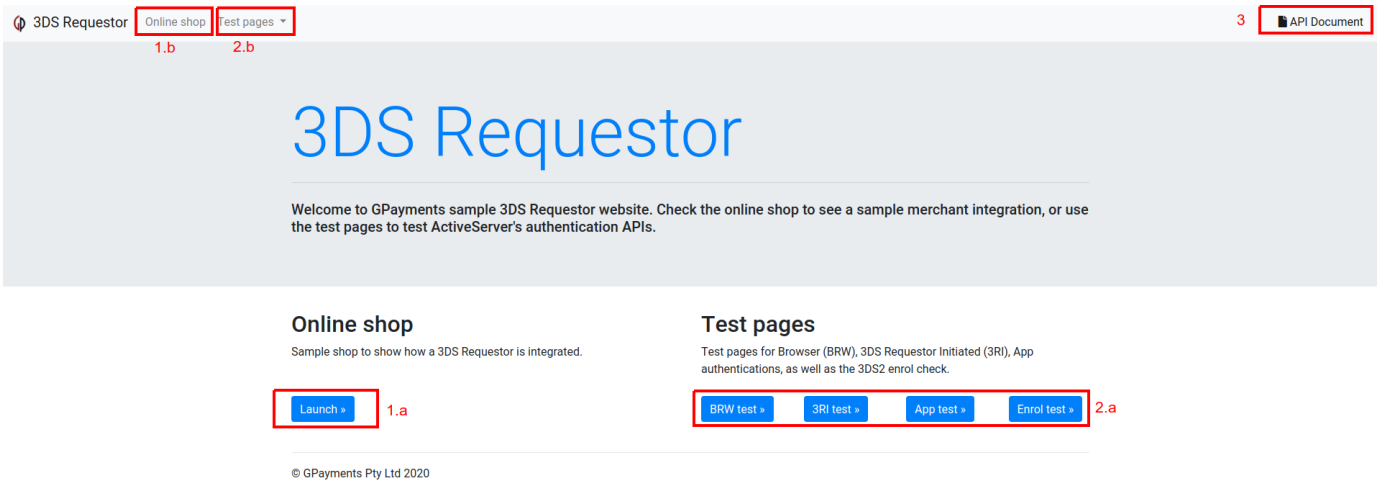
# Sample code features

In this section, we show all the features of the **3DS Requestor Demo** project. You can access the 3DS Requestor demo by:

- Downloading and running the 3DS Requestor demo code here, or
- Using our online TestLabs Requestor

Shown below is the index page of the 3DS Requestor site. There are two parts, **Online shop** and **Test pages**. The online shop can be accessed by selecting the `Launch` button (1.a) or selecting the `Online shop` button (1.b) at the top left. Each test page can be accessed by selecting the associated buttons (2.a) or selecting the `Test pages` dropdown (2.b) at the top left. Additionally, at the top right there is a `API Document` link (3) which will direct you to the **ActiveServer Authentication API Reference** document.

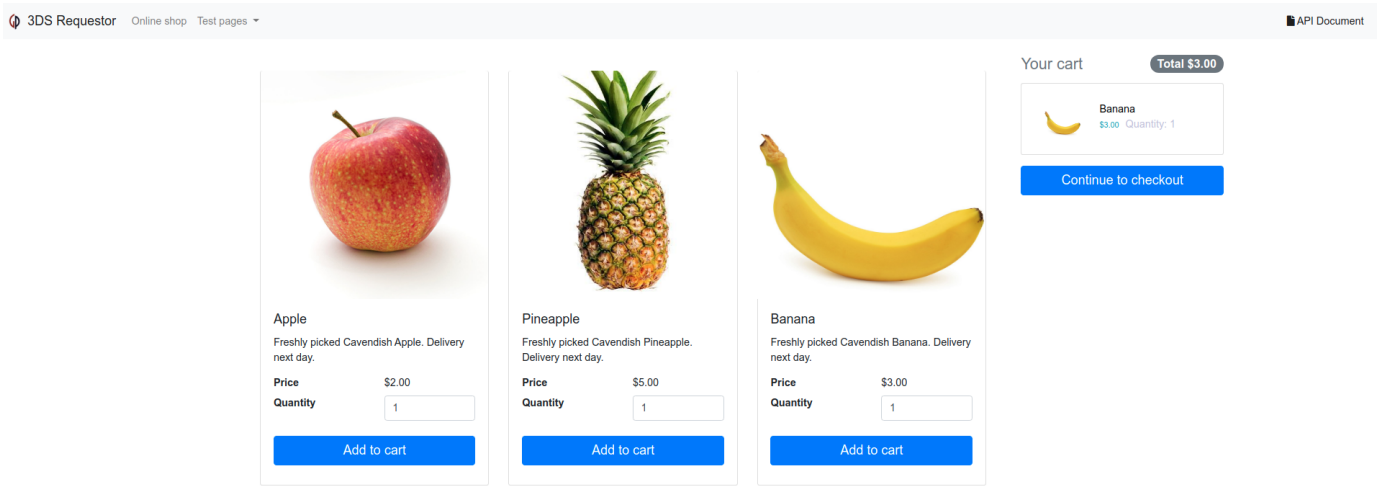



## Online Shop

The online shop is a demo merchant checkout page that gives a merchant side view of how to integrate 3DS2 into an eCommerce site. For the implementation of the integration, follow the Integration Guide. To make a test transaction:

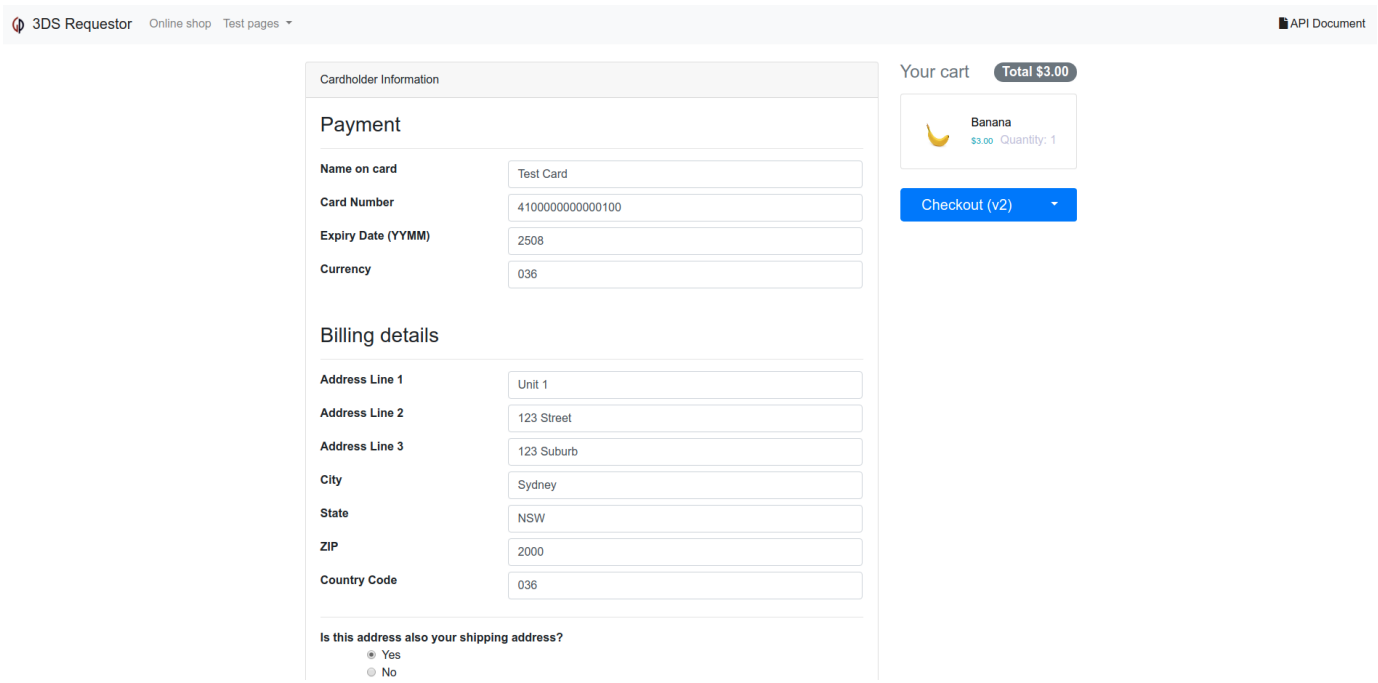
Add items to the cart in the shop page and select the ***Continue to Checkout*** button to move to the checkout page:

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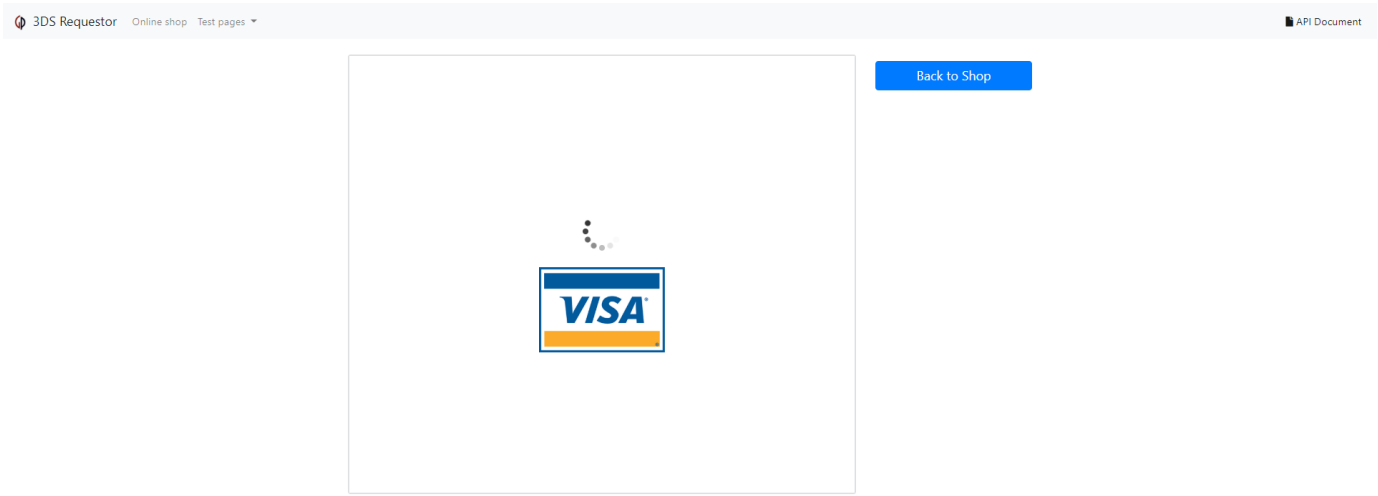

Default payment and billing information is pre-filled, including a card number, which can be used to complete a frictionless transaction. Select the ***Checkout*** button to trigger the 3DS2 authentication process:

> **Note**
>
> You can select the API version to perform the 3DS2 authentication process by clicking the arrow at the right of the ***Checkout*** button.

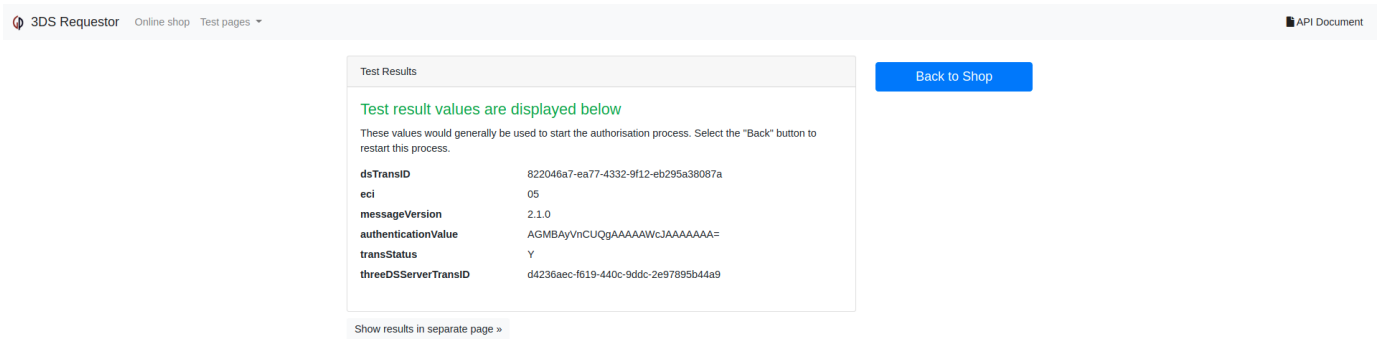



There is a spinner on the processing page while the 3DS2 authentication is in progress:

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After the 3DS2 authentication is finished the result will be shown:




Selecting the `Show results in separate pages` will open a new page to show the results.

> **Challenge flow**
>
> The above demonstrates a frictionless authentication. If the authentication requires a cardholder challenge, this will be shown after the first spinner processing page.

# Test Pages

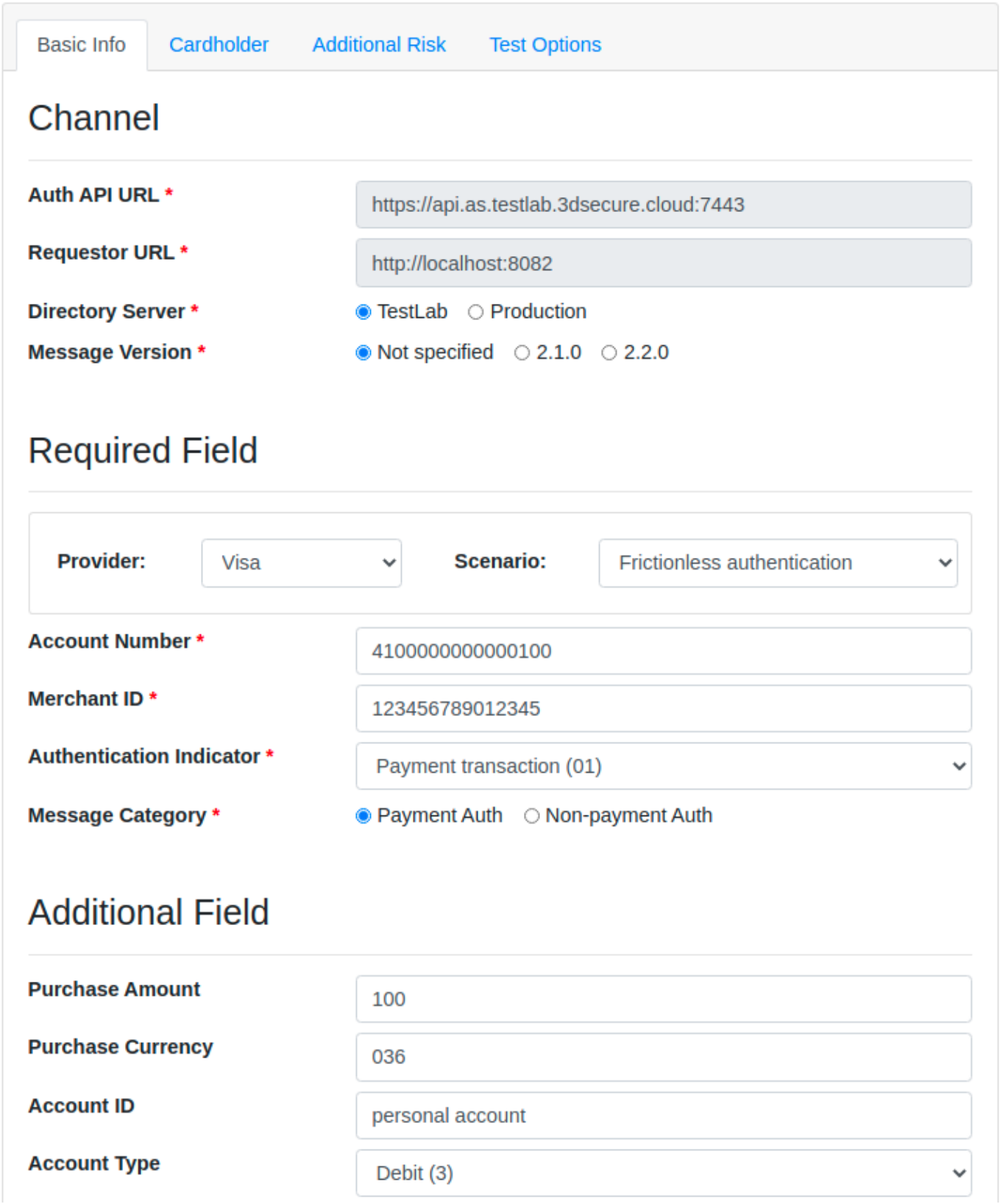
The test pages allow you to test the **Browser-based Authentication (BRW)**, **3DS Requestor Initiated (3RI)**, **App**, and **Enrol** channels with all the parameters defined in the API document.

## BRW Test Page

The BRW test page has four tabs, `Basic Info`, `Cardholder`, `Additional Risk` and `Test Options`.

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### Basic Info




The `Basic Info` tab has three sections, `Channel`, `Required Field`, and `Additional Field`.

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In `Channel`, you can check the **3DS Server URL** and the **Requestor URL** that have been loaded into the application. You can also select which **Directory Server** is used for the test and choose the EMV **Message Version**.

In `Required Field`, you need to fill in the **Account Number**, **Merchant ID**, **Authentication Indicator**, and **Message Category**. The **Merchant ID** must match the one from the merchant profile you are using, which also corresponds to the **client certificate** being used.

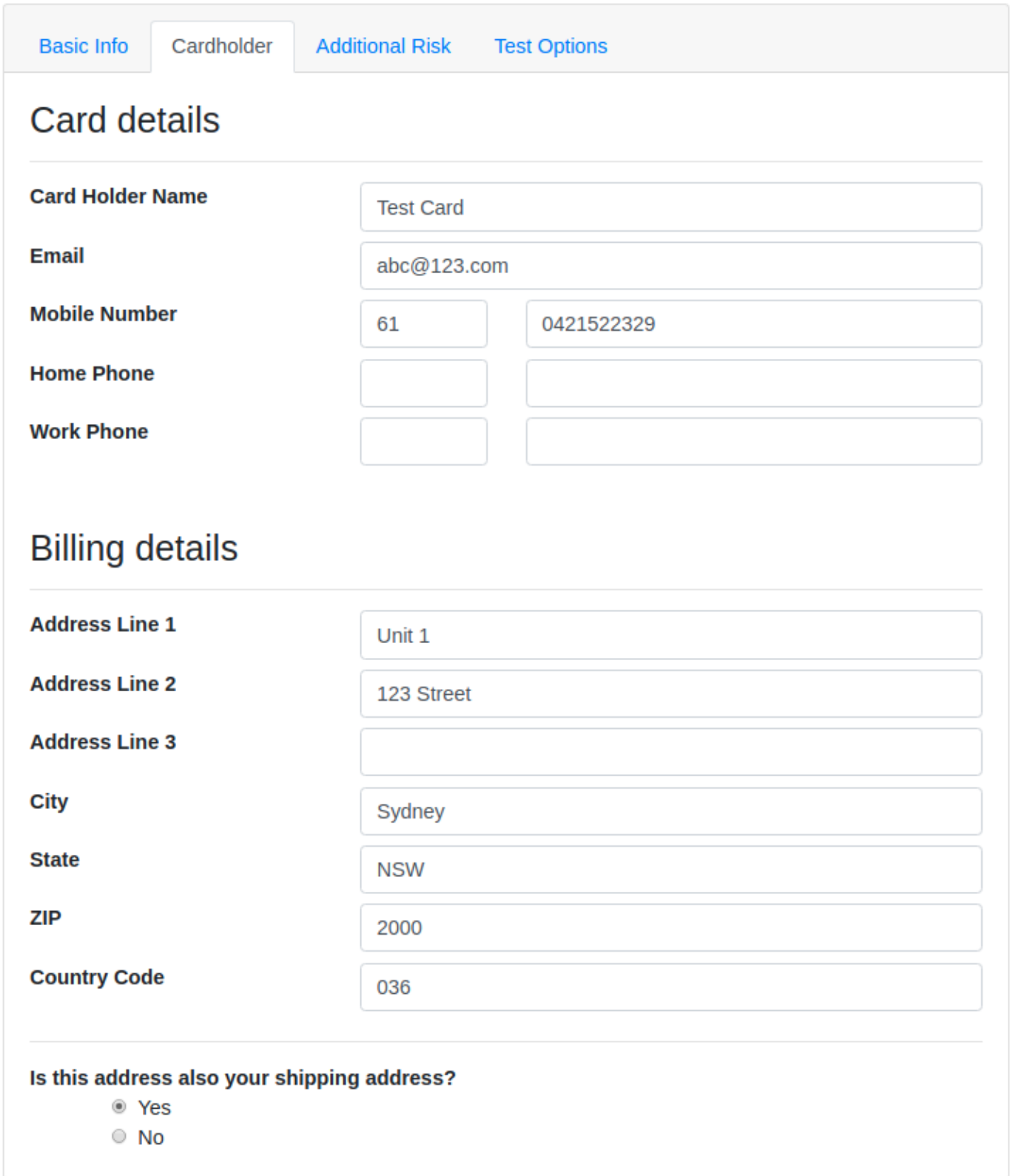
> **Using GPayments TestLabs scenarios**
>
> For the **Account Number**, you can fill in an account number manually, or you can choose from our predefined scenarios. For example, you can choose `Visa` with `Frictionless authentication` and the the account number `4100000000000100` will automatically be filled in the Account Number field.
>
> The demo 3DS Requestor allows you to trigger various 3DS2 authentication scenarios by specifying a card number before the authentication. To check the card list for different authentication scenarios, refer to the TestLabs guide for details.

In `Additional Field`, you can fill in additional information such as the **Purchase amount**, **Purchase currency**, **Expiry date**, etc.

### Cardholder

On the `Cardholder` tab, you can fill in cardholder information, including the **Card holder name**, **Email**, phone numbers and address details.

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### Additional Risk

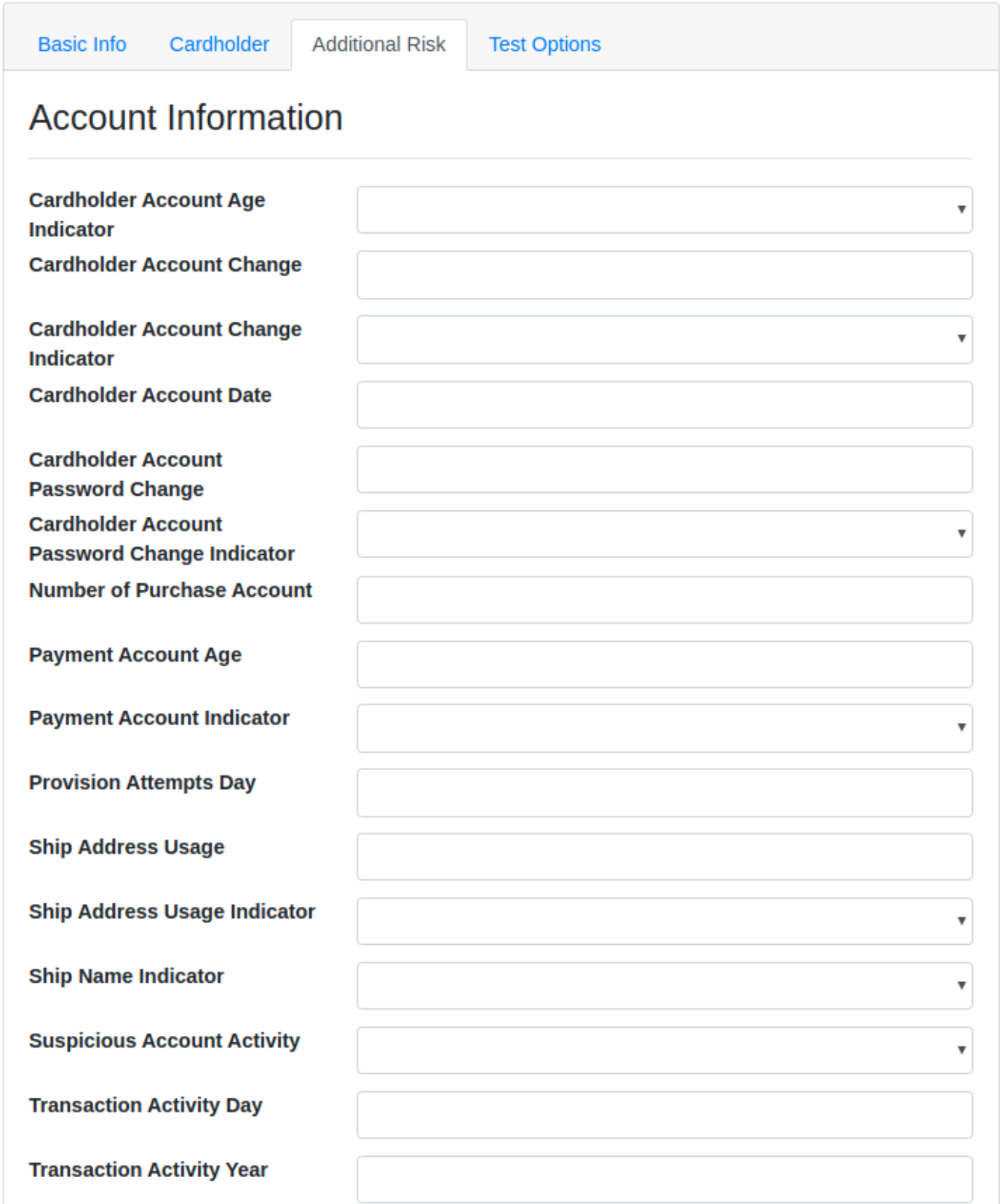
On the `Additional Risk` tab, you can fill in other additional risk information, such as the account information, the requestor authentication information, and the merchant risk indicator.

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### Merchant risk information

This information is optional to provide. However, it is very beneficial for the merchant to provide this information if it is available, as it will assist the issuers ACS with risk-based authentication, and potentially lead to higher rates of frictionless authentications.

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### Test Options

On the `Test Options` tab, firstly, you can choose which API version to use to perform the 3DS authentication process.

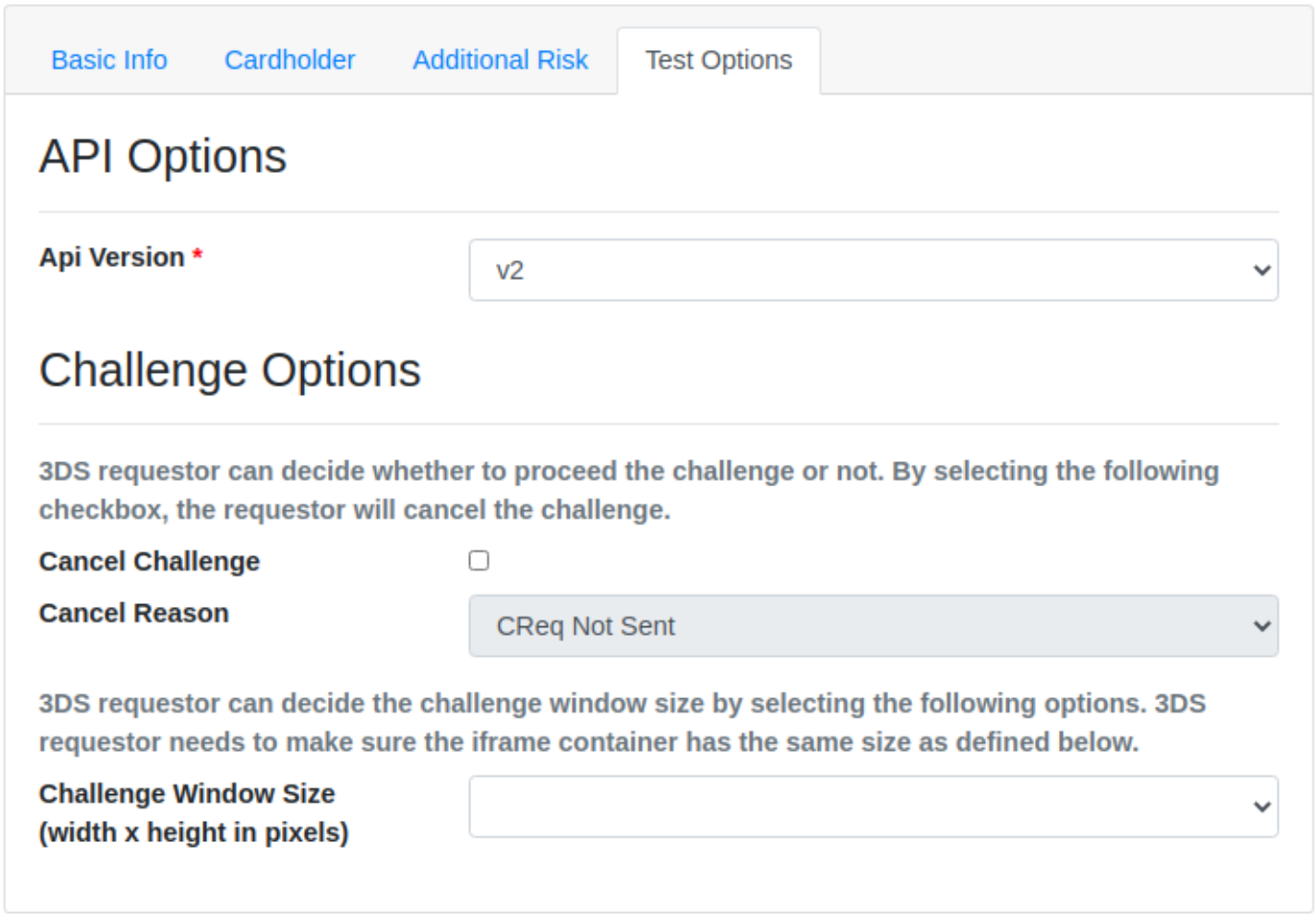
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Secondly, you can choose to cancel a challenge if the ACS requests one for the transaction by selecting the `Cancel Challenge` checkbox. When cancelling the challenge, the `3ds-web-adapter` will not execute the CReq callback page in the iframe. Optionally the `Cancel Reason` can then be specified using the **`challengeStatus`** endpoint to let **ActiveServer** know why the challenge is being cancelled:

- **CReq Not Sent**: indicates that the challenge request was not initiated due to the 3DS Requestor choosing to opt out of the challenge. Will send a status of `CReqNotSent` to the **`challengeStatus`** endpoint.
- **Auth Result Not Delivered**: indicates that the challenge request was not able to be delivered to the 3DS Requestor due to a technical error, such as **ActiveServer** not responding when the 3DS Requestor executes an authentication request. Will send a status of `AuthResultNotDelivered` to the **`challengeStatus`** endpoint.
- **No Reason Sent**: simulates a scenario where the 3DS Requestor does not initiate the challenge, but also does not call the **`challengeStatus`** endpoint, meaning no reason will be sent to **ActiveServer**.

Lastly, you can decide the challenge window size by selecting the **Challenge Window Size** options. This will be included in the authentication request to the ACS, requesting them to display the challenge page to the cardholder in a specific size which is conducive to the merchants checkout website.

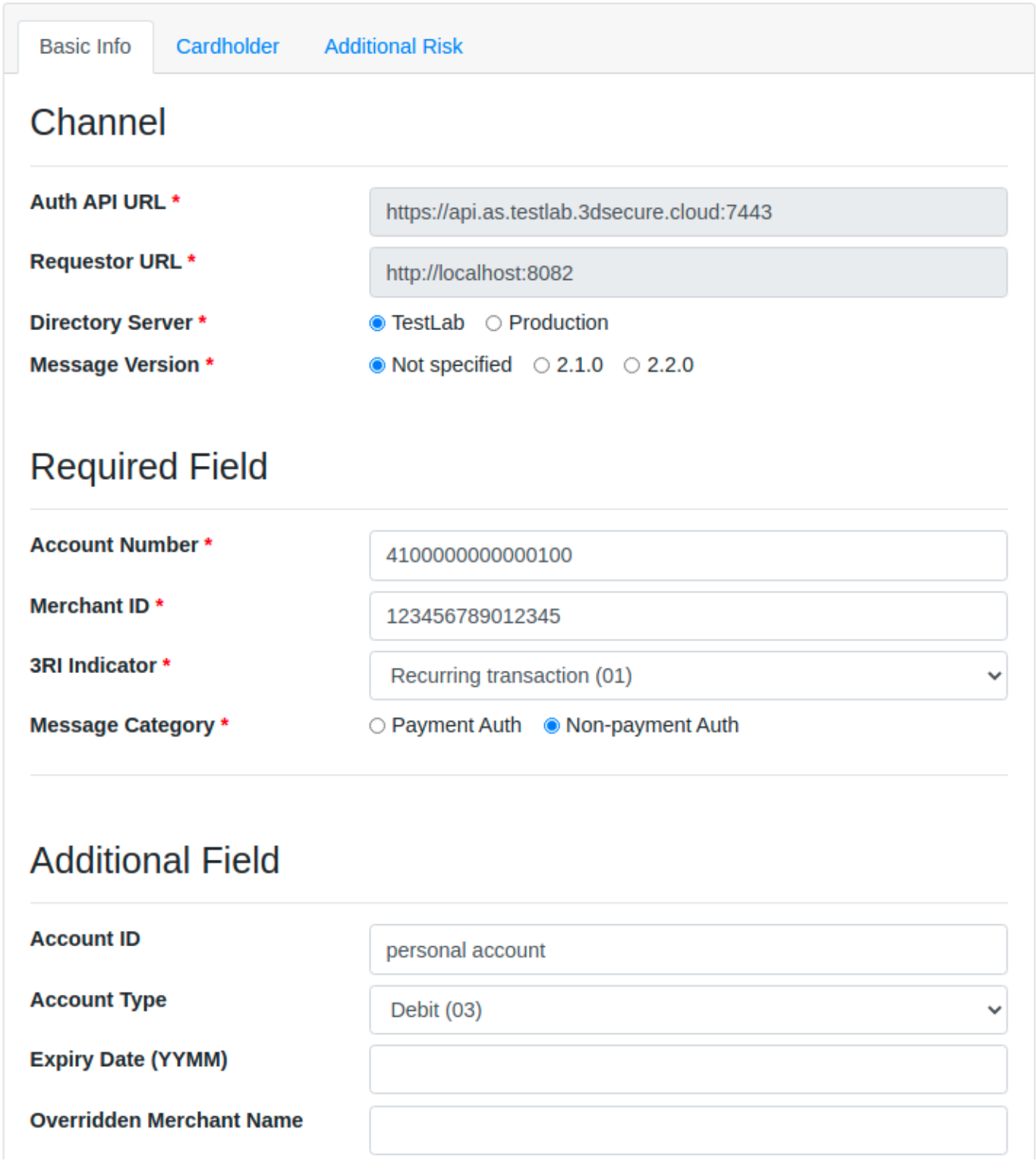
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## 3RI Test Page

The 3RI test page initiates an authentication using the 3RI channel. Similar to the BRW test page, the 3RI test page has three tabs, `Basic Info`, `Cardholder`, and `Additional Risk`. One difference is that there is a `3RI Indicator` parameter in the `Required Field` section and there are also less parameters in the `Additional Field` due to the nature of 3RI.

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## App Test Page

The App test page initiates an authentication using the App channel. The App test page uses a hardcoded mock AReq for App channel authentication. This data is only for test or demo purposes. For a production authentication, App authentication requests must be initiated by an integrated 3DS SDK.

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App Test Info

# Channel

**Auth API URL** *: https://api.as.testlab.3dsecure.cloud:7443

**Requestor URL** *: http://localhost:8082

**Directory Server** *: (•) TestLab ( ) Production

**Message Version** *: (•) Not specified ( ) 2.1.0 ( ) 2.2.0

# Auth data

**Below is the mock AReq for APP channel authentication. This data is only for test/demo purposes. For a production authentication, APP auth requests must be initiated by an integrated 3DS SDK.**

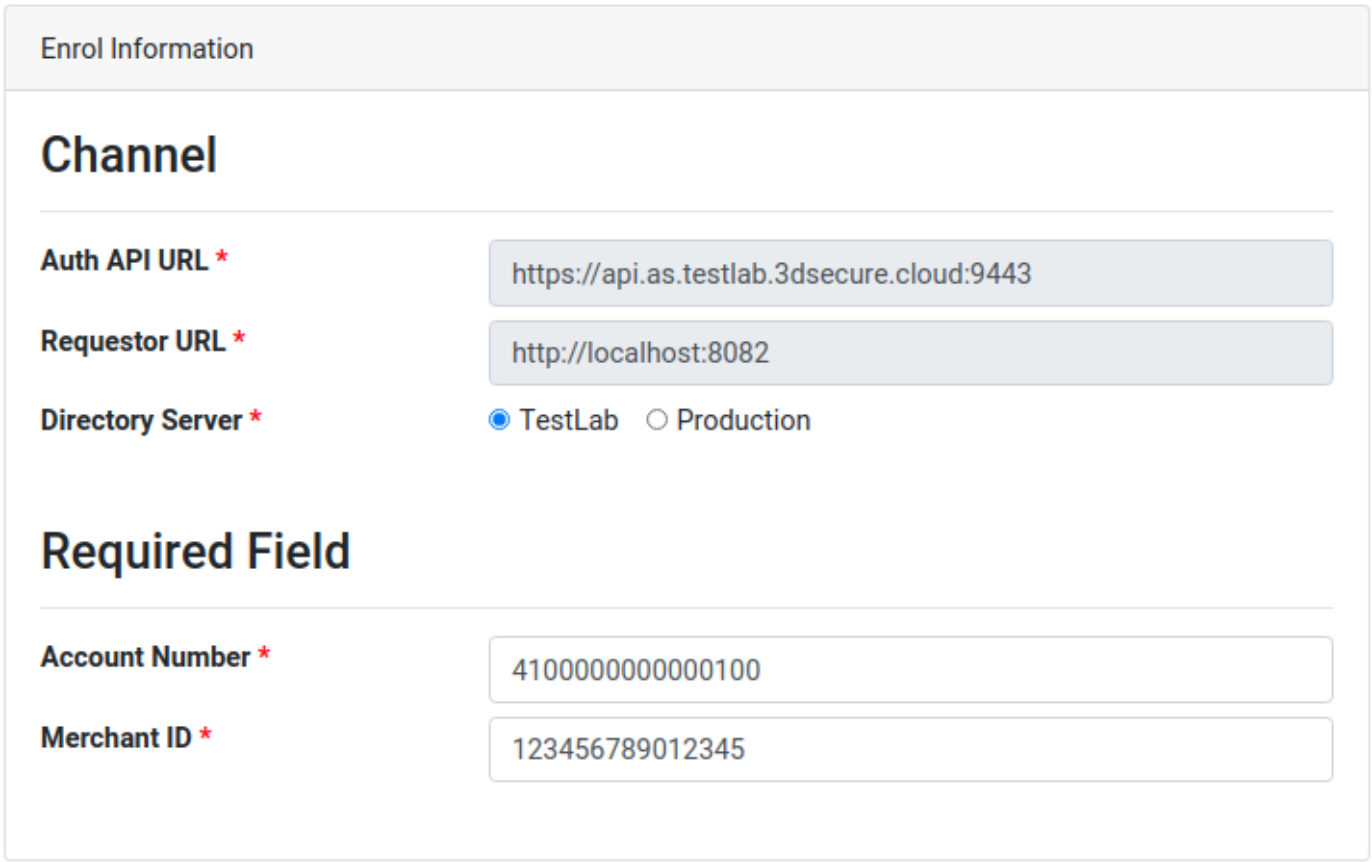

```
{
   "acctNumber": "4100000000000100",
   "authenticationInd": "01",
   "merchantId": "123456789012345",
   "purchaseAmount": 66600,
   "purchaseCurrency": "036",
   "acctID": "personal account",
   "acctType": "01",
   "cardExpiryDate": "2508",
   "transType": "01",
   "challengeInd": "01",
   "purchaseDate": "20200409093228",
   "messageCategory": "pa",
   "sdkAppID": "96a4a91d-58d0-988d-7f93-e0005b888961",
   "sdkEncData":
```


# Response

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## Enrol Test Page

The enrol test page initiates an `/enrol` check with **ActiveServer**, which is used to see if a card is in a card range that supports 3DS2. Only an **Account Number** and a **Merchant ID** are required for the enrol test.

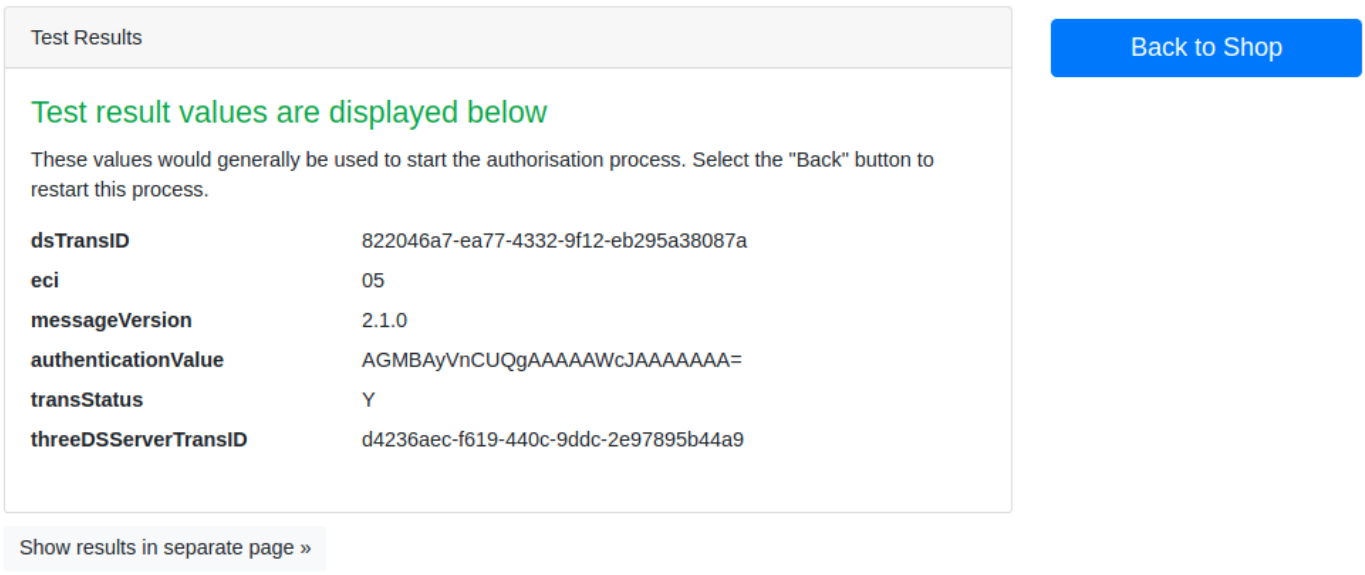



## Test Results

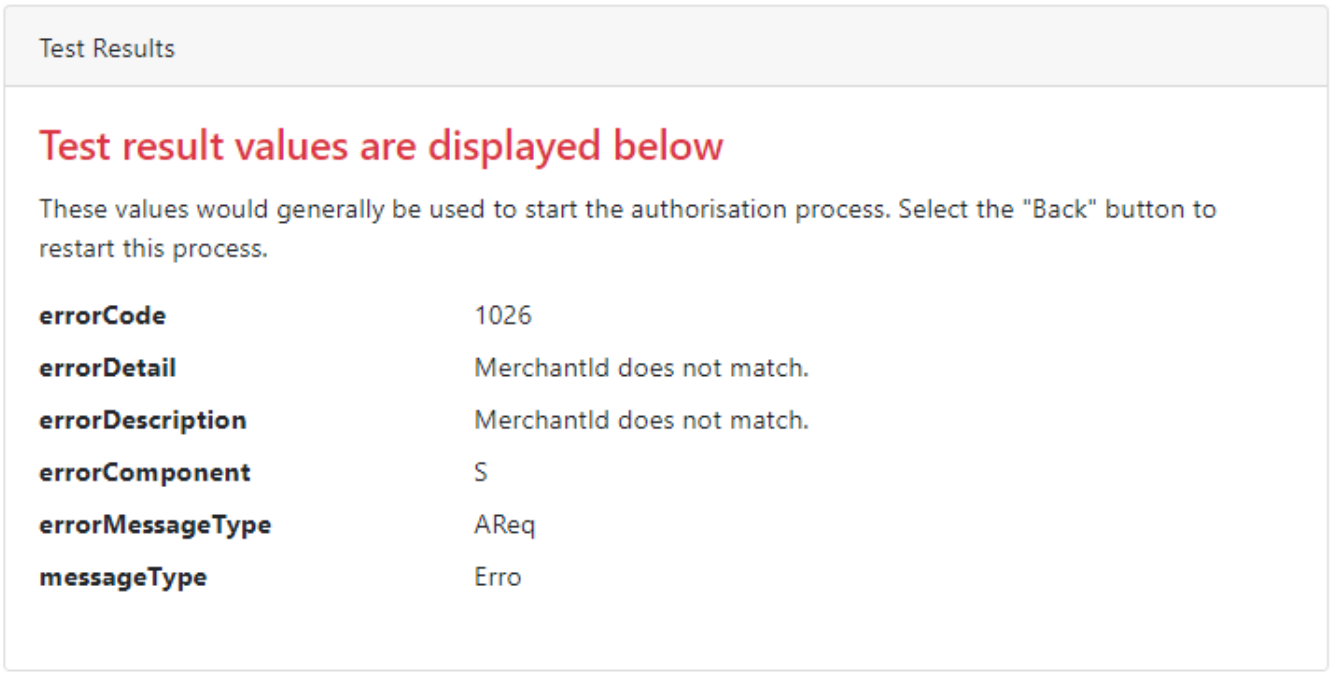
After selecting the ***Test*** button on one of the test pages, you will be directed to `process.html`. All the 3DS2 processes will be handled by a `process.html` page and there will be a spinner while the 3DS2 process is running. When the 3DS2 process is done, the results will be displayed on the same page.

For example, if you select `BRW test` page then select `Test BRW` button with pre-filled information, it will get a successful response.

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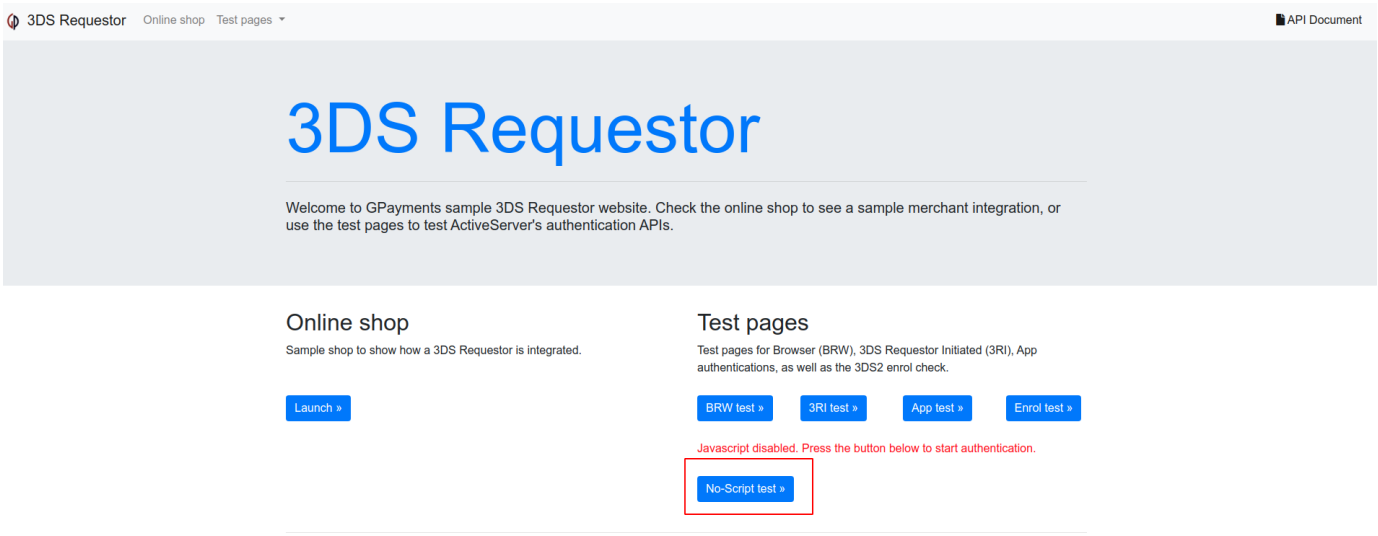

Or, you can fill in an invalid parameter in `BRW test` page (e.g. `000` for `Merchant ID`), and it will return an error information.



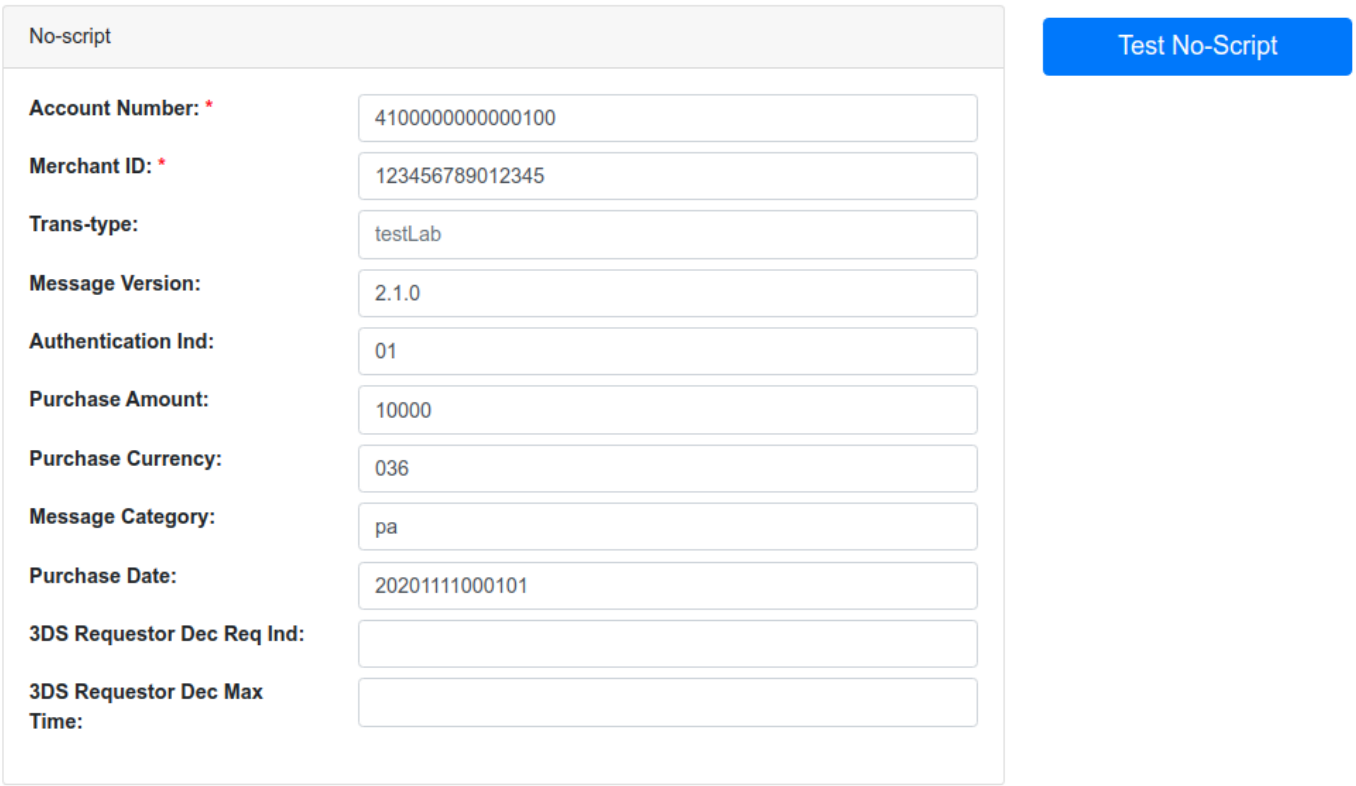

# No-script Test

The demo requestor has demo code for a no-script environment. To test, disable Javascript in your browser then go to the index page.

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The no-script test page can be accessed by selecting the `No-Script test` button. Follow the instructions on this page to do a demo transaction with Javascript disabled.




Check the front-end implementations for a no-script environment in the following pages:

- `no_script.html`
- `no_script_process.html`
- `no_script_poll_result.html`
- `no_script_results.html`

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To support a no-script environment, the following endpoints are implemented in the back-end:

- `/noscript` and `/3ds-notify/noscript` endpoints in `MainController`
- `/v2/auth/init/noscript`, `/v2/auth/noscript`, `/v2/auth/result/noscript/poll`, and `/v2/auth/brw/result/noscript` endpoints in `AuthControllerV2`

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