

eCommerce Content Management



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php[architect] eCommerce Summit
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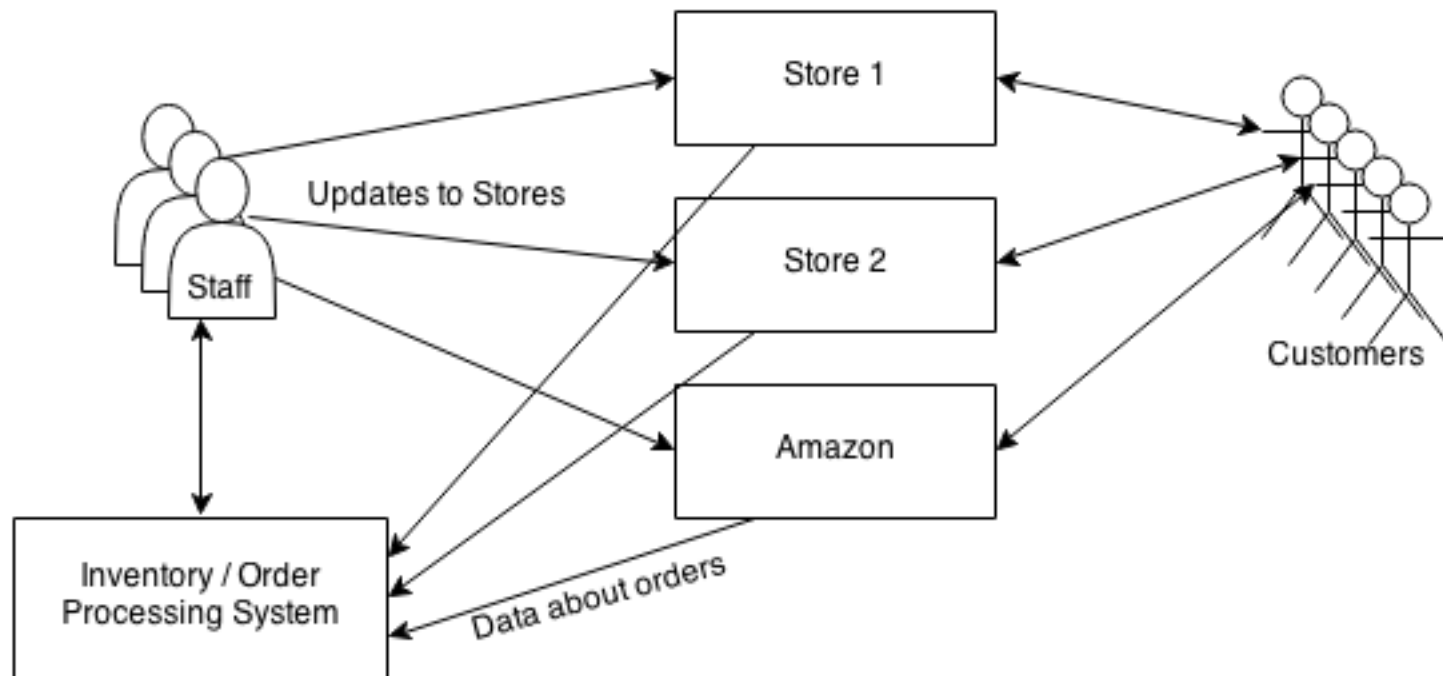
Who am I?

- Software Development Team Leader at OpticsPlanet, Inc.
- Zend Certified Engineer – PHP 5 & ZF
- Founder / Organizer of [Lake / Kenosha PHP](#)
- Father of 3 boys: Jack, Henry, and Charlie



eCommerce: The Simple Way

- Staff members directly update the data for each product on each store



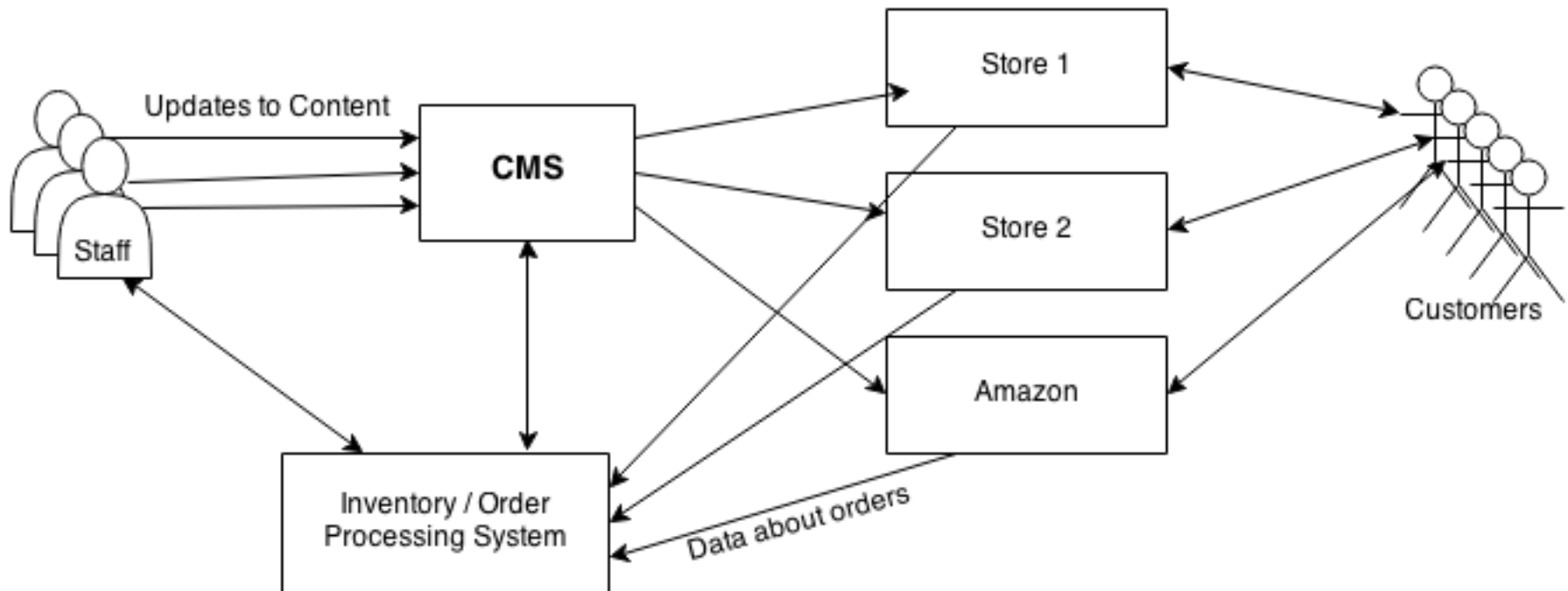
But... Does It Scale?

- Increasing number of stores
- Increasing number of products
- Increasing frequency of updates
- Increasing staff == increasing concurrency issues
- Cost of staff to do manual updates increases faster than the cost to automate



Content Management FTW!

- Staff updates data for products in CMS
- CMS manages publishing data to each store



How do we build it?

- Application structure
 - Features easily added / expanded
 - Access control based on role
- Key features
 - CRUD operations on products, brands, etc.
 - Automated publishing process
 - Monitoring / reporting



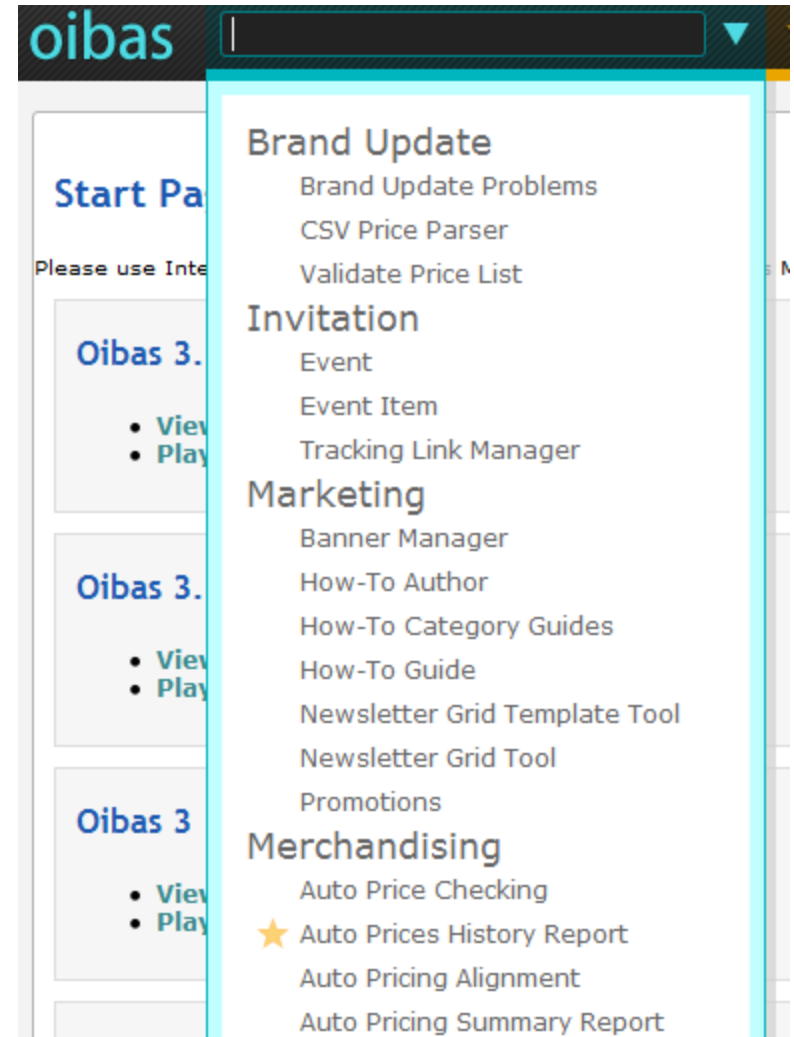
Laying the Foundations

- Build a good framework
- Define data structures / relationships
- Plan for growth
- Document your plans



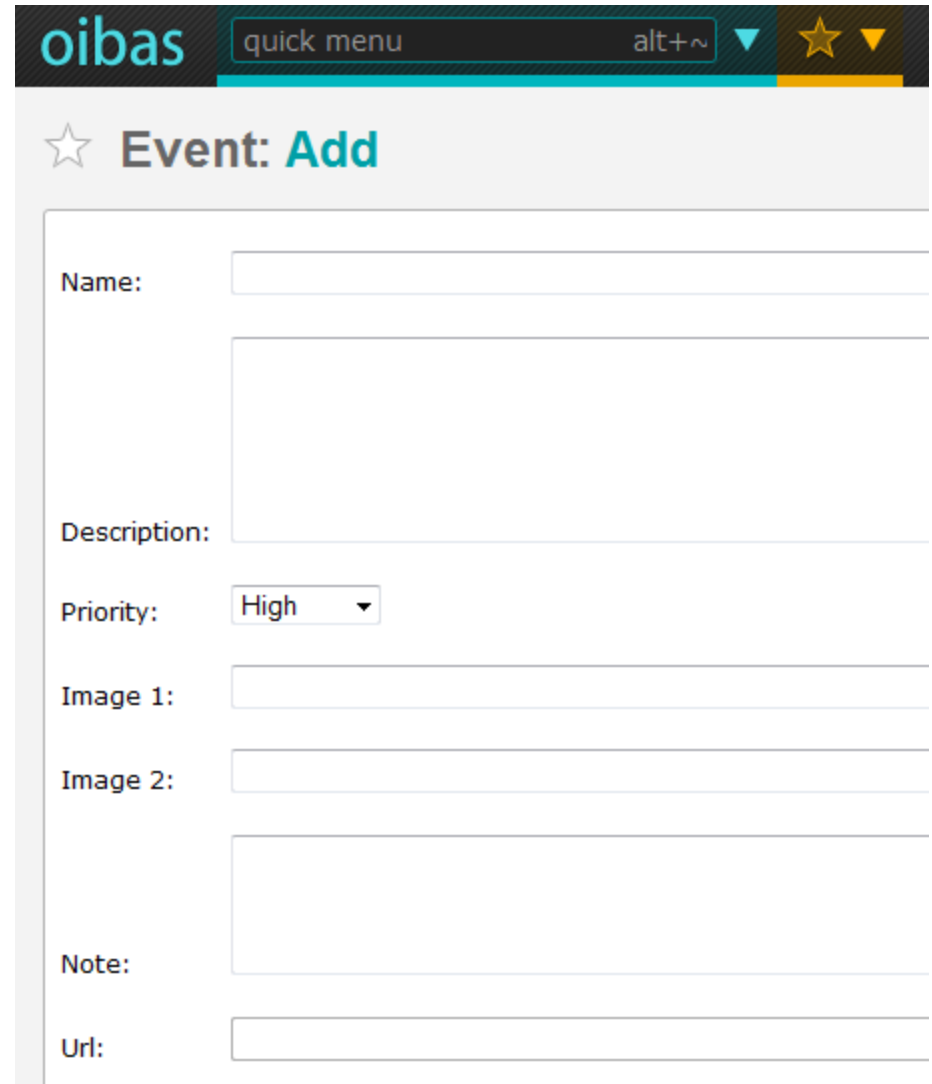
Building the Frontend for the Backend

- Keep it simple!
Function > Beauty
- How will tools be arranged?
 - By function
 - By user role



Building the Frontend for the Backend

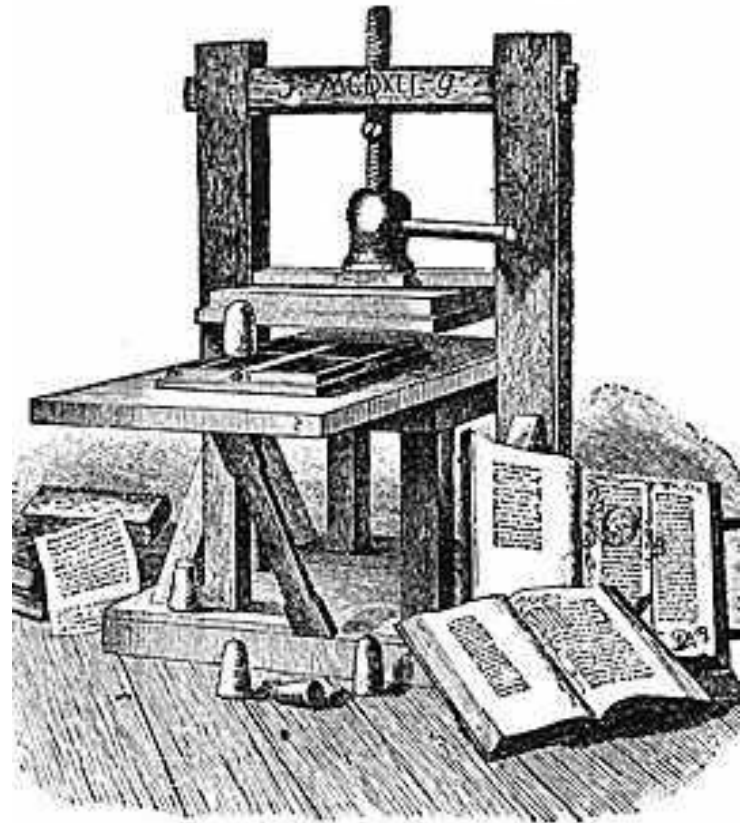
- Re-use as often as possible
 - Users get consistent behavior
 - Developers don't constantly re-invent
- Keep a tight feedback loop with users



The screenshot displays the 'oibas' web application interface. At the top, there is a dark header bar with the 'oibas' logo in teal, a search bar containing 'quick menu' with an 'alt+~' shortcut, and a yellow star icon. Below the header, a light gray bar contains a star icon and the text 'Event: Add'. The main content area is a form with the following fields: 'Name:' with a text input, 'Description:' with a large text area, 'Priority:' with a dropdown menu set to 'High', 'Image 1:' with a text input, 'Image 2:' with a text input, 'Note:' with a text area, and 'Url:' with a text input.

Publishing the Stores

- API vs. web scraping
- Periodic publishing vs. real-time updates
- Incremental updates vs. full-data publish
- Shared product data vs. unique content



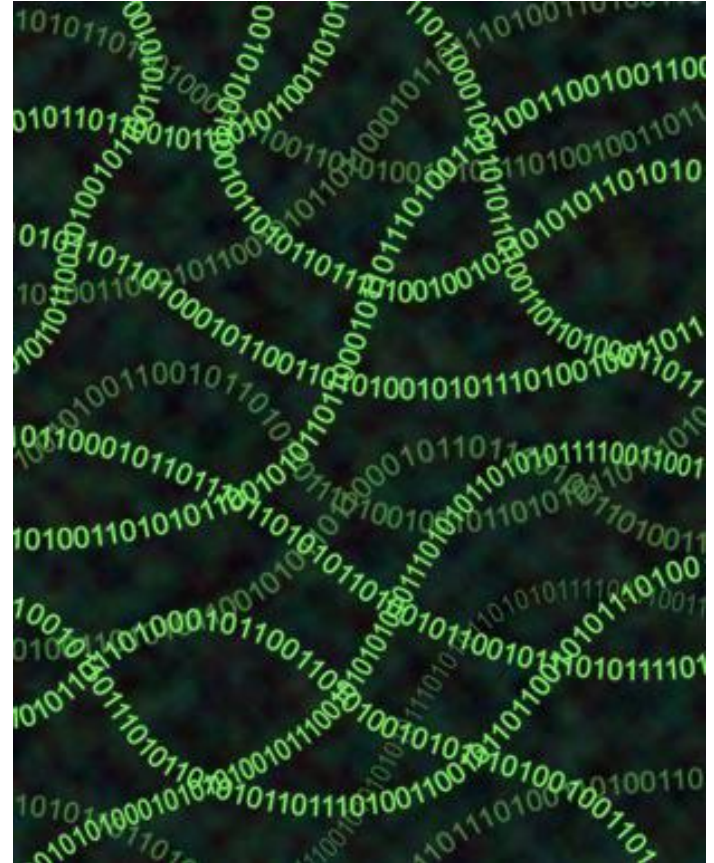
Automating the Inputs

- From our other systems
 - Inventory
 - Orders
 - Forecasting models
- From third-party systems
 - Supplier inventory / cost data
 - Supplier product data



Feeds to Everywhere!

- Multiple store types
 - Current eCommerce platform
 - Legacy platforms
 - Special types
 - Sales event stores
 - Partner stores



Feeds to Everywhere!

- Third-party sales channels
 - Amazon
 - eBay
 - Walmart.com
 - Gunbroker.com
- Third-party advertising feeds
 - Google Shopping

Background Processes

- How to run non-web processes?
 - cron
 - Gearman
 - RabbitMQ
 - Other existing solutions
 - Create your own process controller



Background Processes

- Major hurdles
 - Mutual exclusion / locks
 - Monitoring
 - Detecting / handling failures
 - Detecting / handling jobs that do not finish

Additional Features

- Managing images and videos
- Bulk data import / export
- Gathering competitor data
- Automatic pricing
- Automatic content generation



Feedback / Contact / Slides

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- Twitter: [@PSchwisow](https://twitter.com/PSchwisow)
- Slides: <https://github.com/PSchwisow/Miscellaneous/>
- OpticsPlanet is Hiring:
<http://www.opticsplanet.com/careers/>