

In-App Subscriptions Integration Guide (Google Play + more)

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Overview

Provide an overview and end-to-end integration support for Google Play In-App Subscriptions.

Resources and Links

Google Play Developer Console : <https://play.google.com/apps/publish/>

Implementing Subscriptions on Android : https://developer.android.com/google/play/billing/billing_integrate.html#Subs

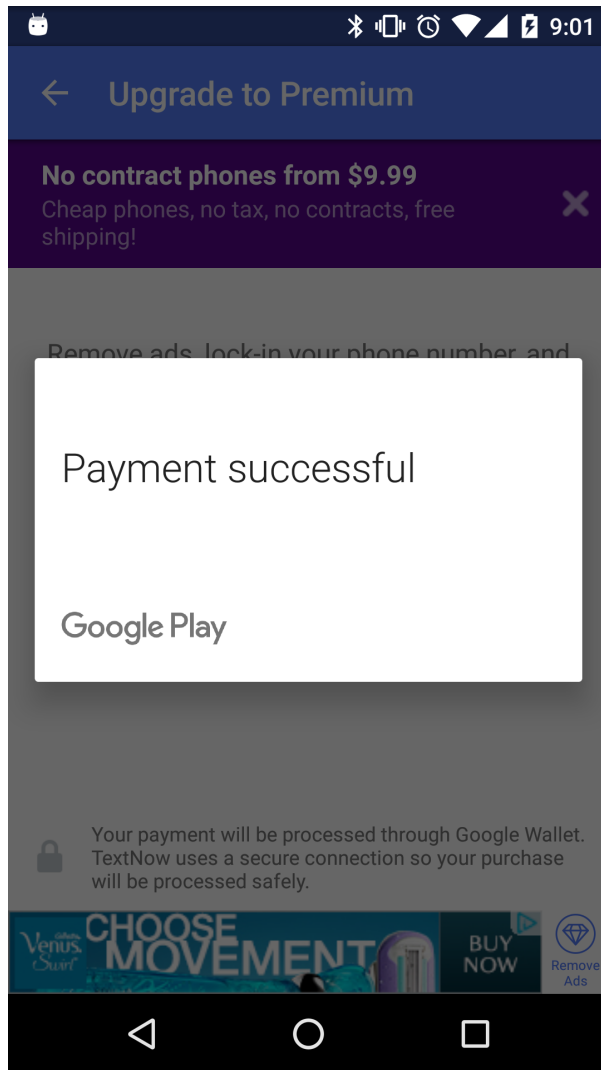
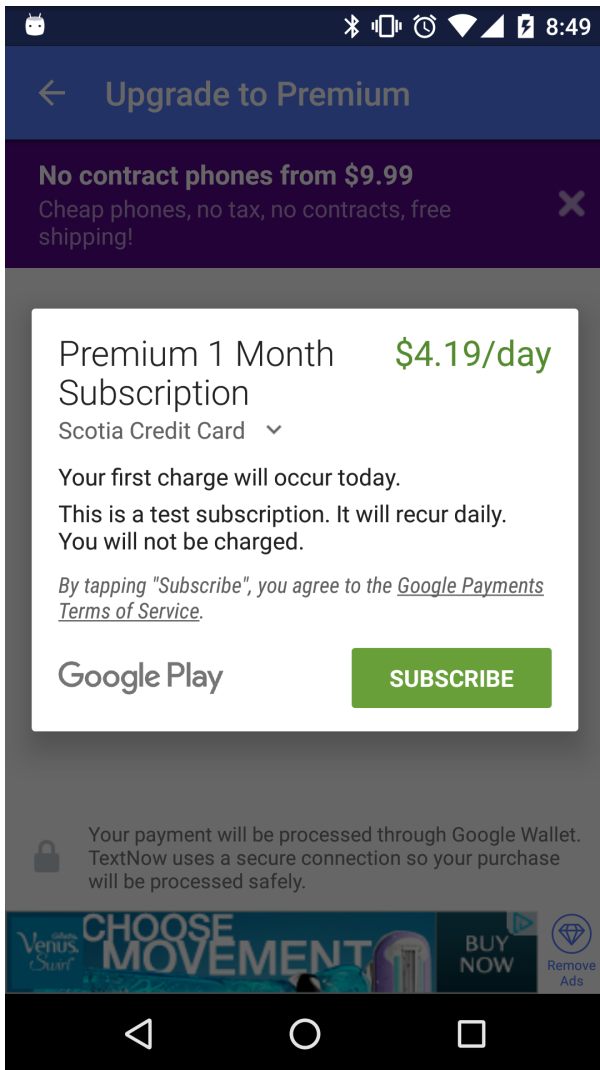
Testing Subscriptions

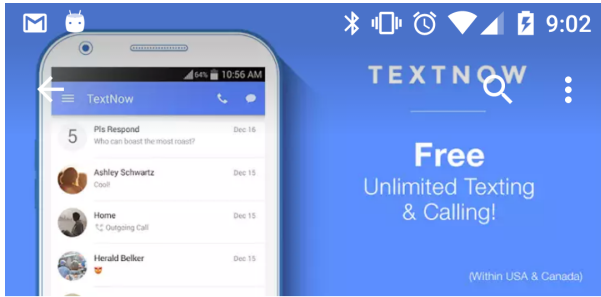
Link : https://developer.android.com/google/play/billing/billing_testing.html

Steps

1. Add a google account for Testing Access in Play Developer Console in Settings -> Account Details
2. Add the same account as a tester into the Alpha Testing group for TextNow.
3. Opt into the testing program with this account.
4. Ensure the build that you are testing subscriptions with has the same Version Code seen on the Alpha Testing page on Play Developer Console.
5. Add this google account to a test device. Install the TextNow build onto this device.
6. Make sure your in-app subscription product is active in Play Developer Console. **WARNING : Once activated, you cannot change the price or SKU name for an in-app subscription product.**
7. Launch a purchase of a subscription with a valid method of payment. You will not be charged. You will see this subscription active in the Google Play Store.

Screenshots





TextNow - free text + calls

Enflick, Inc. 

 Everyone

UNINSTALL

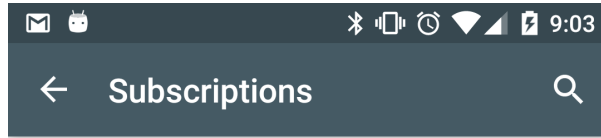
OPEN

In-app purchases

Premium 1 Month Subscription (TextNow - free text...
\$3.99 per month
Next payment: 6/23/16

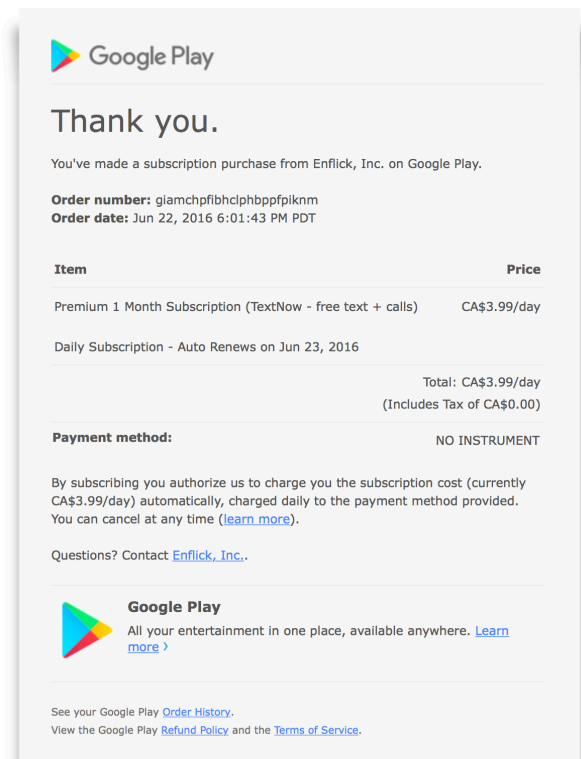
[CANCEL SUBSCRIPTION](#)

[MANAGE SUBSCRIPTIONS](#)



CANCEL

UPDATE



Observations

1. Test Subscriptions will have a **null Order ID** and will not show up in the JSON Receipt Object.
2. Test Subscriptions will **renew daily**, irrespective of the settings set for the subscription.
3. Canceling the subscription will allow you to immediately initiate another purchase.

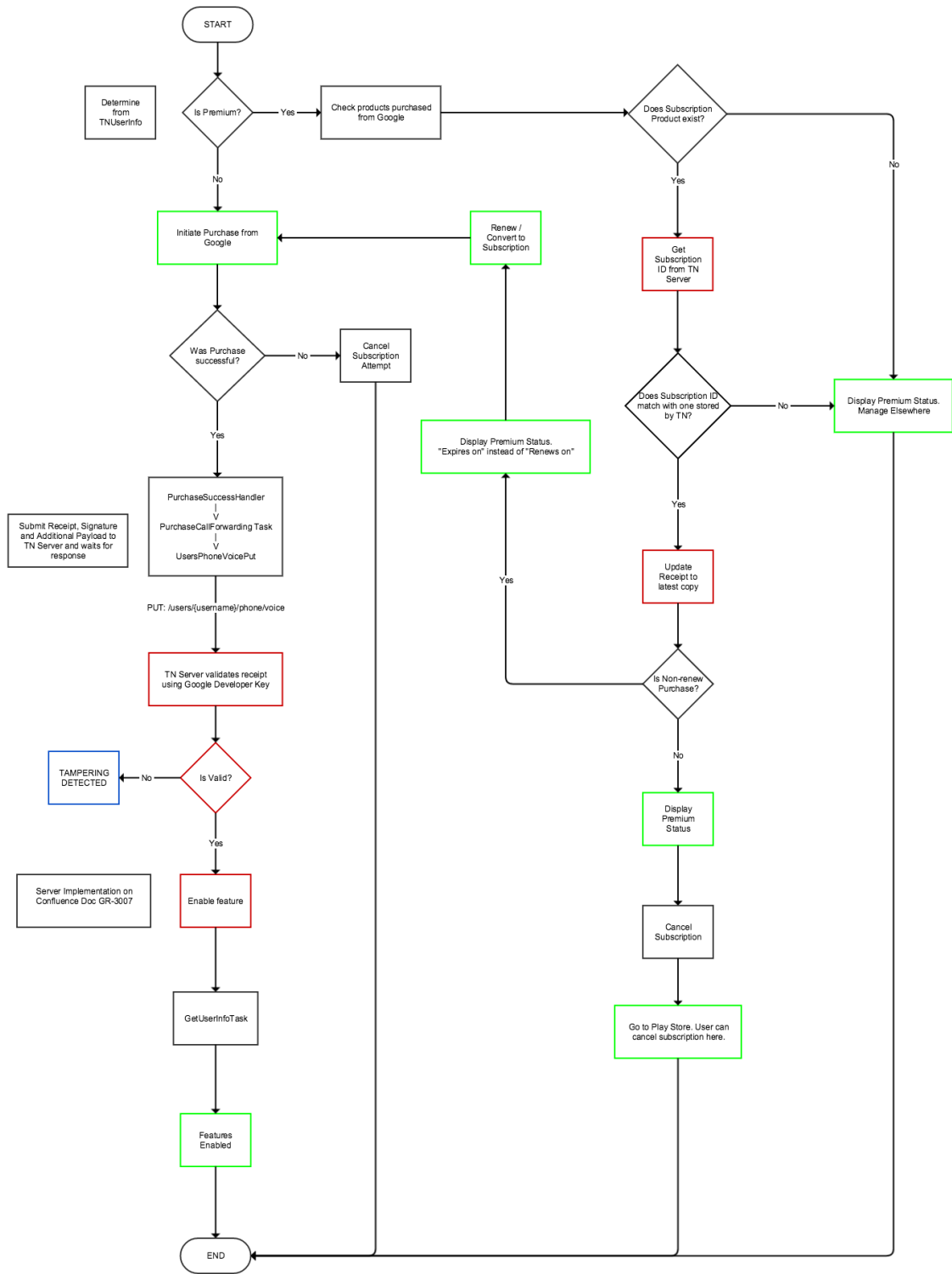
Test Subscription JSON Receipt

```
{
  "packageName": "com.enflick.android.TextNow",
  "productId": "adremovalmonthssubscription",
  "purchaseTime": 1466538865848,
  "purchaseState": 0,
  "developerPayload": "{\"username\":\"xyan.bhatnagar\"}",
  "purchaseToken": "hnhmpneceihoicdfomfpbbbf.AO-J10zwoMFACr-FVlYOBfqmnZcVWqJ5sRygMqcN8eCrwLhpb5sPwGs6a4Ft0KCo1t0yyyZ3dP10-KNyFrgdCDcnQPJhw0XXElrDmUx9vCO-VTVJPP3OQ-WHP3vtYk8hOardE73MIruR6gQ9hM4yexrNhsKOupHzCw",
  "autoRenewing": true
}
```

Purchase Flow Mechanism

Questions

1. Should the Server cancel the subscription from Google's side if the receipt validation failed?
2. What happens on server side, if receipt is validated successfully?
3. On server side, is subscription added into a subscription list whose status is queried from Google regularly?
4. What happens if device can contact Google but not TN Server?
5. How should Android Get Premium Status?
6. How should Android cancel Subscription?



TN Server <-> Google Play Developer API

Authorization

Link : https://developers.google.com/android-publisher/authorization#top_of_page

Client ID : REDACTED

Client secret : REDACTED

Redirect URI : REDACTED

Creation date : June 29, 2016 at 10:18AM
Code : REDACTED

Steps to authorize Server with Google Play

1. If Code is stale, go to

REDACTED

2. Log in as REDACTED if asked for Google Sign In. Copy the code in the URL once redirected to REDACTED
3. Exchange this code for an access and refresh token pair by sending a POST request to <https://accounts.google.com/o/oauth2/token> with the following fields set in the **body** of the POST:

```
grant_type=authorization_code
code=<the code from the previous step>
client_id=REDACTED
client_secret=REDACTED
redirect_uri=REDACTED
```

4. You will receive an access token and refresh token in JSON format. Each access token is only valid for a short time.
5. Append the access token as a query parameter in any request sent to Google API servers.

NOTE : If the access_token has expired, use the refresh token to obtain a new one. The refresh token **does not** expire. To do this, send a POST request to <https://accounts.google.com/o/oauth2/token> with the following fields set :

```
grant_type=refresh_token
client_id=REDACTED
client_secret=REDACTED
refresh_token=<refresh token obtained earlier>
```

NOTE : Note that there are limits on the number of refresh tokens that will be issued; one limit per client/user combination, and another per user across all clients. You should save refresh tokens in long-term storage and continue to use them as long as they remain valid. If your application requests too many refresh tokens, it may run into these limits, in which case older refresh tokens will stop working.

Methods

Link : <https://developers.google.com/android-publisher/api-ref/purchases/subscriptions>

Request URL : https://www.googleapis.com/androidpublisher/v2/applications/packageName/purchases/subscriptions/subscriptionId/tokens/token?access_token=...

Parameters

packageName -> com.enflick.android.TextNow

subscriptionId -> Name of in-app product as set on Google Play Developer Console

token -> Token provided in receipt

access_token -> As obtained above from authorization

Methods Available

cancel - Cancels a user's subscription purchase. The subscription remains valid until its expiration time.

defer - Defers a user's subscription purchase until a specified future expiration time.

get - Checks whether a user's subscription purchase is valid and returns its expiry time.

refund - Refunds a user's subscription purchase, but the subscription remains valid until its expiration time and it will continue to recur.

revoke - Refunds and immediately revokes a user's subscription purchase. Access to the subscription will be terminated immediately and it will stop recurring.

Sample

JSON Response for Test Subscription :

```
{
"kind": "androidpublisher#subscriptionPurchase",
"startTimeMillis": "1466538865848",
"expiryTimeMillis": "1466625253011",
"autoRenewing": false,
"priceCurrencyCode": "CAD",
"priceAmountMicros": "3990000",
"countryCode": "US",
"developerPayload": "{ \"username\": \"xyan.bhatnagar\" }",
"cancelReason": 0
}
```