Verve MPGS Issuer Onboarding API Contract

Overview

This document outlines the API contract for the Verve Issuer Onboarding feature.

It enables Implementation Engineers to create, view, edit, and delete Verve-MPGS issuer details and manage issuer BINs, and Implementation Managers to review and approve or decline submitted requests.

Authentication

All API endpoints require authentication.

Requests must include a valid access token from verve portal.

Models

Issuer BIN Table (verve_mpgs_aid_driver_auth_conv_rules)

Stores the BINs (Bank Identification Numbers) tied to each issuer.

Column	Type	Description
uuid	string (UUID)	Unique identifier for the issuer-BIN record
tm_node	String	
recv_inst_id	String	Issuer bin
issuerName	string	Name of the issuing institution
bin	string	Bank Identification Number (6 digits)
issuerRef	String (UUID)	A unique id to tie all related issuers across multiple bins

Column	Type	Description
submittedBy	string	Email of the user who created the issuer-BIN record
submittedAt	timestamp	Timestamp when the issuer-BIN was created

Activity Logs Table

This table is used for maker-checker operations (submission and approval flows).

Each record captures submission and approval actions for entities like acquirers, countries, ICAs, or issuers.

Column	Type	Description
id	integer (auto-increment)	Unique identifier for the log entry
submittedBy	string	Name of the user who initiated the request
submittedByEmail	string	Email of the user who submitted the request
submittedByRole	string	Role of the submitting user (e.g., IMPLEMENTATION_ENGINEER)
approvedBy	string	Name of the approving user
approvedByEmail	string	Email of the approving user
requestType	string	Type of operation requested (CREATE, UPDATE, DELETE)
submittedByComment	string	Optional comment by the submitter

Column	Type	Description
approvedByComment	string	Optional comment by the approver
newData	json string	JSON representation of the new data being created or updated
oldData	json string	JSON representation of the previous data (if applicable)
referenceId	string	Reference to the affected resource (e.g., BIN ID)
resourceType	Enum[ACQUIRER, ICA, ISSUER]	Identifies which resource type the request targets
status	enum	Status of the activity (PENDING_APPROVAL, APPROVED, DECLINED)
createdAt	timestamp	Date and time the activity was logged
updatedAt	timestamp	Date and time of the last update

Endpoints

Create Issuer

Endpoint:

POST /api/v1/issuers

Description:

Creates a new issuer with one or more BINs.

Each BIN is treated as a separate request in the Activity Logs Table for maker-checker approval.

Multiple BINs submitted together will create multiple activity log entries, one per BIN.

Access:

Implementation Engineer

Request Body:

```
{
  "issuerName": "First Bank of Nigeria",
  "bins": ["506100", "506101", "506102"]
}
```

Success Response:

```
{
  "success": true,
  "data": {
    "message": "request submitted successfully"
  },
  "statusCode": 201
}
```

Error Responses:

Status Code	Description	Example
409	Issuer already exists	{ "success": false, "data": null, "statusCode": 409, "message": "Issuer 'First Bank of Nigeria' already exists" }
409	Pending create request exists	{ "success": false, "data": null, "statusCode": 409, "message": "A pending create request already exists for issuer 'First Bank of Nigeria'" }
409	Duplicate BIN in request	{ "success": false, "data": null, "statusCode": 409, "message": "Duplicate BINs found in request: 506100, 506101" }
409	BIN already exists	{ "success": false, "data": null, "statusCode": 409, "message": "BIN '506100' already exists" }
400	Validation error	{ "success": false, "data": null, "statusCode": 400, "message": "Request is not valid. Possible syntax, data type mismatch, or field validation errors" }

Fetch Issuers

Endpoint:

GET /api/v1/issuers

Description:

Retrieves a paginated list of all issuers with their associated BINs grouped together.

Supports filtering by issuer name and date range.

Access:

Implementation Engineer, Implementation Manager

Query Parameters:

Parameter	Type	Required	Description
issuerName	string		Filter by issuer name (partial match, case-insensitive)
startDate	string (YYYY-MM-DD)		Filter issuers submitted after this date
endDate	string (YYYY-MM-DD)		Filter issuers submitted before this date
pageNumber	integer		Page number to retrieve (default: 1)
pageSize	integer		Number of items per page (default: 100)

Success Response:

```
{
 "success": true,
 "data": {
  "content": [
   {
    "issuerName": "First Bank of Nigeria",
    "issuerRef": "1C31012C-97AD-4D98-8A17-B4450AE82BEA",
    "bins": [
     {
       "id": "1C31012C-97AD-4D98-8A17-B4450AE82BEA",
       "bin": "506100"
     },
    ],
```

```
    "submittedBy": "john.doe@example.com",

    "submittedAt": "2025-11-12T10:30:00"

    }

  ],

  "pageNumber": 1,

  "pageSize": 100,

  "totalCount": 1,

  "totalPages": 1

 },

 "statusCode": 200

}
```

Get Issuer Details

Endpoint:

GET /api/v1/issuers/{issuerRef}

Description:

Retrieves detailed information about a specific issuer using its reference id.

The response includes the issuer name and a list of all BINs associated with that issuer.

Access:

Implementation Engineer, Implementation Manager

Request Parameters:

Parameter	Type	Required	Description
issuerRef	string	✅	Logical group reference id for the issuer

Success Response:

```
{
 "success": true,
 "data": {
  "issuerName": "First Bank of Nigeria",
  "issuerRef": " 1C31012C-97AD-4D98-8A17-B4450AE82BEA ",
  "bins": [
   {
    "id": "1C31012C-97AD-4D98-8A17-B4450AE82BEA",
    "bin": "506100"
   },
   {
    "id": "2D42123D-08BE-5EA9-9B28-C5561BF93FCB",
    "bin": "506101"
   },
   {
    "id": "3E53234E-19CF-6FB0-0C39-D6672CG04GDC",
    "bin": "506102"
   }
  ]
```

```
  },
  "statusCode": 200
}
```

Error Responses:

Status Code	Description	Example
404	Issuer not found	{ "success": false, "data": null, "statusCode": 404, "message": "Issuer 'First Bank of Nigeria' not found" }
400	Validation error	{ "success": false, "data": null, "statusCode": 400, "message": "Issuer name is required" }

Edit Issuer

Endpoint:

PUT /api/v1/issuers/{issuerRef}

Description:

Updates an existing issuer's details, specifically the issuer name and its associated BINs.

This request is logged in the Activity Logs Table for maker-checker approval before changes are applied.

Access:

Implementation Engineer

Request Parameters:

Parameter	Type	Required	Description
issuerRef	string	✅	Logical group reference id for the issuer

Request Body:

```
{

 "newIssuerName": "First Bank of Nigeria Limited",

 "bins": [

  {

   "id": "1C31012C-97AD-4D98-8A17-B4450AE82BEA",

   "bin": "506100"

  },

  {

   "id": "2D42123D-08BE-5EA9-9B28-C5561BF93FCB",

   "bin": "506199"

  },

  {

   "id": "3E53234E-19CF-6FB0-0C39-D6672CG04GDC",

   "bin": "506102"

  }

 ]
```

}

Success Response:

```
{
 "success": true,
 "data": {
   "message": "Edit request submitted successfully for approval."
 },
 "statusCode": 200
}
```

Error Responses:

Status Code	Description	Example
409	Duplicate BIN	{ "success": false, "data": null, "statusCode": 409, "message": "BIN '506199' already exists" }
409	Duplicate Issuer Name	{ "success": false, "data": null, "statusCode": 409, "message": "Issuer name 'First Bank of Nigeria Limited' already exists" }

Status Code	Description	Example
400	No changes detected	{ "success": false, "data": null, "statusCode": 400, "message": "No changes detected" }

Manage Issuer BINs

Endpoint:

POST /api/v1/issuers/bins/{issuerRef}

Description:

Adds new BINs and/or deletes existing BINs from an issuer.

Each BIN addition or deletion is logged as a separate entry in the Activity Logs Table for maker-checker approval.

Access:

Implementation Engineer

Query Parameters:

Parameter	Type	Required	Description
issuerRef	string	✅	Logical group reference id for the issuer

Request Body:

```
{
 "addedBins": ["506103", "506104"],
 "deletedBins": ["506100", "506101"]
}
```

Note: At least one of addedBins or deletedBins must be provided and non-empty.

Success Response:

```
{
 "success": true,
 "data": {
   "message": "BIN management request submitted successfully for approval."
 },
 "statusCode": 201
}
```

Error Responses:

Status Code	Description	Example
404	Issuer not found	{ "success": false, "data": null, "statusCode": 404, "message": "Issuer not found" }
409	Duplicate BIN	{ "success": false, "data": null, "statusCode": 409, "message": "BIN '506103' already exists and cannot be added to this issuer" }
404	BIN not found for deletion	{ "success": false, "data": null, "statusCode": 404, "message": "BIN '506100' not found for this issuer" }
400	No BINs provided	{ "success": false, "data": null, "statusCode": 400, "message": "At least one BIN must be added or deleted" }

Delete Issuer

Endpoint:

DELETE /api/v1/issuers/{issuerRef}

Description:

Submits a request to delete an existing issuer.

This request is logged into the Activity Logs Table for maker-checker approval before the deletion takes effect.

Access:

Implementation Engineer

Path Parameter:

Parameter	Type	Required	Description
issuerRef	string (UUID)	✅	Logical group reference id for the issuer

---

Success Response:

{

  "success": true,

  "data": {

    "message": "Delete request submitted successfully for approval."

  },

  "statusCode": 200

}

Error Responses:

Status Code	Description	Example
404	Issuer not found	{ "success": false, "data": null, "statusCode": 404, "message": "Issuer with Ref 1C31012C-97AD-4D98-8A17-B4450AE82BEA not found" }
409	Issuer already pending deletion	{ "success": false, "data": null, "statusCode": 409, "message": "Delete request already pending approval for this issuer" }
400	Invalid UUID format	{"success": false, "data": null, "statusCode": 400, "message": "Invalid issuer Ref format"}

Fetch Issuer Requests

Endpoint:

GET /api/v1/requests?resourceType=ISSUER&status={status}

Description:

Retrieves a paginated list of issuer requests from the Activity Logs Table.

Each BIN is returned as a separate request record, not grouped by issuer.

This endpoint is shared with other resource types (ACQUIRER, ICA) and filtered by resourceType=ISSUER.

Access:

Implementation Manager, Implementation Engineer

Query Parameters:

Parameter	Type	Required	Description
resourceType	enum	✅	Must be set to "ISSUER"
status	enum	✅	PENDING_APPROVAL, APPROVED, or DECLINED
resourceName	string		Filter by issuer name (partial match)
startDate	string (YYYY-MM-DD)		Filter requests submitted after this date
endDate	string (YYYY-MM-DD)		Filter requests submitted before this date
pageNumber	integer		Page number to retrieve (default: 1)
pageSize	integer		Number of items per page (default: 100)

Success Response:

```
{
 "success": true,
 "data": {
  "content": [
   {
    "requestId": 125,
    "issuerName": "First Bank of Nigeria",
    "bin": "506100",
```

```json
      "submittedBy": "john.doe@example.com",

      "submittedAt": "2025-11-12T10:30:00",

      "requestType": "CREATE"

    },

    {

      "requestId": 126,

      "issuerName": "First Bank of Nigeria",

      "bin": "506101",

      "submittedBy": "john.doe@example.com",

      "submittedAt": "2025-11-12T10:30:00",

      "requestType": "CREATE"

    },

    {

      "requestId": 127,

      "issuerName": "Access Bank",

      "bin": "427000",

      "submittedBy": "jane.smith@example.com",

      "submittedAt": "2025-11-13T14:20:00",

      "requestType": "UPDATE"

    }

  ],

  "pageNumber": 1,

  "pageSize": 100,

  "totalCount": 3,

  "totalPages": 1

},
```

"statusCode": 200

}

Note: Unlike the Fetch Issuers endpoint which groups BINs by issuer, this endpoint returns each BIN as a separate request for granular approval workflow.

Approve Issuer Request

Endpoint:

POST /api/v1/requests/approve

Description:

Approves a pending issuer request.

This endpoint is shared across all resource types (ACQUIRER, ICA, ISSUER).

Access:

Implementation Manager

Request Body:

{

  "requestId": 125,

  "comment": "Verified with compliance team. Approved for production."

}

Success Response:

{

  "success": true,

  "data": {

    "message": "Request approved successfully"

  },

```
  "statusCode": 200
}
```

Reject Issuer Request

Endpoint:

POST /api/v1/requests/reject

Description:

Rejects a pending issuer request.

This endpoint is shared across all resource types (ACQUIRER, ICA, ISSUER).

Access:

Implementation Manager

Request Body:

```
{
  "requestId": 126,
  "comment": "BIN format invalid. Please verify and resubmit."
}
```

Success Response:

```
{
  "success": true,
  "data": {
    "message": "Request rejected successfully"
  },
  "statusCode": 200
}
```