DRUPALCON
ASIA
2016

ZYXWARE TECHNOLOGIES

Delivering True Value

Experience the power of Drupal as a platform for content and commerce

Scalable cloud based e-commerce platform on Drupal with a common back office for managing sales of entry passes to multiple events

DRUPALCON ASIA

FEB 18-21, 2016

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Vimal Joseph

- Senior Manager, Technology – Zyxware Technologies
- Lead the solutions team at Zyxware
- Solving problems using Drupal since 2010

Zyxware Technologies

- Zyxware technologies, since 2006, has been an exclusive Drupal service provider and has contributed several modules and themes for Drupal.
- https://www.drupal.org/u/zyxware
- www.zyxware.com

The story...

- On-line ticket selling platform allowing vendors to manage ticket sales, purchases, order provisioning, order reconciliation and accounting
- Back-office operations such as ticket acquisition, several refunds, and custom reports
- Intelligent display system that prevent copying of price by web scrapers
- Fast search

Story (cont..)

- The system should support any kind of events
  - Music concerts
  - Tennis matches
  - Movie tickets
  - Live shows
  - Etc...
- Each type of events should be hosted in its own domain
- Each of these domains should be multilingual
- Option to display same event with different pricing and content in a different domain

Story (cont..)

- And the customer also want to build a system that automatically generate content for display based on a template he create.

  Eg:

  [xyz:team-name] rugby tickets are available for sale online. Book your [xyz:team-name] rugby tickets and receive the best value for your money’s worth. We work hard to keep our customers satisfied. Book your [xyz:team-name] tickets and enjoy the match.

Decision criteria

- Time constrain
- Focus on a single event type and add other features iteratively
- The core architecture should be flexible enough to achieve the goal – No rebuild later
- Building something from scratch was out of the question – considering the time lines

Technology

- Drupal was the obvious choice to build this platform
- Drupal is our default choice to build anything that need to be extended further
- Features
  - Domain based access control
  - E-Commerce features
  - Search
  - Multi language support
  - Back office features – Ticket acquisition and allotment, Accounting, Reports etc..

Technology (cont...)

- Drupal 7
  - Drupal Commerce
  - Domain
  - ApacheSolr
  - Views
  - Rules
  - Lots of custom modules

Statistics

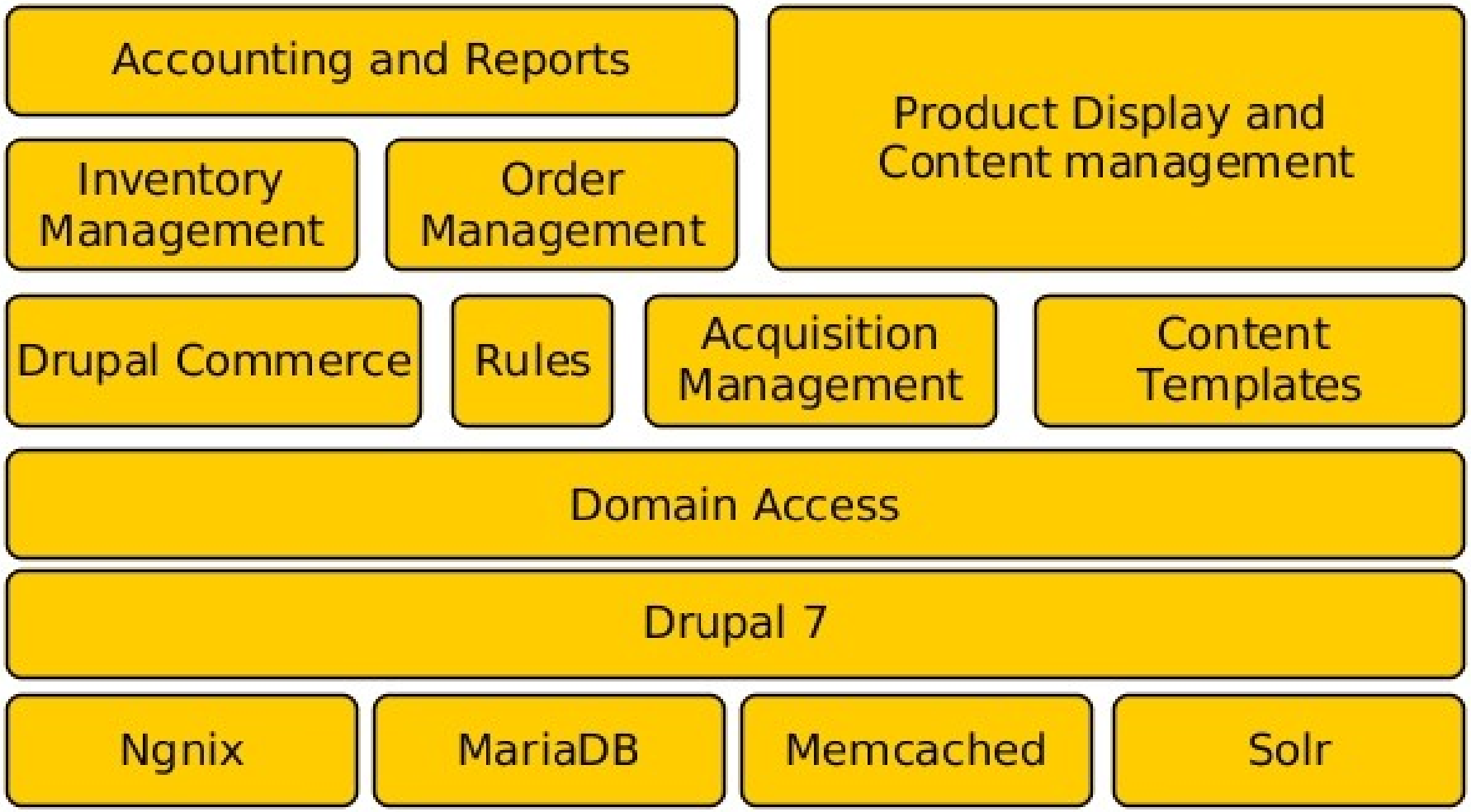
- 140 contributed modules
- 30 features – exported configuration (around 60,000 lines of code)
- 17 custom modules
- 57810 lines of custom code
- 7980 commits

- 4 developers scaled up to 8 and then back to 4
- Initial version delivered in 4 months
- After the initial release, development continues for more than 1.5 years with a team of 4 developers

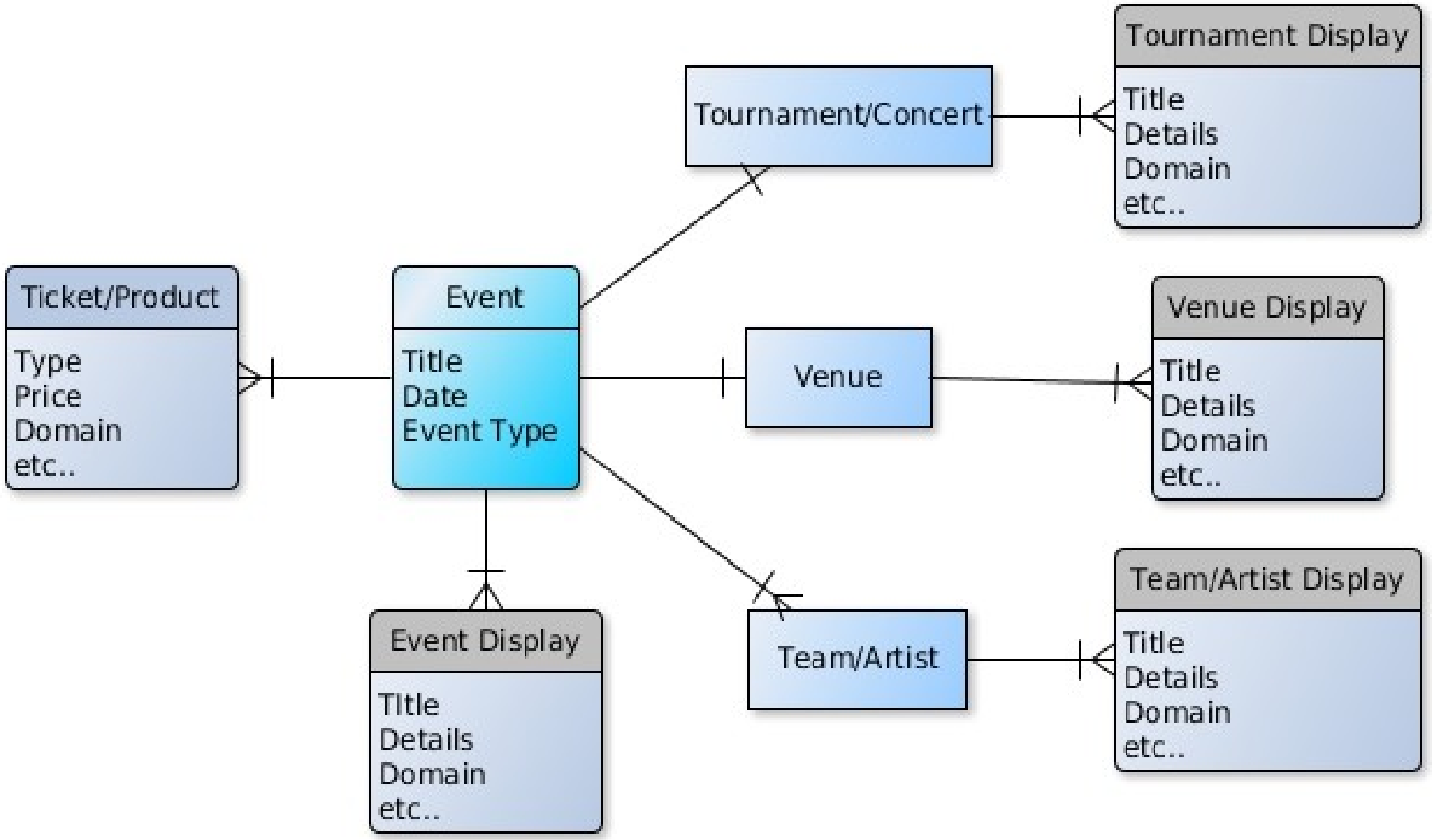
Development Environment

- Git repository was hosted internally with gitolite
- Branch per feature GIT workflow
- Redmine for issue tracking – integrated with gitolite
- Development → Testing → Staging → Production servers

System overview



Core data structure



Implementing the data structure

- Venue, Tournament, Team/Artist – Taxonomy
- Display Entities – Node
- Event – Custom Entity
- Ticket – Commerce Product

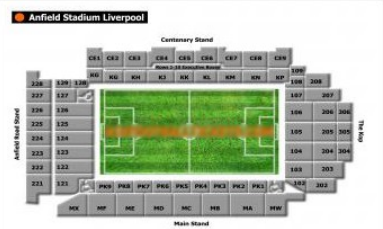
Event Display

Home / English Premier League / Liverpool FC vs Tottenham Hotspur

Liverpool FC vs Tottenham Hotspur Tickets

Sat 2 Apr 2016 15:00, Anfield, Liverpool, United Kingdom

Like 0 Tweet G+1 0



Click image to enlarge...

Section	Price	Quantity	
[blurred]	£179	1	Buy Ticket
[blurred]	£189	1	Buy Ticket
[blurred]	£207	1	Buy Ticket
[blurred]	£210	1	Buy Ticket
[blurred]	£220	1	Buy Ticket
[blurred]	£229	1	Buy Ticket
[blurred]	£230	1	Buy Ticket
[blurred]	£250	1	Buy Ticket
[blurred]	£299	1	Buy Ticket
[blurred]	£354	1	Buy Ticket
[blurred]	£375	2	Buy Ticket

Travel agent or Corporate?

Group sales are available - contact us

Good to know!

* VAT included in all prices
* Booking fee will be calculated in the payment page
* Delivery of tickets will be up to 3 days before the event in the country of destination

You might be interested also in:

- Liverpool FC Tickets
- Tottenham Hotspur Tickets

Reviews

ZYXWARE TECHNOLOGIES

Venue Display

Camp Nou Football Tickets

Carrer d'Aristides Maillol, 12, Barcelona, Spain, 8028

Like 0 Tweet G+1 0

There are two things that every FC Barcelona must do. The first, is watching Barcelona playing a live home match at the outstanding Camp Nou with a capacity of 99,786 seats. The second is visiting the breathtaking Camp Nou when no match is being played touring the Camp Nou stadium by visiting FC Barcelona`s dressing room, watch the unbelievably amazing number of trophies won by the club which are all presented to the public or just walk through the players tunnel to the pitch. Book Camp Nou`s stadium tour now and learn every detail about FC Barcelona glory from its establishment through now. KieFootballTickets.com wishes you a pleasant time while touring the stunning Camp Nou stadium

HOT Deals

Football Tickets

- Premier League
- Spanish La Liga
- German Bundesliga
- UEFA Champions League
- Copa America
- UEFA Europa League
- FA Cup
- Capital One Cup
- Dutch Eredivisie
- Emirates Cup
- FA Community Shield

Camp Nou Fixtures

All Dates | All Games

Feb 28, 2016 Sun TBA	FC Barcelona vs Sevilla FC Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets HOT
Mar 13, 2016 Sun TBA	FC Barcelona vs Getafe CF Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets
Mar 16, 2016 Wed 20:45	FC Barcelona vs Arsenal Champions League, Camp Nou, Barcelona, Spain	View Tickets HOT
Apr 03, 2016 Sun TBA	FC Barcelona vs Real Madrid Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets HOT
Apr 17, 2016 Sun TBA	FC Barcelona vs Valencia CF Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets HOT
Apr 24, 2016 Sun TBA	FC Barcelona vs Sporting De Gijon Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets
May 08, 2016 Sun TBA	FC Barcelona vs RCD Espanyol Tickets Spanish La Liga, Camp Nou, Barcelona, Spain	View Tickets HOT

Fan Reviews

Content Template System

- Token module can do wonders :)
- Template entity to store token based templates, which will be used to generate content for the display nodes

Bulk upload data to the system

- Feeds
  - Commerce Feeds
  - Custom feed importer plugin

  - Create/update events and products
  - Create/update venues, teams, tournaments

  - All entities in the system uses UUID

Rules to automate tasks

- System will automatically create products for all available seating categories set in the venue
- Automatically archive or change display information of events when the event expire
- Generate the content for display nodes by applying relevant templates when an event changes

Batch API to process large data set

- Bulk upload
- Export events
- Bulk price update
- Complex reports

Drupal helped a lot

- With out Drupal, this project will not be a success
- Drupal helped us reduce the development time many folds by utilizing its API as well as the contributed modules
  - Views
  - Rules
  - Commerce
  - Domain Access
  - Metatags
  - Tokens
  - Feeds
  - ...

Challenges

- Configuration management was a mess
  - Feature module has its own limitations
  - It took lots of effort to make the live deployment perfect – especially when there are a lot of configuration changes
- The project was very dynamic – priority changes frequently, so we have to switch between features frequently. Discarding features that were already in staging was common.
  - Thanks to GIT – it offers a whole lot of techniques to mange these kind of situations, but recreating development, testing and staging branches were common..

Lesson learned

- Continuous integration and Unit test cases are must
  - It will take some time initially to setup a proper workflow that fits the need of the project
  - It is worth spending time on that – it will save a lot of time.
  - Automated code style checks, automatic branch recreation, unit testing
- Technical planning – it helps
- And of-course – Drupal is the best platform to build another platform

Contributions

- A whole bunch of technical articles and how-tos at www.zyxware.com
- Modules in pipeline
  - Payment gateway integrations
    - G2S
    - EFT
  - A module that provide a block to publish context based advertisements

Questions

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https://www.drupal.org/u/zyxware
www.zyxware.com

Thank you