

Quick Reference: Click Tracking & S2S Postback

Key Concepts

1. Click ID

- **What:** Unique UUID v4 identifier for each user click
- **Where:** Generated by backend when user clicks "Start Task"
- **Format:** 550e8400-e29b-41d4-a716-446655440000
- **Purpose:** Links user click to conversion later

2. Tracking Link (redirectUrl)

- **What:** The URL user visits to complete the task
- **Contains:** Original taskUrl + click_id + postback_url parameters
- **Example:**

```
https://advertiser.com/offer?click_id=abc-123&postback_url=https://yourapp.com/api/v1/earn/postback?click_id=abc-123
```

3. Postback URL (S2S)

- **What:** Endpoint that advertiser calls when user completes task
- **Format:** https://yourapp.com/api/v1/earn/postback?click_id={clickId}
- **Called by:** Advertiser's server (not your app)
- **Purpose:** Notify your backend that conversion happened

Flow Summary

```
User Clicks Button
↓
Flutter: POST /api/v1/earn/products/:id/click
↓
Backend: Generates clickId, creates ClickLog
↓
Backend: Returns redirectUrl with clickId
↓
Flutter: Opens redirectUrl in WebView
↓
User Completes Task on Advertiser Site
↓
Advertiser: POST to postback_url with conversion data
↓
Backend: Creates Earning, Credits Wallet
↓
Done!
```

Flutter Integration (3 Steps)

Step 1: Call Generate Click API

```
POST /api/v1/earn/products/{productId}/click
Headers: Authorization: Bearer {token}
Body: { "taskUrl": "https://advertiser.com/offer" }

Response:
{
  "clickId": "abc-123...",
  "redirectUrl": "https://advertiser.com/offer?click_id=abc-123&postback_url=...",
  "expiresAt": "2024-01-02T12:00:00Z"
}
```

Step 2: Open redirectUrl in WebView

```
Navigator.push(
  context,
  MaterialPageRoute(
    builder: (context) => WebViewScreen(url: redirectUrl),
  ),
);
```

Step 3: Done!

The advertiser will automatically call the postback URL when conversion happens. Your backend handles everything else.

API Endpoints

| Endpoint | Method | Auth | Purpose |
|------------------------------------|--------|----------|----------------------------------|
| /api/v1/earn/products/:id/click | POST | Required | Generate click, get tracking URL |
| /api/v1/earn/track/:clickId | GET | Optional | Analytics tracking (optional) |
| /api/v1/earn/postback?click_id=... | POST | Public | Called by advertiser (S2S) |

Flutter Code Template

```
// 1. Generate click
final api = EarningsApi(token: userToken);
final response = await api.generateClick(
  productId: product.id,
  taskUrl: product.taskUrl,
);

// 2. Open in WebView
Navigator.push(
  context,
  MaterialPageRoute(
    builder: (context) => TaskWebViewScreen(
      redirectUrl: response.redirectUrl,
      clickId: response.clickId,
    ),
  ),
);

// 3. That's it! Postback happens automatically
```

Where Things Are Stored

| Data | Location | Purpose |
|---------------------|---|----------------------|
| Click ID | Response from generateClick | Track this click |
| Tracking URL | Response from generateClick | Open this in WebView |
| Click Log | MongoDB ClickLog collection | Backend tracking |
| Earning | MongoDB Earning collection | User credit record |
| Postback URL | Automatically included in redirectUrl Advertiser calls this | |

⚠ Important Notes

1. **Always use redirectUrl** - Never send user directly to taskUrl
2. **Click expires in 24 hours** - User must complete task within 24h
3. **Postback is automatic** - You don't need to do anything after opening WebView
4. **One click = One conversion** - System prevents duplicate credits
5. **Wallet credit happens automatically** - When postback received with status="completed"

Test Flow

1. Test Click Generation

```
curl -X POST http://localhost:3000/api/v1/earn/products/PRODUCT_ID/click \
-H "Authorization: Bearer TOKEN" \
-H "Content-Type: application/json" \
-d '{"taskUrl": "https://example.com"}'
```

2. Test Postback (Simulate Advertiser)

```
curl -X POST "http://localhost:3000/api/v1/earn/postback?click_id=CLICK_ID" \  
-H "Content-Type: application/json" \  
-d '{  
  "amount": 50.00,  
  "status": "completed",  
  "transactionId": "test_123"  
}
```

Complete Example

See FLUTTER_INTEGRATION_EXAMPLE.dart for full working code!

Related Files

- **Full Documentation:** CLICK_TRACKING_S2S_DOCUMENTATION.md
- **Flutter Code:** FLUTTER_INTEGRATION_EXAMPLE.dart
- **Backend Controller:** src/controllers/earnings.controller.ts
- **Models:** src/models/ClickLog.ts, src/models/Earning.ts