

Disbursement API

Author: Josh Lead Backend Team

Last Updated: 2026-03-06

Version: v1.0

Base URL: `https://api.nextgate.co.tz/api/v1`

Short Description: The Disbursement API handles wallet withdrawals for NextGate users. Users can withdraw their wallet balance to a verified mobile money account or bank account. Each withdrawal requires OTP confirmation and deducts a platform fee plus Selcom transfer fee on top of the requested amount.

Hints:

- The withdrawal channel must be added and fully active (cooling period passed) before use — see Disbursement Channel API
- Total wallet debit = `requestedAmount + platformFee + selcomFee`
- The recipient receives exactly `requestedAmount` — fees are charged on top
- If Selcom returns `INPROGRESS`, the polling job resolves the final status automatically every 3 minutes — no frontend action needed
- Always provide a unique `idempotencyKey` per withdrawal request
- Poll `/status/{id}` after confirming to track final delivery

Security & Client Guidelines

Authentication

All endpoints in this API are protected. The client must include a valid JWT Bearer token in every request header:

```
Authorization: Bearer <your_token>
```

The token is obtained from the NextGate authentication API after login. When a request returns `401 UNAUTHORIZED`, the client must silently refresh the token and retry the original request once. If the refresh also fails, redirect the user to the login screen.

Never store the JWT token in a place accessible to third-party scripts. On mobile, use secure device storage. On web, prefer memory or HttpOnly cookies over localStorage.

Idempotency Key

The `idempotencyKey` field protects against duplicate withdrawals caused by network retries. This is critical for financial operations — without it, a network timeout could cause the user's wallet to be debited twice if the app retries blindly.

How to generate and use it correctly:

Generate the key exactly once at the moment the user initiates the withdrawal action — for example, when they tap the "Withdraw" button. Store this key in memory for the duration of that withdrawal flow. If the `/initiate` request fails due to a network error and your app retries, send the exact same key. The server will detect the duplicate and return the existing request rather than creating a new one.

Never generate a new key on each retry attempt. Never reuse a key from a previous completed or failed withdrawal. A new key must be generated fresh for each new withdrawal the user starts.

The key only protects `/initiate`. The `/confirm` step is protected by the `otpToken` and the pessimistic database lock on the disbursement record — a duplicate confirm call on the same request will be rejected because the status will no longer be `PENDING_OTP`.

OTP Token Handling

After calling `/initiate`, you receive an `otpToken`. This token must be held in memory and passed to `/confirm` along with the OTP code the user receives via SMS. Do not ask the user to copy or type the token — it is handled entirely by the app.

The OTP code expires after a short window (typically 5 minutes). If the user does not confirm in time, the confirm step will return an error and the withdrawal request will remain in `PENDING_OTP` status — no money has moved at this point. The user can restart the flow with a new idempotency key.

If the user enters the wrong OTP code too many times, the OTP is locked. The disbursement will be marked `FAILED` and the flow is terminated. No money has moved because the wallet is only debited after OTP verification. The user must start a new withdrawal request with a fresh idempotency key.

What Confirmation Actually Means

A `200 OK` response from `/confirm` means the OTP was verified, the wallet was debited, and the Selcom API was called. It does **not** mean the money has arrived at the recipient. Selcom processes

transfers asynchronously and may take seconds to minutes to confirm delivery.

Always redirect the user to a status screen after confirm and poll `/status/{id}` to show the final outcome. Do not show a "withdrawal successful" message based solely on the confirm response.

Status Polling After Confirm

After a successful `/confirm`, begin polling `/status/{id}` to track delivery.

Recommended polling behavior:

Poll every 5 seconds for the first minute. If still not in a terminal status, slow down to every 15 seconds for the next 5 minutes. After 6 minutes total with no terminal status, show the user a message explaining that the transfer is being processed and may take a little longer — this is the `AWAITING_CONFIRMATION` state where the server polling job is working in the background every 3 minutes.

Stop polling when status reaches any of these terminal states: `COMPLETED`, `REFUNDED`, `FAILED`, `MANUAL_REVIEW`.

Handling Each Terminal Status

Status	What to show the user
<code>COMPLETED</code>	Success — show amount sent, recipient name, transaction reference
<code>REFUNDED</code>	Transfer failed — show failure reason, confirm wallet has been refunded, suggest they try again
<code>FAILED</code>	OTP was locked — no money moved, suggest they start a new withdrawal
<code>MANUAL_REVIEW</code>	Show a message that the transfer is under review and they will be notified. Do not show this as a failure or a success. Provide the <code>supportRef</code> for the user to reference if they contact support

Fee Transparency

Before the user confirms the withdrawal, always display the full fee breakdown clearly so they know exactly how much will leave their wallet. Never show only the `requestedAmount` without also showing the fees.

A clear display should show: amount to recipient, platform fee, transfer fee, and total to be deducted from wallet. This prevents confusion when the user checks their wallet balance after the withdrawal and sees more deducted than they expected.

Network Error Handling

HTTP Status	What it means	Client action
400	Invalid request or business rule violation	Show <code>message</code> to user, do not retry automatically
401	Token expired or invalid	Refresh token silently, retry once
403	Forbidden — permission issue	Show error, do not retry
422	Validation error	Show field errors to user, fix and resubmit
500	Server error	Show generic error, allow user to retry manually
Network timeout on <code>/initiate</code>	No response received	Retry with the same idempotency key — server handles duplicates safely
Network timeout on <code>/confirm</code>	No response received	Do not retry automatically — check <code>/status/{id}</code> first to see if the confirm was already processed before retrying
Network timeout on <code>/status</code>	No response received	Safe to retry on next poll interval

Standard Response Format

Success Response

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Operation completed successfully",
  "action_time": "2026-03-06T10:30:45",
  "data": {}
}
```

Error Response

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Error description",
  "action_time": "2026-03-06T10:30:45",
  "data": "Error description"
}
```

Money Flow Diagram

User requests withdrawal of 10,000 TZS



Status	Description
PROCESSING	OTP confirmed, wallet debited, Selcom call in progress
COMPLETED	Selcom confirmed successful transfer
AWAITING_CONFIRMATION	Selcom returned INPROGRESS — polling job resolving every 3 min
REFUNDED	Selcom failed — wallet refunded full <code>totalDebited</code> automatically
FAILED	Failed due to OTP lock — no wallet debit occurred
MANUAL_REVIEW	Polling exhausted max retries — admin review required

Endpoints

1. Initiate Withdrawal

Purpose: Initiates a wallet withdrawal request. Validates channel, calculates fees, checks wallet balance, and sends OTP to user's verified phone number. No money moves at this step.

Endpoint: `POST` `/disbursement/initiate`

Access Level: `Protected` — Requires Bearer Token

Authentication: `Authorization: Bearer <token>`

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer JWT token
Content-Type	string	Yes	<code>application/json</code>

Request JSON Sample:

```
{
  "channelId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
  "amount": 10000,
  "idempotencyKey": "usr-123-withdraw-1741234567"
}
```

Request Body Parameters:

Parameter	Type	Required	Description	Validation
<code>channelId</code>	UUID	Yes	ID of the verified withdrawal channel	Must belong to authenticated user and be active (cooling period passed)
<code>amount</code>	number	Yes	Amount to send to recipient in TZS	Min: 1000 TZS
<code>idempotencyKey</code>	string	Yes	Unique key to prevent duplicate withdrawals	Max 200 chars, unique per request

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "OTP sent to your verified phone number",
  "action_time": "2026-03-06T10:30:45",
  "data": {
    "otpToken": "dfe7e16f-cd8f-4c00-b0d0-8cff09201936"
  }
}
```

Success Response Fields:

Field	Description
<code>data.otpToken</code>	OTP token string — pass this along with OTP code to <code>/confirm</code>

Error Responses:

Insufficient balance (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Insufficient balance. You need 12000 TZS (10000 + 500 platform fee + 1500 transfer fee).",
  "action_time": "2026-03-06T10:30:45",
  "data": "Insufficient balance. You need 12000 TZS (10000 + 500 platform fee + 1500 transfer
```

```
fee)."  
}
```

Channel still in cooling period (400):

```
{  
  "success": false,  
  "httpStatus": "BAD_REQUEST",  
  "message": "This withdrawal channel is not yet active.",  
  "action_time": "2026-03-06T10:30:45",  
  "data": "This withdrawal channel is not yet active."  
}
```

Phone not verified (400):

```
{  
  "success": false,  
  "httpStatus": "BAD_REQUEST",  
  "message": "Your phone number must be verified before withdrawing.",  
  "action_time": "2026-03-06T10:30:45",  
  "data": "Your phone number must be verified before withdrawing."  
}
```

Duplicate request (400):

```
{  
  "success": false,  
  "httpStatus": "BAD_REQUEST",  
  "message": "Duplicate request – this withdrawal is already being processed.",  
  "action_time": "2026-03-06T10:30:45",  
  "data": "Duplicate request – this withdrawal is already being processed."  
}
```

Amount below minimum (400):

```
{  
  "success": false,  
  "httpStatus": "BAD_REQUEST",  
  "message": "Minimum withdrawal amount is 1000 TZS.",  
  "action_time": "2026-03-06T10:30:45",  
  "data": "Minimum withdrawal amount is 1000 TZS."  
}
```

```
}
```

2. Confirm Withdrawal

Purpose: Confirms the withdrawal by verifying the OTP. Debits the wallet and calls Selcom to initiate the transfer. This is when money actually leaves the wallet.

Endpoint: `POST` `/disbursement/confirm`

Access Level: `Protected` — Requires Bearer Token

Authentication: `Authorization: Bearer <token>`

Query Parameters:

Parameter	Type	Required	Description
<code>otpToken</code>	string	Yes	Token returned from <code>/initiate</code>
<code>otpCode</code>	string	Yes	6-digit OTP received via SMS

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Withdrawal processed successfully",
  "action_time": "2026-03-06T10:30:45",
  "data": null
}
```

“ **Important:** A `200 OK` here means the Selcom call was made. It does **not** guarantee the money has arrived at the recipient yet. Poll `/status/{id}` to confirm final delivery status.

Error Responses:

Invalid OTP (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Invalid OTP code.",
  "action_time": "2026-03-06T10:30:45",
  "data": "Invalid OTP code."
}
```

OTP locked — max attempts exceeded (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "OTP locked – max attempts exceeded.",
  "action_time": "2026-03-06T10:30:45",
  "data": "OTP locked – max attempts exceeded."
}
```

Already processing (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "This withdrawal is already being processed.",
  "action_time": "2026-03-06T10:30:45",
  "data": "This withdrawal is already being processed."
}
```

3. Get Disbursement Status

Purpose: Returns the current status and full details of a withdrawal request. Poll this after confirm to track final delivery.

Endpoint: GET /disbursement/status/{disbursementRequestId}

Access Level: Protected — Requires Bearer Token

Authentication: Authorization: Bearer <token>

Path Parameters:

Parameter	Type	Required	Description
disbursementRequestId	UUID	Yes	ID of the disbursement request

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Disbursement status retrieved",
  "action_time": "2026-03-06T10:30:45",
  "data": {
    "disbursementRequestId": "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
    "requestedAmount": 10000,
    "platformFee": 500,
    "selcomFee": 1500,
    "totalDebited": 12000,
    "disbursedAmount": 10000,
    "currency": "TZS",
    "destination": "255712****78",
    "accountHolderName": "JOHN DOE",
    "status": "COMPLETED",
    "failureReason": null,
    "transactionRef": "NXT-TXN-20260306-ABCD1234",
    "supportRef": null,
    "createdAt": "2026-03-06T10:30:00",
    "completedAt": "2026-03-06T10:31:45"
  }
}
```

Success Response Fields:

Field	Description
disbursementRequestId	UUID of this withdrawal request
requestedAmount	Amount sent to recipient in TZS
platformFee	NextGate fee charged on top
selcomFee	Selcom transfer fee charged on top
totalDebited	Total amount debited from wallet
disbursedAmount	Amount Selcom sent to recipient — equals requestedAmount

Field	Description
currency	Always TZS
destination	Masked destination e.g. 255712****78
accountHolderName	Verified recipient name
status	Current status — see status table above
failureReason	Populated if FAILED or REFUNDED
transactionRef	Wallet transaction reference
supportRef	Support reference for escalations — populated on MANUAL_REVIEW
createdAt	When withdrawal was initiated
completedAt	When transfer was confirmed — null if not yet completed

Error Responses:

Not found or not owned by user (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Disbursement request not found",
  "action_time": "2026-03-06T10:30:45",
  "data": "Disbursement request not found"
}
```

Quick Reference

Method	Endpoint	Description
POST	/disbursement/initiate	Start withdrawal, sends OTP
POST	/disbursement/confirm	Confirm with OTP, debits wallet, calls Selcom
GET	/disbursement/status/{id}	Check withdrawal status

Revision #3

Created 6 March 2026 11:20:14 by Admin Qbit

Updated 10 March 2026 15:15:13 by Admin Qbit