

SOLVING THE HARDEST PROBLEM

Introduction to Lizards & Pumpkins
techniques we are using and why

Problem

Your shop is too slow

**And scaling is
hard and expensive!**

Definitions

Performance
low TTFB (uncached)

Scalability

**Double the machines
double the throughput**

Solutions

Solution for everything?

Solution for everything?
caching!

*There are only two hard
things in CS:
cache invalidation and
naming things.*

– Phil Karlton¹

¹ <http://martinfowler.com/bliki/TwoHardThings.html> <http://skeptics.stackexchange.com/q/19836>

Problem: Broken by design

- Cache miss
- Invalidation is HARD if you do it right
- Flush can lead to downtime
- Inconsistencies are hard to avoid

Solution: **Pregeneration** **(not cache warmup)**

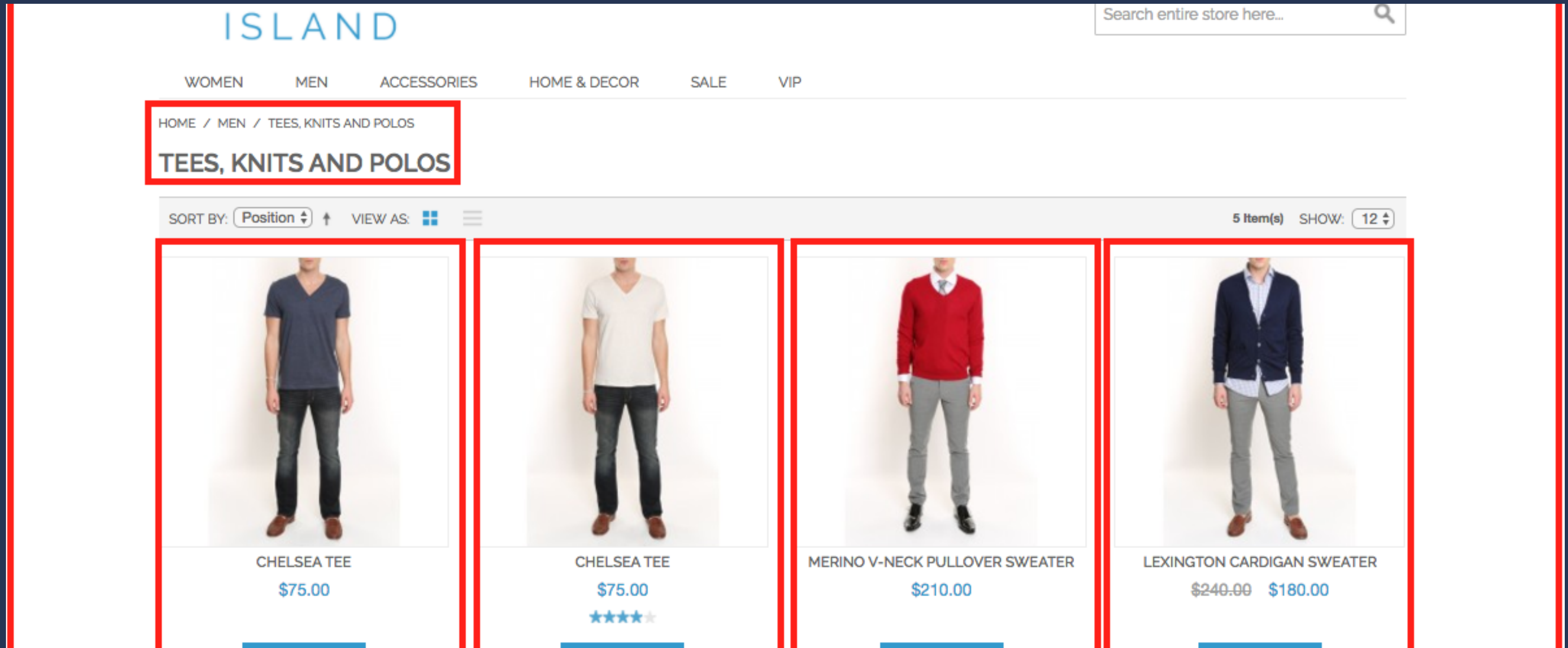
Be Prepared scouts motto

- render only if something is new
- and serve until it is updated

Not possible with Magento

- Because it doesn't know what the content looks like,
- *when the product is saved,*
- *not until requested*

Idea



How to do it?



Lizards and Pumpkins

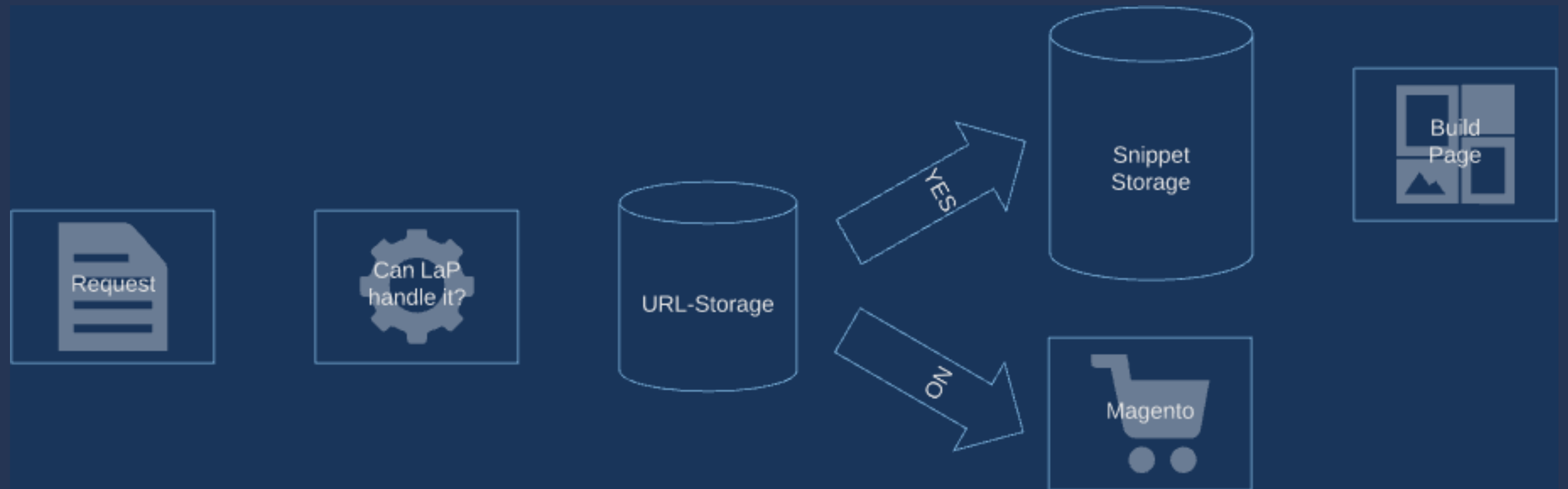
Process (Import)



Import

- Work already done, HTML/JSON/XML rendered!
- Logic is in keys, e.g.
 - prices per country
 - availability per customer (group)
 - description per geo ip

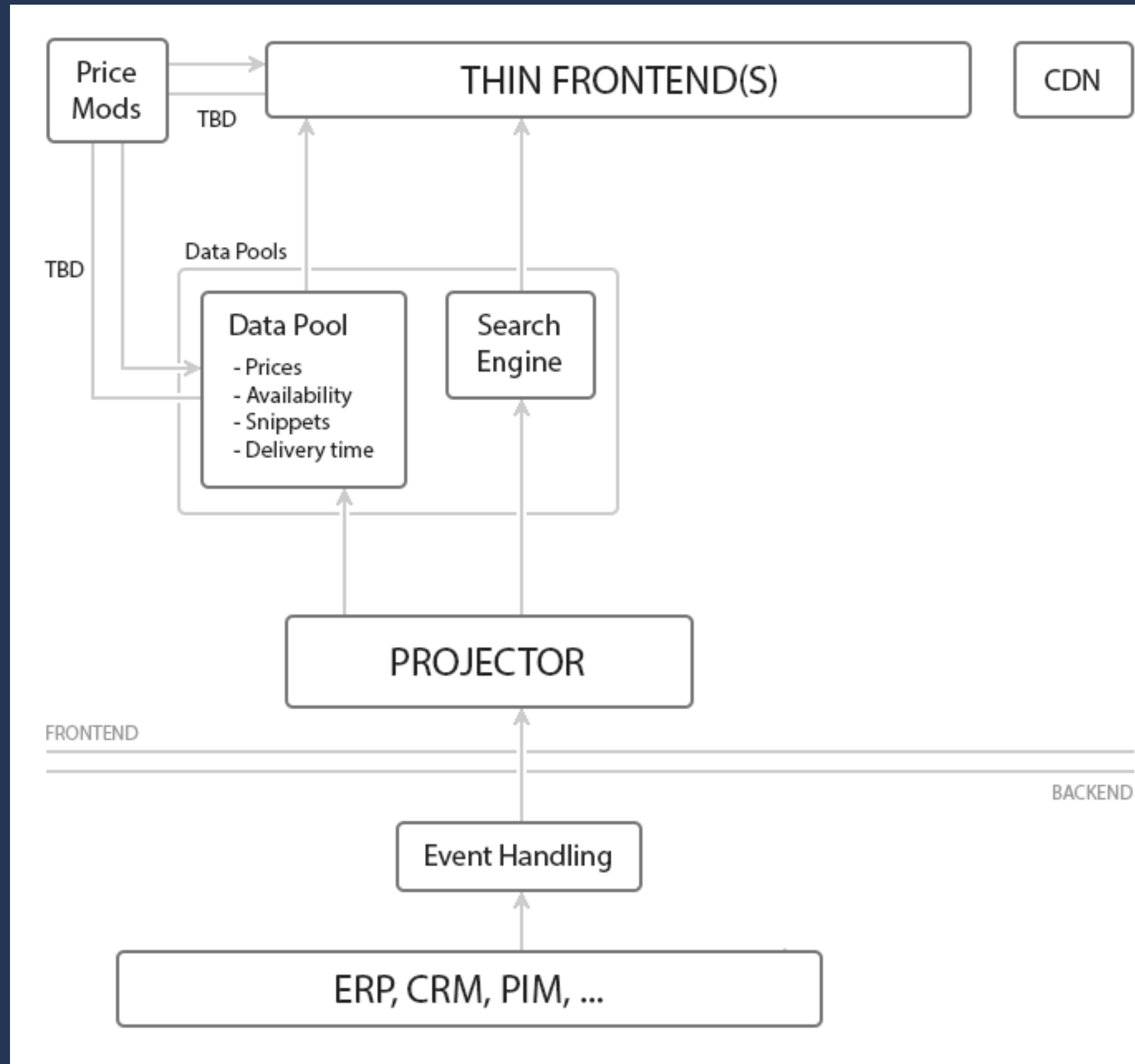
Content Delivery (Request)



Build from snippets

- KV storage
- Services (your or SaaS)

It scales!
HORIZONTALLY



Up and downsides

- + boost for TTFB
- + IT SCALES!
- +/- Theme needs to be reimplemented (get rid of legacy)
- less documentation (but good to read code!)
- Second software stack to maintain

Magento Connector

- Exports huge XML files (250k products)
- Schema for XML
- Simple, config products
- no custom options

Some facts and numbers

- TTFB 30ms (+network)
- 100% TDD (even JS!)⁵
- 100% PHP 7.0 (PHP 5.6 incompatible)⁶
- we have thePHP.cc as consultants since beginning
- first commit by @Vinai on Tue Oct 14 2014³
- Main repo > 3.400 commits ⁴

⁵ <https://scrutinizer-ci.com/g/lizards-and-pumpkins/catalog/>

⁶ <https://github.com/lizards-and-pumpkins/catalog/pull/936>

³ <https://github.com/lizards-and-pumpkins/catalog/commit/34abfd6900ab00015b4798c62dc6d9126e51d95b>

⁴ <https://github.com/lizards-and-pumpkins/catalog>

First day with 🐉 & 🎃

Revenue & Conversion Rate		Transactions	
Revenue	Ecommerce Conversion Rate	Transactions	Average Order Value
24.52%	44.93%	14.52%	8.73%

Funny thing.









*10 days ago due to hosting fault first
web-server at 🦎 & 🎃 crashed and was
down over the weekend and nobody
noticed.*

*Guess why. Because Lizards was fine
with a single server.*

– Tim Bezhashvyly

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⁷ [Image License](#)

How to get started?

- <https://github.com/lizards-and-pumpkins>
- <https://github.com/lizards-and-pumpkins/dev-vm>

Our offer

- 4 day workshop to implement a ready to use solution
- Vinai, Tim and me visiting you (as available)!
- Risk? 6000€_(+tax)

Questions?