

Facebook has 235 Million
active Canvas gamers.

facebook developers



WORLD HACK
<VANCOUVER>

<https://graph.facebook.com/me>

```
{  
  "name": "Colin Creitz",  
  "username": "colin.creitz",  
  "work": [  
    {  
      "location": {  
        "name": "Menlo Park, California"  
      },  
      "position": {  
        "name": "Partner Engineer"  
      },  
    },  
  ],  
  "email": "facebook.com/colin.creitz",  
  "twitter": "@ccreitz",  
  "github": "ccreitz"  
}
```

Authentication

Who are you? Where are you, in the social graph?

Distribution

Newsfeed and timeline, requests and notifications, Open Graph

Monetization

Making money in your app through Facebook Payments

github.com/fbsamples/web-agarman

facebook.com/groups/worldhackvancouver/



Authentication

Built on OAuth 2.0

Grants an access token

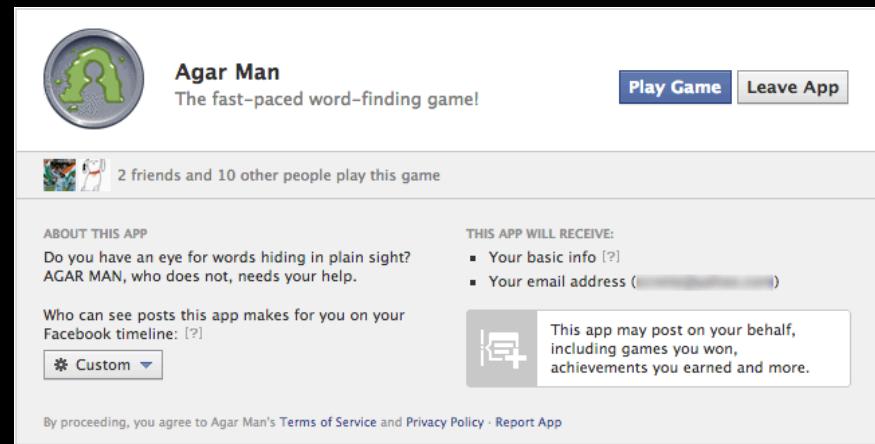
Two kinds of token:

User Access Token

- take action on behalf of a user

App Access Token

- take action on behalf of an app

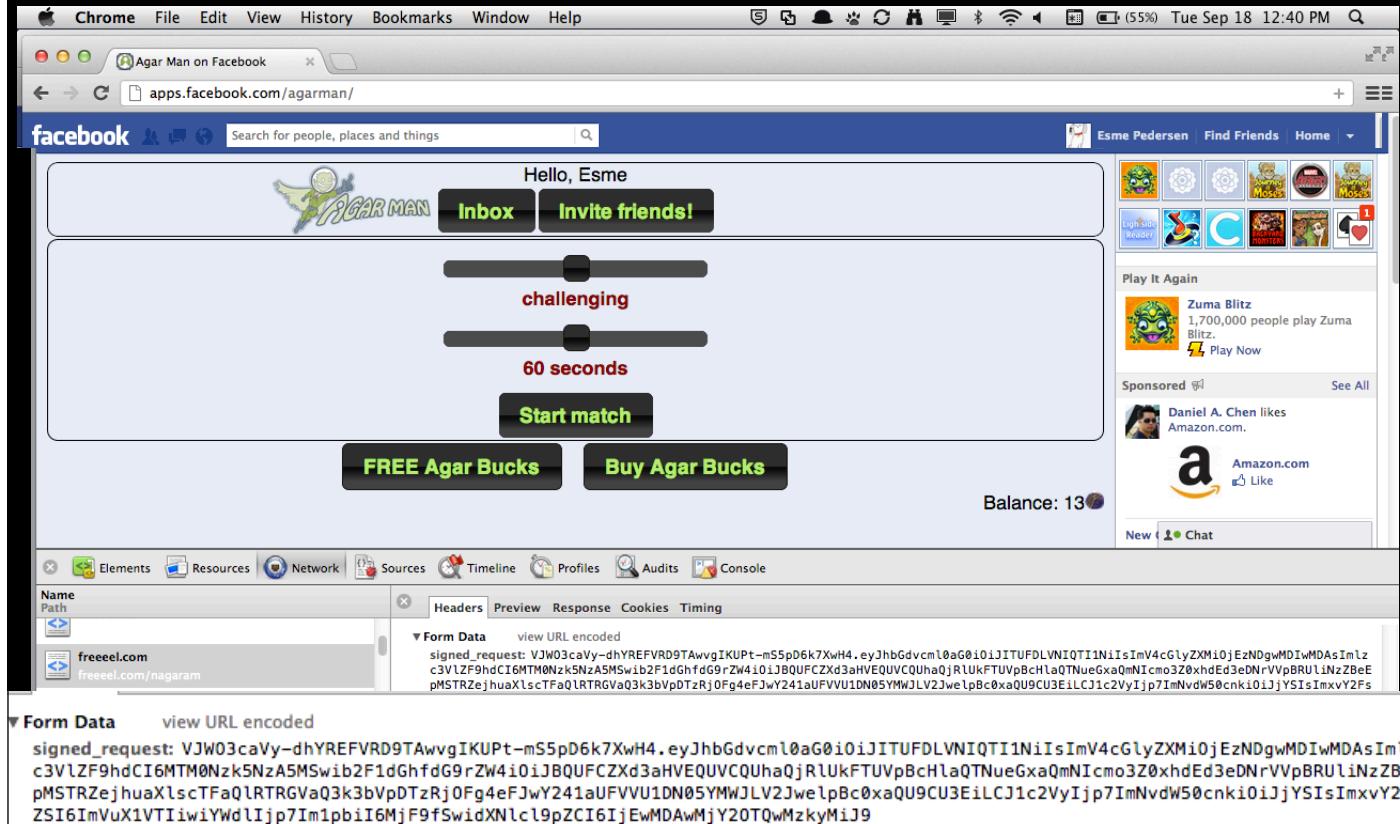


Permissions

Perm Name	What You Get
basic	Name, Profile Image, Friends
email	Email address
publish_actions	Scores, Achievements, Open Graph

The authorization flow

User loads app



App needs signed request

Load auth dialog

User authorizes app

App is loaded via POST
with param
signed_request

Server-side Authentication on Canvas using the PHP SDK

`https://www.facebook.com/dialog/oauth/?
client_id=104191753063425
&redirect_uri=https://apps.facebook.com/agarman
&scope=email,publish_actions`

```
// Initialize the Facebook PHP SDK
$facebook = new Facebook(
    array ('appId' => $appID, 'secret' => $appSecret)
);

// getSR() checks cookies (this lets us do auth AJAX) and
// POST params
$sr = $facebook->getSignedRequest();
if($sr['user_id']){
    $fbid = $facebook->getUser();
    $userToken = $facebook->getAccessToken();
} else { // Send the user to the auth dialog
    $loginURL = $facebook->
        getLoginUrl(
            array('scope' => array('email', 'publish_actions'),
                  'redirect_uri' => 'https://' . $appURL,
                  )
        );
    echo "User isn't logged in. Go to " . $loginURL . "\n";
}
```

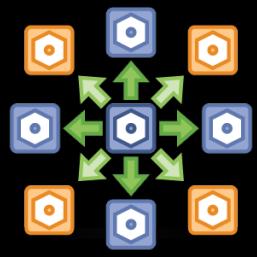
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} else { // Send the user to the auth dialog
    $loginURL = $facebook->
        getLoginUrl(
            array('scope' => array('email', 'publish_actions'),
                  'redirect_uri' => 'https://' . $appURL,
            )
        );
    echo $loginURL;
    die();
}
echo $sr['access_token'];
header('Location: ' . $loginURL);
```

Demo: Server-side Auth



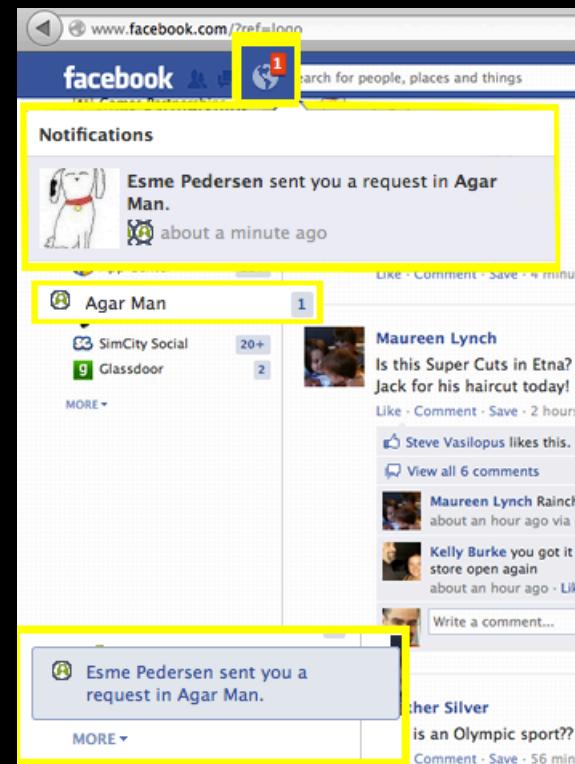
Distribution



Requests

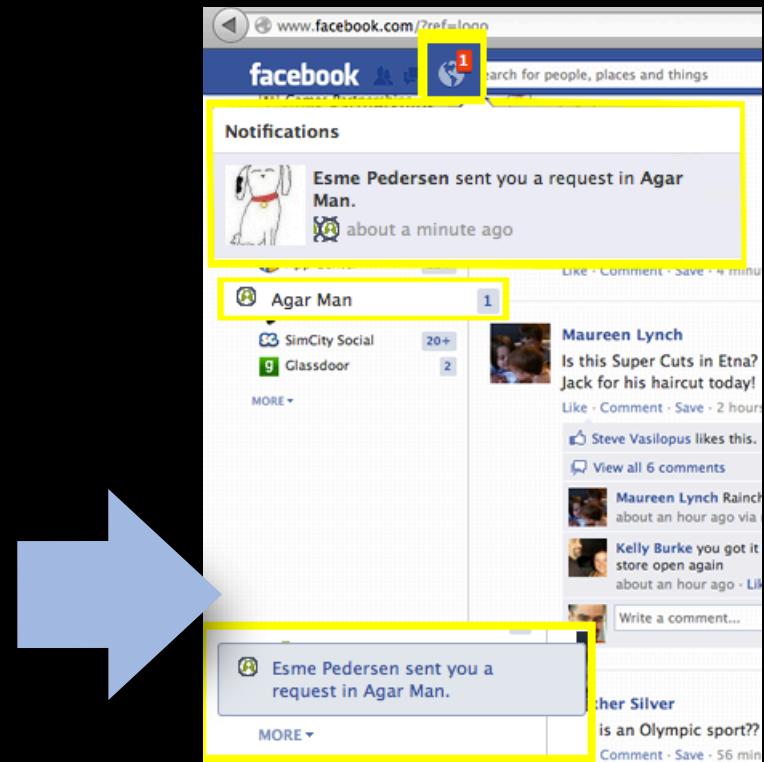
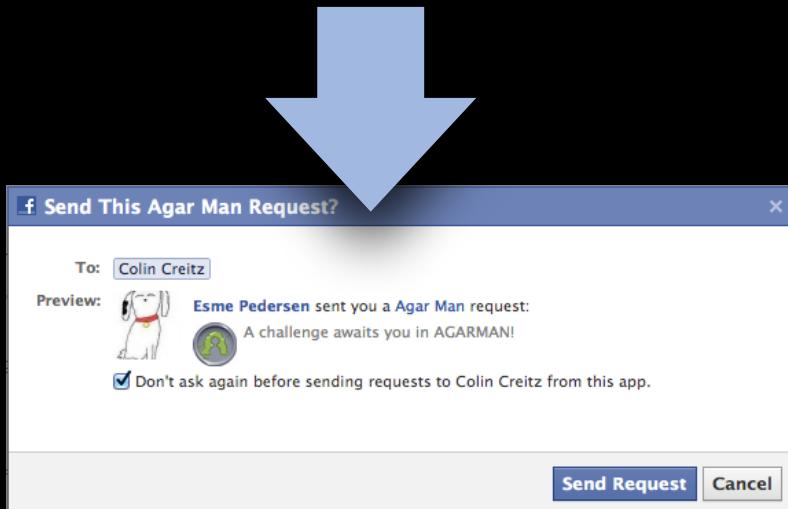
Requests

- Ephemeral
- 1-to-1
- Needs management interface



User-to-user Requests

```
FB.ui({  
  method: 'apprequests',  
  to: 'USER_ID'  
  message: 'A challenge awaits...'  
}, callback);
```



Requests Feature: Frictionless Requests

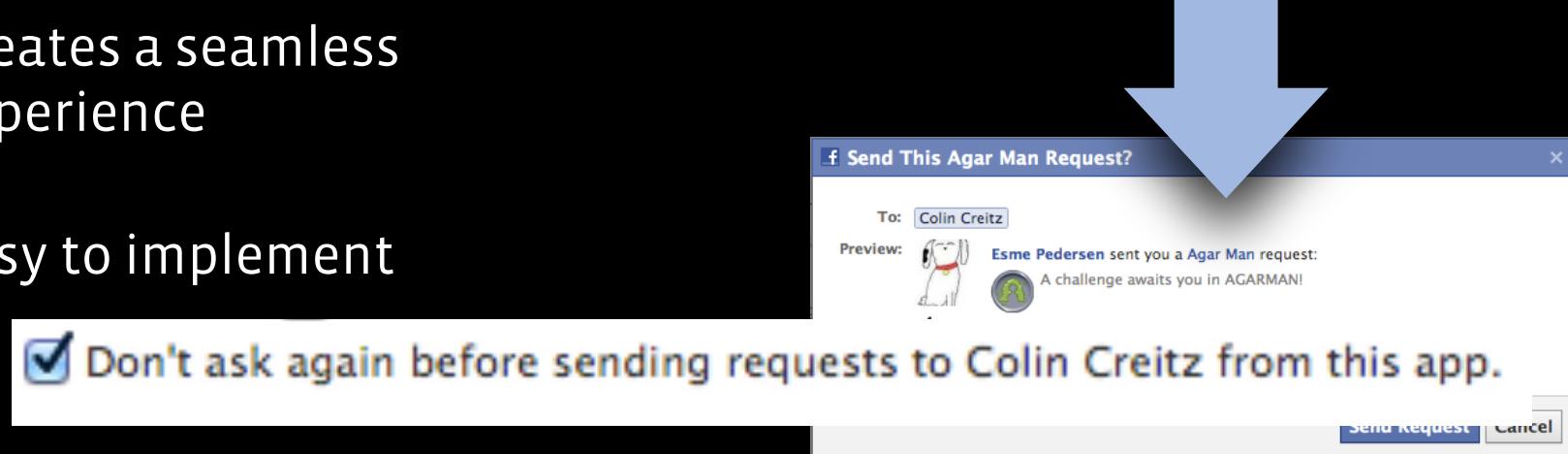
Effective for users that often send Requests

Lower barrier to entry

Creates a seamless experience

Easy to implement

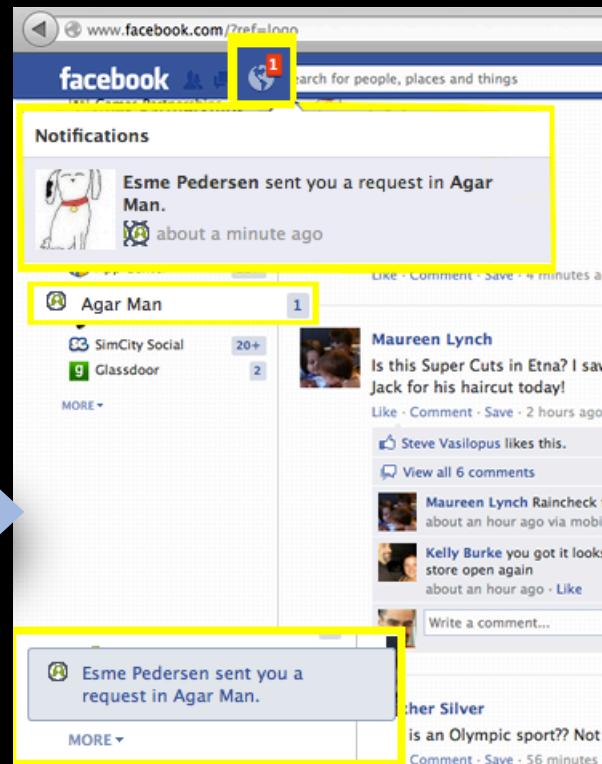
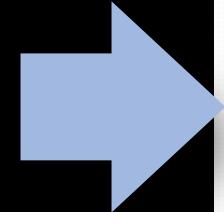
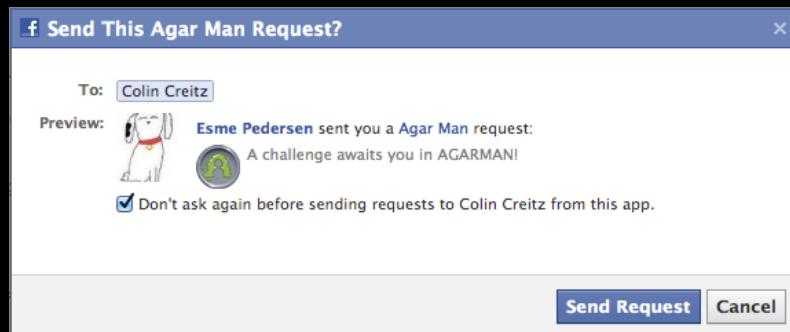
```
FB.init({  
  appId: APP_ID,  
  oauth: true,  
  frictionlessRequests: true  
});
```



Use Case: Inviting Friends

Organic user acquisition

The best recommendation engine

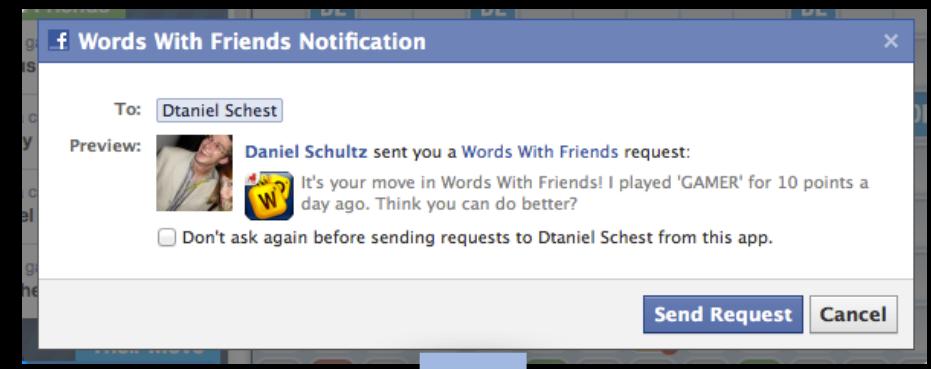


Use Case: Taking Turns

Creates a feedback loop

Natural fit for Requests

Can send to non-friends



The diagram illustrates the interaction between two user interfaces. On the left, a "Notifications" screen shows a new request from "Daniel Schultz" about a "Words With Friends" request sent 43 seconds ago. A large blue arrow points from this screen down to a "Requests from friends" section on the right. This section lists the same "Words With Friends" request from "Daniel Schultz" with options to "Accept" or "Ignore".

Demo: Requests

Feed Stories

30/11



Esme Pedersen



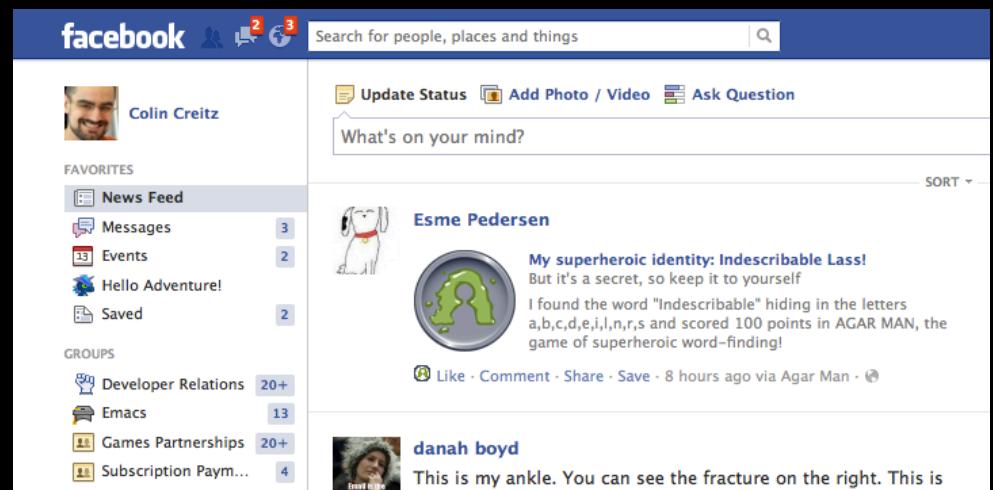
My superheroic identity: Indescribable Lass!
But it's a secret, so keep it to yourself

I found the word "Indescribable" hiding in the letters
a,b,c,d,e,i,l,n,r,s and scored 100 points in AGAR MAN, the
game of superheroic word-finding!

[Like](#) · [Comment](#) · [Share](#) · [Save](#) · 8 hours ago via Agar Man · 

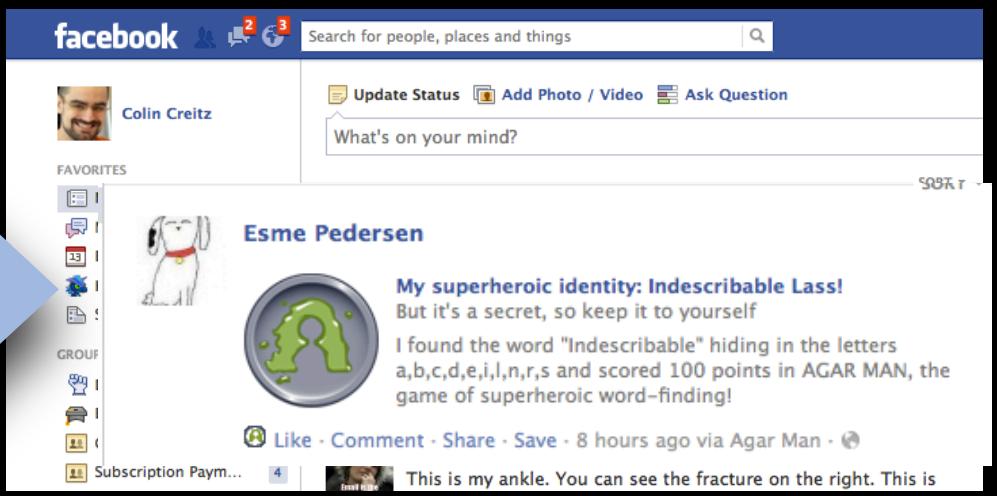
Feed Stories

- Long-lived
- Broadcast
- Very easy implementation



Using the Feed Dialog

```
FB.ui({  
  method: 'feed',  
  link: 'https://apps.facebook.com/agarman/?ftext=1',  
  picture: 'http://my.domain/pic.png',  
  name: 'I'm a word hero!',  
  caption: 'My superheroic identity...',  
  description: 'I found the word "Indescribable..."'  
}, callback);
```



Use Case: Bragging

Usually on your own feed, where your friends see it

Allows a personal message

High-quality sharing

The image shows a social media interface with two visible posts:

- Esme Pedersen**:
Profile picture of a white dog.
Post content:

My superheroic identity: Indescribable Lass
But it's a secret, so keep it to yourself
I found the word "Indescribable" hiding in the a,b,c,d,e,i,l,n,r,s and scored 100 points in AGA game of superheroic word-finding!
- Constantin Koumouzelis**:
Profile picture of a man with a beard.
Post content:

Ha, check it :)



Guess who scored a home run
I just WooHooed with them! Call
Click to get some Love!

At the bottom right of the feed area, there is a blue button with the text "Like · Comment · Unfollow Post · Get Social Poi".

Use Case: Competition/Cooperation

Destroyed your friend's base,
tended their resources, etc

Usually on friend's wall, seen by
their friends too

Personal message makes sense



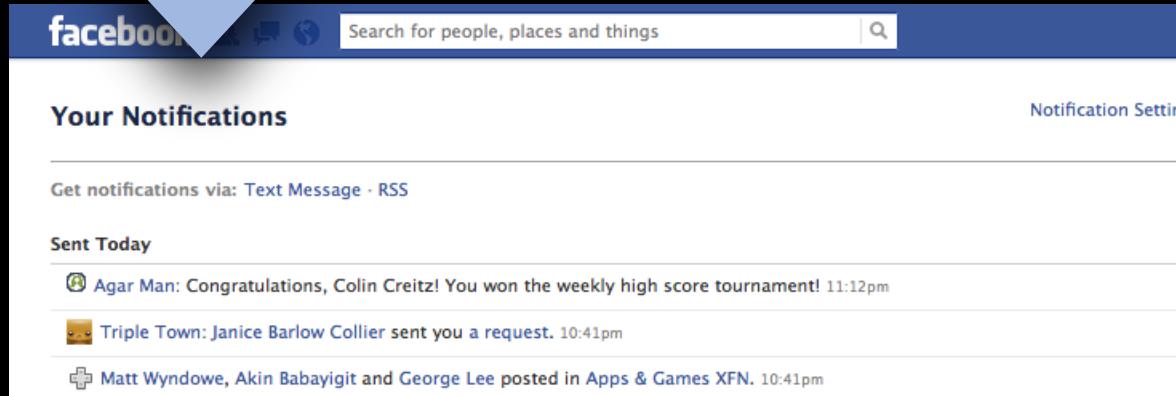
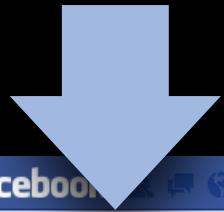
Demo: Feed Dialog

Notifications API

App to User Notifications

POST

[https://graph.facebook.com/USER_ID/notifications?
access_token=APP_TOKEN&
href=?ACTION_DATA&
template=REQUEST_TEMPLATE](https://graph.facebook.com/USER_ID/notifications?access_token=APP_TOKEN&href=?ACTION_DATA&template=REQUEST_TEMPLATE)



facebook Search for people, places and things

Your Notifications

Get notifications via: Text Message · RSS

Sent Today

- Agar Man: Congratulations, Colin Creitz! You won the weekly high score tournament! 11:12pm
- Triple Town: Janice Barlow Collier sent you a request. 10:41pm
- Matt Wyndowe, Akin Babayigit and George Lee posted in Apps & Games XFN. 10:41pm



facebook Search for people, places and things

Notifications

Agar Man
Congratulations, Colin Creitz! You won the weekly high score tournament!
a few seconds ago

Scores and Achievements

Scores and Achievements

 **Drew Hoskins** got a new high score in 2 games.
January 3, 2012 via [Triple Town](#)

 **4,999,215**
Old high score: 4,221,230 points
[Like](#) · [Comment](#) 

 **4,221,230**
Old high score: 4,176,270 points
[Like](#) · [Comment](#) 

 Games Recently

Achievements

 **Origin Story**
You scored 10 points in AGAR MAN. Every hero has to start somewhere!
Agar Man

 **Transcendence**
You scored 200 points in AGAR MAN. How does it feel to be a legend?
Agar Man

 **Rise to Prominence**
You scored 100 points in AGAR MAN. That's why they call you a hero!
Agar Man

 **Highscore: II**
Reach a highscore of 20000!
SongPop

 **Sweet Streak: II**
Guess 20 songs correctly – in a row!
SongPop

Scores

```
POST https://graph.facebook.com/USER_ID/scores  
?score=1337  
&access_token=APP_ACCESS_TOKEN
```

What to do with this API:

- Just publish every score
- Build and feature a leaderboard
- Consider a tournament model

Achievements

Achievements

1. Define Open Graph objects

```
<head prefix="og: http://ogp.me/ns#
      fb: http://ogp.me/ns/fb#
      fbpayment:http://ogp.me/ns/fb/game#">
  <meta property="fb:app_id"           content="YOUR_APP_ID" >
  <meta property="og:type"            content="game.achievement" >
  <meta property="og:url"             content="http://apps.facebook.com/YOURAPP/ACHIEVEMENTPATH" >
  <meta property="og:title"           content="Achievement Title" >
  <meta property="og:description"     content="Longer description" >
  <meta property="og:image"            content="IMAGE_URL_50x50px" >
  <meta property="game:points"        content="NUMBER IN [1-1000]" >
</head>
```

Achievements

1. Define Open Graph objects
2. Register achievements

```
POST https://graph.facebook.com/APP\_ID/achievements?
access_token=APP_ACCESS_TOKEN&
achievement=ACHIEVEMENT_URL&
display_order=ORDER_NUMBER
```

Achievements

1. Define Open Graph objects
2. Register achievements
3. Grant achievements to users

```
POST https://graph.facebook.com/USER_ID/achievements?
access_token=APP_ACCESS_TOKEN&
achievement=ACHIEVEMENT_URL
```

Payments & Monetization

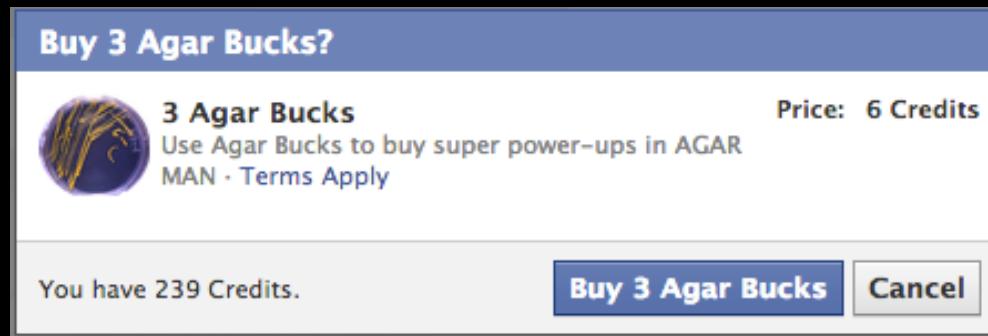


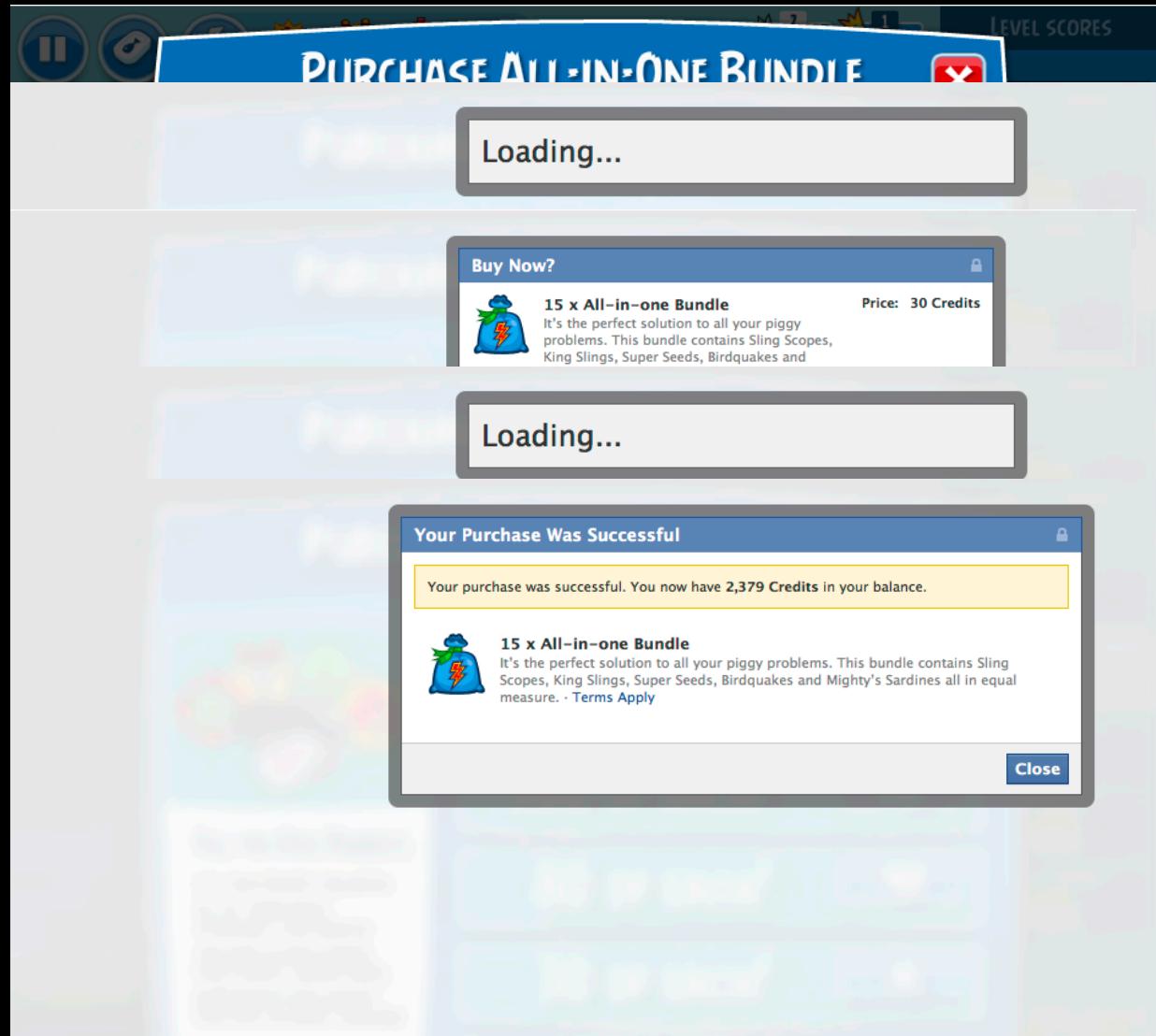
Facebook Payments

Support 80+ payment methods in 50+ countries around the world

Consistent way to buy on Facebook across apps

Users trust the Facebook brand





User Clicks Pay

Callback 1: Get Item Info

Payment Dialog

Callback 2: Fulfill Order

Success Dialog

Facebook Payments

1. Set up company
2. Build an interface
3. Set up Payments callback

Setting up company and callback

The screenshot shows the Facebook Developers website interface. The top navigation bar includes links for Search Facebook Developers, Docs, Tools, Support, News, and Apps. A user profile for "Esme Pedersen" is visible on the right. The main content area is titled "Apps > Payments Example Game > Payments". On the left, a sidebar menu under "Settings" lists: Basic, Permissions, Payments (which is selected), Advanced, App Details, Localize, Open Graph, Roles, and Insights. Below these are "Related links" for Use Debug Tool, Use Graph API Explorer, See App Timeline View, Promote with an Ad, and Delete App. The main panel contains three sections: "Company Information" (with fields for Company Country, Add payout info, and Register a company), "Payments Settings" (with fields for Payments Callback URL and Accept Mobile Web Payments), and "Manage Test Settings" (with a field for Payments Testers and a Save Changes button). At the bottom, there are links for Facebook © 2012 - English (US) and standard footer links for About, Advertising, Careers, Platform Policies, and Privacy Policy.

1. Set up your company

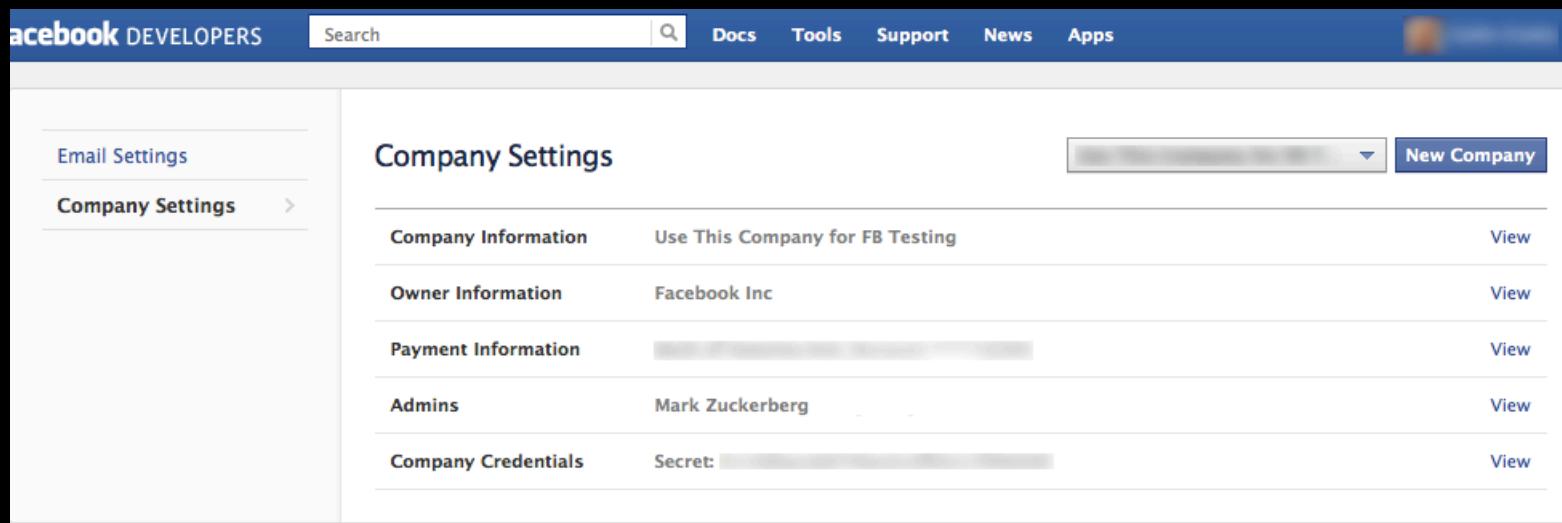
1. Company Information [?]

Company Name Required	Company Type Individual (Sole Proprietor) ▾
Company Address	
Street 1: Required	Country: Select a country ▾
Street 2: Optional	State/Region: Select a state ▾
City: Required	Zip: Required
Company Contact Information	
Email: Required [?]	Phone: Required
TIN/SIN: Required	Type ▾ [?] Fax: Optional

2. Business Owner Information [?]

Name	
First Name:	Required
Middle Name:	Optional
Address	
<input type="checkbox"/> Business owner address is the same as company address	
Street 1:	Required
Street 2:	Optional
City:	Required
Country:	Select a country ▾
State/Region:	Select a state ▾
Zip/Postal Code:	Required

1. Set up your company



The screenshot shows the Facebook Developers website with a blue header bar containing the "facebook DEVELOPERS" logo, a search bar, and links for Docs, Tools, Support, News, and Apps. On the left, there's a sidebar with "Email Settings" and a "Company Settings" section that includes a "Company Settings" link with a right-pointing arrow. The main content area is titled "Company Settings" and displays the following information:

Setting	Value	Action
Company Information	Use This Company for FB Testing	View
Owner Information	Facebook Inc	View
Payment Information	[REDACTED]	View
Admins	Mark Zuckerberg	View
Company Credentials	Secret: [REDACTED]	View

A "New Company" button is located in the top right corner of the main content area.

2. Build an interface



2. Build an interface
Pricing in Local Currency
1. Get the user's preferred currency
2. Convert your prices in your app
3. Invoke the payment dialog with a flag

Pricing in local currency

```
GET https://graph.facebook.com/USER_ID?  
fields=currency  
&access_token=USER_ACCESS_TOKEN
```

```
data: {  
  "currency": {  
    "user_currency": "USD",  
    "currency_exchange": 10,  
    "currency_exchange_inverse": 0.1,  
    "currency_offset": 100  
  },  
  "id": "221159"  
}
```

- **Get the user's preferred currency**
- Convert your prices in your app
- Invoke the payment dialog with a flag

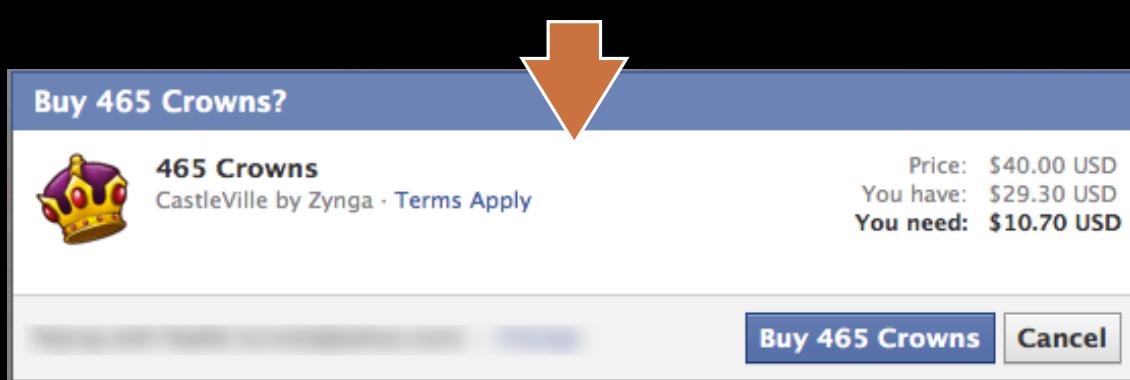
Pricing in local currency

```
12    Price, in credits  
x 0.1 currency_exchange_inverse  
= 1.2 USD  
  
≈ 1.20 rounded to nearest 1/currency_offset  
= $1.20 Price you display
```

- Get the user's preferred currency
- **Convert your prices in your app**
- Invoke the payment dialog with a flag

Pricing in local currency

```
var obj = {  
  method: 'pay',  
  action: 'buy_item',  
  order_info: {'item_id': '1a'},  
  dev_purchase_params: {'oscif': true}  
};  
  
FB.ui(obj, callback);
```



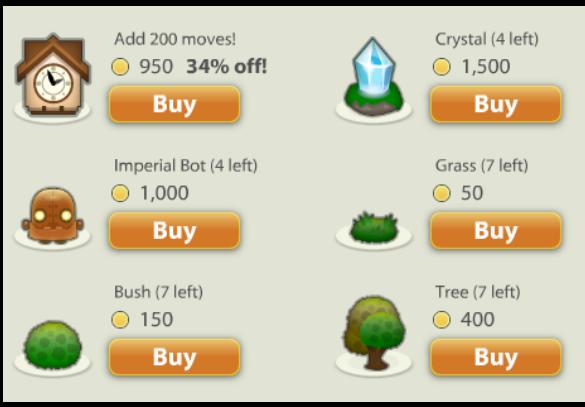
- Get the user's preferred currency
- Convert your prices in your app
- **Invoke the payment dialog with a flag**

3. Set up your Payments callback

Check catalog
payments_get_items

Transaction complete or changed
payments_status_update

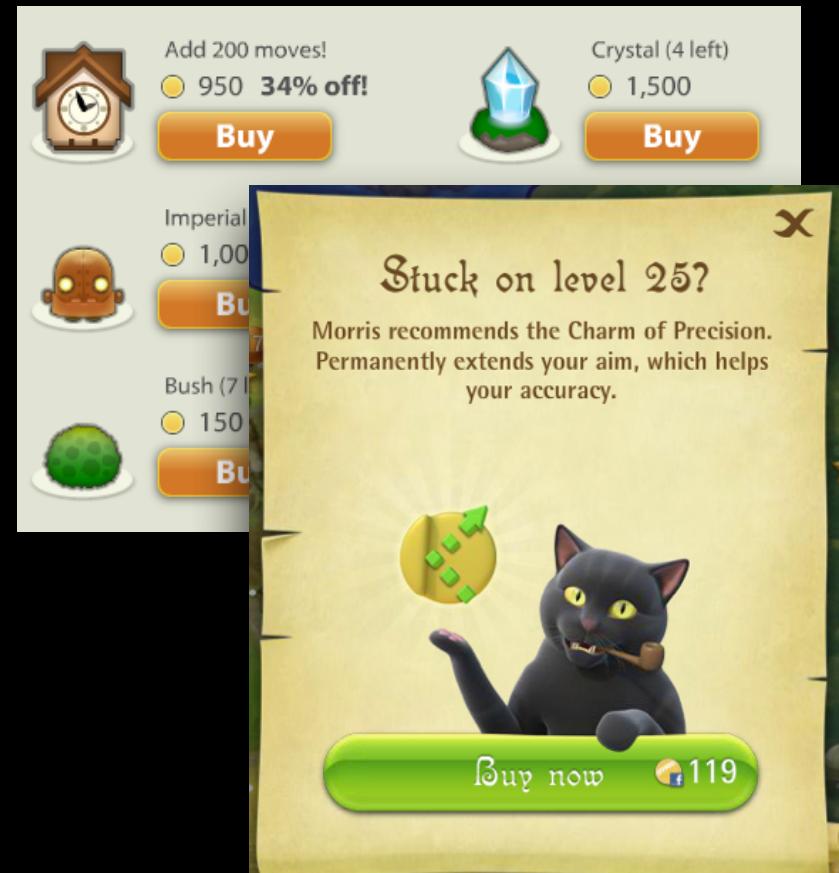
What to sell



Functional Items and Buffs

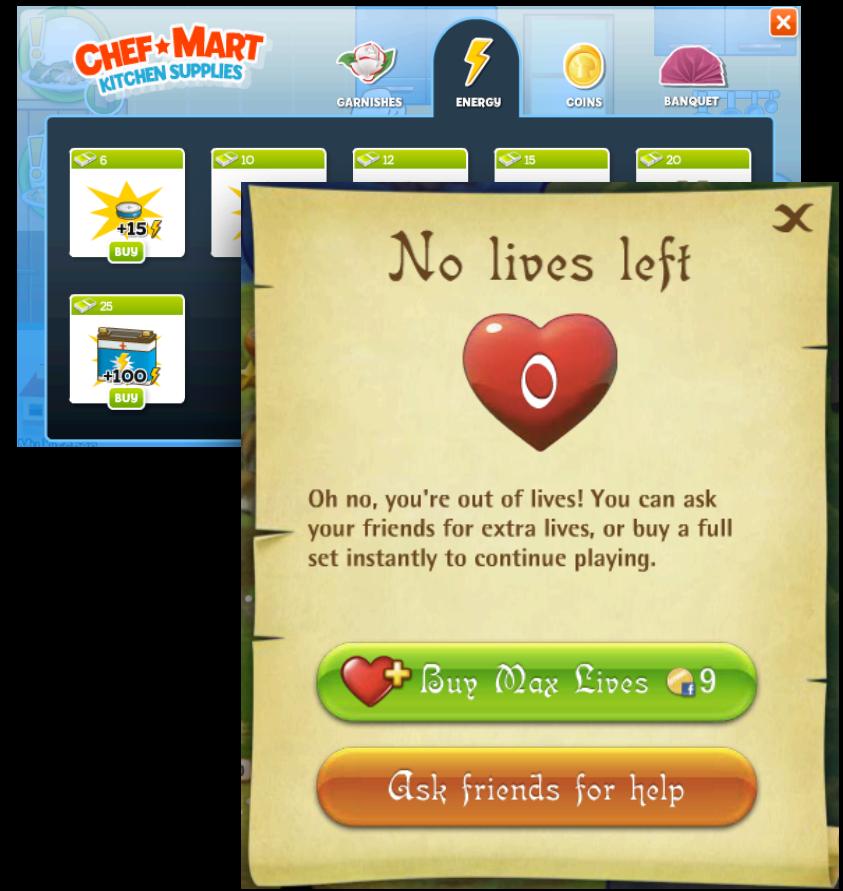
Be wary of game balance issues
in competitive games

Look at your game play to find
good spots to upsell buffs



Game Session Extensions

Affect gameplay by extending the player's session length



Vanity Items

Scarce, limited availability collectibles



Page 1 of 13

Item limit 78/550

Demo: Payments

Authentication tells you who your users are

Use social channels to get free
distribution on Facebook

Payments on Facebook are easy &
help you build your business

Your winning game...

- Runs on Facebook Canvas
- Uses Facebook Authentication
- Makes cool use of social channels
- Leverages the Open Graph

Cheat sheet

All URLs are rooted at <http://developer.facebook.com/docs>

PHP Authentication	/authentication
Setting up the PHP SDK	/reference/php
User-to-user Requests	/requests
Feed Dialog	/reference/dialogs/feed
App Notifications	/app_notifications
Scores	/scores
Achievements	/achievements
Getting started with Payments	/payments/getting_started

facebook developers



WORLD HACK
<VANCOUVER>