Referral — API

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Last Updated: 2026-11-21
Version: v1.0

Base URL: `http://localhost:8765/api/v1` (local) · `https://dev.api.nexgate.co/api/v1` (staging)

Short Description: Refer a friend, both get a coupon. The friend gets a **welcome coupon** when they use the inviter's code right after signing up; the inviter gets a **thank-you coupon 7 days after the friend's first order completes**. Rewards are NexGate coupons (coupon API); referral decides who earns one and when. Design and the 17 rules: `REFERRAL_SPEC.md`; build decisions: `REFERRAL_BUILD_PLAN.md` §0a.

Hints:

- Every call uses the person's normal login: `Authorization: Bearer <access token>`.
- **Two switches**: the feature switch (off → every endpoint here answers **404**) and the programme's own on/off in the admin settings (off → the use-code step is refused with `REFERRAL_PAUSED` and no rewards are given).
- **Sign-up is unchanged.** The code is given in a new step called right after sign-up (endpoint 3).
- A person is identified by `accountId`; toward other people only **first names** are shown, never phones or usernames.
- Refusals are **HTTP 409** with `data.code` and `data.reason` (show the reason as it is).

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Part 1 — How it works

1.1 The journey

```
 ASHA (has a completed order)                SERVER                                  JUMA
(new)
 ──────────────────────────────              ──────                                  
──────────

 Invite friends ─► GET /referrals/me ──────► code K7P2QX4M, link nexgate.co/r/K7P2QX4M
 shares the link (WhatsApp, SMS …)
                                                                                     taps
link → installs → signs up (unchanged)
                                             ◄──────────────────────────────────────── GET
/referrals/codes/K7P2QX4M  ("Invited by Asha")
                                             ◄──────────────────────────────────────── POST
/referrals/use-code { code }
                                             checks: new member, before first order, within 7
days,
                                             not Asha's own code, not Asha's phone, Asha can
invite
                                             welcome coupon (14 days) ──────────────►
COUPON_RECEIVED "□□Welcome! Asha invited you…"
 REFERRAL_FRIEND_JOINED ◄──────────────────── referral SIGNED_UP
                                                                                     first
order (≥ minimum, within 30 days,
                                                                                     not at
Asha's shop) … completed
 REFERRAL_FRIEND_BOUGHT ◄──────────────────── ORDER_COMPLETED, reward due in 7 days
        … 7 days …                           reward job: refunded? warning signs? monthly
cap? pot?
 REFERRAL_REWARD_EARNED ◄──────────────────── REWARDED: thank-you coupon (30 days) in Asha's
My coupons
   or REFERRAL_REWARD_HELD  (a warning sign: an admin decides)
   or REFERRAL_REWARD_MISSED (with the reason)
```

1.2 States

```
 SIGNED_UP ─► ORDER_COMPLETED ─┬─► REWARDED
     │                         ├─► IN_REVIEW ─┬─► REWARDED       (admin approves)
     │                         │              └─► NOT_REWARDED   (admin refuses)
```

```
      |                          └─► NOT_REWARDED  (refunded, cap, paused, removed)
      └─► NOT_REWARDED  (first order under the minimum, after 30 days, at the inviter's own
shop / where they are staff)
```

A cancelled order never completes, so the friend's **next** completed order is their first.

1.3 Examples

Juma's first completed order	Asha gets
25,000 of items at Tech Shop, 5 days after joining	the thank-you coupon 7 days later
15,000 (the minimum is 20,000)	nothing: "His first order was under 20,000"
at Asha's own shop (or a shop where she is staff)	nothing: "His first order was at your own shop"
refunded within the 7 days	nothing: "His first order was refunded or cancelled"
Asha already earned 10 rewards this month	nothing: "Monthly limit of 10 rewards reached"
Juma signed in on Asha's phone	the code is refused at the code step

---

Standard Response Format

```
{ "success": true, "httpStatus": "OK", "message": "Invite code used", "action_time": "2026-11-
21T10:30:45", "data": { } }
```

```
{ "success": false, "httpStatus": "CONFLICT", "message": "You can't use your own invite code",
"action_time": "2026-11-21T10:30:45",
  "data": { "code": "REFERRAL_OWN_CODE", "reason": "You can't use your own invite code" } }
```

Part 2 — App

1. Invite friends (my code and numbers)

Purpose: The person's own code and link (made the first time), whether they can invite yet, and their numbers.

Endpoint: `GET` `{base_url}/referrals/me`

Access Level: 🔒 Protected

Success Response JSON Sample:


```
{
  "success": true, "httpStatus": "OK", "message": "Invite friends", "action_time": "2026-11-21T10:30:45",
  "data": {
    "code": "K7P2QX4M", "link": "https://nexgate.co/r/K7P2QX4M", "canInvite": true, "programmeOn": true, "rewardDiscount": "5,000 off",
    "numbers": { "signedUp": 8, "bought": 5, "rewarded": 4, "waiting": 3, "notRewarded": 1 }
  }
}
```


Field	Description
`code`, `link`	Always shown (Copy / Share). The code is random and never changes
`canInvite` / `whyNot`	false: show `whyNot` ("Complete your first order to start inviting", "Inviting friends is paused right now", "Your invite code has been switched off; contact support")
`rewardDiscount`	What one thank-you coupon is worth: "rewards earned 4 × 5,000 off"
`numbers`	`signedUp` friends who used the code; `bought` their first order completed (or later); `rewarded`; `waiting` for a first order; `notRewarded`

---

2. My invited friends

Endpoint: `GET` `{base_url}/referrals/me/friends?page=0&size=20`

Access Level: 🔒 Protected


```
{
  "friends": [
    { "firstName": "Juma", "state": "ORDER_COMPLETED", "joinedAt": "2026-11-21T10:00:00", "rewardOn": "2026-12-05T14:00:00" },
    { "firstName": "Neema", "state": "NOT_REWARDED", "joinedAt": "2026-11-10T09:00:00", "reason": "His first order was at your own shop" },
    { "firstName": "Baraka", "state": "IN_REVIEW", "joinedAt": "2026-11-12T09:00:00", "reason": "Being checked" }
```

```
  ],
  "page": 0, "size": 20, "hasNext": false
}
```

State	Show
`SIGNED_UP`	"Waiting for their first order"
`ORDER_COMPLETED`	"Bought! Your reward comes on {rewardOn}"
`IN_REVIEW`	"Being checked"
`REWARDED`	"Reward earned" (the coupon is in My coupons)
`NOT_REWARDED`	the `reason`

---

3. The code step after sign-up

Purpose: Link the new person to the inviter and give the welcome coupon. Called automatically when the person came through a link; otherwise an optional "Have an invite code?" step (type or skip).

Endpoint: **POST** `{base_url}/referrals/use-code`

Access Level: □□ Protected (the new person, signed in)

Request JSON Sample:

```
{ "code": "K7P2QX4M" }
```

Parameter	Type	Required	Validation
code	string	Yes	the code or the whole link (`https://nexgate.co/r/K7P2QX4M`); any case

Success Response JSON Sample:

```
{ "success": true, "httpStatus": "OK", "message": "Invite code used", "action_time": "2026-11-21T10:30:45",
  "data": { "inviterFirstName": "Asha", "welcomeCouponId": "7c1e…" } }
```

`welcomeCouponId` null: the referral counts but there is no welcome coupon right now (the welcome pot is empty). Calling again with the same code is safe. Show "Invited by Asha □ " and the welcome coupon.

Show this step only **within 7 days of signing up and before the first order**; after that it disappears.

Errors (409): `REFERRAL_PAUSED`, `REFERRAL_CODE_NOT_FOUND` (counts as a wrong try), `REFERRAL_TRIES_PAUSED` (5 wrong in 60 minutes), `REFERRAL_OWN_CODE`, `REFERRAL_TOO_LATE` (more than 7 days, or already ordered), `REFERRAL_INVITER_NOT_READY` (the inviter has no completed order yet), `REFERRAL_SAME_DEVICE` (the inviter's own phone), `REFERRAL_ALREADY_USED` (a different code was used before).

---

4. Check a code

Purpose: "Invited by Asha" before using it (the sign-up step).

Endpoint: `GET` `{base_url}/referrals/codes/{code}`

Access Level: ◫ Protected

```
{ "code": "K7P2QX4M", "valid": true, "inviterFirstName": "Asha" }
```

`valid: false` for a code that doesn't exist or was switched off (counts as a wrong try). `REFERRAL_TRIES_PAUSED` after 5 wrong tries.

Part 3 — Admin

Base: `{base_url}/admin/referrals`. **Who**: staff + super admin, except settings (super admin). Every decision is in the admin audit log with its reason.

5–6. Settings (super admin)

`GET` `/admin/referrals/settings` · `PUT` `/admin/referrals/settings` (only the fields sent change; `reason` required)

```
{
  "programmeOn": true, "minFirstOrder": 20000, "firstOrderDays": 30, "rewardDelayDays": 7,
"useCodeDays": 7, "monthlyCap": 10,
  "welcomeValidDays": 14, "thankYouValidDays": 30, "welcomeCouponId": "…", "thankYouCouponId":
"…",
  "wrongCodeLimit": 5, "wrongCodePauseMinutes": 60, "updatedAt": "…"
```

```
}
```

Setting	Start with	Meaning
`programmeOn`	false	the whole programme
`minFirstOrder`	20,000	items of the friend's first order (before coupons)
`firstOrderDays`	30	the first order must be placed within this many days of joining
`rewardDelayDays`	7	days after completion before the reward
`useCodeDays`	7	the code step is open this long after sign-up
`monthlyCap`	10	rewards per inviter per calendar month
`welcomeValidDays` / `thankYouValidDays`	14 / 30	how long each person has to use their coupon
`welcomeCouponId` / `thankYouCouponId`	—	two **NexGate** coupons made in coupon admin (their pots pay; top them up there). Suggested: welcome 5,000 off over 20,000, audience new to NexGate, hidden; thank-you 5,000 off over 20,000, hidden

Errors: `REFERRAL_COUPON_INVALID` (not a NexGate coupon).

7. Report

`GET` `/admin/referrals/report?from=2026-11-01` (default: this month)

```
{ "from": "2026-11-01T00:00:00", "codesUsed": 120, "welcomesGiven": 118, "firstOrders": 54,
"newCustomers": 54, "rewarded": 40,
  "inReview": 3, "notRewarded": 11,
  "cost": { "welcomeCoupons": 230000, "thankYouCoupons": 160000, "total": 390000,
"perNewCustomer": 7222 } }
```

Counts are for friends who joined since `from`; `cost` is what the two coupons have taken off orders so far (net of refunds).

8. Waiting for review · 9. Approve · 10. Refuse

`GET` `/admin/referrals/review` → oldest first:

```
[ { "referralId": "…", "inviter": { "accountId": "…", "name": "Asha Mushi" }, "friend": {
"accountId": "…", "name": "Juma Ally" },
    "code": "K7P2QX4M", "state": "IN_REVIEW", "reason": "Being checked",
    "warningSigns": ["Tops up from the inviter's own mobile money number"], "welcomeGiven":
true,
    "firstOrderId": "…", "firstOrderNumber": "ORD-2026-0042", "firstOrderItems": 21000,
"firstOrderShopId": "…",
    "friendSignedUpAt": "…", "orderCompletedAt": "…", "rewardDueAt": "…" } ]
```

`POST` `/admin/referrals/{referralId}/approve` · `/refuse` with `{ "reason": "…" }` (required). Approving still checks the programme, the monthly cap and the pot. Refusing tells the inviter "Not approved after a check". Deciding twice is safe.

Warning signs: same phone as 2+ other friends of the inviter · tops up from the inviter's own mobile-money number · same top-up number as 2+ other friends · first order at the same shop as 2+ other friends · only order, under 110 % of the minimum.

11. A person

`GET` `/admin/referrals/people/{accountId}` → `{ person, code, codeActive, removedReason, invitedBy, invited: [...] }`

12–13. Remove · restore

`POST` `/admin/referrals/people/{accountId}/remove` · `/restore` with `{ "reason": "Fake celebrity giveaway" }`. Removing switches the person's code off (it stops working at once; history stays; their pending rewards are not given) and sends `REFERRAL_CODE_REMOVED`.

Part 4 — Notifications (all to the inviter, except the last)

Type	When	Text	Opens
`REFERRAL_FRIEND_JOINED`	a friend used the code	□□ Juma joined with your code · You get 5,000 off when they complete their first order	Invite friends
`REFERRAL_FRIEND_BOUGHT`	the friend's first order completed	Juma bought! · Your reward comes on 5 Dec	Invite friends
`REFERRAL_REWARD_EARNED`	reward given (instead of `COUPON_RECEIVED`)	□□ You earned 5,000 off for inviting Juma · Use by 4 Jan	My coupons
`REFERRAL_REWARD_HELD`	a warning sign (in-app only)	Your reward for inviting Juma is being checked · We'll let you know	Invite friends
`REFERRAL_REWARD_MISSED`	no reward (in-app only)	No reward for inviting Juma · {the reason}	Invite friends
`REFERRAL_CODE_REMOVED`	removed by an admin	Your invite code has been switched off · {reason}. Contact support if this is a mistake.	Invite friends
`REFERRAL_REVIEW_WAITING`	08:00 daily while rewards wait (admins)	4 referral rewards are waiting for review · Oldest waiting 2 days	admin review

The friend's welcome is `COUPON_RECEIVED` with the headline "□□ Welcome! Asha invited you: 5,000 off your first order". The friend never hears about the inviter's reward. Targets: `INVITE_FRIENDS`, `MY_COUPONS`, `ADMIN_REFERRAL_REVIEW`.

Part 5 — Refusal codes (409)

Code	When
`REFERRAL_PAUSED`	the programme is off
`REFERRAL_CODE_NOT_FOUND`	no such code, or it was switched off
`REFERRAL_TRIES_PAUSED`	5 wrong codes: paused
`REFERRAL_OWN_CODE`	your own code
`REFERRAL_TOO_LATE`	more than 7 days after sign-up, or after the first order
`REFERRAL_INVITER_NOT_READY`	the inviter has no completed order yet
`REFERRAL_SAME_DEVICE`	used on the inviter's own phone
`REFERRAL_ALREADY_USED`	a different code was used before (one inviter, never changed)
`REFERRAL_COUPON_INVALID`	admin: the reward must be a NexGate coupon

Part 6 — Web page and installs (not backend)

- `nexgate.co/r/<code>` (web): store links and "Your invite code: K7P2QX4M · Copy". The page shows the code from the link itself; it doesn't call the API (no public code look-up, so codes can't be used to find names).
- Android: pass the code through the Play Install Referrer and call endpoint 3 after sign-up. iPhone: the person copies the code into the "Have an invite code?" step.

Part 7 — Screens checklist

Screen	Calls
Me → Invite friends	1 (code, link, Copy, Share, numbers or why not yet) · friends list 2
After sign-up	link code → 4 then 3 automatically; else "Have an invite code?" (type → 4 → 3, or skip); hide after 7 days or the first order
My coupons	the welcome / thank-you coupons (coupon API)
Admin → Referrals	settings 5–6, report 7, review 8–10, person 11, remove / restore 12–13

Revision #1
Created 28 November 2026 08:47:25 by Admin Qbit
Updated 28 November 2026 08:47:48 by Admin Qbit