

A top-down view of a formal dinner table setting. In the center is a large, empty white plate. To the left of the plate is a silver fork, and to the right is a silver knife. In the top right corner, there is a glass of red wine. The background is a light, neutral color.

DEPLOYMENT EXPERIENCES





AGENDA

1. WHO IS SEATME

2. WHAT WE USE

3. HOW IT GETS DEPLOYED

SEATME



SEATME

THE GOAL: IMPROVE RESTAURANT RESERVATIONS

- Help restaurants harness demand
- Easy to use for restaurants and guests
- The latest technology
 - iPad app and website for managing the books
 - Restaurant profile site where *you* can make a reservation

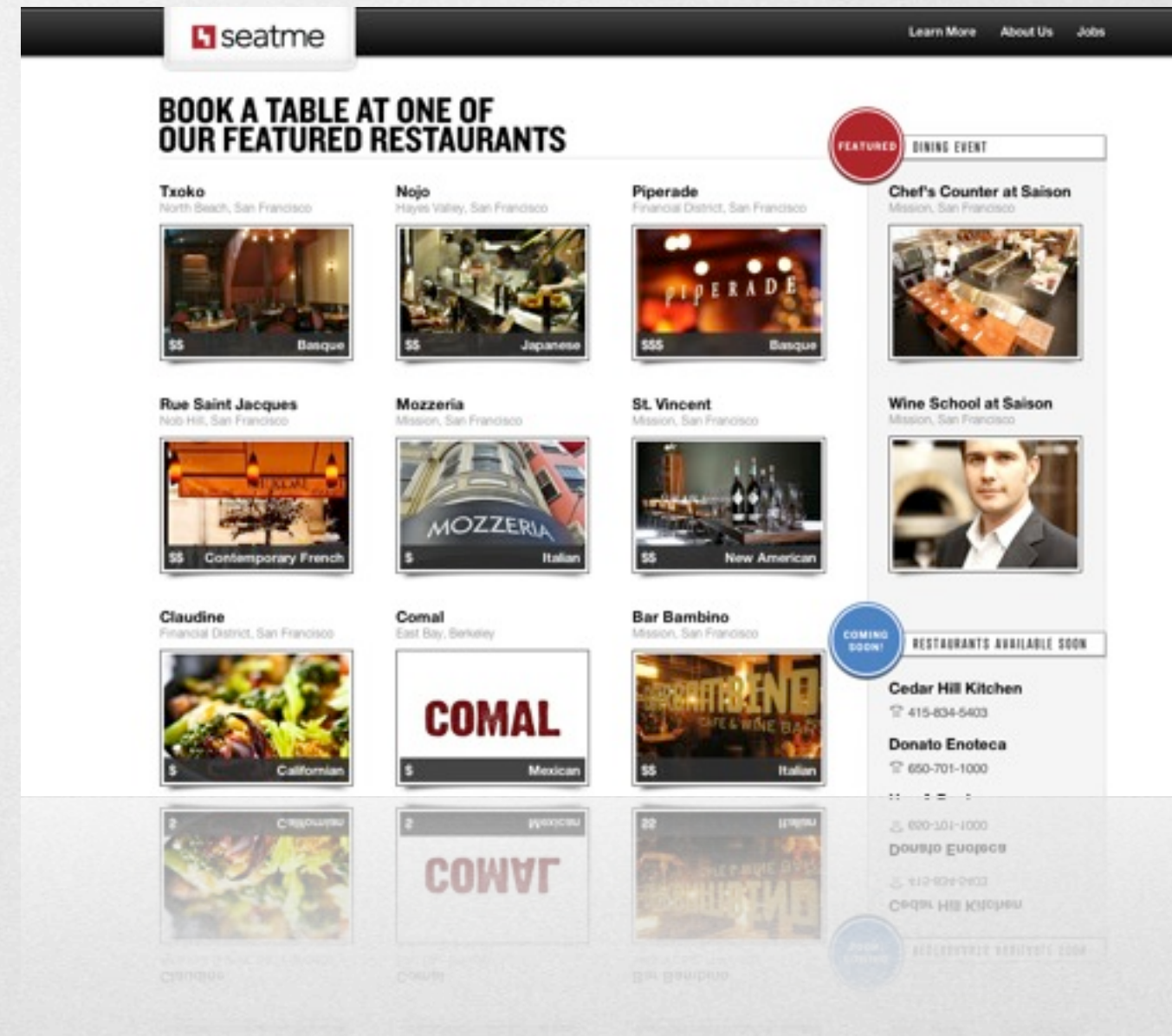
FOUNDED 15 MONTHS AGO

- 15 people
- 6 1/2 engineers
- 3 web devs

WE'RE LIVE

LAUNCHED 3 MONTHS AGO

- 12 active restaurants/bars
- More on the way



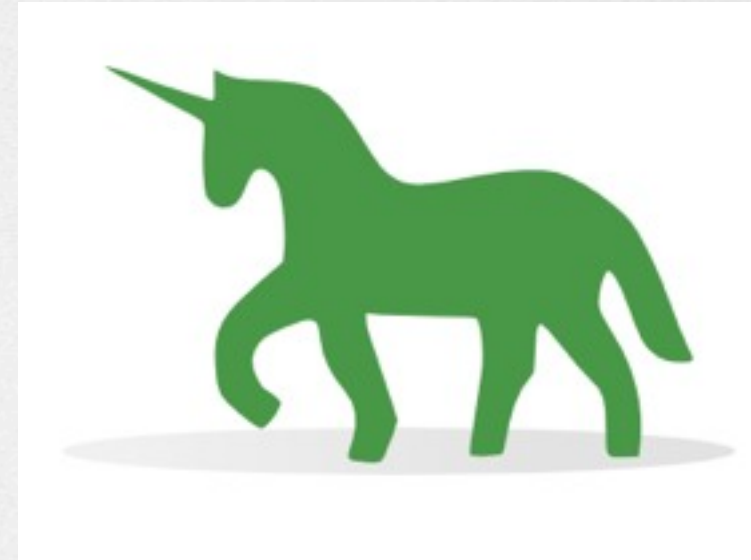
WHAT WE USE

PIP FREEZE

SEATME.COM

LAPP STACK

- Linux (Ubuntu LTS)
- Apache
 - Gunicorn
 - HAProxy
- PostgreSQL
- Python 2.7
 - Django 1.3 (1.4 Soon)



MORE

- Redis for caching
- Celery for background tasks



MORE BACKEND

BUILDOUT

- **Bootstrap**
- **Version lock everything**
 - “pip outdated” for buildout?
- **Vendor fork when necessary**
 - own your packages
 - everything on github

MAIN LIBRARIES

- **South** for database migrations
- **Piston** for REST API
- **Fabric** for simple server commands
- **Glue** for css sprites



DJANGO APPS

SHOULD BE DEFAULT

- django-debug-toolbar
- django-extensions

USEFUL APPS

- django-storages + boto for S3 storage
- sorl-thumbnail for thumbnails
- django-guardian for per object permissions
- django-compressor + pyScss for LESS
- django-lazysignup for easier user API
- django-longer-username for the obvious





FRONTEND

THE USUAL

- jQuery + jQuery UI
- Backbone.js
 - OO Javascript
 - Easy integration with Django templates





PROCESS

CONTINUOUS INTEGRATION

- Jenkins
- Linting
- Code coverage

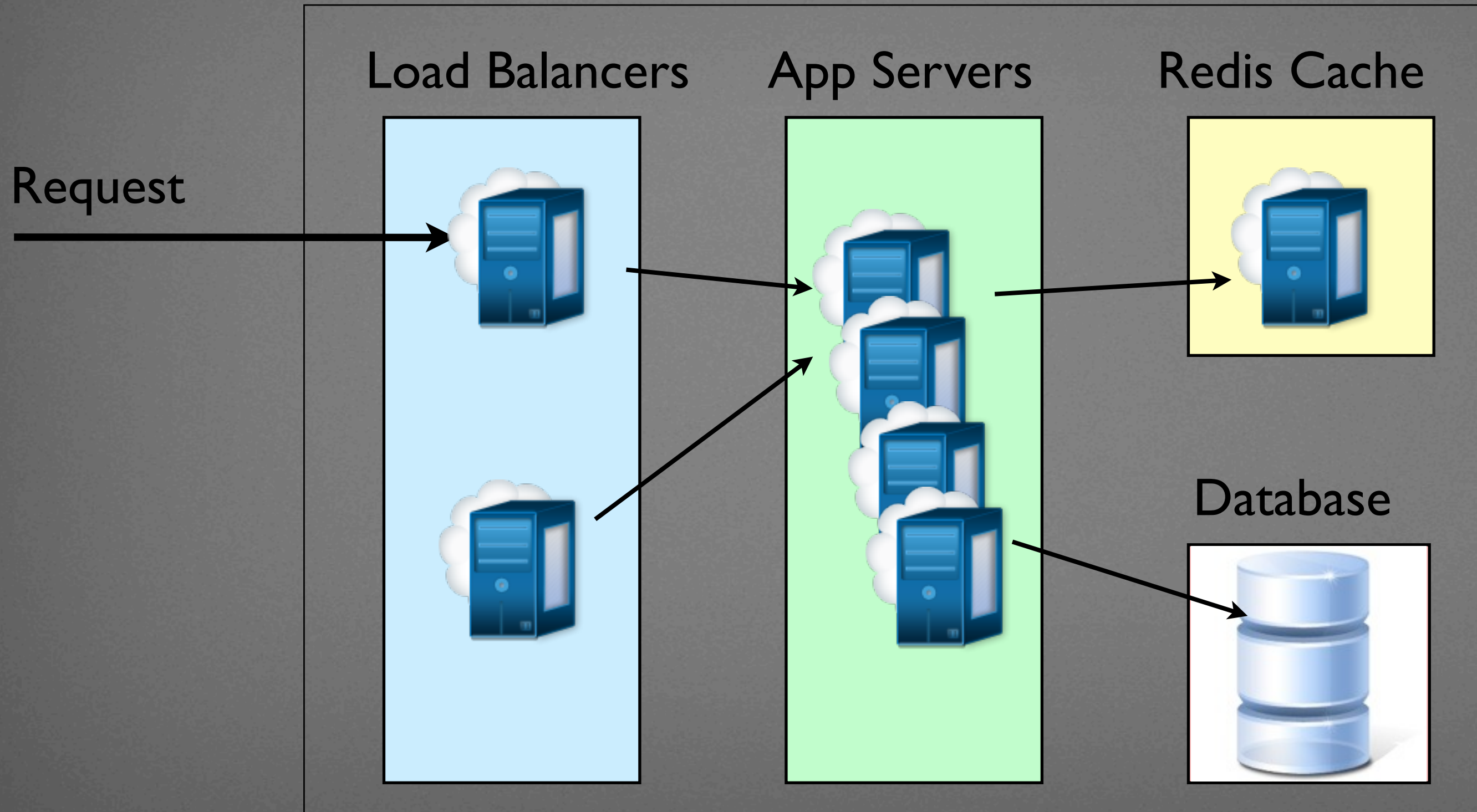
SCRUM

- 2 week sprint
- Deployable code at the end of the sprint

HOW WE DEPLOY

NOT VIA STORK

DIAGRAMS





WEBSCALE

VIA RIGHTSCALE

- **AWS or Rackspace interface**
- **Managed Chef basically?**
- **Built-in monitoring, alerting, audit logs**
 - Munin graphs for everything
 - Alerts for everything + escalation chains
- **Recommended server templates**
 - PostgreSQL master+slave auto failover + backup scripts
- **SSH key management**
- **Credential stores**

THE GOOD STUFF

./BIN/DEPLOY

- Ruby script!
- Create unique git tag && git push

ON EACH SERVER

- Disconnect from LB
- Create new symlinked folder from deploy timestamp
- Git clone latest deploy tag
- Bootstrap + buildout
- collectstatic + migrate
- Restart gunicorn + reconnect to LB

```
* a9d7b38 (deploy_20120515_00) (12 hours ago) [Matt Behrens]
* 78651dd (12 hours ago) [Matt Behrens] Text format
* 6ff2b89 (13 hours ago) [Trey Doig] Need to show reservation
* acf663c (14 hours ago) [Trey Doig] Fix for the bugs in smca
* af8f17f (30 hours ago) [Matt Behrens] better way to delete
* 94e4806 (30 hours ago) [Matt Behrens] Enable this!
* 4388a75 (deploy_20120514_03) (32 hours ago) [Trey Doig] Yik
* c94f2af (32 hours ago) [Trey Doig] Adding tests for the uti
* 865b118 (deploy_20120514_02) (32 hours ago) [Matt Behrens]
* 674a683 (deploy_20120514_01) (32 hours ago) [Matt Behrens]
* e2a6efb (32 hours ago) [Matt Behrens] post editing reservat
* 1719ec3 (deploy_20120514_00) (33 hours ago) [Matt Behrens]
* e7b71e3 (33 hours ago) [Matt Behrens] make mark bright's de
* 31d4f2e (2 days ago) [Matt Behrens] add line breaks to the
* bb3e937 (2 days ago) [Trey Doig] Removing the feature switc
```




CONTINUOUS EVERYTHING

MASTER IS ALWAYS STABLE

- Use feature branches for unstable code
- Be careful about merging sprites + migrations

FEATURE FLAGS

- If features broken, turn them off automatically/without deploy
- Minor usage right now, looking to expand

DEPLOY EARLY

- So you have the rest of the day to catch errors

FABRIC

HOOKED UP TO THE RS API

- Also for Linode

```
AR:~/code/www$ ./bin/fab -l | egrep "(app|ssh)"
app-server          HOST [None]
app-server-2        HOST [None]
app-server-3        HOST [None]
app-server-4        HOST [None]
liveshell           Open a ipython shell on an app server
ssh                 Convenience method to ssh to any host
```


WHAT TO IMPROVE?



IMPROVEMENTS

LOCAL PYPI MIRRORING

- Looking at basketweaver or ClueReleaseManager

COLLECTSTATIC

- Need to use CDN

PIECEMEAL DEPLOYS

- Different deploys for different servers

TAR CODE DEPLOYMENT

- Don't need git history on the server
- 4x speed increase from full git clone

QUESTIONS?

MATT BEHRENS
@ASKEDRELIC

THANKS:
OPEN SOURCE COMMUNITY
DISQUS, INSTAGRAM, GITHUB