

Blueprints & Hexagons

Who am I?

@garyfleming

CodeCraft

- <http://codecraftuk.org/>
- @CodeCraftUK
- Third Thursday of the month, 7pm. Venue varies.

Problems: Coupling

Problems: Organisation/Naming

Problems: Harder to Test

PROPOSED TORPEDO BOAT DESTROYERS

BY

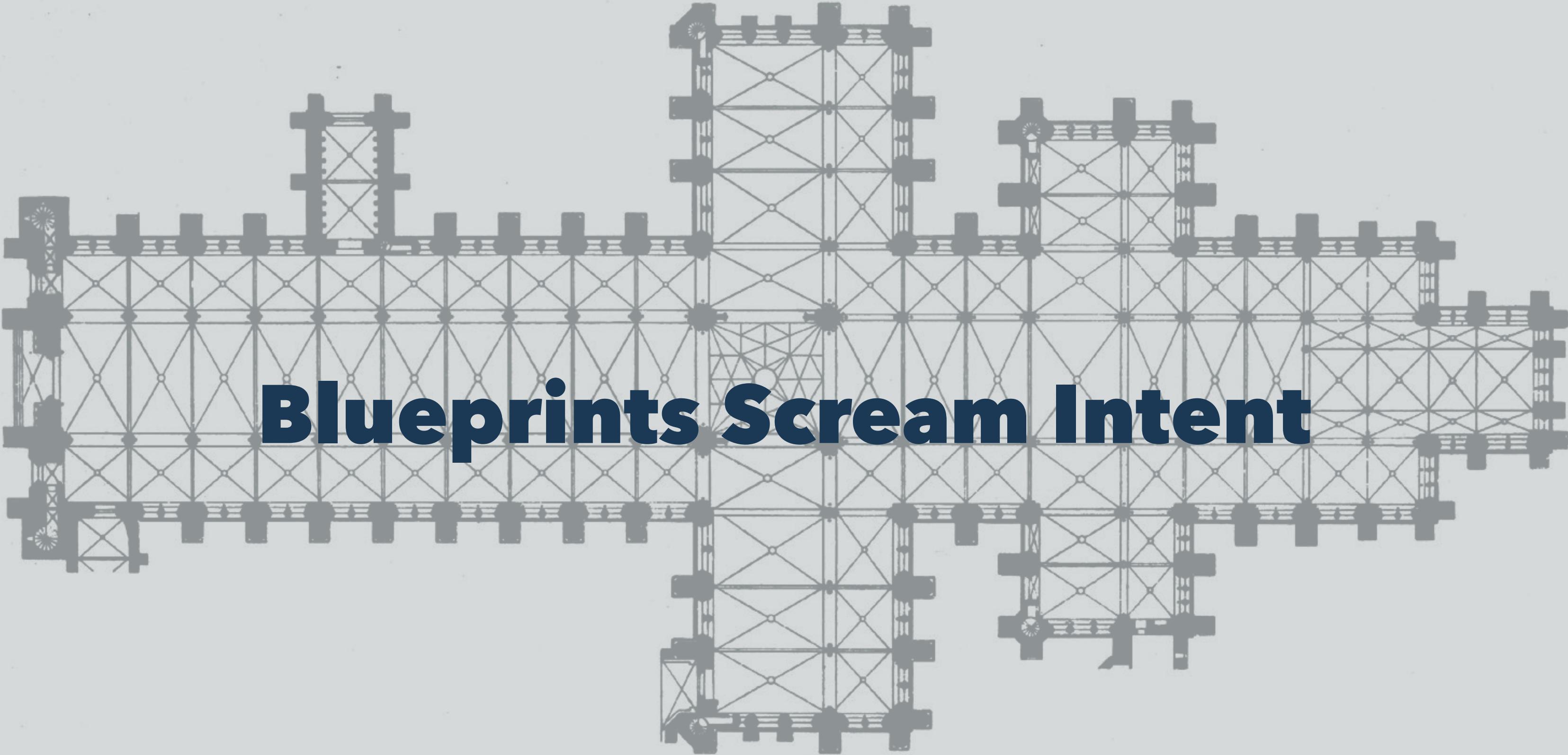
YARROW & CO. LONDON

FITTED WITH LOCOMOTIVE BOILERS

Idea 1: Blueprints

A Guessing Game...

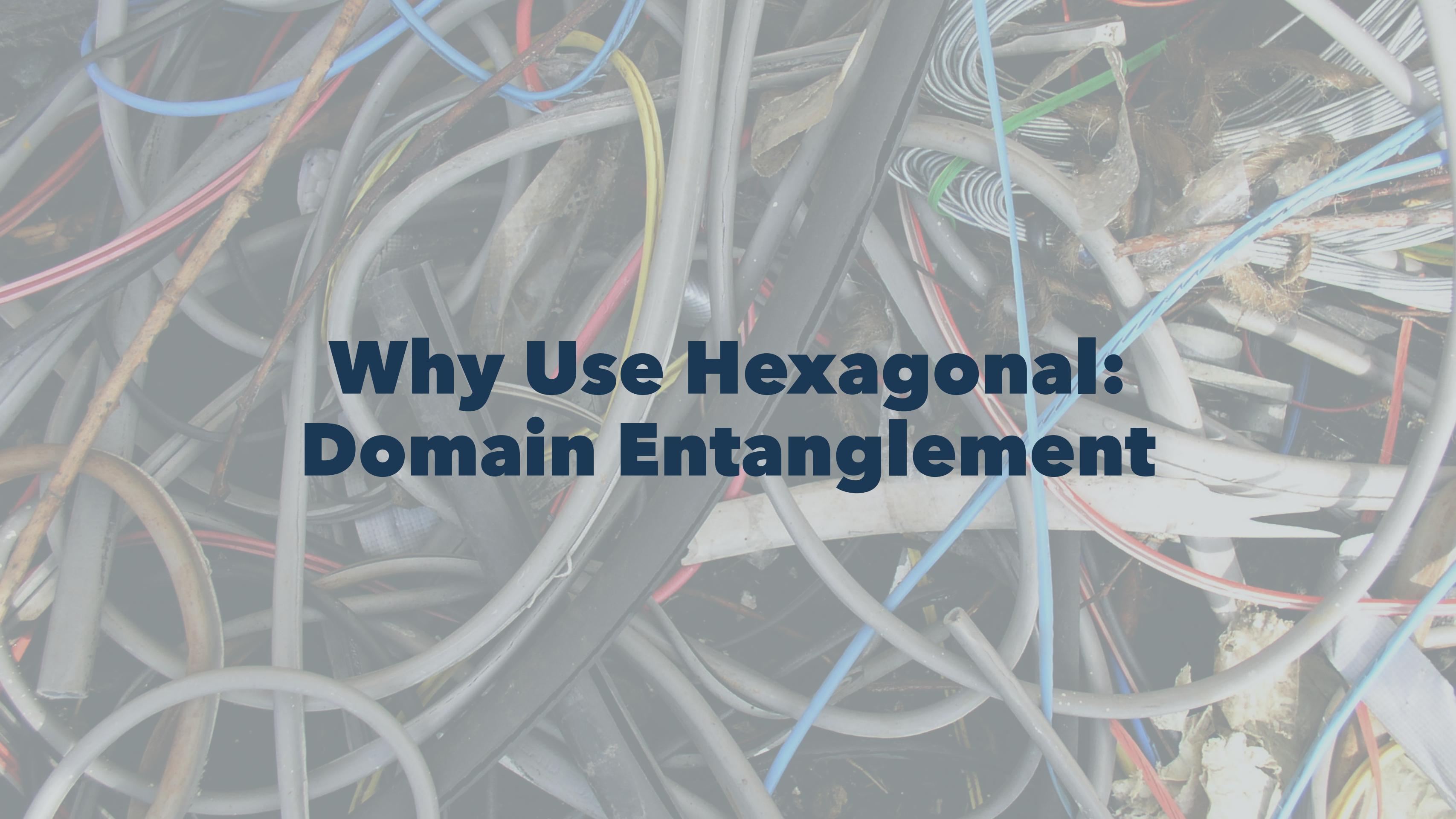
```
▶ app
▶ bin
▶ config
▶ db
▶ lib
▶ log
▶ public
▶ test
▶ tmp
▶ vendor
.dockerignore
.gitignore
config.ru
docker-compose.yml
Dockerfile
Gemfile
Gemfile.lock
Rakefile
README.md
README.rdoc
```



Blueprints Scream Intent

2. SALISBURY: KATHEDRALE.

Idea 2: Hexagonal Architecture

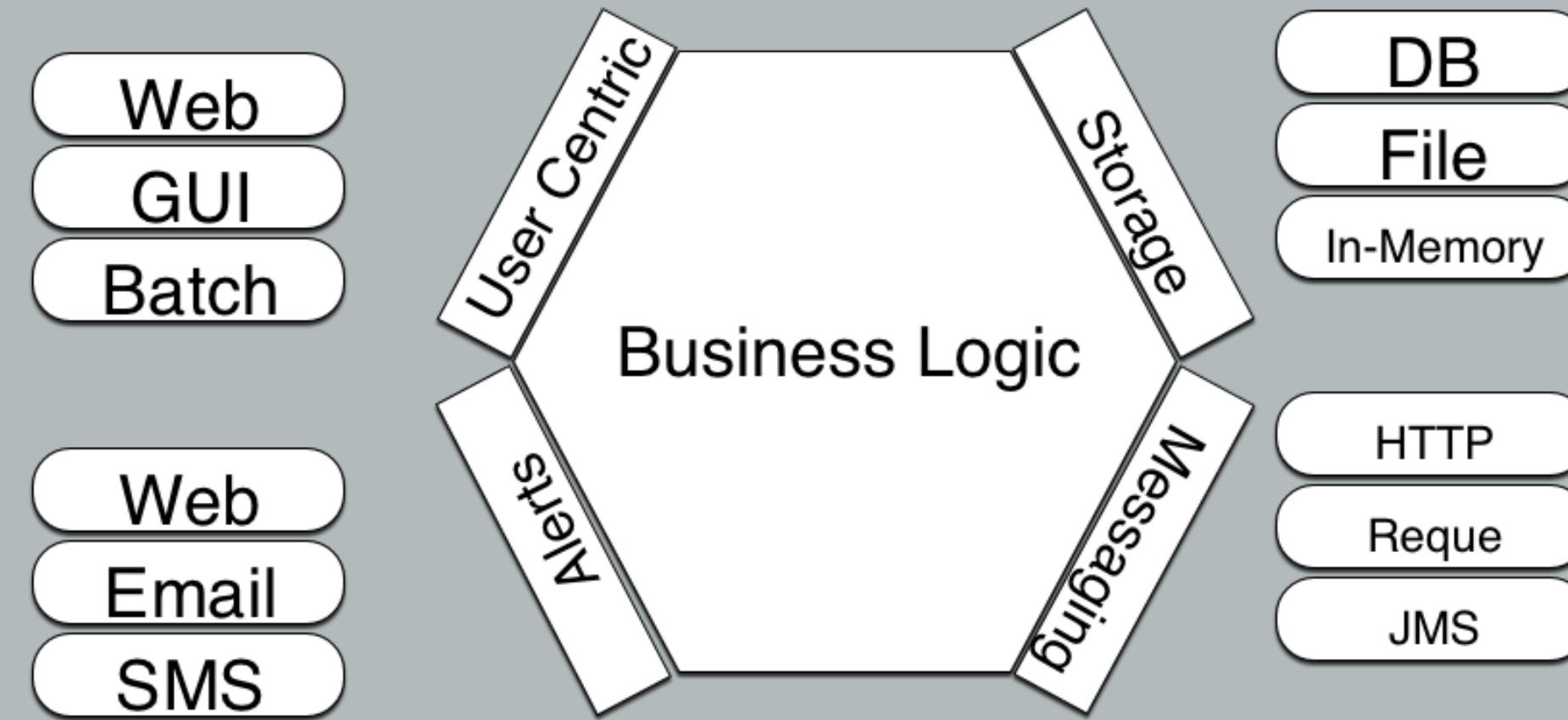


Why Use Hexagonal: Domain Entanglement

**"...the entanglement between
business logic and the interaction
with external entities"**

Alistair Cockburn

Solution: Ports & Adapters



A wide-angle photograph of a bustling marina. In the foreground, numerous sailboats are moored at a wooden pier. Behind them, a dense fleet of small, colorful fishing boats, many with blue hulls, is packed closely together. The background features a charming town with multi-story buildings and red roofs, nestled at the base of a range of mountains under a clear blue sky.

Ports

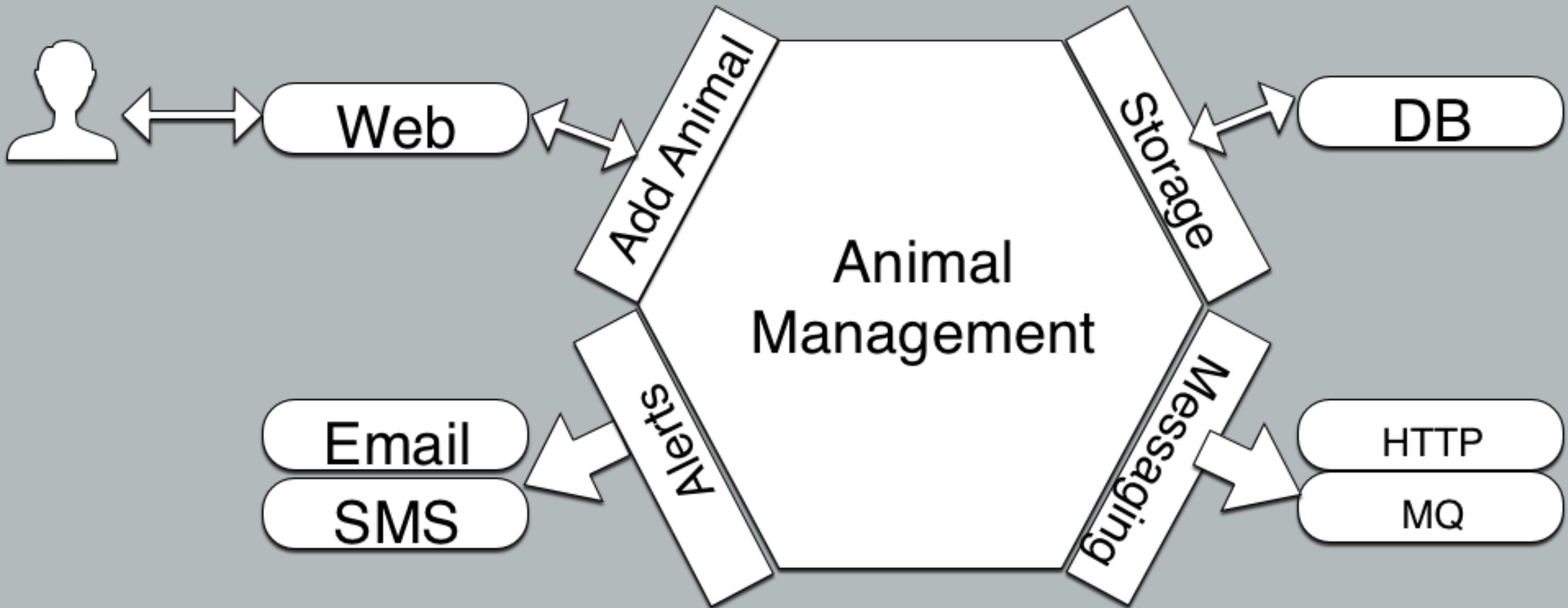
Adapters



Worked example - Animal Shelter

- Adding animals
- Fostering details
- Adoption lists
- Healthcare management
- Follow-up visits
- Letting people know new animals are up for adoption

Worked example - Animal Shelter



Problems we've solved?

Coupling
Organisation
Testing

Bonus: Null checks

Bonus: Microservices

Back to blueprints

```
► app  
► bin  
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► db  
► lib  
► log  
► public  
► test  
► tmp  
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.dockerignore  
.gitignore  
config.ru  
docker-compose.yml  
Dockerfile  
Gemfile  
Gemfile.lock  
Rakefile  
README.md  
README.rdoc
```

```
► adapters  
► adoption-details  
► animal-management  
► follow-up-visits  
► fosterers  
► healthcare  
► new-animal-alerts
```

Intentional Design

Learn More

- Hexagonal Architecture by Alistair Cockburn
- Architecture, The Lost Years by "Uncle" Bob Martin
- Software is an Engineering Discipline by Glenn Vanderburg

Acknowledgements

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- Rainer Knäpper, Adapter DVI to VGA, 15/05/06. Free Art License
- Mark Schellhase, Old Chain, CC-BY-SA-3.0-Unported