



**SCALING THE
REGISTRY**



C J SILVERIO
DEVOPS AT NPMJS.COM
@CEEJBOT

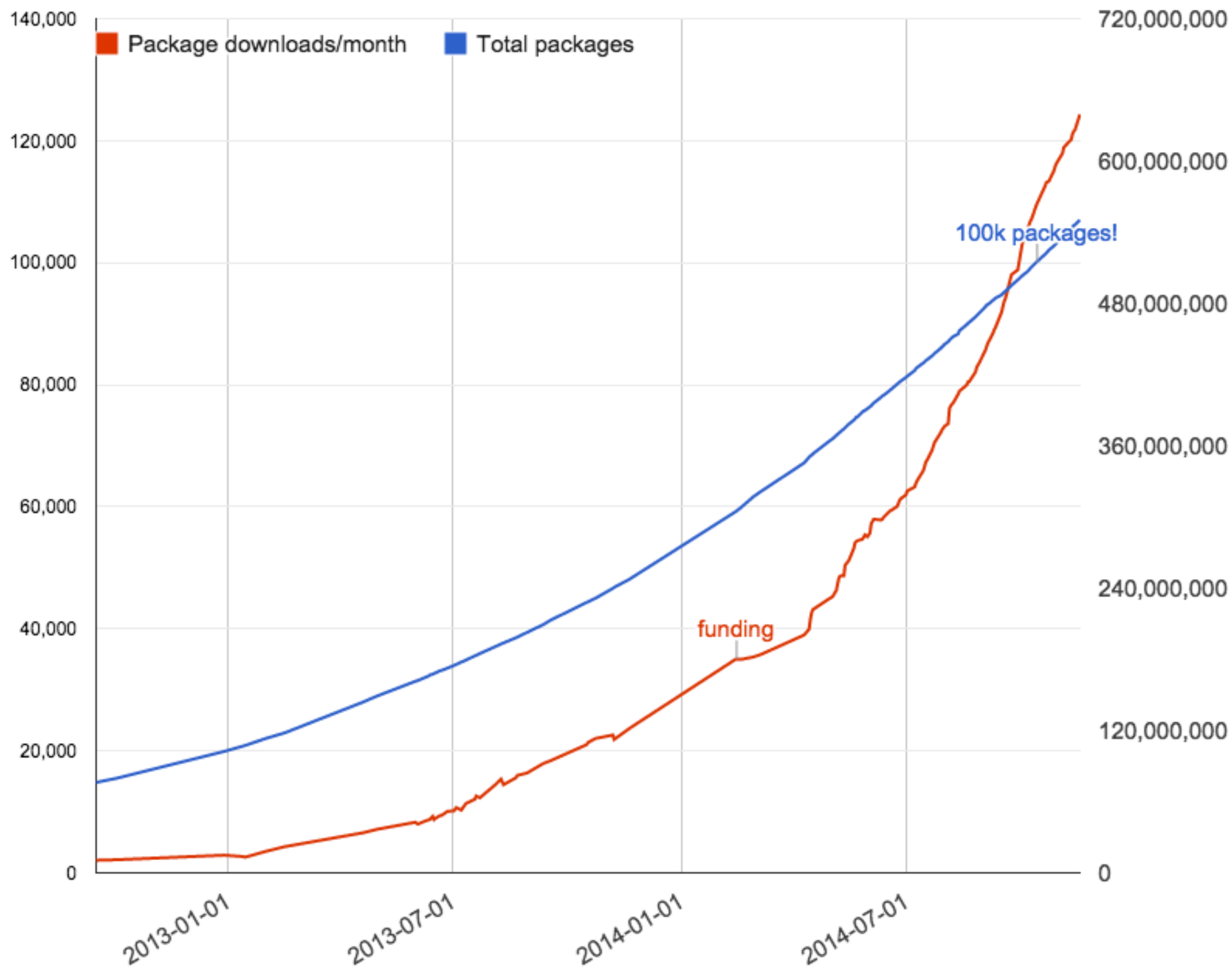
**WHAT WE DID
LESSONS LEARNED
GENERALIZATIONS**

The background of the image is a dense, overlapping field of blue circular emojis, each with a simple black dot for an eye and a downward-curving line for a sad mouth. In the lower center of the frame, a single yellow circular emoji stands out, featuring a wide, upward-curving smile. Overlaid on this background is the text "I really enjoy learning from my mistakes" in a white, bold, sans-serif font with a thin black outline.

I really enjoy learning
from my mistakes

JACQUES MARNNEWECK
BENJAMIN COE
LAURIE VOSS

Total packages



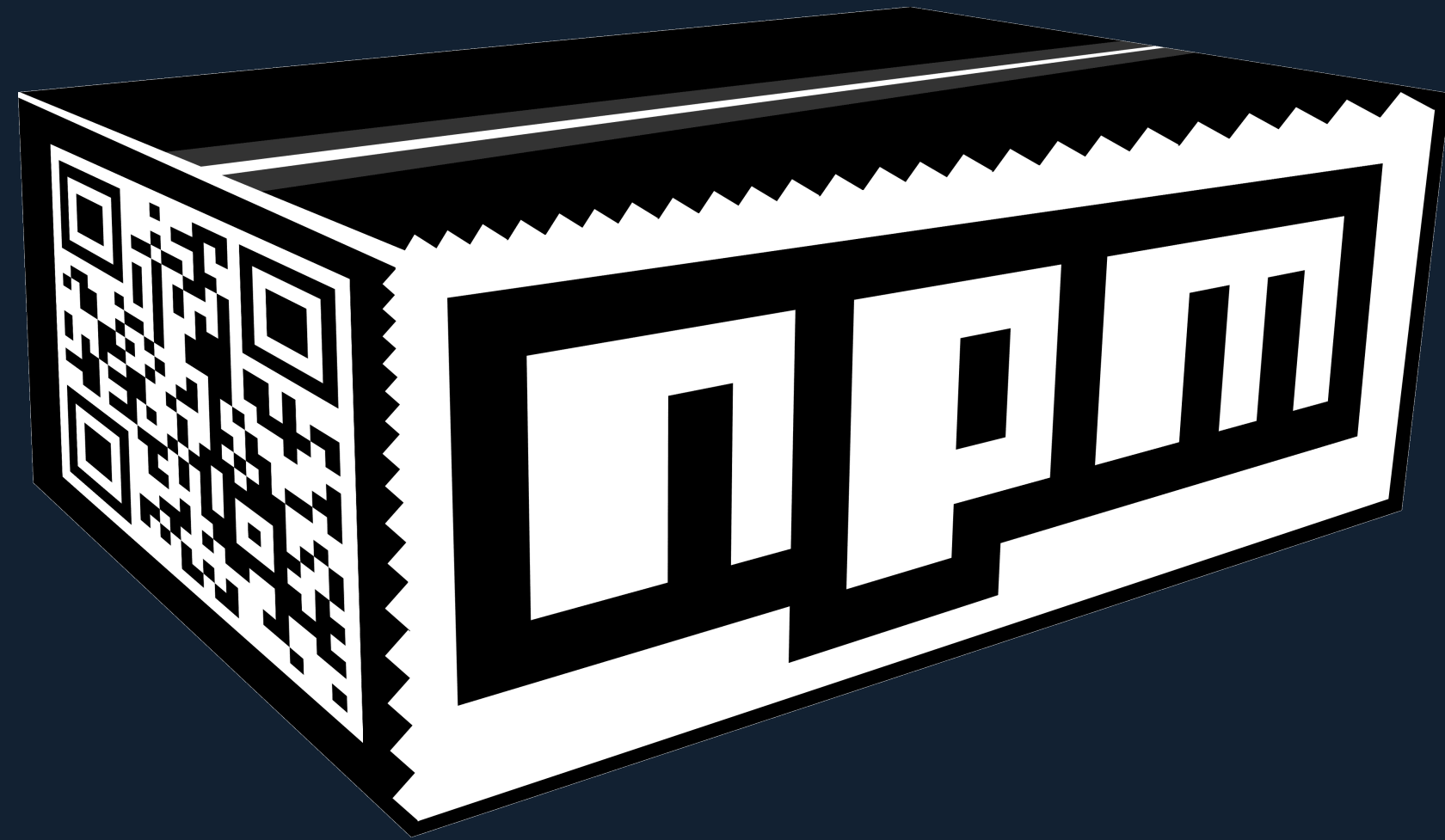
JANUARY 2013
20K PACKAGES
.5 MILLION DLS/DAY

JANUARY 2014
60K PACKAGES
8 MILLION DLS/DAY

NOV 2014

> 100K PACKAGES

28 MILLION DLS/DAY PEAK



**SIDE PROJECT
100% COUCHDB
DONATED HOSTING
IRISCOUCH**



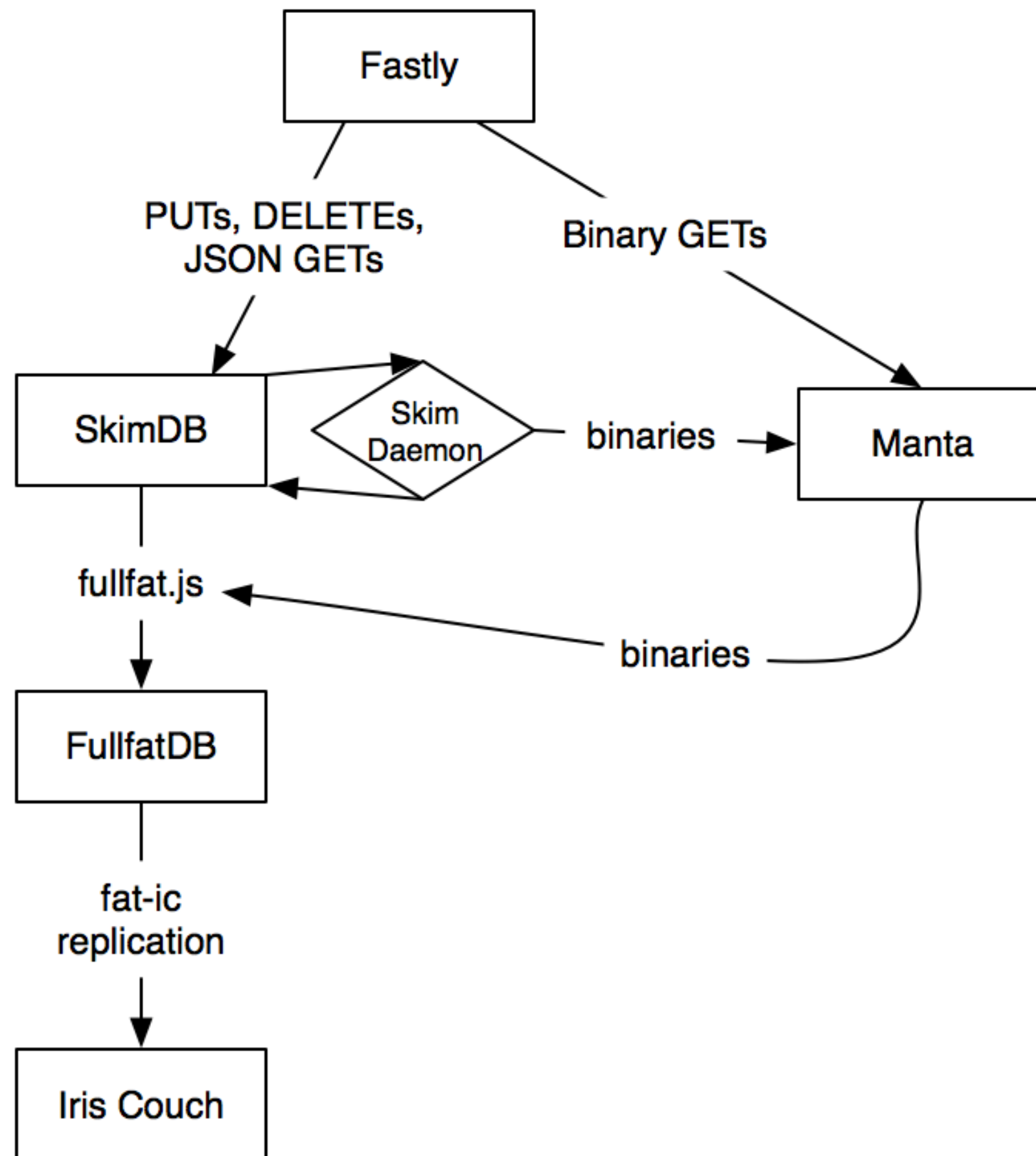


OCTOBER 2013

server's down

GENERAL LESSON #1
PUT A CACHE ON IT

RE-ARCHITECTURE 1
MOVE TARBALLS OUT
OF POOR COUCHDB





FEBRUARY 2014

COMPANY FOUNDED

**HOSTED ON JOYENT/SMARTOS
HAND-BUILT COUCHDB + SPIDERMONKEY
BASH SCRIPTS TO DEPLOY**

**TWITTER TELLS US
WHEN WE'RE DOWN**

RE-ARCHITECTURE 2

MANY COUCHDBS

GENERAL LESSON #2

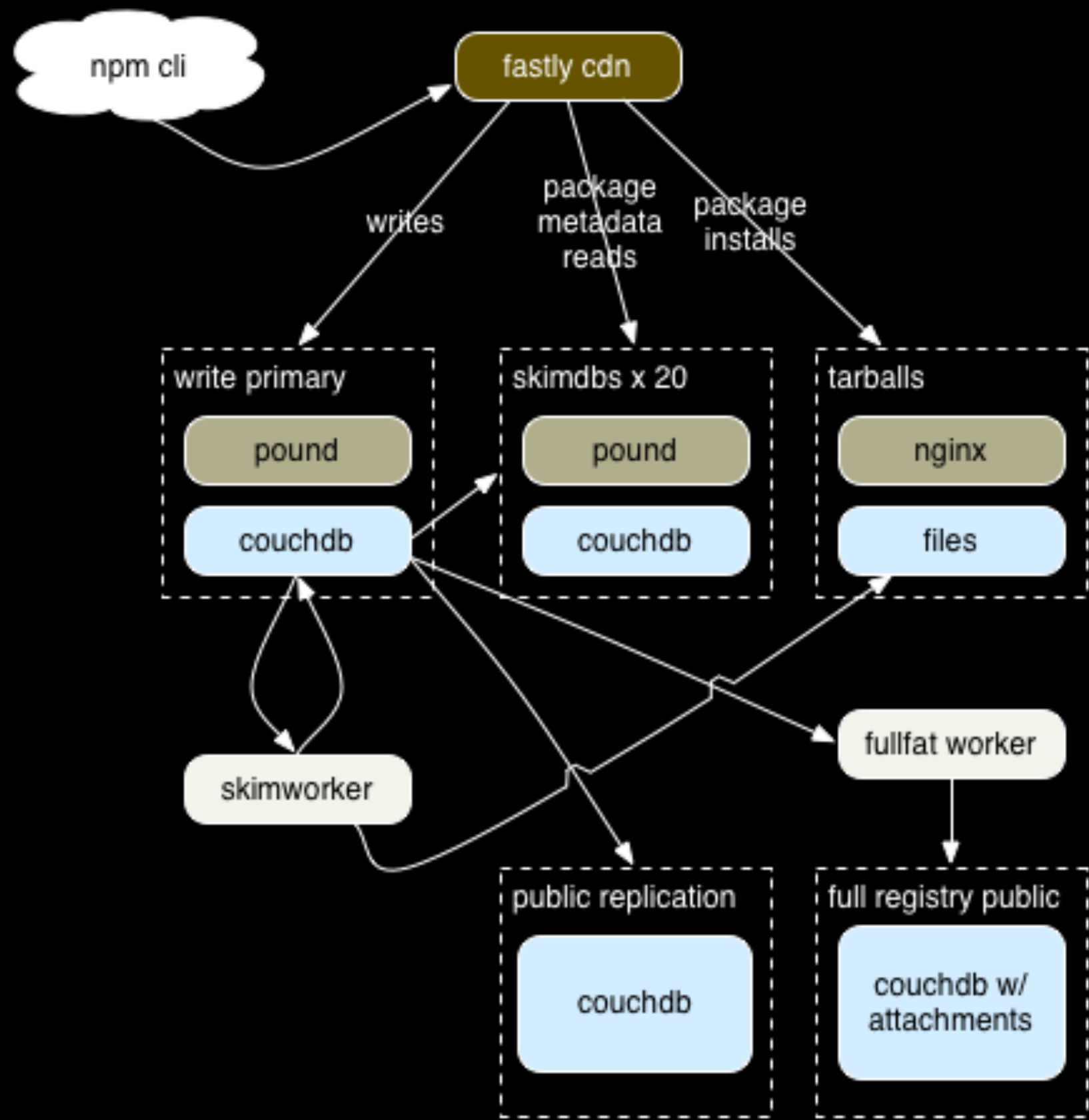
UNDERSTAND YOUR DB DEEPLY

MONITORING & ALERTS

GENERAL LESSON #3
ADD MONITORING AFTER
EVERY OUTAGE

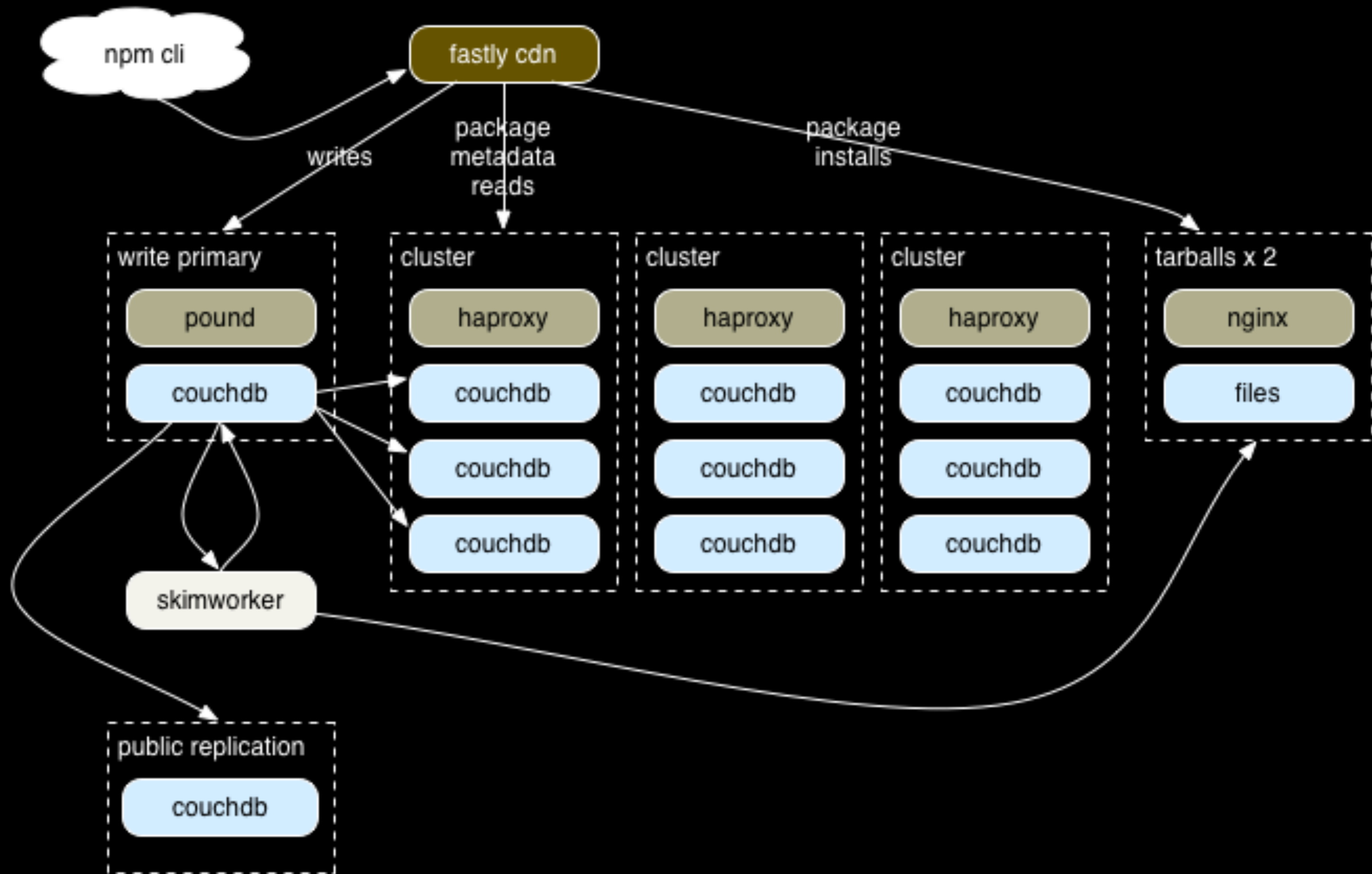
**1: REACTIVE
MONITOR DEEPLY
FIX THINGS QUICKLY**

2: PROACTIVE SELF-HEALING MONITORING (ALSO THINGS DON'T BREAK)



JUNE 2014
SUPERFICIALLY
SIMILAR.

AWS / UBUNTU
70/30 WEST/EAST SPLIT
52 RUNNING INSTANCES, VARIABLE



50/50 AWS REGION SPLIT
HAPROXY TO LOAD BALANCE
NO AWS-SPECIFIC MAGIC

**FASTLY: GEOLOG + CACHE
HAPROXY / COUCHDB
NGINX + A FILESYSTEM**

**BEHIND THE SCENES
ANSIBLE / NAGIOS
INFLUXDB+GRAFANA**

GENERAL LESSON #4

METRICS

FOR EVERYTHING

**MEMORY & CPU USE
REQUEST LATENCY
EVENT COUNTS**

**METRICS ==
VISIBILITY**

**METRICS DRIVE
MONITORING**

GENERAL LESSON #5

AUTOMATE

NO SPECIAL SNOWFLAKES
EVERY INSTANCE CAN BE REPLACED

GENERAL LESSON #6

THE GOAL IS TO BE

BORING

IF OPERATIONS ARE
BORING
YOU CAN DO THE DEV

**GOAL: TO BE THE MOST BORING
PART OF YOUR NODE EXPERIENCE**

NPM CLIENT <3

```
npm install -g npm@latest
```

NPM LOVES YOU