vendee

Erlang User Conference 2014
Jun 10, 2014

www.vend.ee

Can you build a successful mobile startup in your spare time?

- Who am I?
  - Erlware/ErlangCamp/ErlangDC
  - CHEF, Five9, MITRE, Fermilab

- Who are you?
  - What are you?
    - What are you doing?
      - What are you doing it for?

Who are Vendee?
A global startup

- **Lionel Levine-CEO**
  - Serial Bio-tech and IT start-up experience, coupled with IT and systems engineering pedigree, a Carnegie Mellon graduate currently employed as an IT systems engineer for the MITRE Corp.
- **Jimi Romanus-COO**
  - Boasts extensive start-up experience in the consumer brands and payment processing domains, having built a nationwide merchant payment processing company, and launched alcohol brands globally
- **Jordan Wilberding-CTO**
  - Current Nomad Developer for Chef and PhD candidate in Computer Science at Georgetown, has worked for a number of leading tech companies in the US including Orbitz and MITRE
- **Jackie Chen-Chief Product Officer**
  - PhD candidate at Carnegie Mellon in Bio-Informatics with extensive IT start-up background having co-founded a tech-company in Taiwan and worked for Microsoft
- **John McCartin-VP Marketing and Digital Media**
  - Cofounder of a successful digital media company providing boutique digital media services to small businesses
- **Joey Clinch-VP Sales West Coast**
  - Cofounder and tech enthusiast with deep ties to the university and local business communities in Southern California

- Marketing and leadership team includes leadership from alcohol and promotional companies, providing invaluable industry insight and expertise
- A 'deep bench' of college students able to launch Vendee in crucial university markets

What: Vendee provides a unique marketplace to broadcast deals, facilitate orders, and manage business functions.

Order and Pay

- View menu
- Customize and submit orders
- Pay
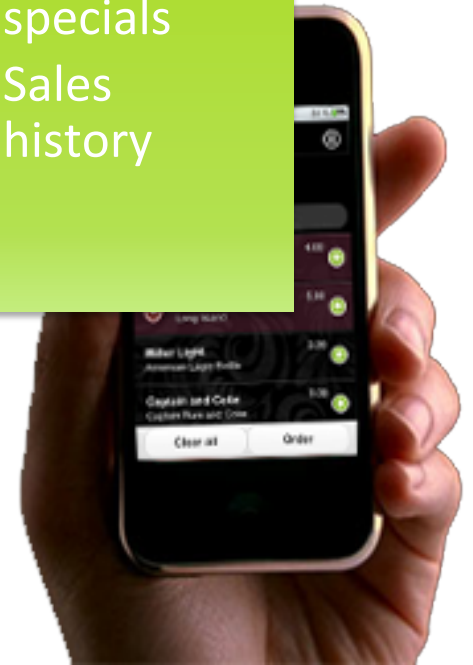- Manage sales and payments Seamlessly

Dynamic Marketplace

- View existing sales near-by
- Broadcast and receive flash deals

Enterprise Management

- Manage menu and inventory
- Staffing
- Deals and specials
- Sales history

- Multiple degrees of engagement reduce barriers to entry
- 'Network effect' and digital marketplace spur adoption

Why: Mobile payments, and dynamic customer engagement, represent two of the biggest current opportunities in technology today, with the company that successfully solves them poised for immense growth

- US Mobile Payments market predicted to reach $90B by 2017, up From $12.8B in 2012

- Smartphones account for 64% of all mobile phones used in the US and that 80% of recent phone purchases.

- Additionally, next-generation customer engagement, defined as dynamic, real-time, personalized, and customer centric, is a vital business-need.

- There are many players in the space, and a lot of money, but no real successes

http://techcrunch.com/2013/01/16/forrester-u-s-mobile-payments-market-predicted-to-reach-90b-by-2017-up-from-12-8b-in-2012/
http://www.nielsen.com/us/en/newswire/2013/smartphone-switch--three-fourths-of-recent-acquirers-chose-smart.html
http://www.nytimes.com/2012/09/27/fashion/for-college-students-social-media-tops-the-bar-scene.html?
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Existing competitors fall into five primary categories: Mobile Wallets, Hospitality ordering, Vendor specific ordering, or loyalty programs/deal aggregators

- **Mobile Wallets / Credit Card Replacements**
  - Google Wallet, Clinkle, Paypal, TabbedOut, Square, LevelUp, Cover, Dash
  - Replace present system with equivalents that don't generate any added value.
- **Hospitality Ordering and Purchasing Apps**
  - Preo, BarStar, PayPal. Formerly: Coaster, Flowtab, Tappr, TouchLife
  - Targeted wrong venues, Business Model restrictive to entry, No focus on Networks.
- **Vendor Specific Ordering Applications**
  - Starbucks, Chipotle, Dominos
  - Gift card vs. Credit card paradigm.
- **Order Take-out**
  - Grubhub, Seamless, GoPago, TapInGo
  - Limited to take-out situations.
- **Loyalty Programs / Deal Aggregators**
  - Loyaltree, Groupon, Living Social, LoopedIn

Although many solutions have been attempted, all categories are struggling to see traction toward ubiquitous mobile payments, providing clear opportunities for Vendee.

- **Mobile Wallets / Credit Card Replacements**
  - These solutions often seek to replace the present system with equivalents that don't generate much of any added value and convenience to users

- **Hospitality Ordering and Purchasing Apps**
  - Many targeted the wrong venues (pursuing dine-in restaurants and higher-end nightclubs), where there is limited utility for this product. For some, their Business Model is restrictive to entry (large up-front fees). Finally, all failed to focus their launch efforts on building self-sustaining networks of core users that could then be expanded upon.

- **Vendor Specific Ordering Applications**
  - These solutions suffer from the Gift card vs. Credit card paradigm. Being only applicable to a single vendor, only users that frequent those places are incentivized to adopt, and there is no avenue for broader scalability.

- **Order Take-out**
  - These offerings are largely limited to take-out situations. Many have attempted to leverage this to expand business functions, but the self-limiting nature of these accounts has limited expansion

- **Loyalty Programs / Deal Aggregators**
  - As these products require sustained effort for limited utility, they are best embedded within broader platforms rather than as stand-alone applications.

Vendee's business model enjoys multiple innate revenue streams, some immediate and others downstream, upon which to build a viable long-term business

- Transactional Fees
- Service Models
- Ad Revenue
- 'Freemium' Vendor model
- Data Analytics
- Group deals and crowd-sourced referral program
- White-labeling and Licensing Wingman platform technology to third-party developers

Tall City / Gilad Benari

Universities form the core of our early growth strategy, as they are uniquely favorable markets for adoption. With markets seeded, we leverage network effects and promotional partnerships to expand into broader markets.

- College nightlife is the perfect eco-system for early adoption
- Use extended networks to recruit in other universities
- Sales teams will deploy 'Vendee in a Box' to grow college markets
- Brand Ambassadors and Residual Income Models
- With college market seeded and marketplace establish, radiate outward into larger communities
- Embrace collaborations and partnerships early-on

So where do we stand presently?

- Successfully completed closed-beta periods
  - Successful series of initial events at 8 different venues in the Pittsburgh region
  - Closed Beta-Test from March 2013 through June 2013
    - Successfully operated in 4 venues in Oakland (3 bars and one Pizza shop)
    - Goals: Evaluate technology performance and integration with process, test different marketing techniques in limited fashion, uncover bugs and process improvements
    - Results:
      - Over $1000 in direct sales on the platform
      - Accumulated over 1000 unique downloads (currently 1404).
      - Platform performance exceeding performance criteria (no operational disruptions or crashes for duration of beta)
- June –October 2013, product improvement
  - Developed dynamic specials and order customization features
  - Developed table service feature
  - Improved account management on mobile application
  - Upgraded capacity and encryption on backend-database
  - Improved performance of Vendor POS
  - Developed Vendor web-portal
- November-December 2013, Limited Open beta-period
  - Released upgraded platform in two pizza shops to ensure product met with performance standards in preparation for spring launch
- Currently in the process of rebranding the product as Vendee, continuing platform upgrades, raising funds, and preparing to launch in Pittsburgh, and LA
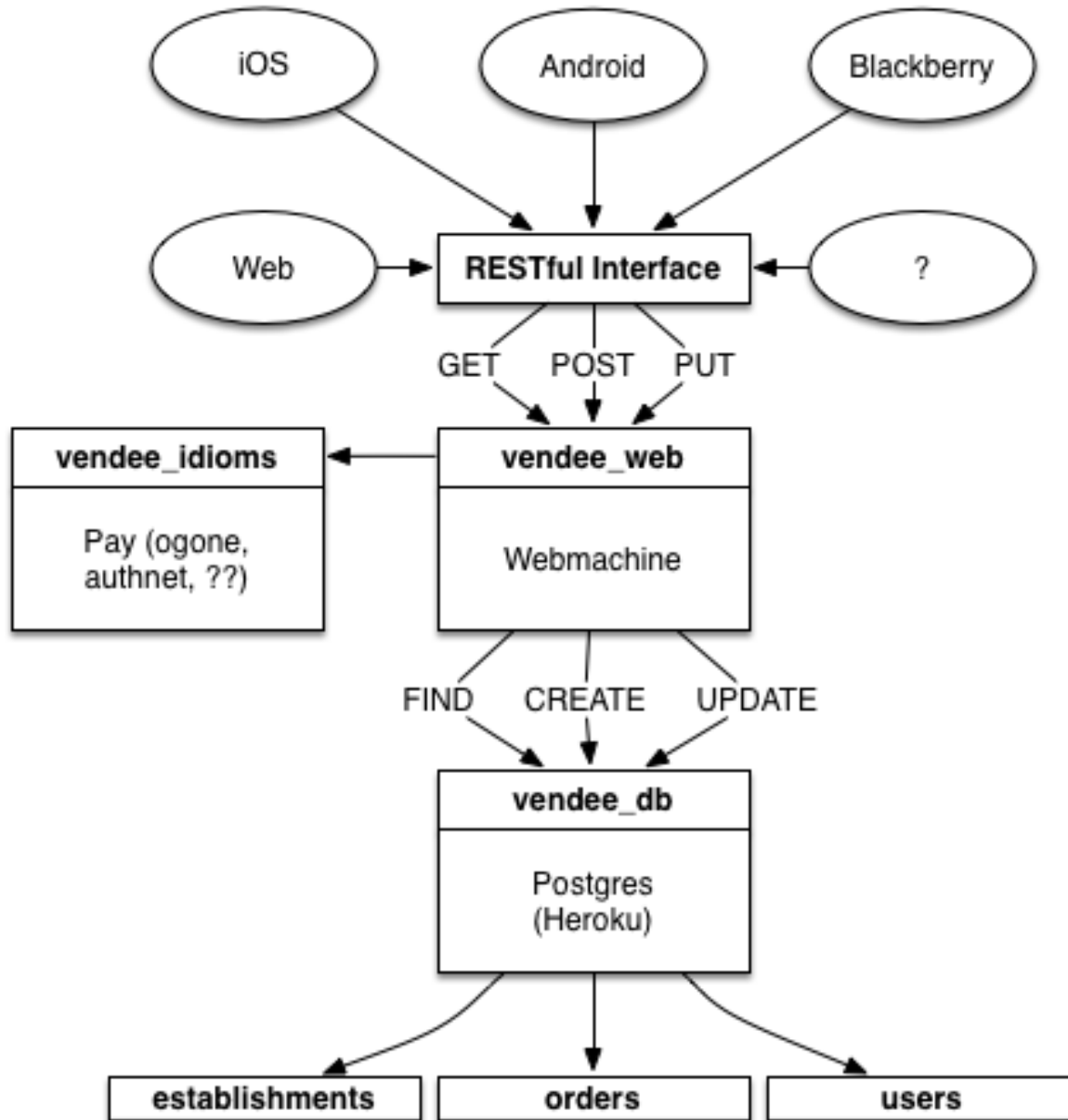
Vendee Core

Operating a highly scalable system for drunks

- vendee_web
  - Webmachine-based
  - Defines API
- vendee_db
  - Postgres (Heroku)
- vendee_idioms
  - Payment
  - UrbanAirship
  - PubNub

- Heroku
- Postgres/dikdik (alternative: sqerl) (used to use couchdb)
- Webmachine (may switch to cowboy and/or leptus)
- jsx (alternatives: mochijson2, jiffy)
- ej (thanks Seth :)
- Jesse (thanks klarna :)
- Concrete
- Rebar (alternative: erlang.mk)
- PeepsOut (see what's kickin)
- UrbanAirship
- PubNub
- Bcrypt
- Hackney
- Common test, eunit, Blitz (Heroku-addon for load testing)
- Ogone/AuthNet
- Papertrail (Herokuy-addon for logging)

- curl -XPOST http://localhost:8000/users --data-binary @user01.json

- lib/vendee_web/priv/dispatch.com:

  {["users", id], vendee_web_users_resource, []}.

- lib/vendee_web/src/vendee_web_users_resource.erl

- curl -XPOST http://localhost:8000/users/ d@13.com/login --data-binary @login01.json

- lib/vendee_web/priv/dispatch.com:

  {["users", id, "login"], vendee_web_users_login_resource, []}.

- lib/vendee_web/src/ vendee_web_users_login_resource.erl

- curl -XPOST http://localhost:8000/orders --data-binary @order01.json

- lib/vendee_web/priv/dispatch.com:

  {["orders"], wingman_web_orders_resource, []}.

- lib/vendee_web/src/ vendee_web_orders_resource.erl

Travis CI-ize

Going from development to testing

a.k.a. Ain't nobody got time for that

```
language: erlang
otp_release:
  - 17.0
  - R16B03-1
  - R16B03
  - R16B02
  - R16B01
  - R15B03
script: "rm -fr deps && make all"
```

Herokuize

Going from development to deployment

a.k.a. FUCK IT, WE'LL DO IT LIVE!

From local to hosted in 60 seconds

- create Procfile

- rm -fr deps app/*/ebin && git init && git add . && git commit -a -m "heroku"
- heroku login
- heroku create --buildpack "https://github.com/archaelus/heroku-buildpack-erlang.git"
- heroku keys:add
- heroku addons:add heroku-postgresql:dev
- heroku pg:promote HEROKU_POSTGRESQL_SILVER_URL
- ./bin/initdb
- git commit -a –m "db"
- git push heroku master

- Outsourced logo to 99designs

- Establishment application (native android) on cheap tablet

- Patron application (Use phonegap with lot's of custom optimizations specific to iOS and Android)

- Web portal (custom js), mostly outsourced then being re-written

- Hosted mobile payment solutions (where the existing e-commerce solutions are not enough)

- Targeted to someone who wants to develop their own payment solution with flexibility

- My biggest goal is someone makes a Starbucks-like app for independent coffee shops

But, but, but.. Ocaml?

- VoteRaise.com
  - Kick starter for political campaigns
  - Partnered with Trevor Potter
- Complete solution in Ocaml
  - Will be open-source at CUFP Tutorial in Sept
    - REST framework
    - DynamoDB
    - Logger
    - SQS
    - Full continuous deployment
    - Bank integration

- Erlang is awesome

- Testing is awesome

- Automation is awesome

- You're all awesome, thanks!

Code

- http://vend.ee

- https://github.com/vendee (tonight!)

- jwilberding@gmail.com