



# MageUnconference

## Looking for...

- MOAR Attendees

<http://www.mageunconference.org/2017/>

<https://www.mage-hackathon.de/upcoming/muc17de.html>

# **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!**

# 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 Karlton<sup>1</sup>**

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<sup>1</sup> <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

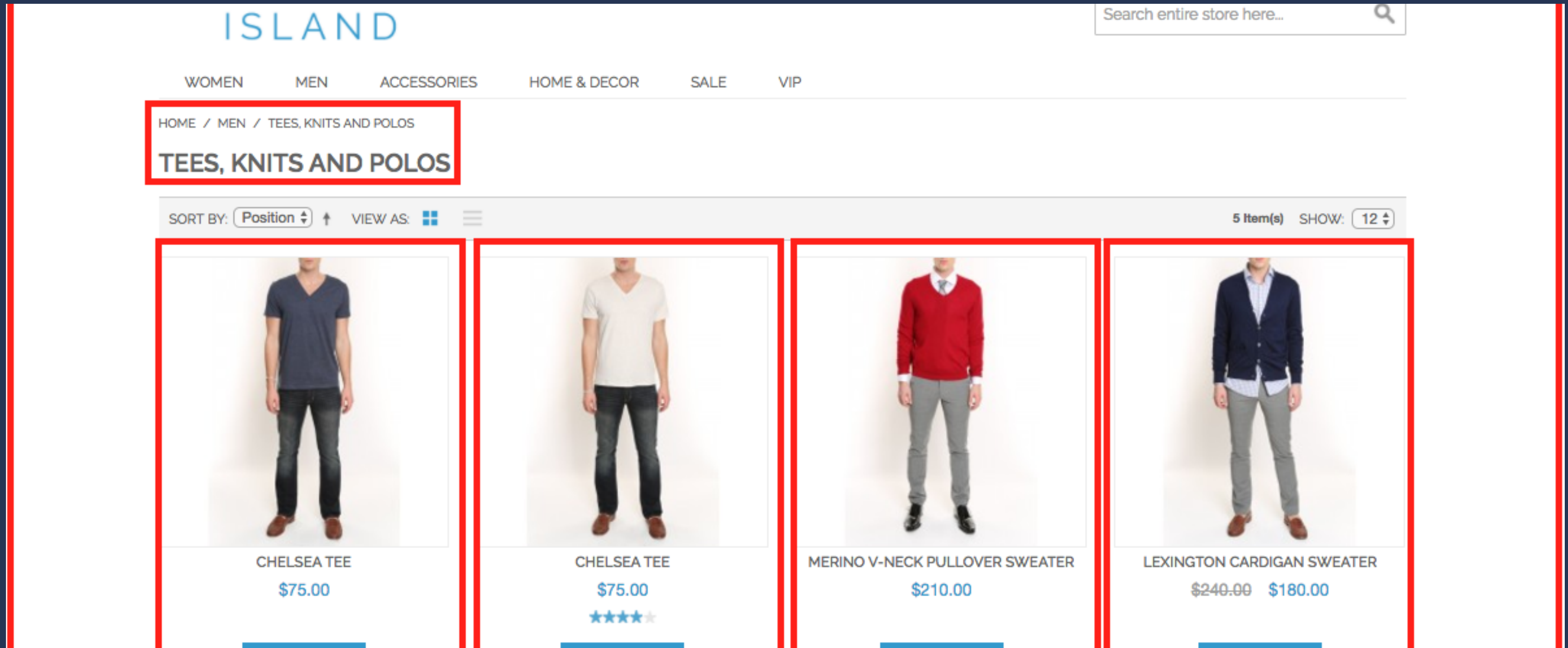
- render only if something is new
- and serve until it is updated

# 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

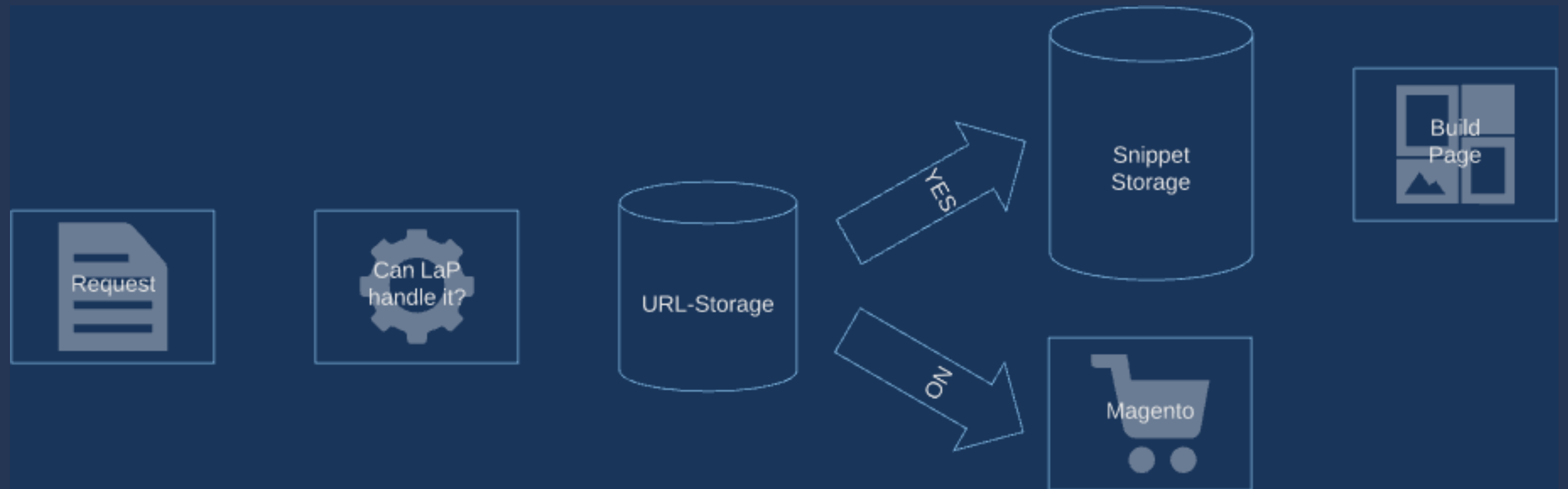
# Process (Import)



# 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)

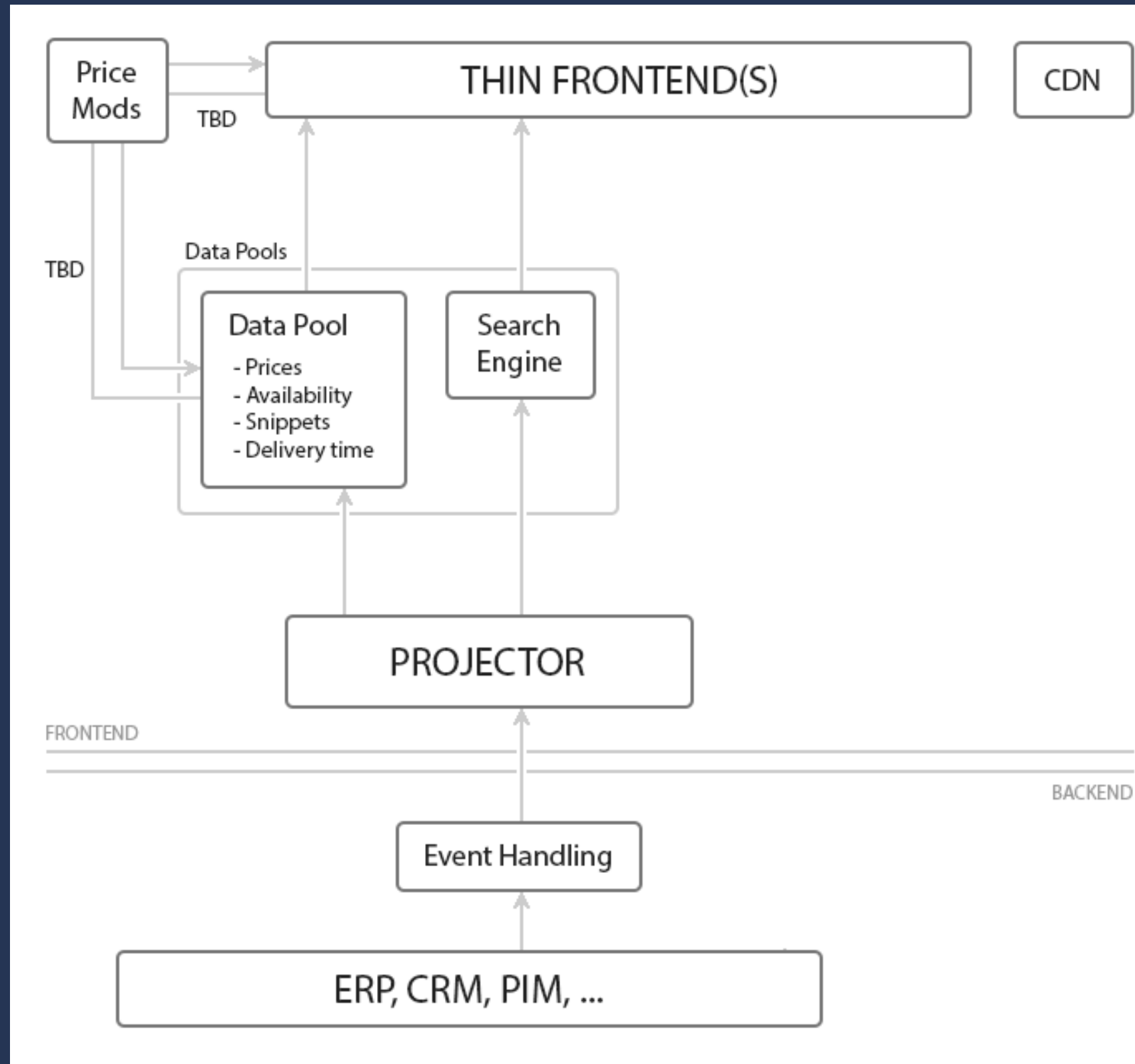


# Build from snippets

- KV storage
- Services (your or SaaS)



**It scales!**  
**HORIZONTALLY**



# No dependencies

# Technologies we use

- Queuing
- KV Storage
- Search Engine

# Up and downsides

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

# Magento Connector

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

# Some facts and numbers

- TTFB 30ms (+network)
- 100% TDD (even JS!)<sup>5</sup>
- 100% PHP 7.0 (PHP 5.6 incompatible)<sup>6</sup>
- we have thePHP.cc as consultants since beginning
- first commit by @Vinai on Tue Oct 14 2014<sup>3</sup>
- Main repo > 3.600 commits<sup>4</sup>
- nearly 500 PRs merged

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

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

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

<sup>4</sup> <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%

*Our first web-server for 🐉&🎃  
crashed and was down over  
the weekend - nobody noticed.  
Because Lizards was fine with a  
single server.*

**– Tim Bezhashvyly**

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<sup>7</sup> [Image License](#)

# How to get started?

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

# Our offer

- 2-4 days workshops to implement a proof of concept
- Vinai, Tim and/or me visiting you
- Write me an email for dates and prices

# Questions?