

API migration from v1 to v2

This is a reference guide for migrating from **ActiveServer API v1** to **API v2**.

The sunset timing for using **API v1** for on-premise clients is currently planned for Q4 2020, which will be communicated to clients closer to the date. Any clients using the **GPayments Hosted SaaS** will be required to use **API v2** from service launch.

Major change overview

- Added `/api/v2/auth/` authentication API entry points.
- **ActiveServer** no longer stores encrypted cardholder PANs in the database, only the truncated PAN is stored (first 6 and last 4 digits). This improves security by significantly reducing the impact of a breach and potentially reduces some PCI compliance requirements. PAN search functionality will be limited to the first 6 and last 4 digits when searching for **API v2** transactions.
- Due to encrypted PANs no longer being stored, per merchant encryption keys are no longer required when using **API v2**. They are still required for **API v1** transactions.
- **GPayments** 3DS Requestor demo code has been upgraded to support both **API v1** and **API v2**.

ActiveServer changes

As of **ActiveServer** version 1.3.0, **ActiveServer** will no longer store an encrypted PAN for transactions executed via **API v2**, and instead will only store a truncated PAN. Only the first 6 digits and last 4 digits will be stored in plain text and be visible to users, e.g. a PAN of **4123456789876543** will be stored as **412345XXXXXX6543** in the database and shown as the same on the administration interface.

As a result, per merchant encryption keys are only used for **API v1** transactions and will be removed in a [future release](#).

As **ActiveServer** no longer stores full PANs, the transaction search function in Admin UI will no longer support full PAN matching for those executed via **API v2**. Although, partial PAN search is still available. Users can enter a full PAN in the search box as usual, and the results will return all

transactions that match the first 6 and last 4 digits of the entered PAN. Combining partial PAN search along with other attributes e.g. **Transaction ID** , **Date/Time** , **Purchase amount** or **Currency** , should allow a particular transaction to be identified. Transaction search functionality for **API v1** transactions is not affected.

By implementing API v2, clients may enjoy the following benefits:

- Improved performance: ActiveServer no longer needs to call transaction encryption functions
- Increased security: Reduces the impact of a security breach
- Reduced time and costs for PCI auditing: Potentially reduces the scope of the Cardholder Data Environment (CDE).

Important

Note the above changes are only applicable when using **Auth API v2**. Read below for the impact on **API v1**.

Auth API v1 impact and migration plan

Transactions using **Auth API v1** will be unaffected by the changes mentioned above. Current integrations will continue to work, allowing for a stable upgrade path to **API v2** to be planned. The current sunset timing is planned for Q4 2020.

All past **API v1** transactions will still have encrypted PANs using per merchant encryption keys stored in the database. To assist clients transition smoothly into from API v1 to API v2, an API v2 migration utility will be provided in a future release, and will contain the following functionality:

- Convert all **API v1** transactions into the new **API v2** format
- Clear up the encryption keystores
- Disable **API v1**

GPayments encourages all ActiveServer clients to upgrade to **API v2** as soon as possible, to take advantage of all its included benefits.

API Changes - migrating to v2 BRW Auth API

The main change to the **v2 BRW API** is that all cardholder fields are now sent in the `/api/v2/auth/brw (Execute Authentication)` API call, rather than in `/api/v2/auth/brw/init (Initialise Authentication)`. The `Initialise authentication` process will be used simply to collect pre-authentication browser information, and to execute the **3DS Method** (optional additional browser information collection by the ACS) if it is available.

See below for the JSON message changes for the requests.

- **Red highlight** - the field is removed.
- **Green highlight** - the field is added.
- **No highlight** - the field is unchanged from **API v1**.

Please refer to the [API documentation](#) for detailed field descriptions.

Changes to `Initialise Authentication`

- The `{messageCategory}` parameter has been removed from the request message URL and added to the request body of `Execute Authentication (/api/v2/auth/brw)`.
- The transaction related fields removed from the request message below have been added to `Execute authentication`.
- The `authUrl` field has been added to the response message, this is now used as the URL to send the `Execute authentication` request.
- The error code fields are no longer included in a successful response message.

Request body

Below shows the difference of the request body between `/api/v1/auth/brw/init/{messageCategory}` and `/api/v2/auth/brw/init`:

```

{
-  "acctID": "ActiveServer 3DS Test Account 000000001",
-  "acctInfo": {
-    "chAccAgeInd": "03",
-    "chAccChange": "20160712",
-    "chAccChangeInd": "04",
-    "chAccDate": "20140328",
-    "chAccPwChange": "20170328",
-    "chAccPwChangeInd": "02",
-    "nbPurchaseAccount": "11",
-    "paymentAccAge": "20160917",
-    "paymentAccInd": "04",
-    "provisionAttemptsDay": "3",
-    "shipAddressUsage": "20160714",
-    "shipAddressUsageInd": "04",
-    "shipNameIndicator": "02",
-    "suspiciousAccActivity": "01",
-    "txnActivityDay": "1",
-    "txnActivityYear": "21"
-  },
  "acctNumber": "7654310438720050",
-  "acctType": "03",
-  "authenticationInd": "01",
-  "authenticationInfo": {
-    "threeDSReqAuthData": "validlogin at UL TS BV",
-    "threeDSReqAuthMethod": "02",
-    "threeDSReqAuthTimestamp": "201711071307"
-  },
-  "cardExpiryDate": 1910,
-  "cardHolderInfo": {
-    "billAddrCity": "Bill City Name",
-    "billAddrCountry": 840,
-    "billAddrLine1": "Bill Address Line 1",
-    "billAddrLine2": "Bill Address Line 2",
-    "billAddrLine3": "Bill Address Line 3",
-    "billAddrPostCode": "Bill Post Code",
-    "billAddrState": "C0",
-    "cardholderName": "Cardholder Name",
-    "email": "example@example.com",
-    "homePhone": {
-      "cc": "123",
-      "subscriber": "123456789"
-    },
-    "mobilePhone": {
-      "cc": "123",
-      "subscriber": "123456789"
-    },
-    "shipAddrCity": "Ship City Name",
-    "shipAddrCountry": "840",
-    "shipAddrLine1": "Ship Address Line 1",

```

```

-   "shipAddrLine2": "Ship Address Line 2",
-   "shipAddrLine3": "Ship Address Line 3",
-   "shipAddrPostCode": "Ship Post Code",
-   "shipAddrState": "C0",
-   "workPhone": {
-       "cc": "123",
-       "subscriber": "123456789"
-   },
- },
- "challengeInd": "02",
-   "eventCallbackUrl": "https://example.requestor.com/3ds-notify",
-   "merchantId": "1234567890123456789012345678901234",
-   "merchantName": "string",
-   "merchantRiskIndicator": {
-       "deliveryEmailAddress": "deliver@email.com",
-       "deliveryTimeframe": "01",
-       "giftCardAmount": "337",
-       "giftCardCount": "02",
-       "giftCardCurr": "840",
-       "preOrderDate": "20170519",
-       "preOrderPurchaseInd": "02",
-       "reorderItemsInd": "01",
-       "shipIndicator": "02"
-   },
-   "payTokenInd": true,
-   "priorTransID": "59ae264e-b0f4-43c7-870e-4d14bd52806e",
-   "purchaseAmount": "12345",
-   "purchaseCurrency": "978",
-   "purchaseDate": "20180122153045",
-   "purchaseInstalData": "024",
-   "recurringExpiry": "20180131",
-   "recurringFrequency": "2",
-   "threeDSRequestorTransID": "2409a5df-b777-4ebc-ad59-2a61091187f1",
-   "transType": "03"
}

```

Response

Below shows the difference of the response body between `/api/v1/auth/brw/init/{messageCategory}` and `/api/v2/auth/brw/init`:

```
```diff { - "errorCode": "1005", - "errorComponent": "A", - "errorDescription": "Data element not in the  
required format. N
```