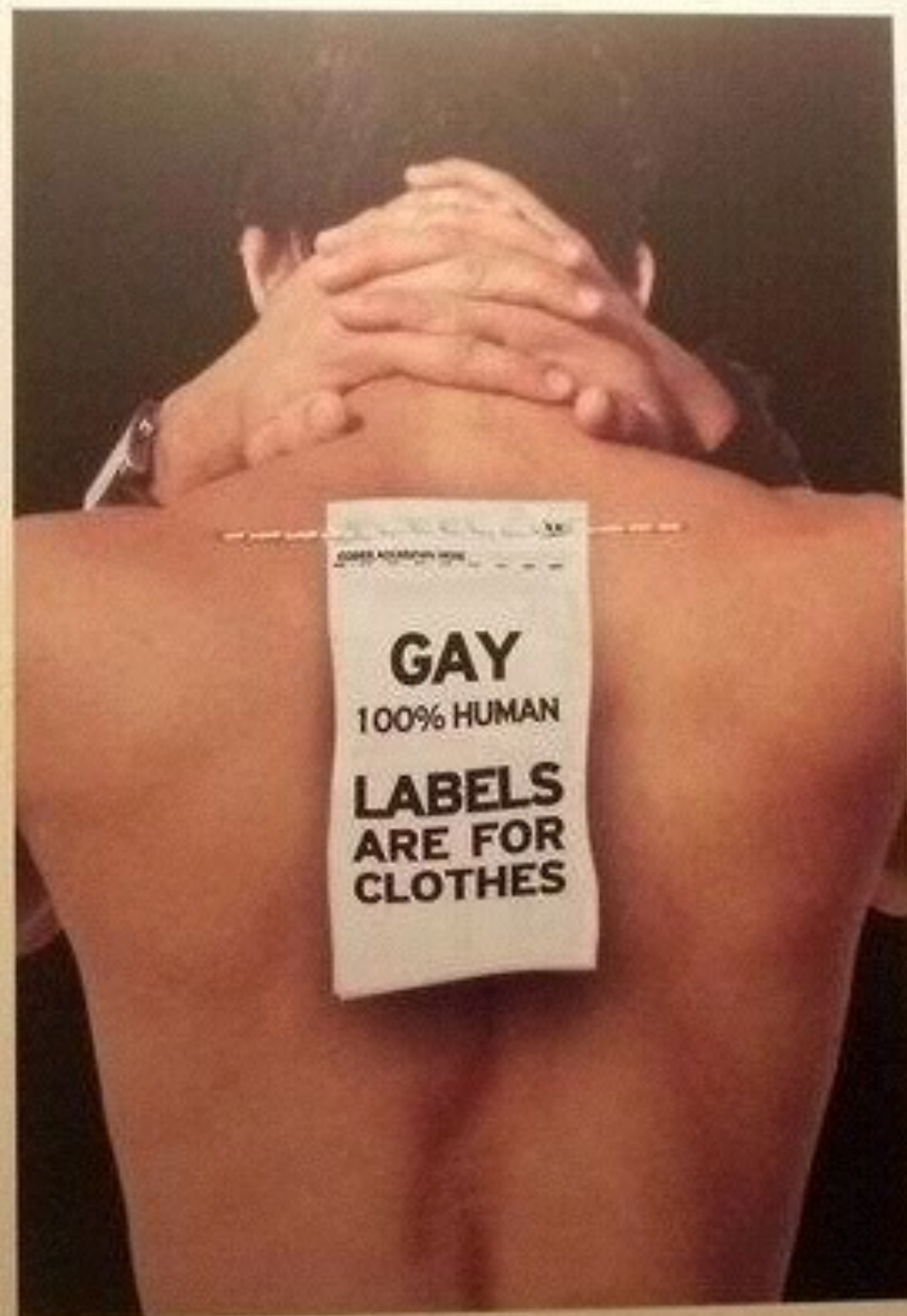
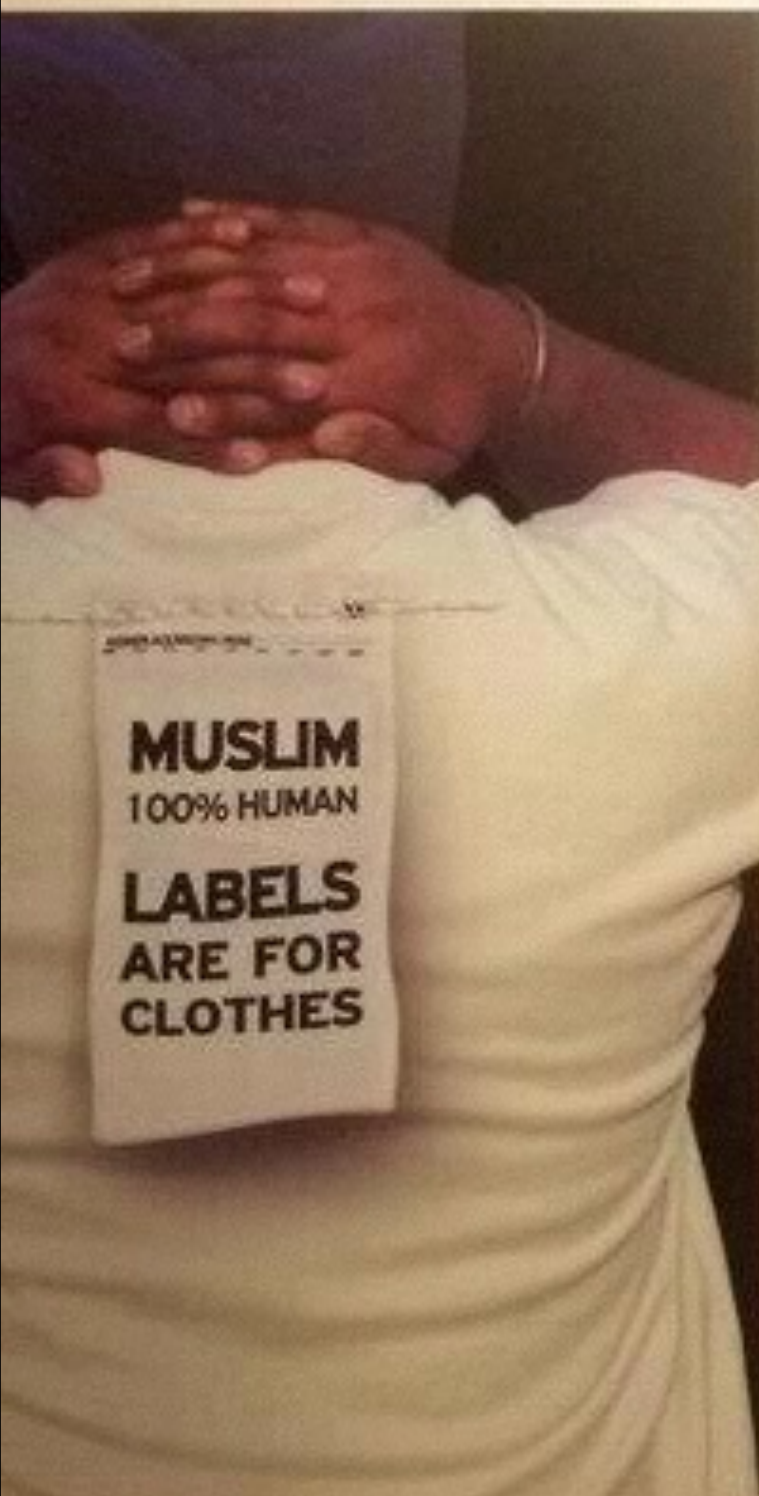


Reclaim your architecture

Stephan Hagemann

Rails developers?

RUBY **DIVING** **STEPHAN** **RAILS** **GO**
GERMAN **GERMANY** **MALE** **CYCLING**
ROCK CLIMBING **WHITE** **BOULDER** **PIVOTAL LABS**
XING **CONSULTANT** **NETHERLANDS**





Labeling in Software development

No
Rails app
starts with a namespace

All
gems
start with a namespace

Rails

Gems



Rails



Gems



Rails



- + active record
- + active support
- + action controller

Gems



How can you tell what
still belongs?



DEC 22 2002

Try this!

Namespace everything
in your next app

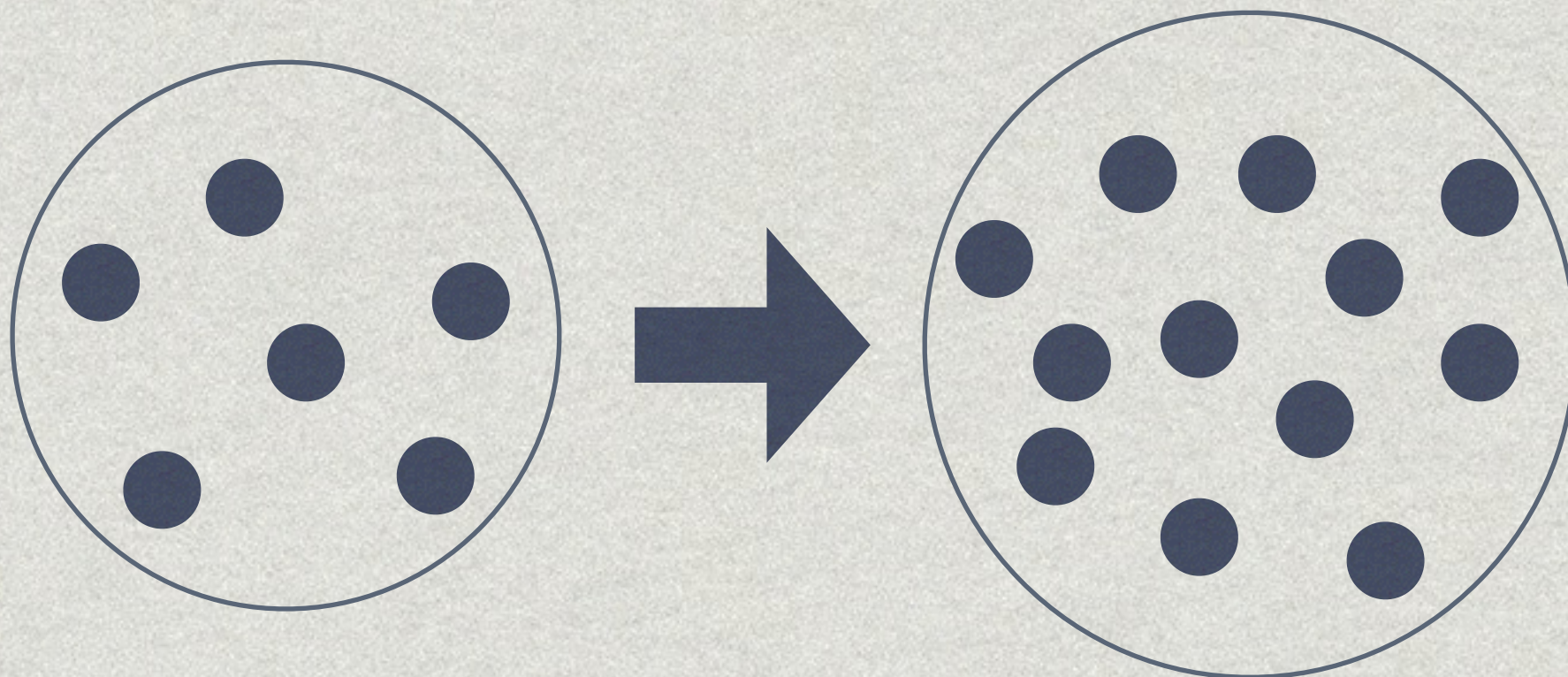


Give yourself a box so
you can start thinking
outside of it



Can you
prove small
chunks?

Growing size



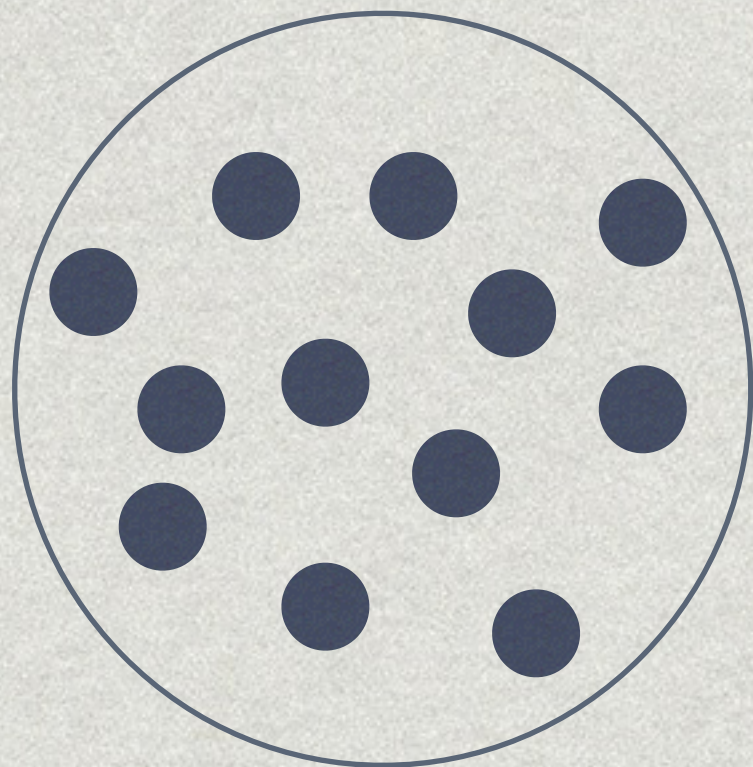
Exploding complexity

**POSSIBLE
INTERACTIONS**

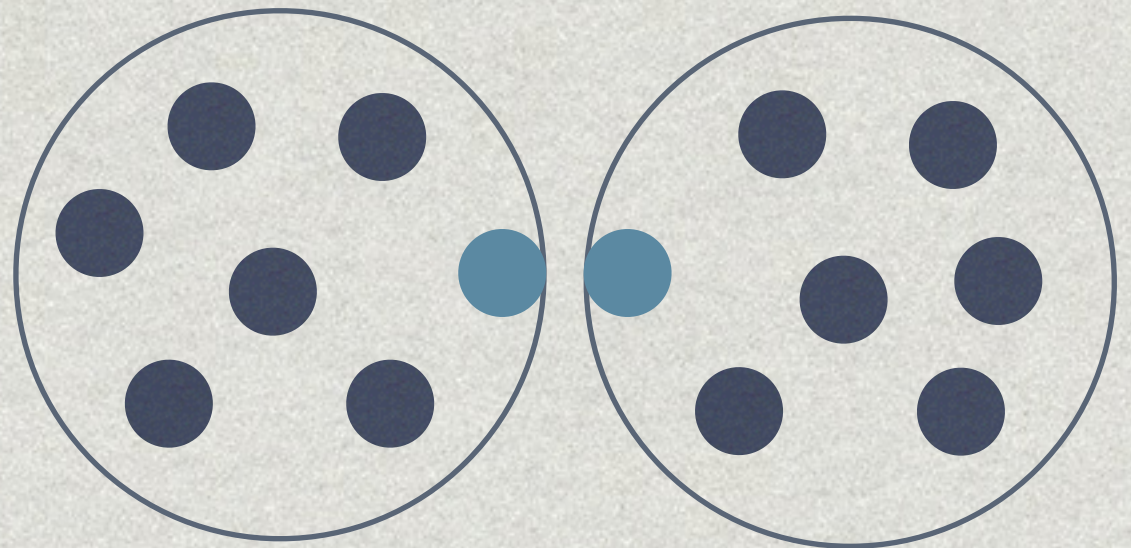
SIZE

A graph illustrating the relationship between system size and the number of possible interactions. The horizontal axis is labeled 'SIZE' and the vertical axis is labeled 'POSSIBLE INTERACTIONS'. A curve starts at a low point on the left and rises exponentially towards the top right, demonstrating how complexity grows much faster than size.

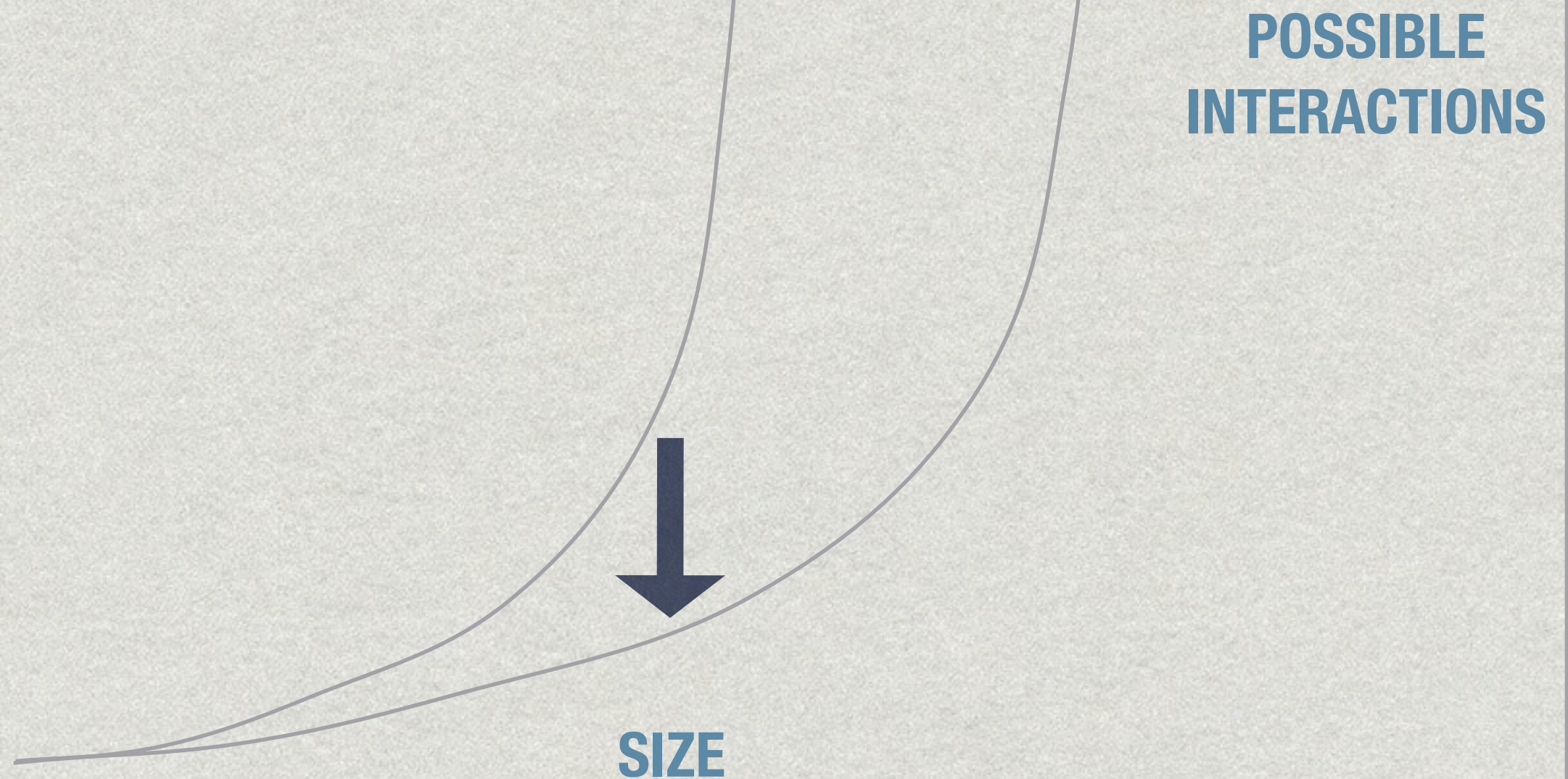
Effect of structure



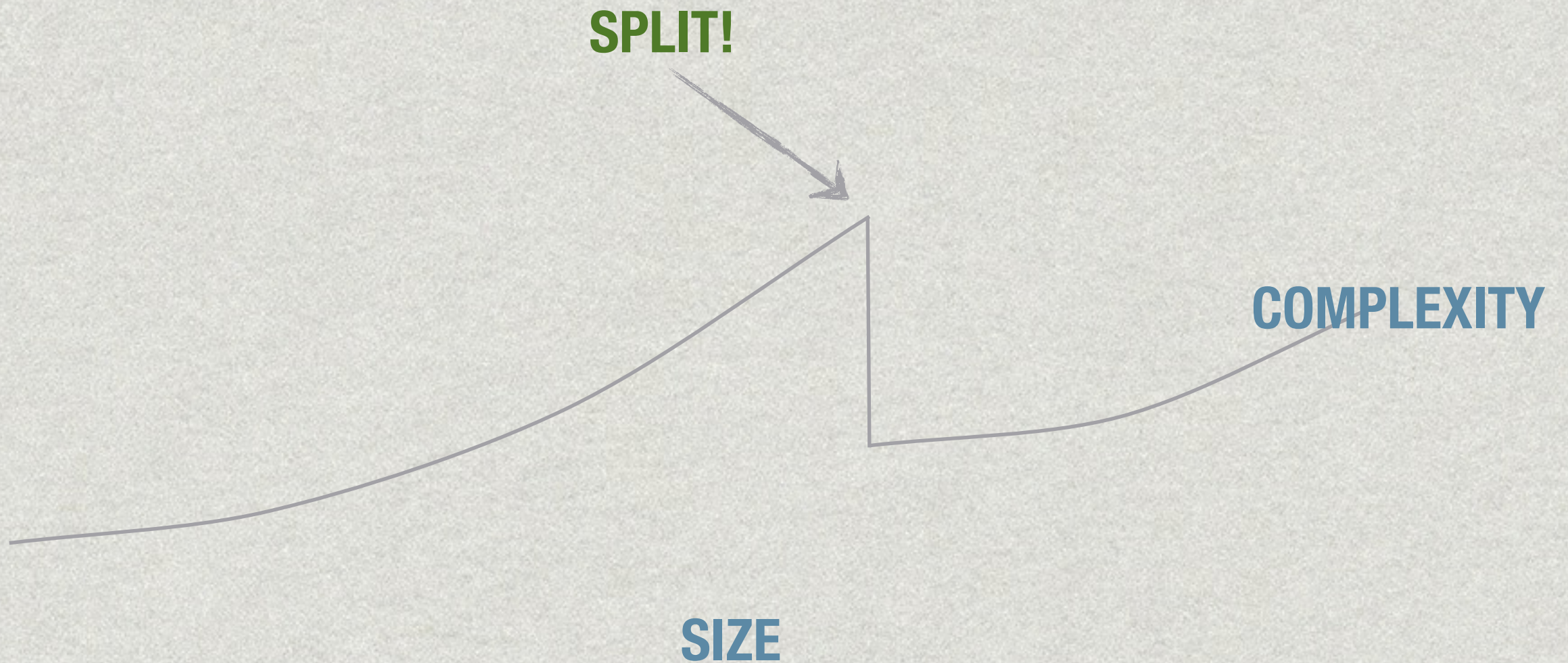
vs



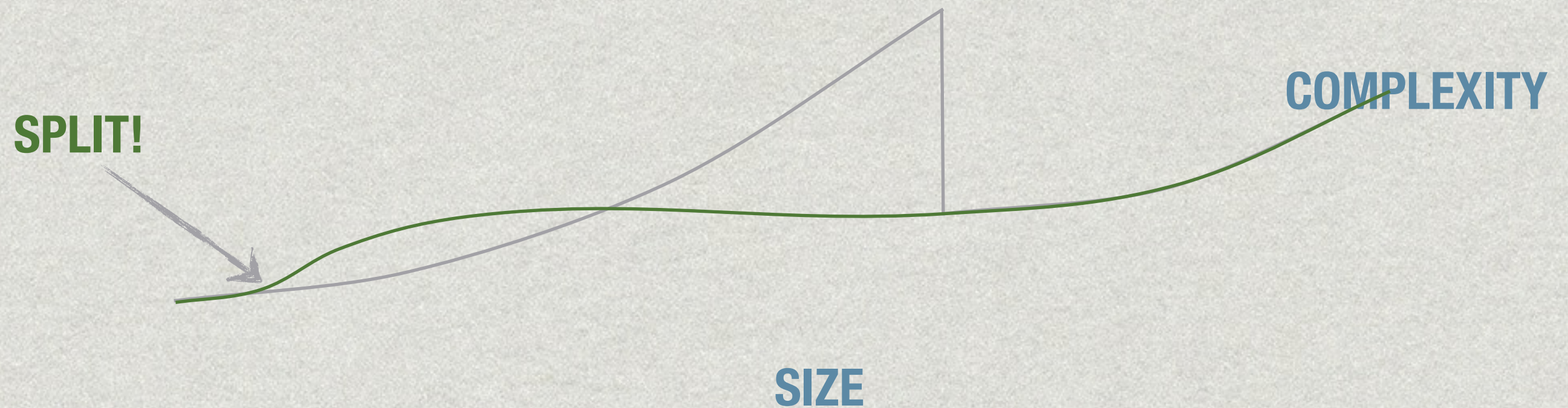
Reduced exploding complexity



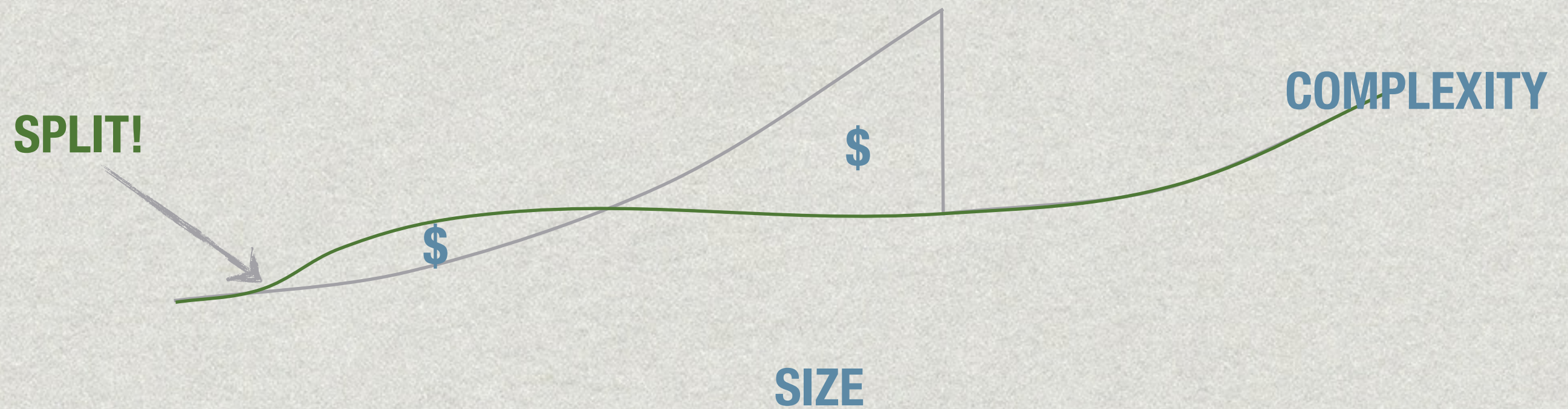
Slashing complexity



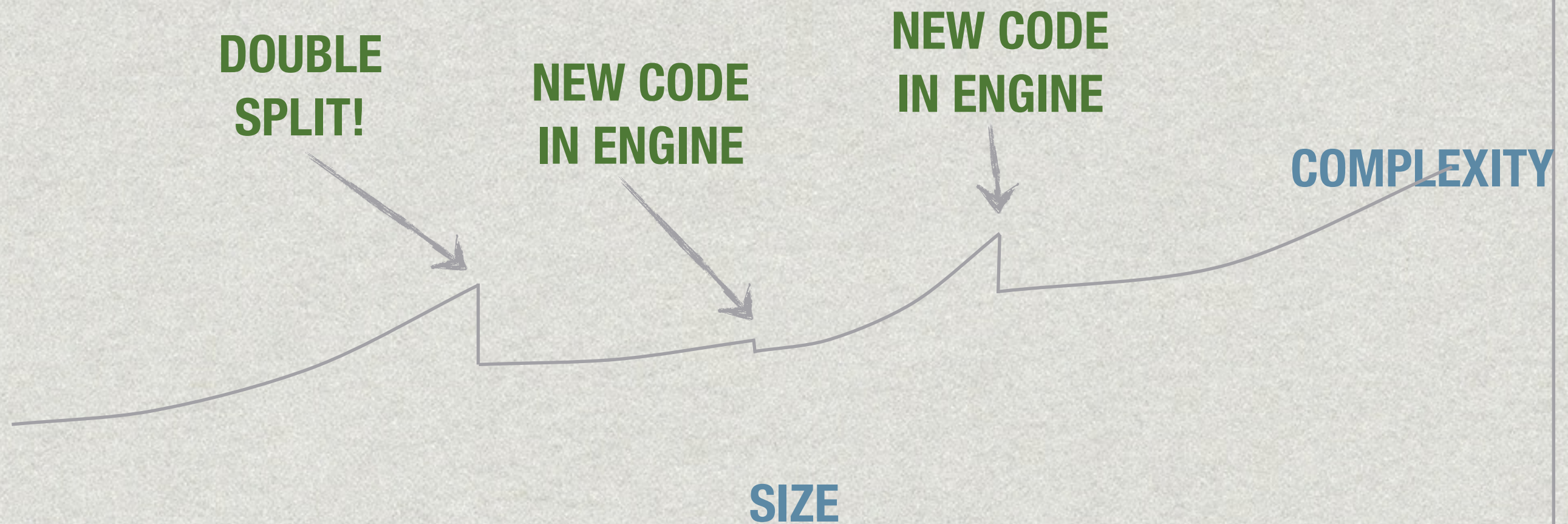
Making chunks early



Net win?

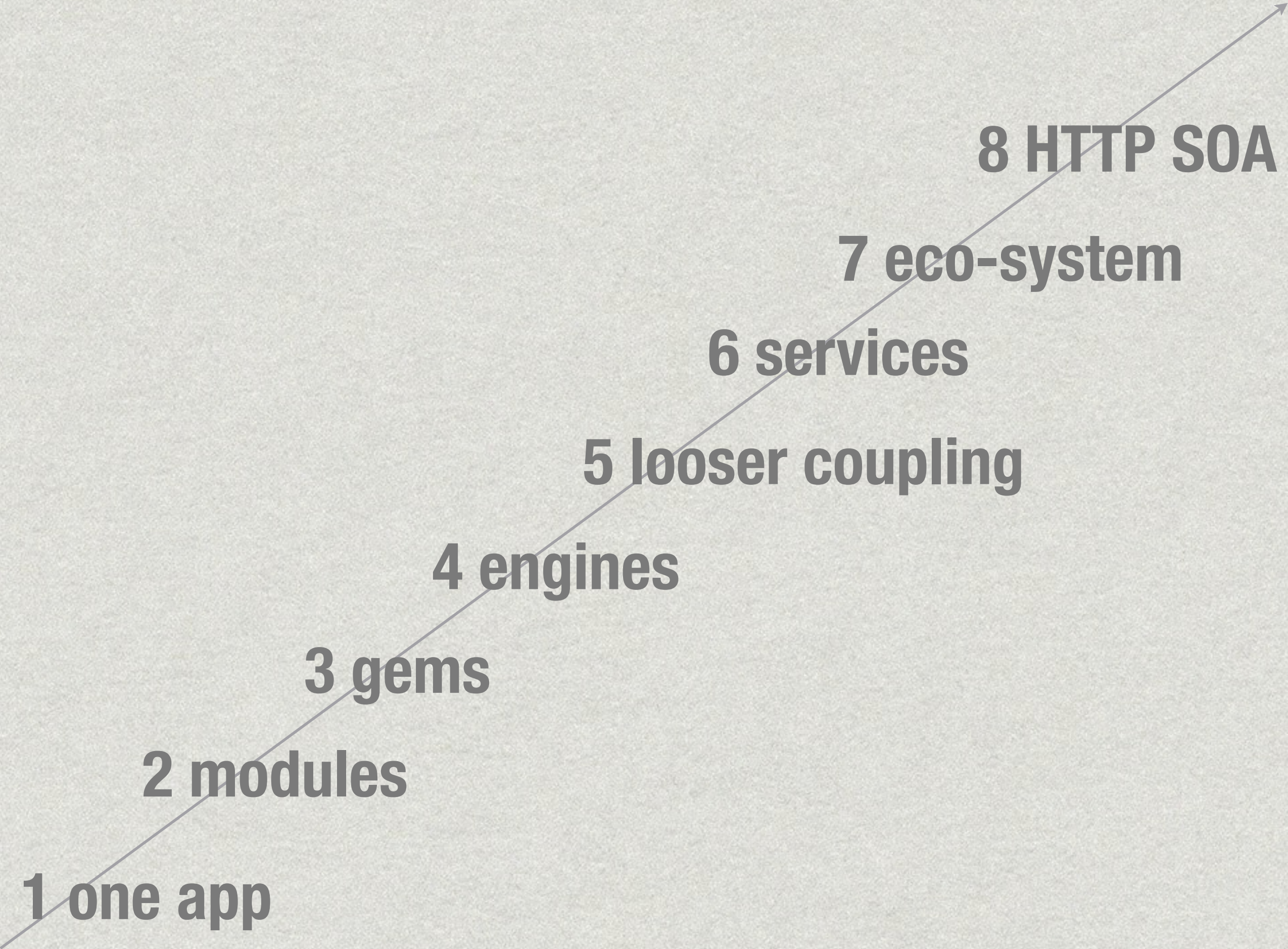


You're going to do it often



Never build large apps
to build large apps

github.com/shageman/
the next big thing



1 one app

2 modules

3 gems

4 engines

5 looser coupling

6 services

7 eco-system

8 HTTP SOA



The one app



Examples

diaspora, CF CC,
canvas



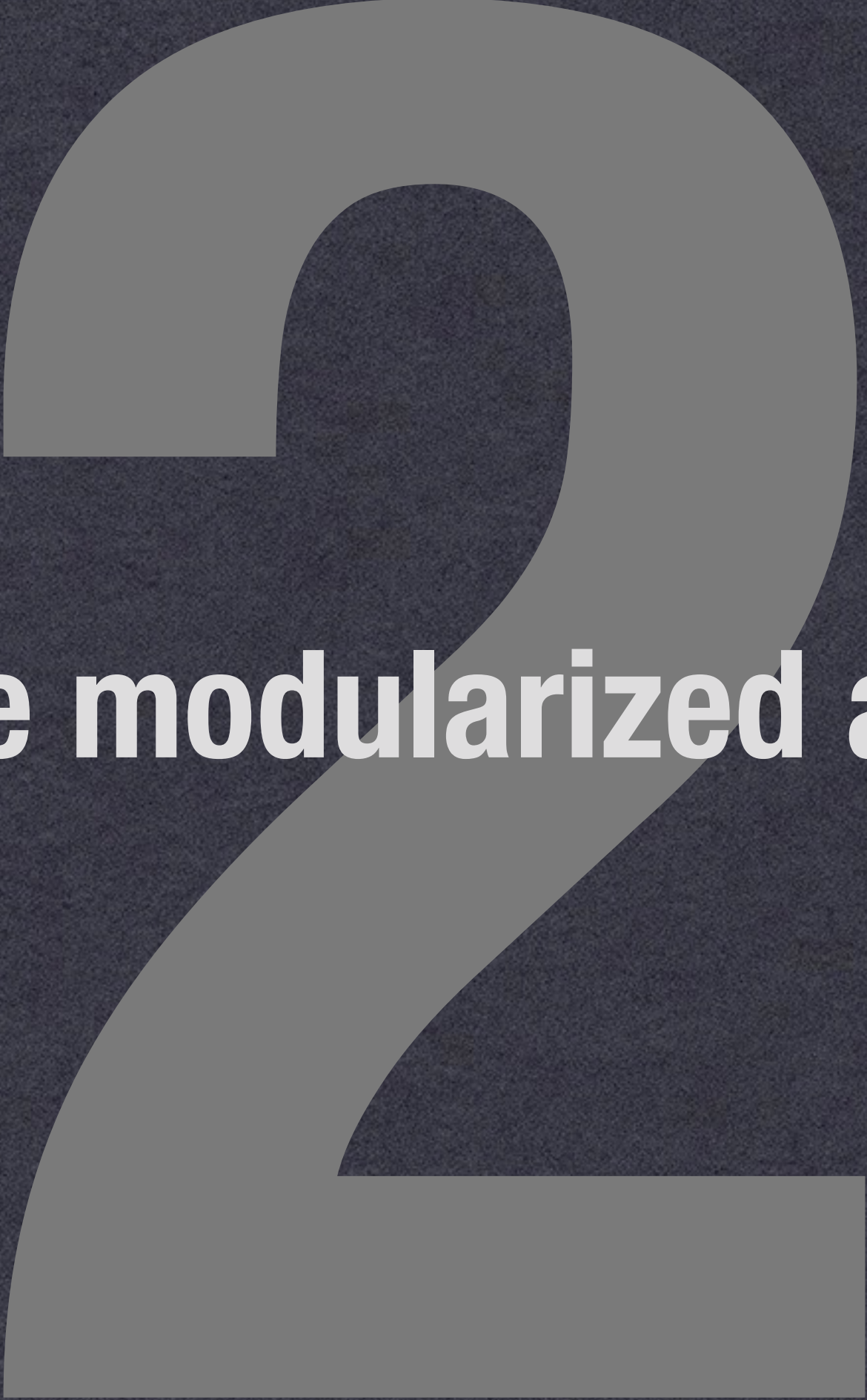
If you are in the situation where you're reading some text, investigating, trying to figure out what is going on... That is a very good property of a detective novel and a very bad property of code.

Martin Fowler

STRUCTURE

ENTRY

ANNOYANCE



The modularized app





A higher level structure

STRUCTURE

**EMAIL
SIGNUP**

ANNOYANCE

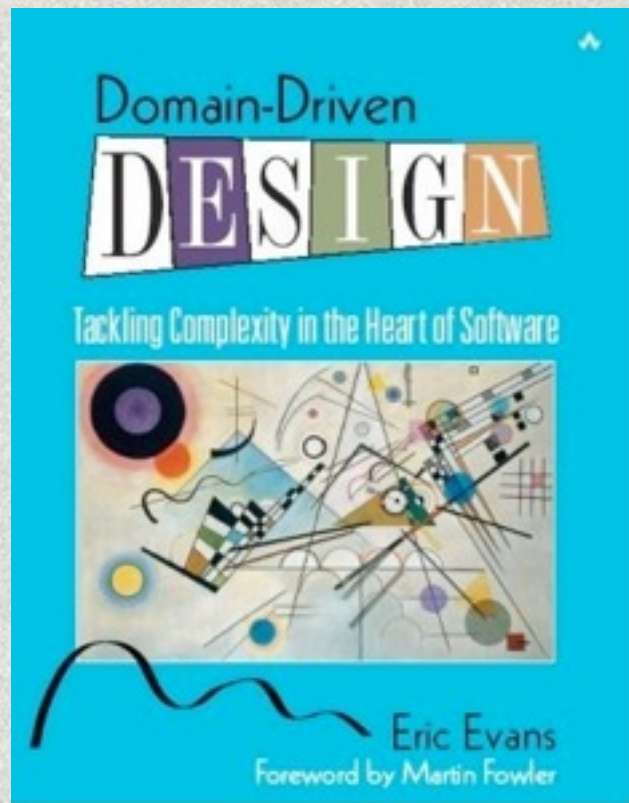
A large, light gray, stylized letter 'S' is centered in the background of the slide. It has a thick, rounded, sans-serif appearance.

The gem component app





Provable independence



Choose modules that **tell the story of the system** and contain a **cohesive set of concepts**

Eric Evans





STRUCTURE

**EMAIL
SIGNUP**

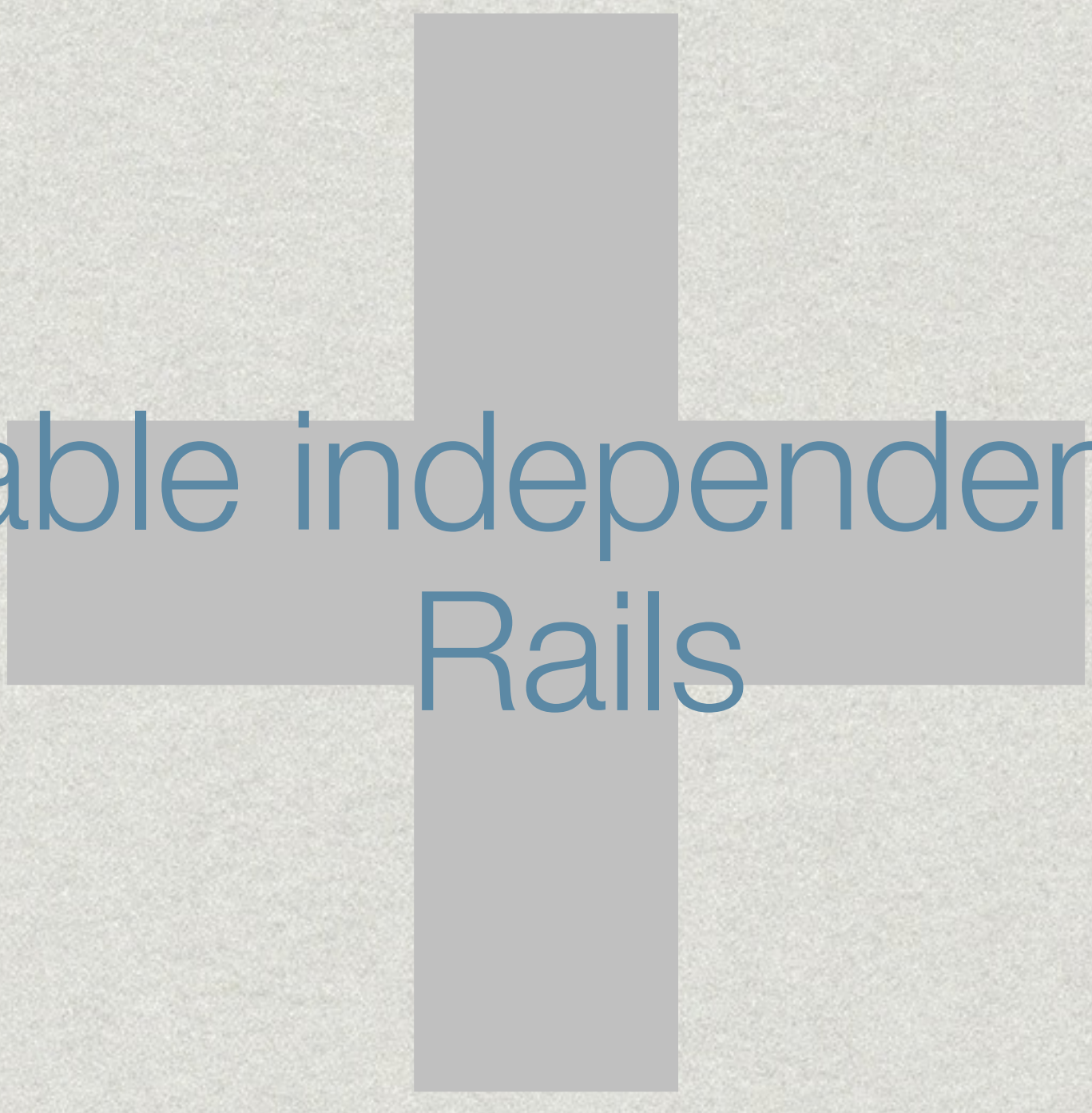


ANNOYANCE



The Rails component app

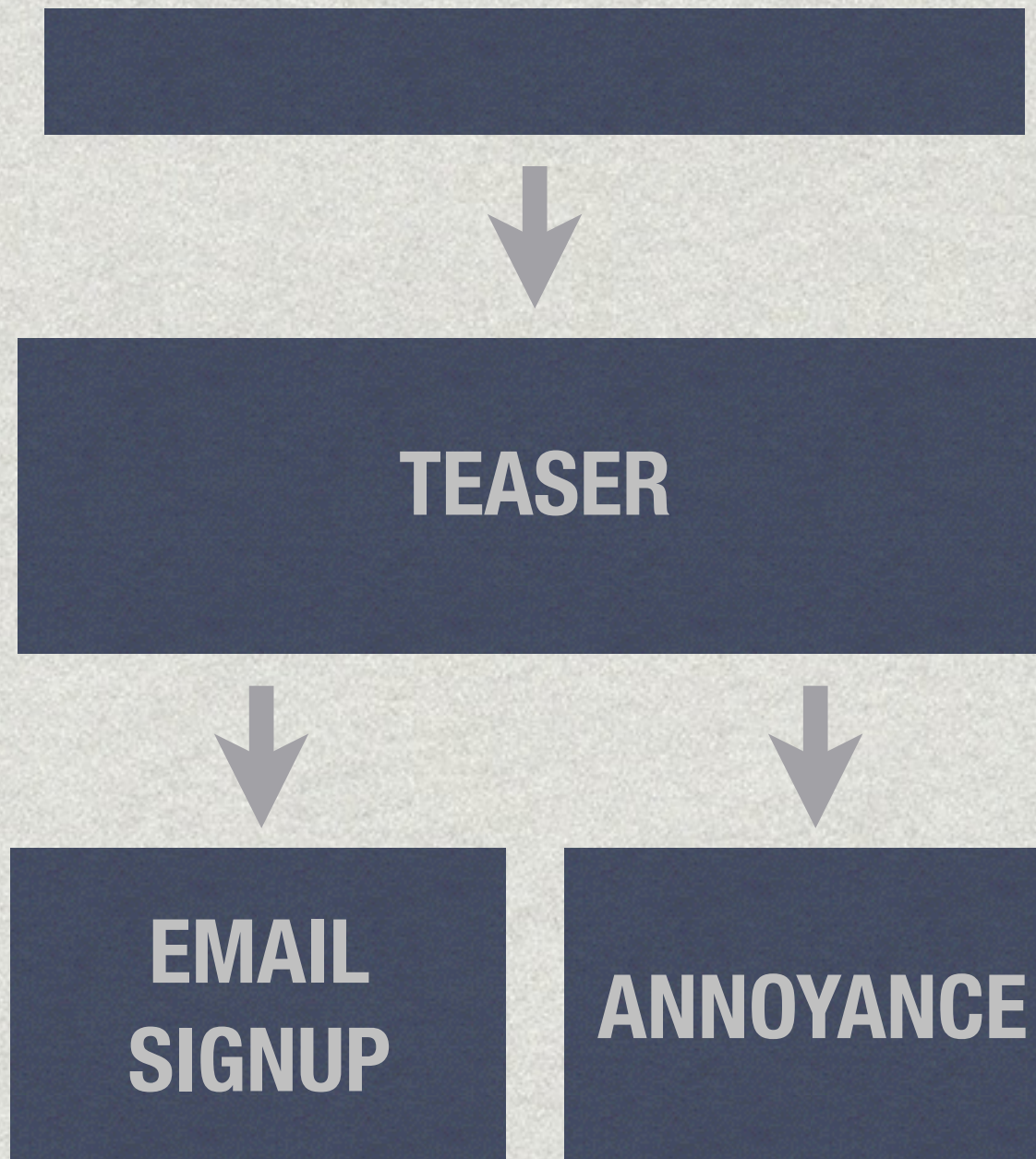




Provable independence for Rails

Rails Engines

STRUCTURE



5

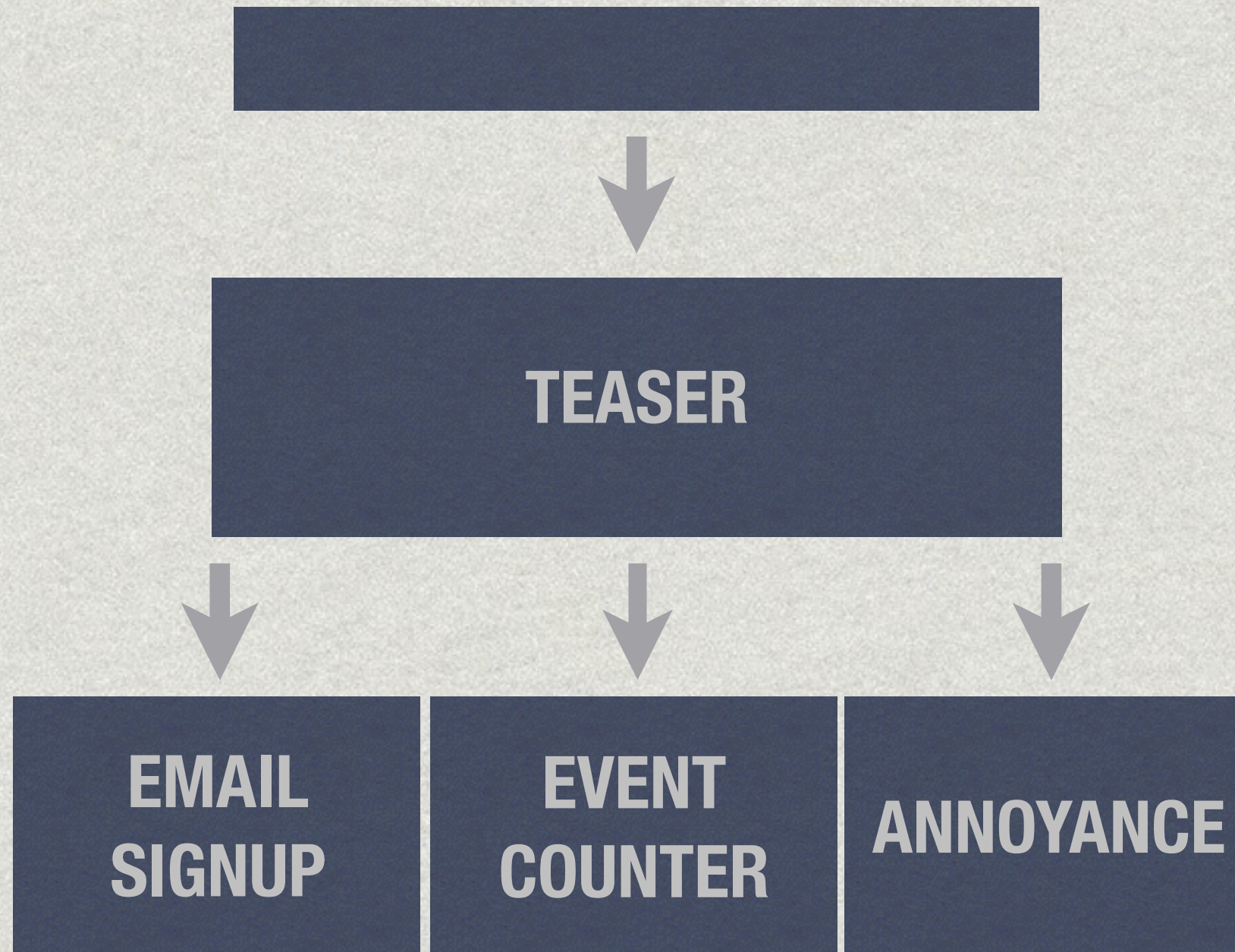
The loosely-coupled app





Clearer responsibilities

STRUCTURE



The service-oriented app



Cans

3

Plastic

4

Glass

5

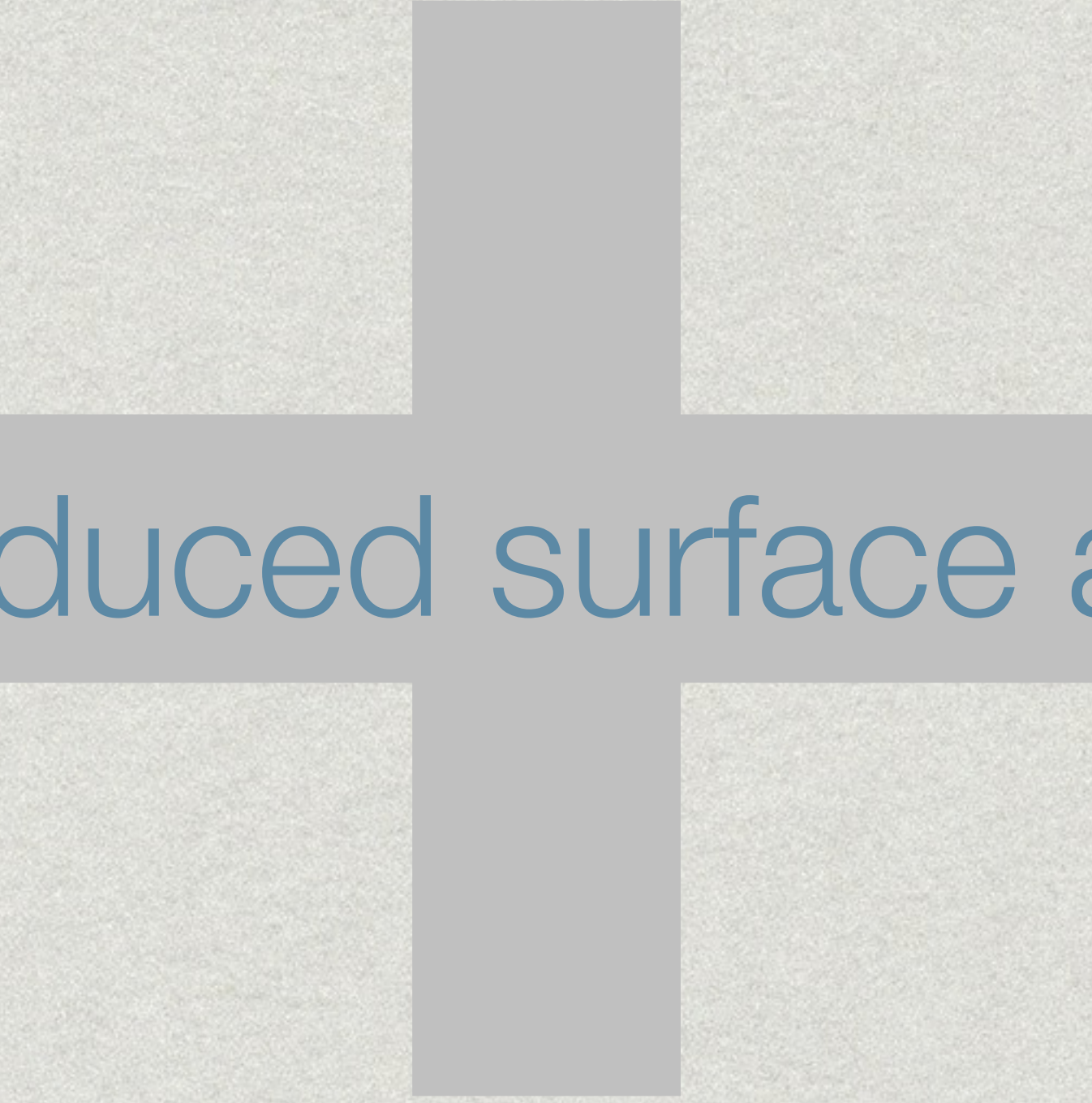
TOMRA

TOMRA

TOMRA

TOMRA 402

TOMRA 302



Reduced surface area

EVENTCOUNTER::*.METHODS.COUNT

LOGGER::COUNT

588 361

LOGGER

194 115

EVENTCOUNTER::*.METHODS.COUNT

LOGGER::COUNT

588 361

LOGGER

194 115

- OBJECT.METHODS

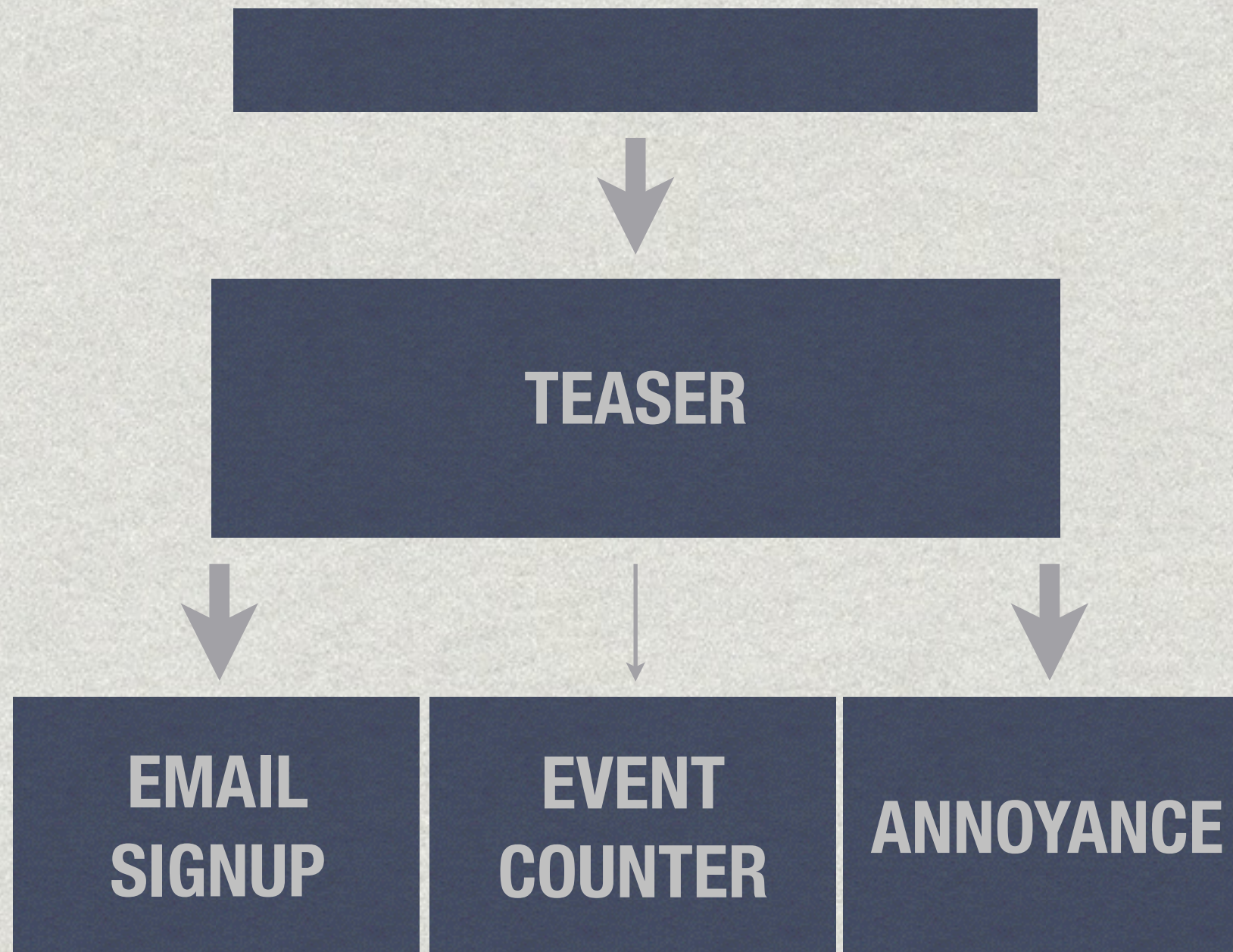
LOGGER::COUNT

394 247

LOGGER

0 1

STRUCTURE



A large, light gray, stylized number '7' is positioned in the background, spanning most of the width and height of the slide. It has a thick, blocky appearance.

The eco-system app



gem build event_counter..

gem push event_counter..

event_counter 0.0.1

This engine is part of a rails-architecture-sample app, which you can find at https://github.com/shageman/the_next_big_thing

INSTALL > `gem install event_counter`



 Edit  Download  Documentation  Subscribe  RSS

Authors

Stephan Hagemann

Owners



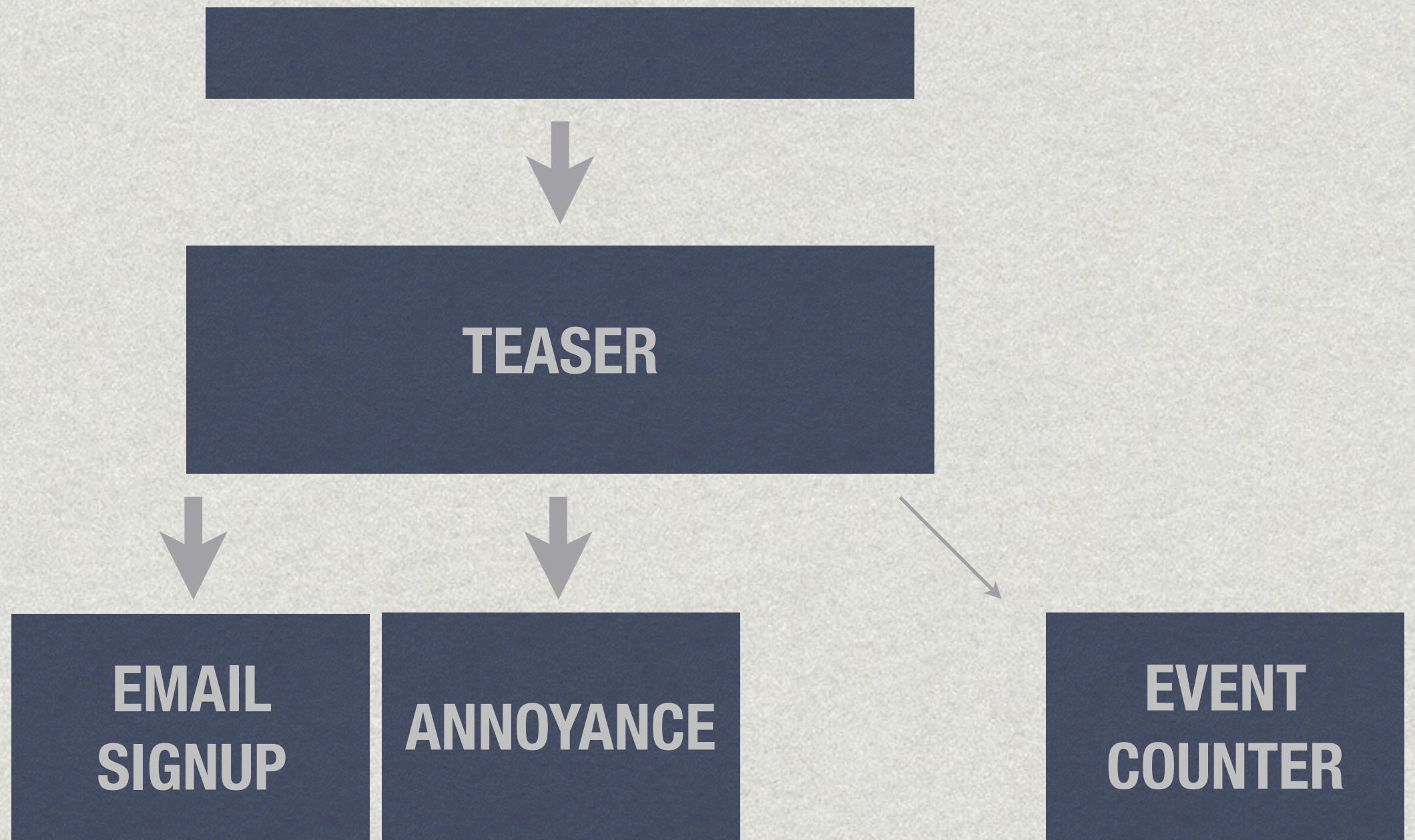
8

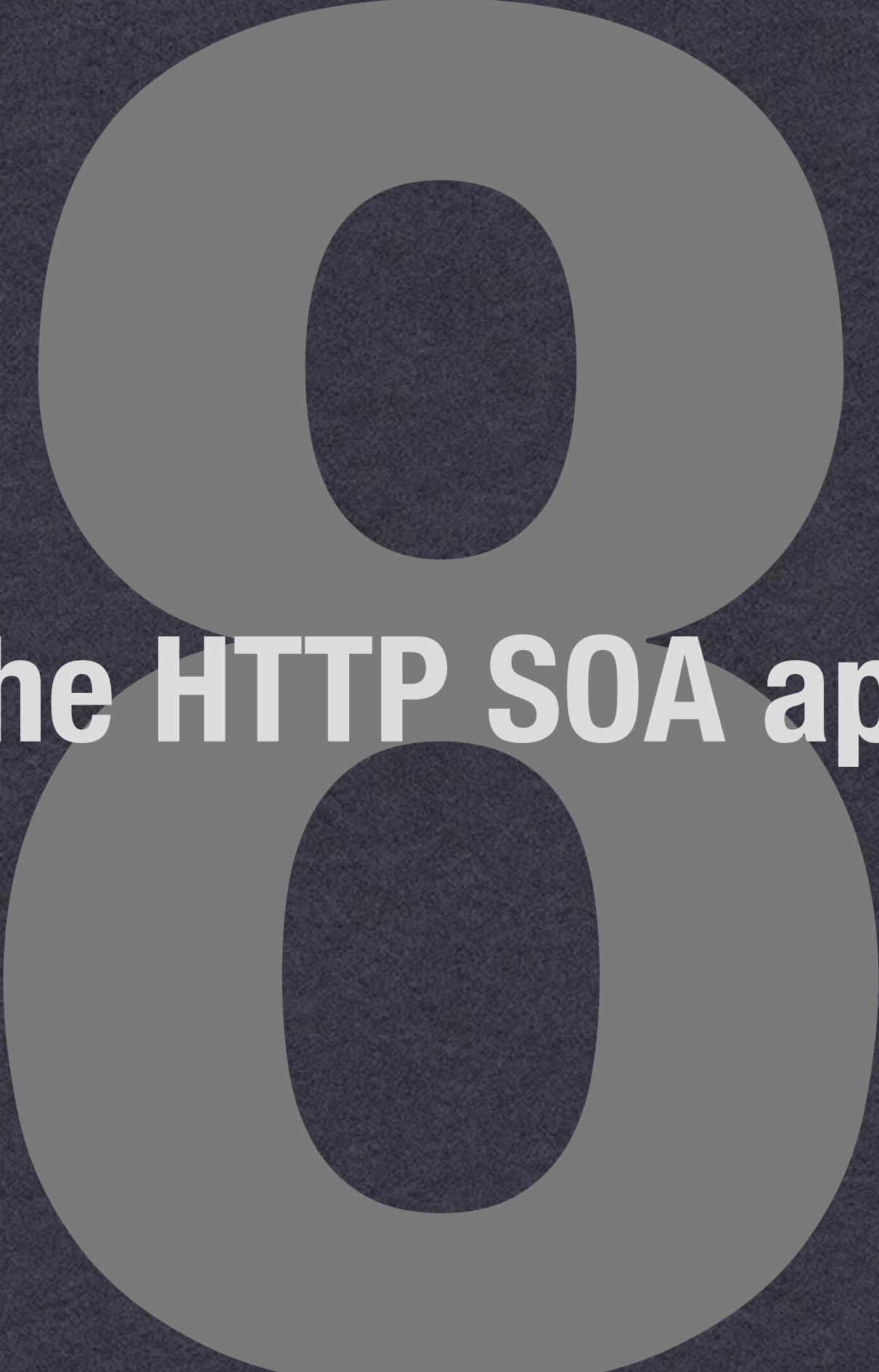
total downloads

8

for this version

STRUCTURE

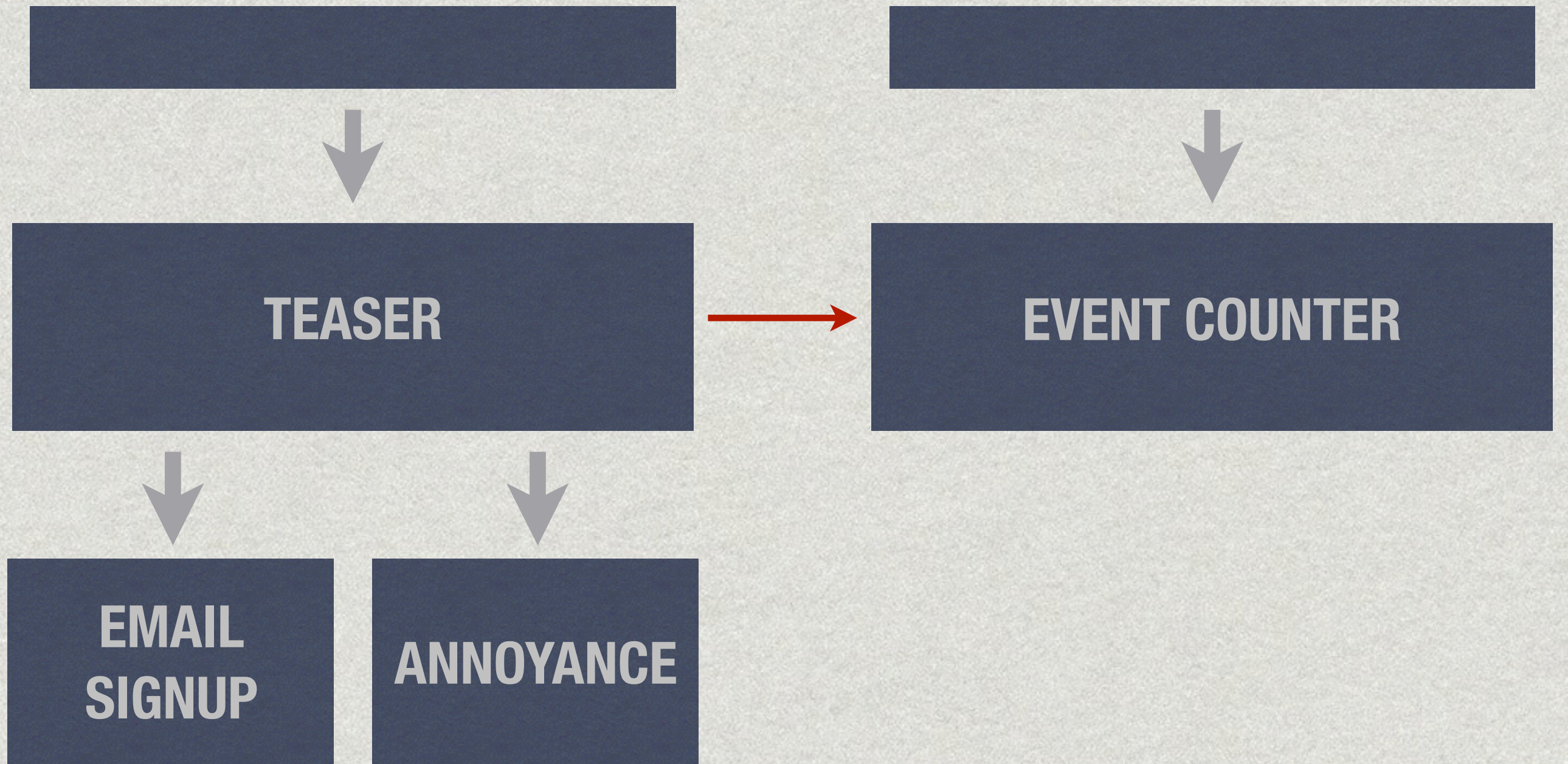


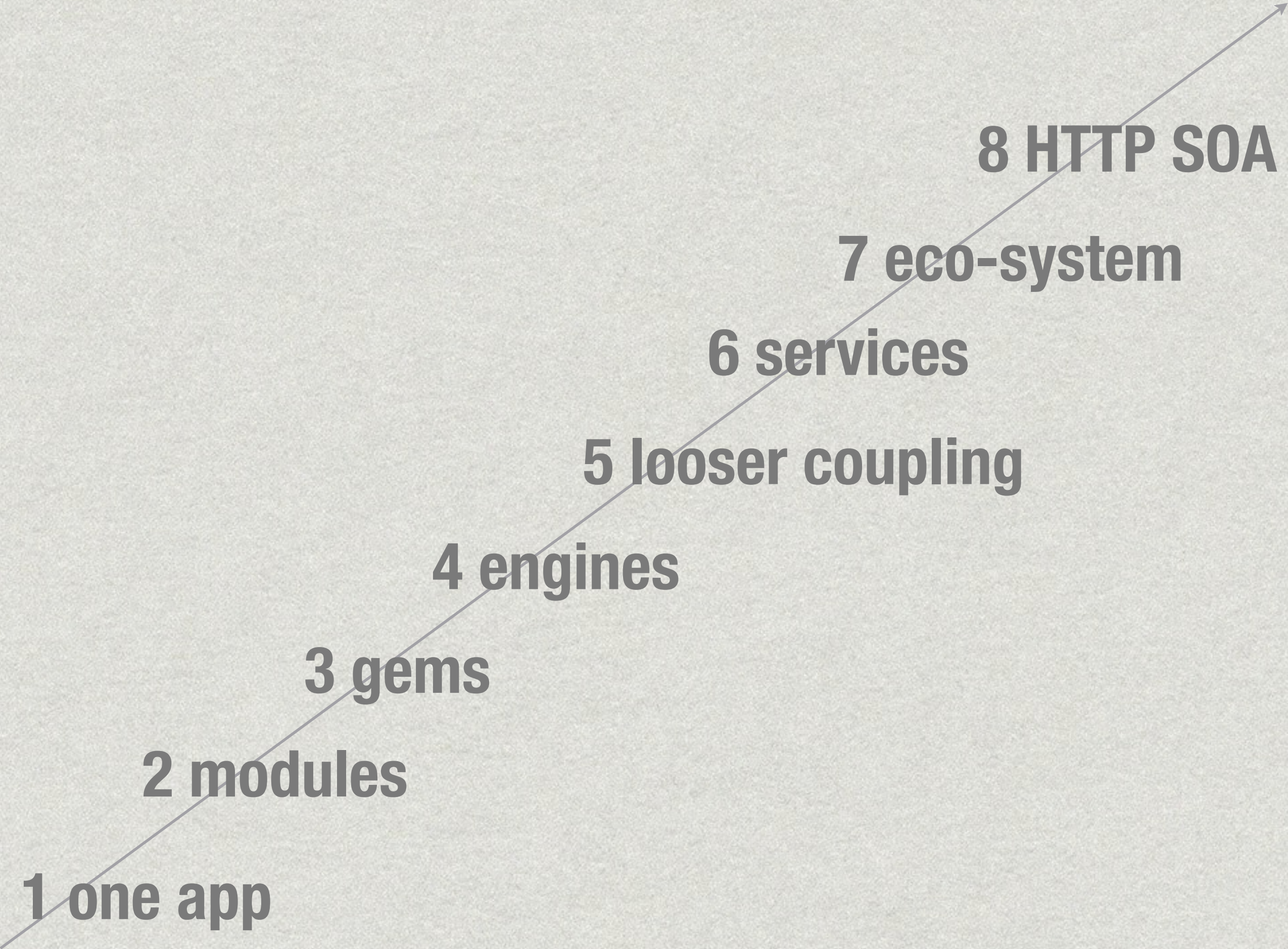
A large, light gray, stylized number '8' is centered in the background of the slide. It has a thick, rounded appearance with a dark gray oval cutout in the center of each loop.

The HTTP SOA app

PICTURE HERE

STRUCTURE





1 one app

2 modules

3 gems

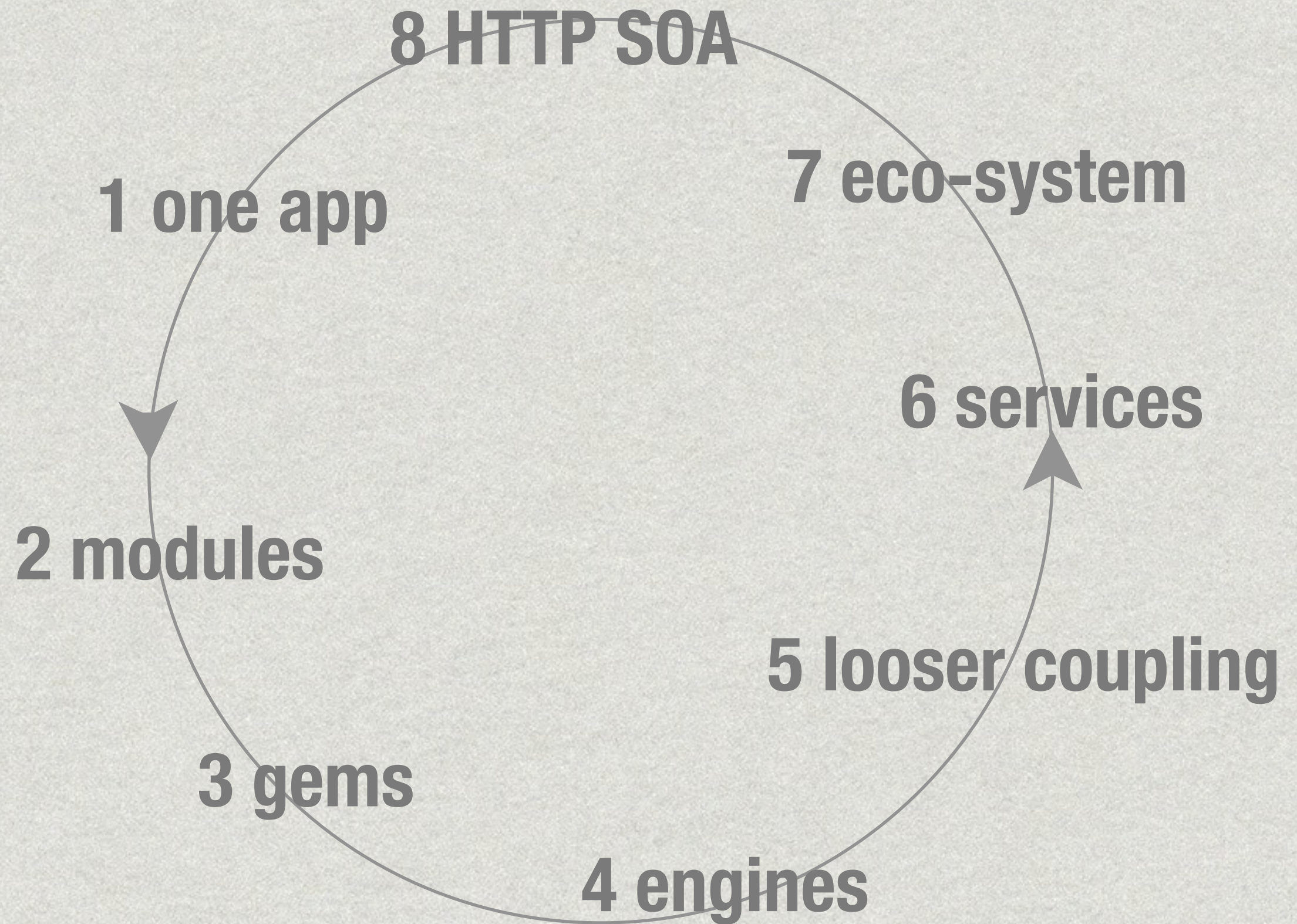
4 engines

5 looser coupling

6 services

7 eco-system

8 HTTP SOA





Architecture the reclaimed years

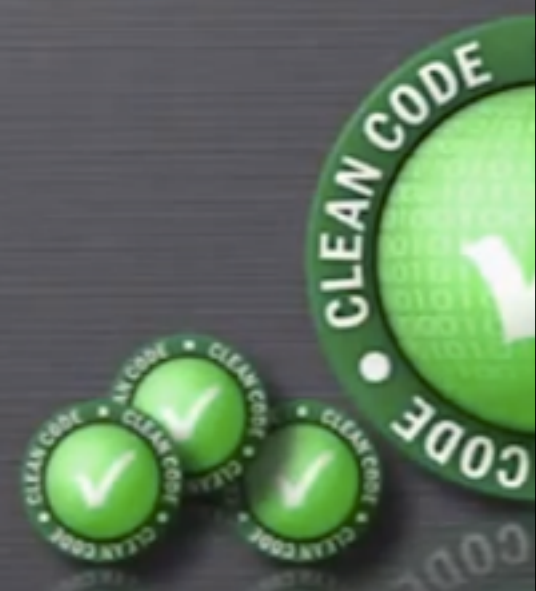


ARCHITECTURE

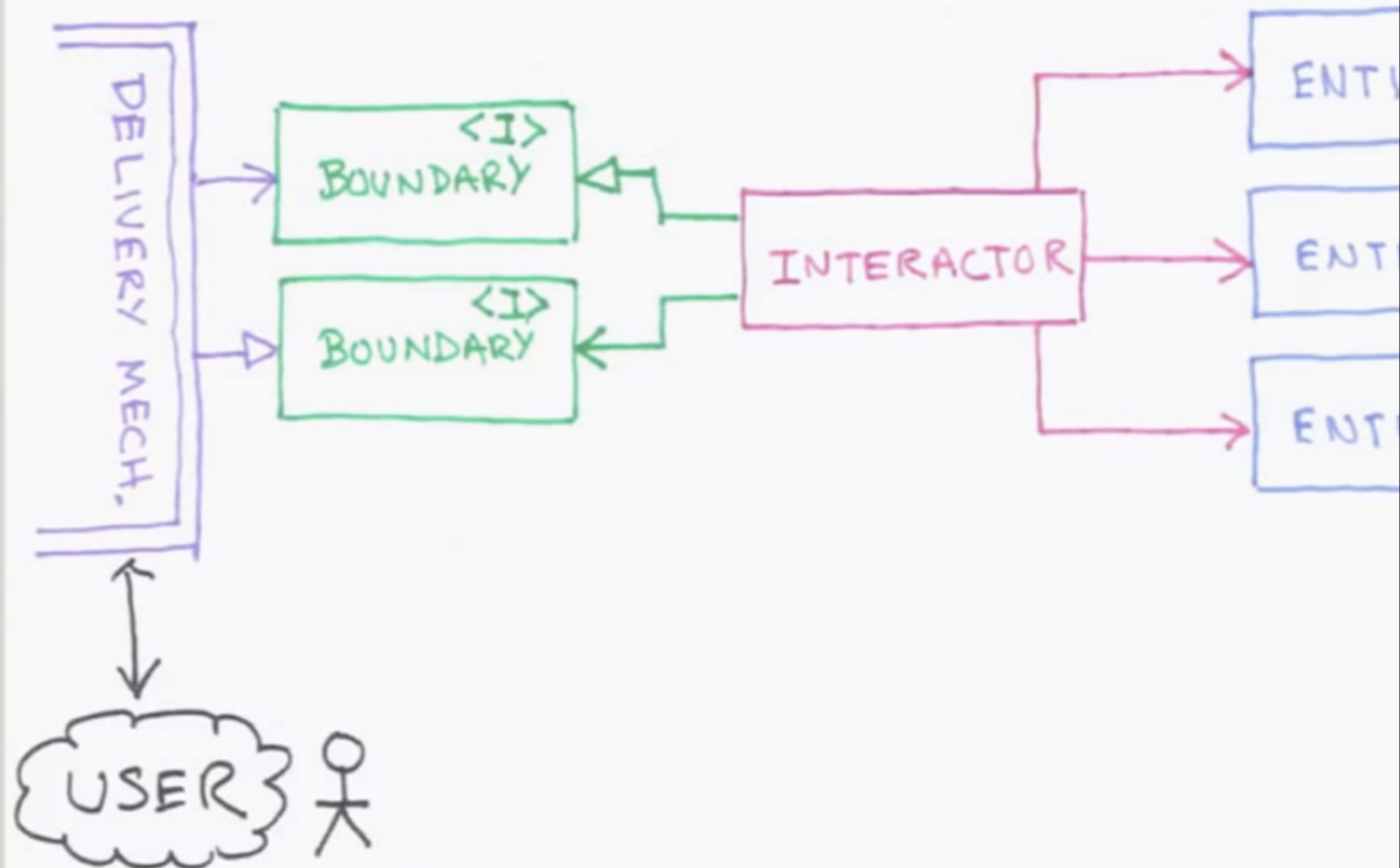
THE LOST YEARS



ROBERT C. MARTIN
MASTER CRAFTSMAN
8TH LIGHT INC.



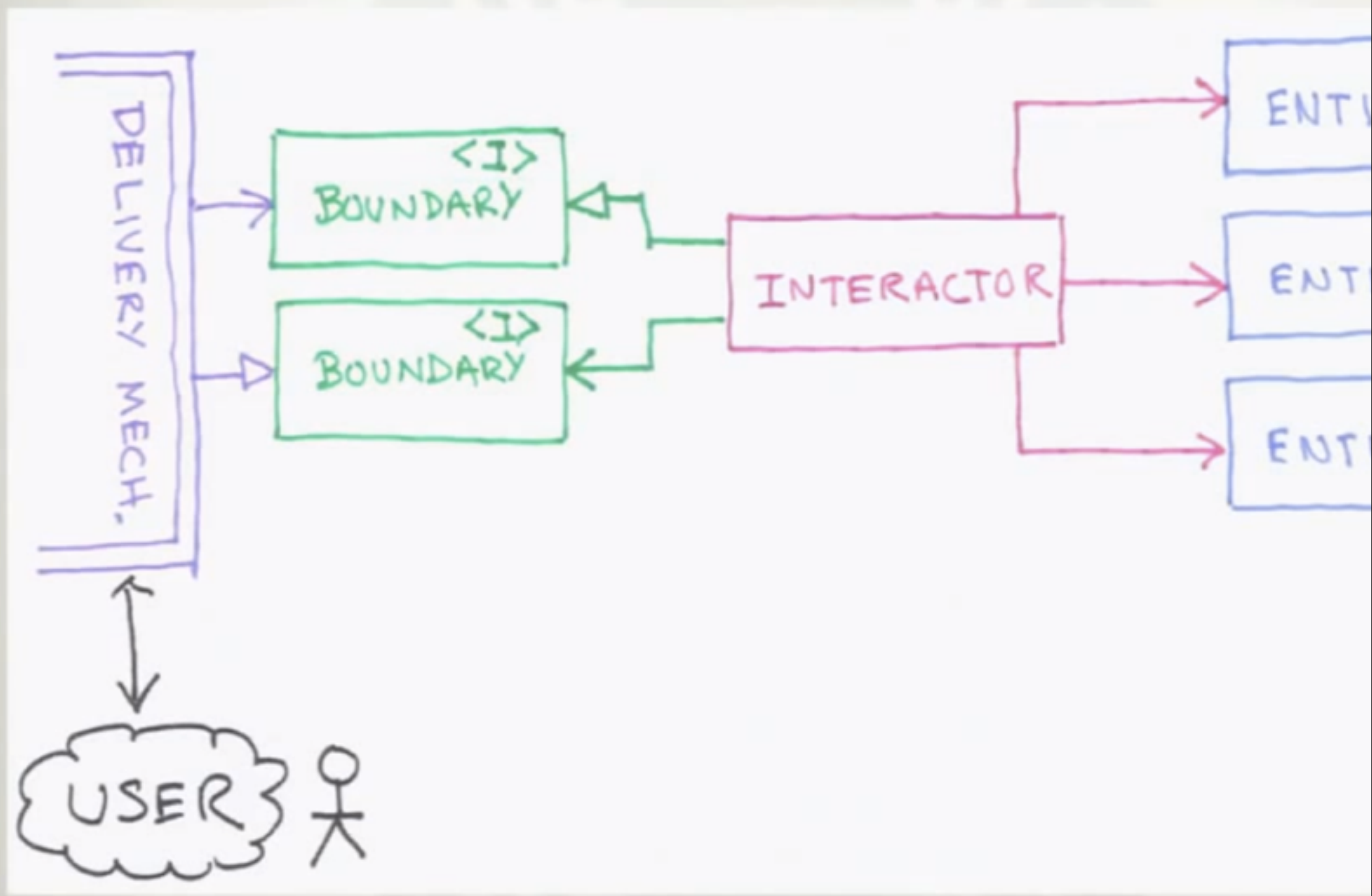
**[HTTP://WWW.CONFREAKS.COM/VIDEOS/759-RUBYMIDWEST2011-KEYNOTE-
ARCHITECTURE-THE-LOST-YEARS](http://www.confreaks.com/videos/759-rubymidwest2011-keynote-architecture-the-lost-years)**





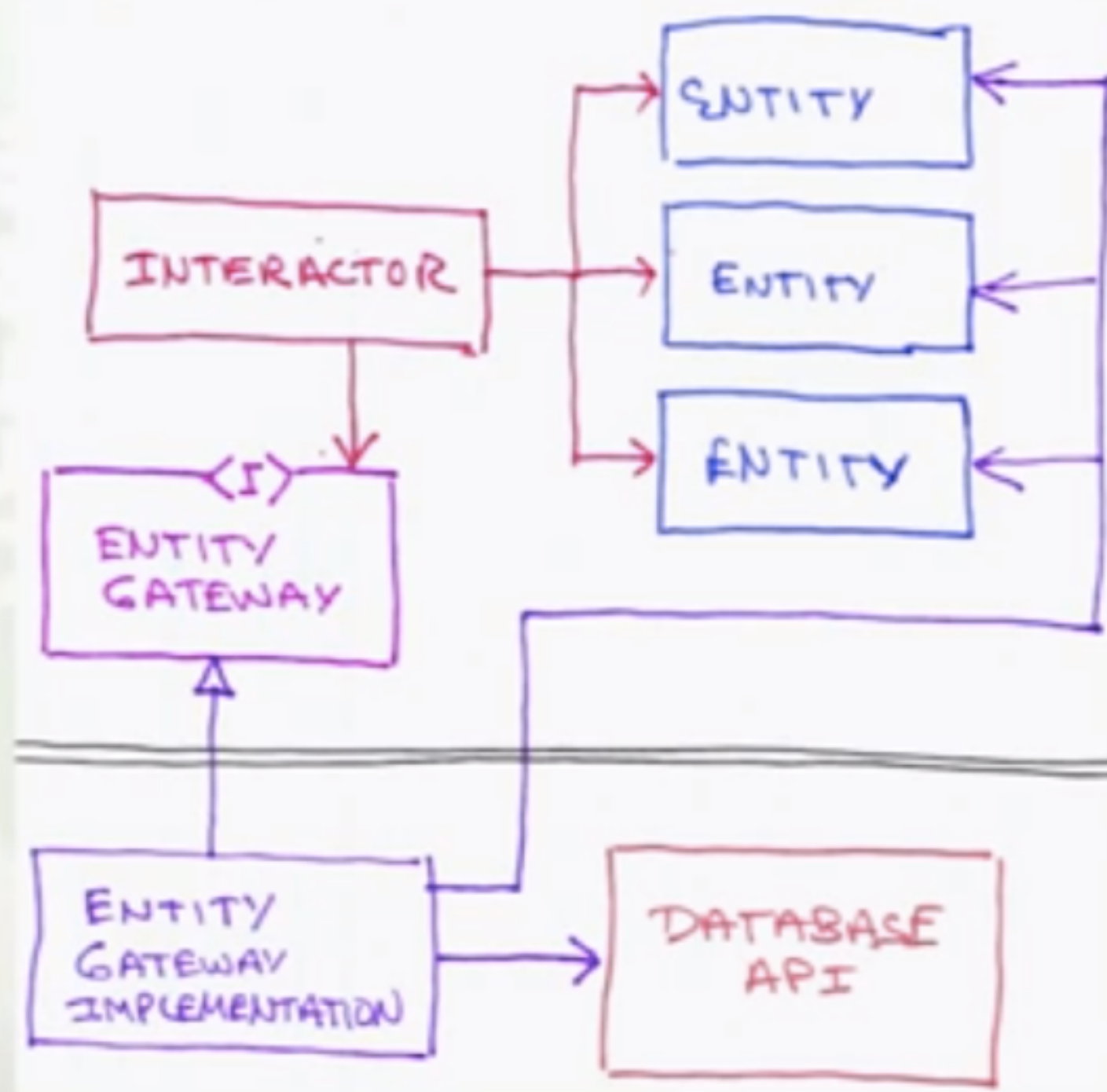
THE WEB IS A DELIVERY MECHANISM!





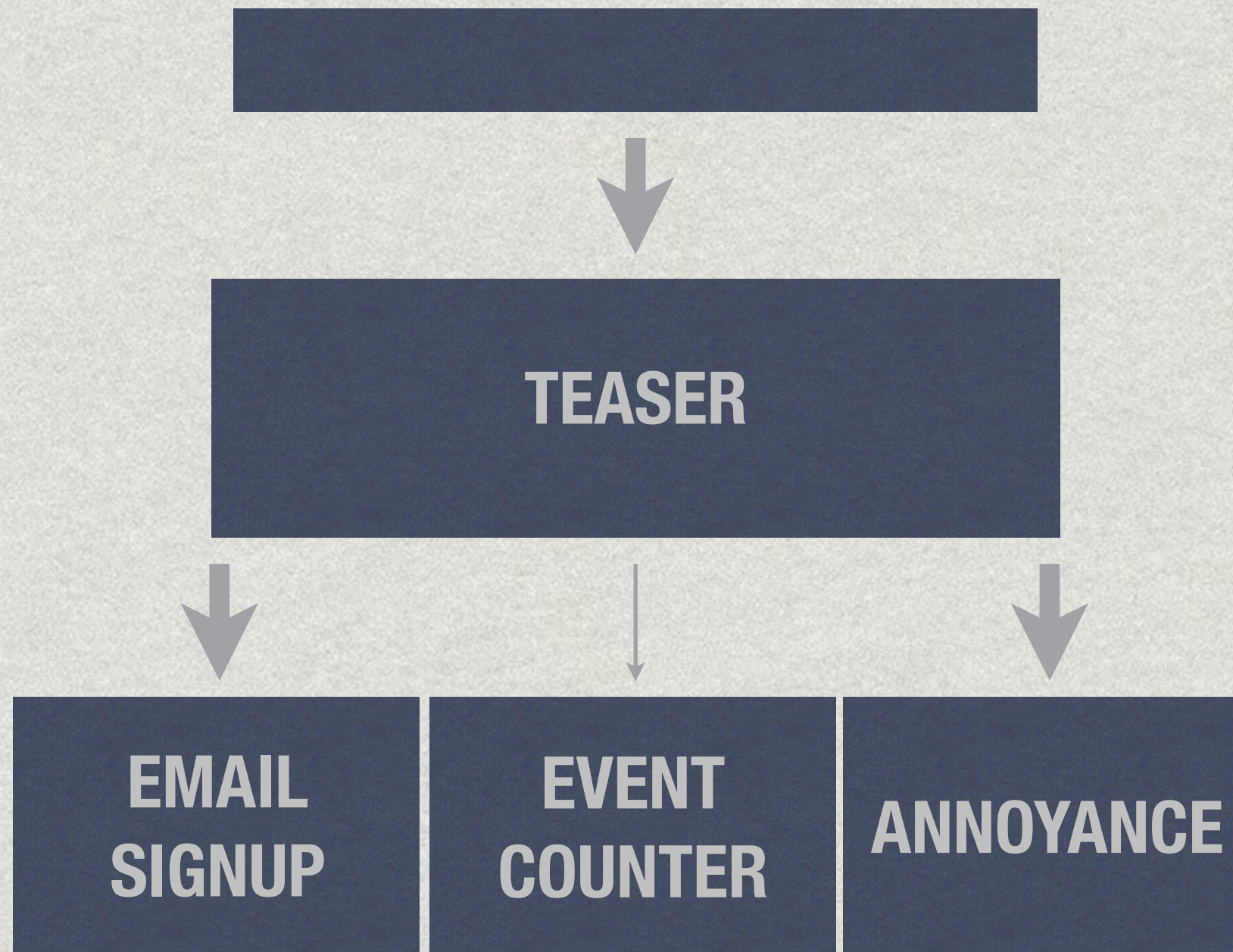


ISOLATE IT!



well, we just did that

STRUCTURE



Thanks!

Stephan Hagemann

@shageman

stephan@pivotallabs.com