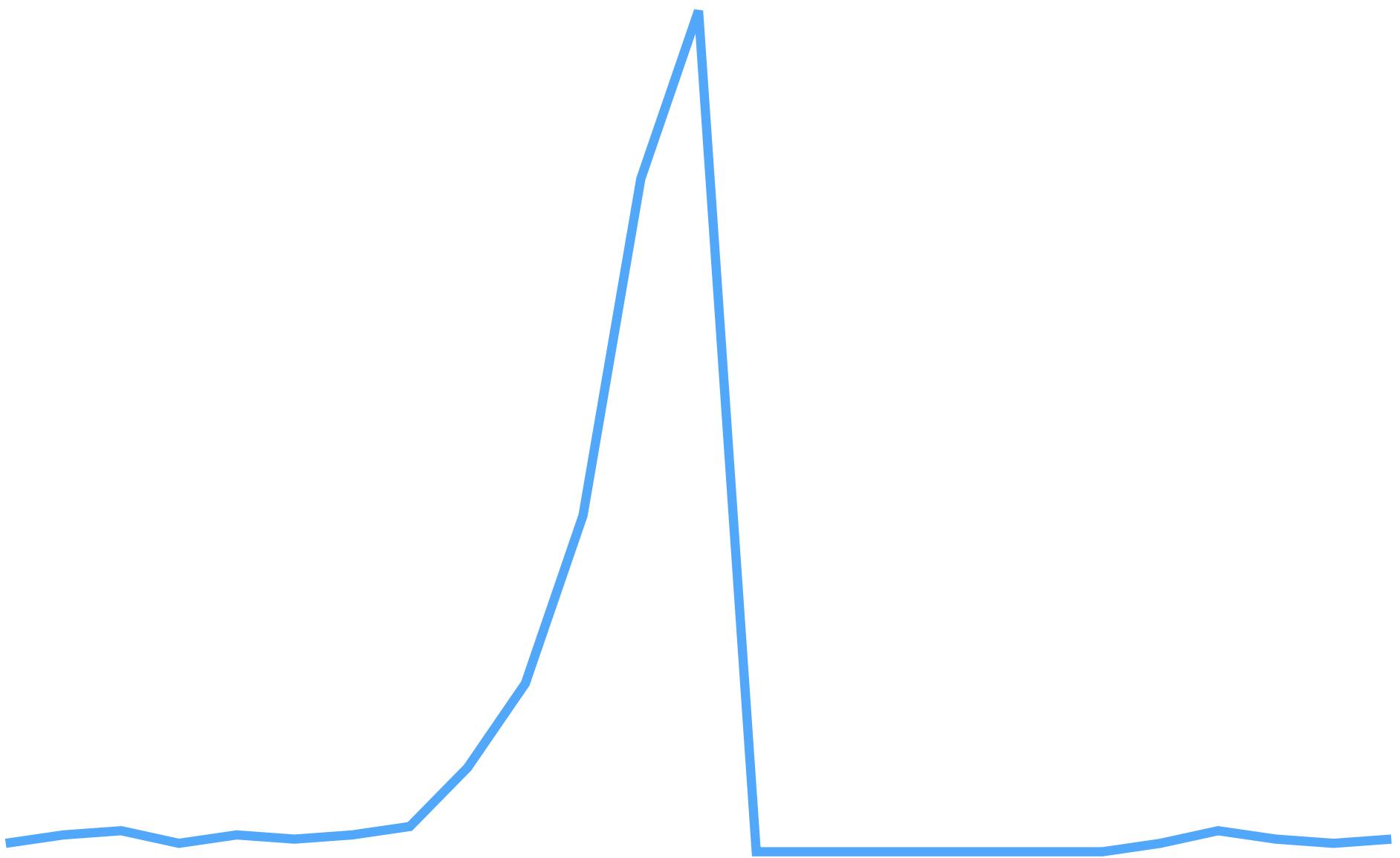


SCALING WORDPRESS

with Zack Tollman

WIRED



slashdot effect

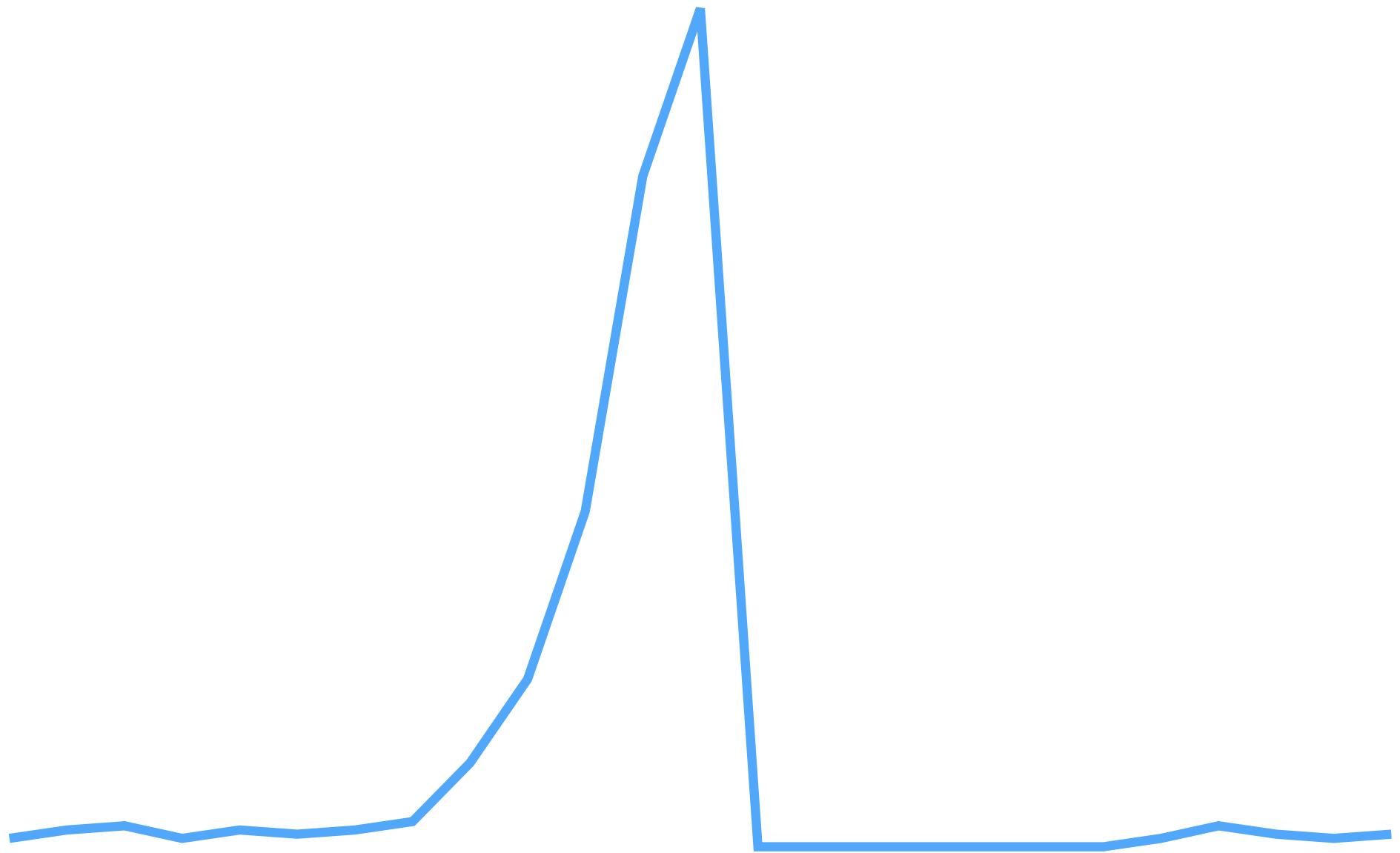
Digg effect

Reddit effect

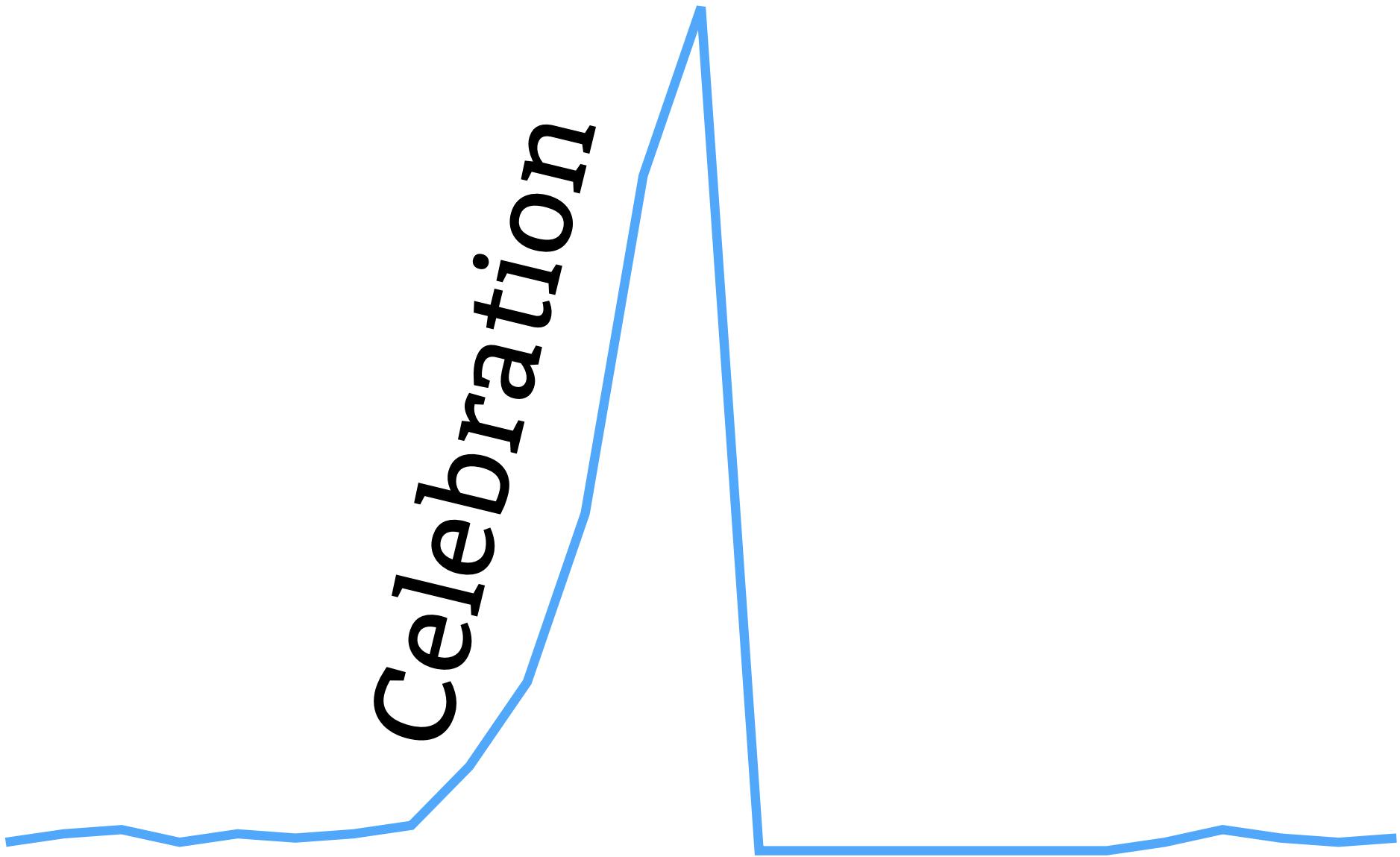
Farked

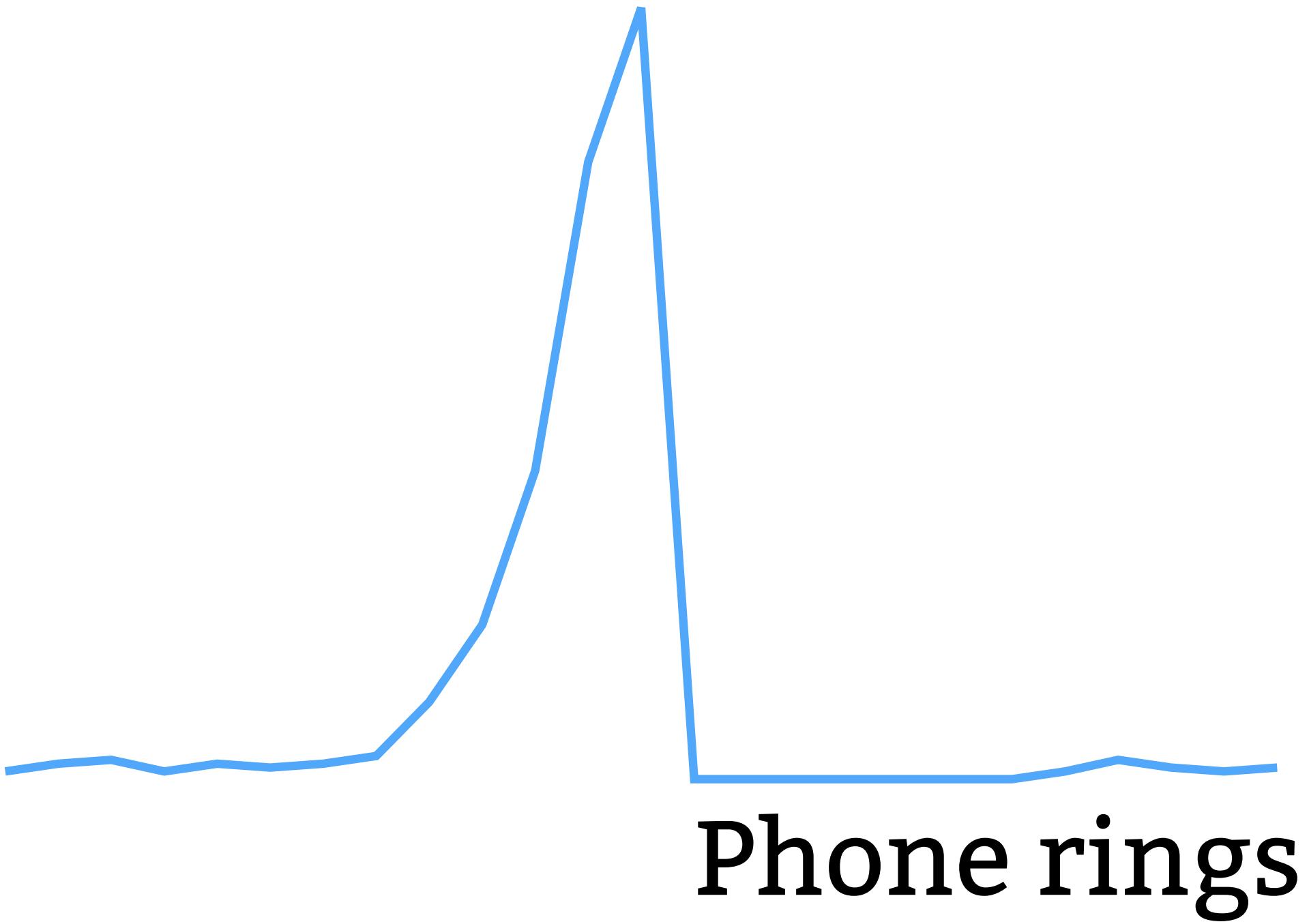
Drudged

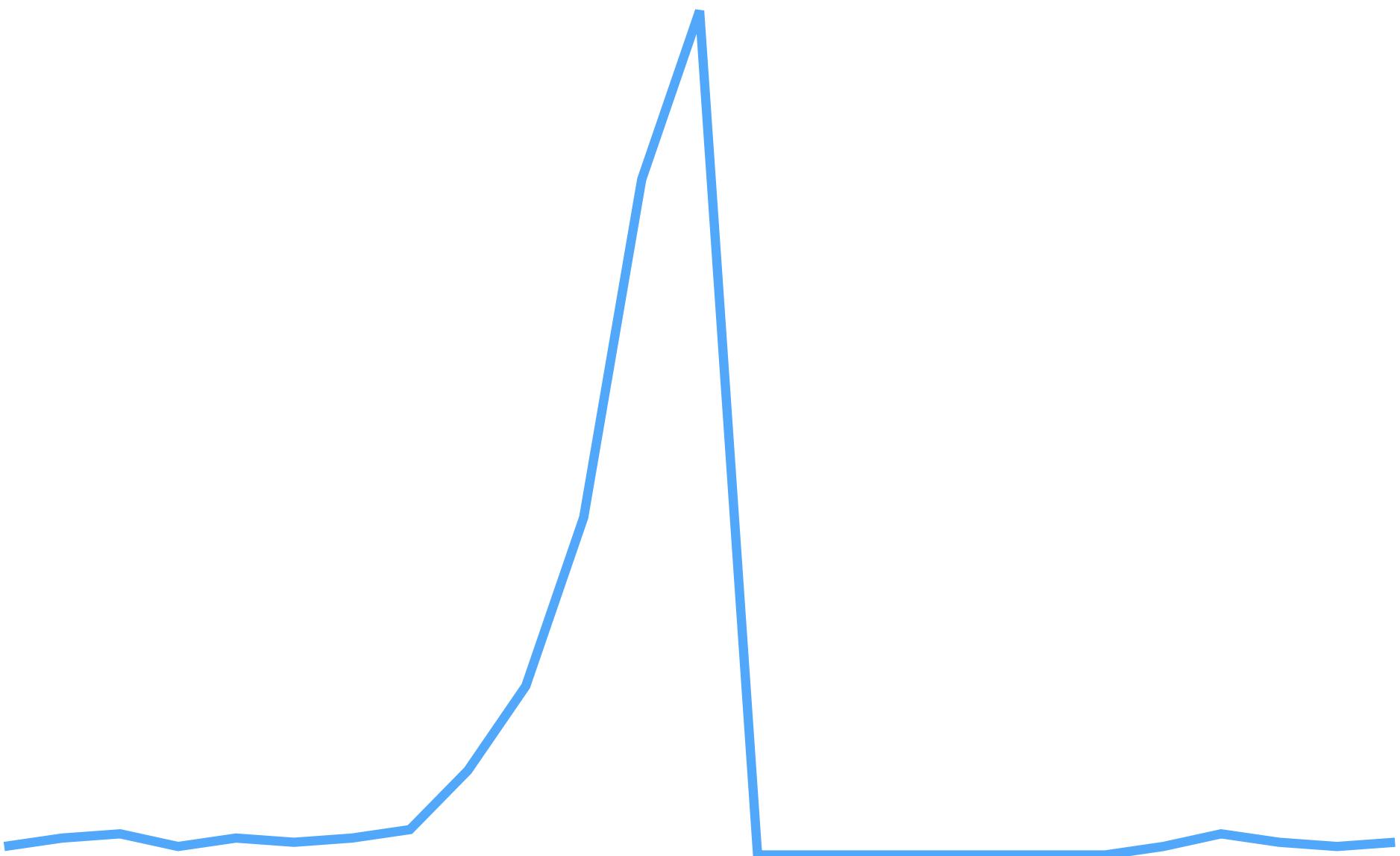
Dinner



Celebration







Not at dinner



Triage
approach
to scaling

Stabilize

Diagnose

Treat

Prevent

PAGE CACHING

Stabilize with



WordPress as a Static Site



#breaktheinternet

<https://medium.com/message/how-paper-magazines-web-engineers-scaled-kim-kardashians-back-end-sfw-6367f8d37688>

Reduce Site Load

Batcache

Varnish

Edge Caching

*Low TTL to avoid
invalidation pains*

Tips

Diagnose with

EXPERIENCE & TOOLS

Database Queries

Remote Requests

Slow Methods

Slow Database Queries (above 0.1s)

Query

```
SELECT t.*, tt.*, tr.object_id
FROM wp_terms AS t
INNER JOIN wp_term_taxonomy AS tt
ON tt.term_id = t.term_id
INNER JOIN wp_term_relationships AS tr
ON tr.term_taxonomy_id = tt.term_taxonomy_id
WHERE tt.taxonomy IN ('category', 'post_tag', 'post_format')
AND tr.object_id IN (54, 95, 112, 115, 118)
ORDER BY t.name ASC
```

Query Monitor

Component	Affected Rows	Time
Core	5	0.1352

Query Monitor

XHProf/XDebug

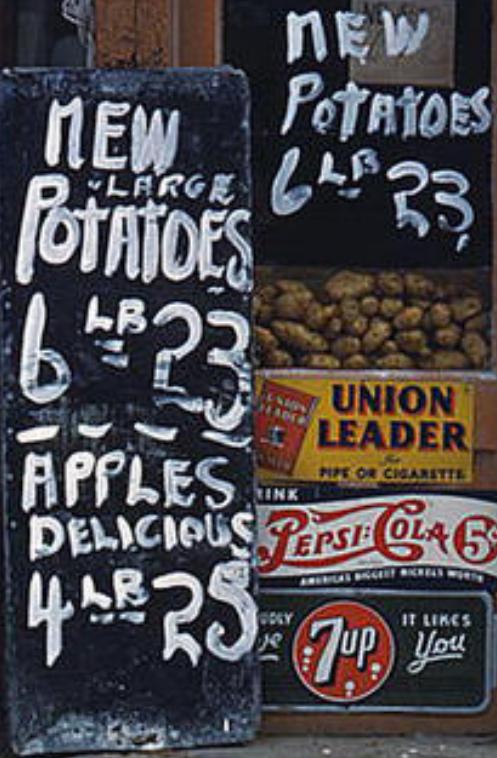
New Relic

Treat with

**OBJECT
CACHING**

GRAND GR
FARMERS ST
RY CO.
STORE

WIENE



QUALITY MEATS



GROCERIES



ORANGES

1¢



GRAPEFRUIT

5¢



BEECH NUT

CHEWING TOBACCO

Chew
Copenhagen
It's a pleasure

Did you say 10¢?

MODEL
SMOKING TOBACCO

*tollmanz.com/grokking-the-
wp-object-cache/*

WP_Object_Cache

*github.com/tollmanz/
wordpress-pecl-memcached-
object-cache*

Memcached

wordpress.org/plugins/apc/

APC

WordPress core
uses object
caching

wp_cache_set

wp_cache_get

```
$args = array(
    'number'      => 5,
    'username'    => 'tollmanz',
    'include_rts' => false,
);

$key    = md5( $args );
$group = 'tweets';

$tweets = wp_cache_get( $key, $group );

if ( false === $tweets ) {
    $tweets = get_tweets( $args );
    wp_cache_set( $key, $tweets, $group, 600
);
}
```

On Demand



ANDY GREENBERG SECURITY 02.19.15 8:45 PM

SPIES CAN TRACK YOU JUST BY WATCHING YOUR PHONE'S POWER USE



Klaus Vedfelt/Getty Images

AdChoices

A dark blue advertisement for Microsoft Cloud. It features a network of white lines forming a grid-like pattern. In the center, the text "This cloud makes data make a difference." is written in a white, sans-serif font. At the bottom, the Microsoft Cloud logo (a blue square with four smaller colored squares inside) is followed by the text "Microsoft Cloud" and a "See how" button with a circular arrow icon.

LATEST NEWS

TOP IN SECURITY

Why Clinton's Private Email Server Was Such a Security Fail

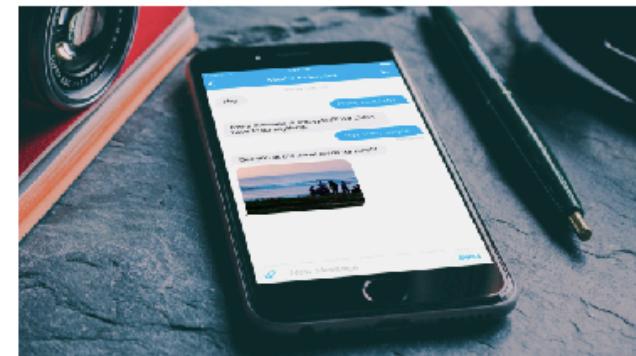
03.04.15



ANDY GREENBERG

Gun Group: We'll Pay \$15K for Your Carbon Fiber 3-D Printer

03.03.15



SECURITY

There's Now a Free iPhone App That Encrypts Calls and Texts

03.02.15

WE RECOMMEND



Artists Put Rooms on City Streets and Invite You to Play House



The Science of Why No One Agrees on the Color of This Dress



What's Up With That: Why Running Hurts Every Part of Your Body



The Biggest Security Threats We'll Face in 2015



SOLAR AMERICA: FREE HOME SOLAR QUOTES
Homeowners are Paying Next to Nothing for Solar Panels

POWERED BY OUTBRAIN



MAGAZINE

The Plot to Free North Korea With Smuggled Episodes of...

03.01.15

TOP IN SECURITY FEDS ADMIT STINGRAYS CAN DISRUPT CELL SERVICE OF

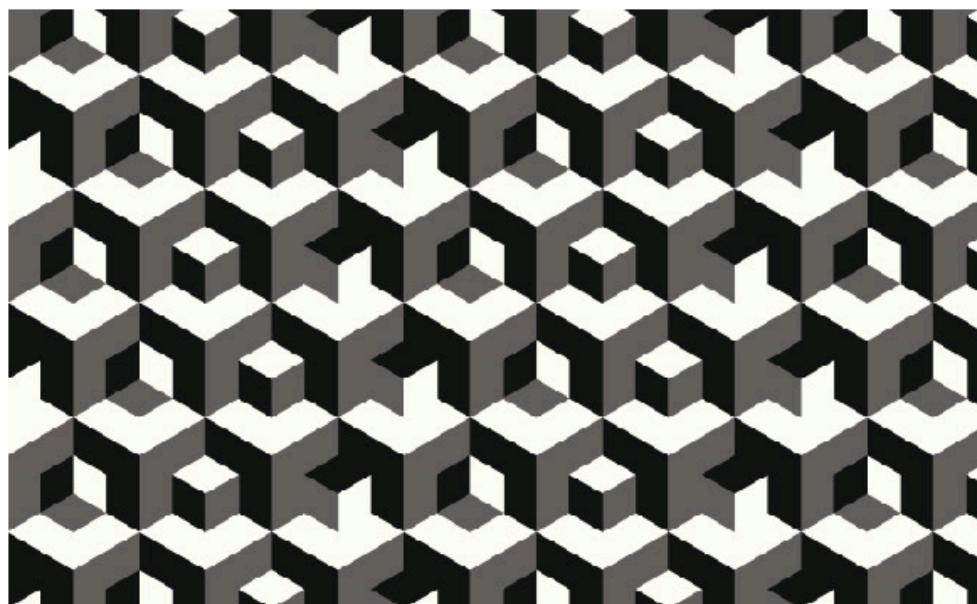
CapitalOne

DO THEY THINK



KIM ZETTER SECURITY 02.22.15 8:09 PM

HOW THE NSA'S FIRMWARE HACKING WORKS AND WHY IT'S SO UNSETTLING



Getty Images



LATEST NEWS

TOP IN SECURITY

Why Clinton's Private Email Server Was Such a Security Fail

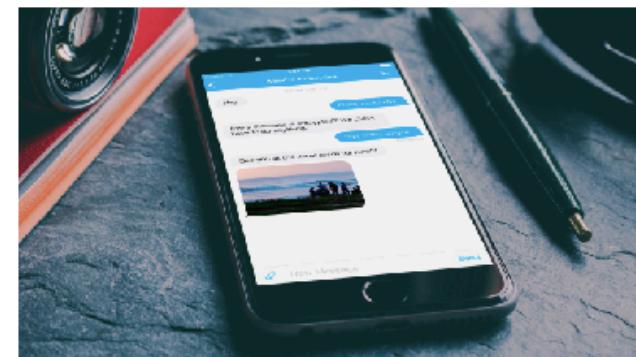
03.04.15



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Gun Group: We'll Pay \$15K for Your Carbon Fiber 3-D Printer

03.03.15



SECURITY

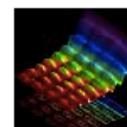
There's Now a Free iPhone App That Encrypts Calls and Texts

03.02.15

WE RECOMMEND



People Need Banking, Not Banks: The Case for Thinking Different



The Weird Quantum Behavior of Light, Captured in a Lab



A Field Guide to the Internet Infrastructure That Hides in Plain Sight



There's Now a Free iPhone App That Encrypts Calls and Texts



CRIMINALLY PROLIFIC 5 Growth Hacking Tools Every Growth Hacker Must Have

POWERED BY OUTBRAIN



MAGAZINE

The Plot to Free North Korea With Smuggled Episodes of...

03.01.15

TOP IN SECURITY FEDS ADMIT STINGRAYS CAN DISRUPT CELL SERVICE OF



YOUR CARD EARN'S BONUS CASH BACK
AT GAS STATIONS

Proactive

On save

Proactive

On scheduled event

Proactive

*github.com/markjaquith/
WP-TLC-Transients*

Stale While
Revalidate

Liveblog

Stale While
Revalidate

Prevent with **A SOLID STACK**

EDGE NETWORK

EDGE NETWORK

LOAD BALANCER

EDGE NETWORK

LOAD BALANCER

VARNISH

VARNISH

EDGE NETWORK

LOAD BALANCER

VARNISH

VARNISH

WEB

WEB

WEB

WEB

EDGE NETWORK

LOAD BALANCER

VARNISH

VARNISH

WEB

WEB

WEB

ADMIN

EDGE NETWORK

LOAD BALANCER

VARNISH

VARNISH

WEB

WEB

WEB

ADMIN

DB

MEM

DB

MEM

Object cache
+ Page cache

Happy life

Zack Tollman
@tollmanz

tollmanz.com/mwphp15

W I R E D