



Florida Hospital Experience Network

DrupalCamp Florida 2011

Back Office Integration

+ Overview



- We are an internal agency at Florida Hospital:
 - Future thinking and planning for interactive marketing

- Development team:
 - Greg Groves
 - Thomas Kelly
 - Gareth Price

+ What does Florida Hospital look like?



- 88 Drupal web properties
- 45 key internal systems
- 35 system vendors
- 48 years of software development, starting with IBM 1440 in 1962
- 25 years of legacy systems still live (Go COBOL!)



+ Lately, we've been hearing about "Integration" a lot... even in marketing.

- Web is fragmenting at all levels
- Big societal push to personalization and integration
- Users expect it!

+ What is in the “Back Office”?

Most Popular

- Customer Relationship Mgmt
- Enterprise Resource Planning
- Billing and Accounting
- Scheduling
- Logistics and Shipping

Industry-specific (for us)

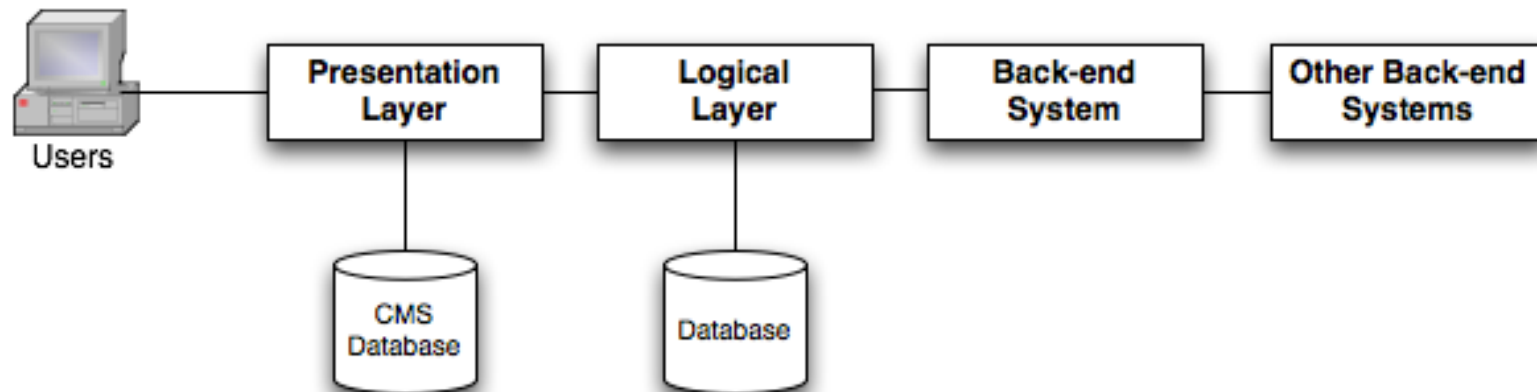
- Insurance
- Medical Records
- Pharmacy
- ER Wait Times
- Medical Devices
- Telemedicine

+ Every Enterprise is Different

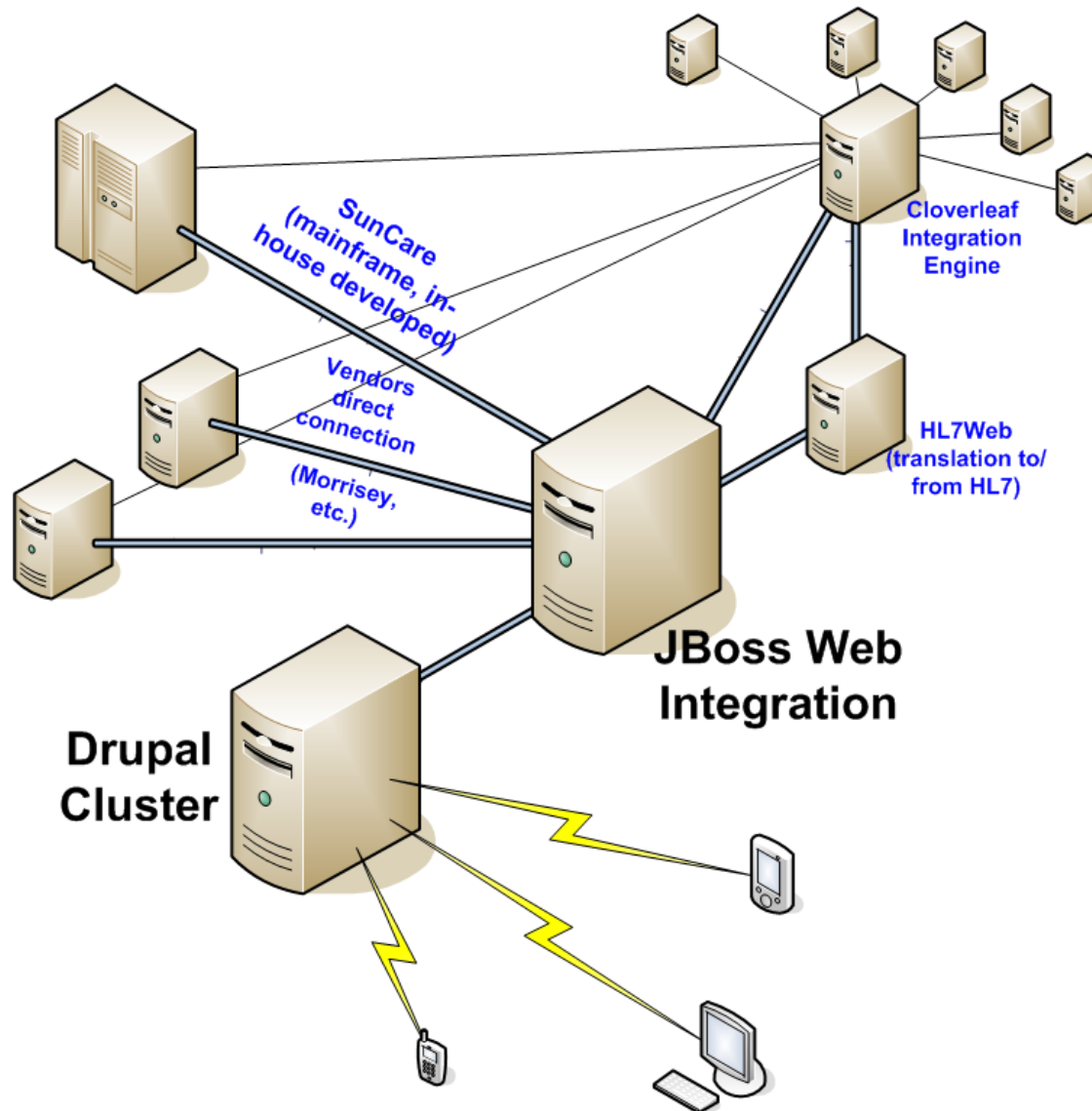
But there are commonalities

What systems do you want to talk to?

+ Logical Structure



+ How does Drupal fit in?



+ Drupal Modules



- **Feeds** (batch import data over a transport – XML, RSS, CSV)
- **Services** (expose Drupal methods over multiple transports: XMLRPC, JSON, JSON-RPC, REST, SOAP, AMF)
- **Views Bonus Pack** (expose custom XML, CSV)
- **Custom modules** (anything!)

+ Security

- High stakes! More data, more sensitivity. Legal issues are Serious Business. You can be personally liable. \$100,000/day. \$2,000 per record. 1,000 records = \$2m.
- Expose only what's needed
 - Create limited APIs and use permissions effectively
 - Expose only what you need to. Data de-identification.
- Encrypt your data transport (HTTPS)
- Don't break referential integrity (Cache, don't duplicate)
- Don't trust Drupal! It is not designed as a canonical data source.
- *What are industry specific laws you need to consider?*

+ Challenges

- Finding out what systems exist
- Understanding *enough*, without going mad
- Keep things simple: Nothing wrong with an iFrame.
- Standardization and process – red tape isn't all bad though
- You are highly dependent on vendors. APIs may be:
 - Non-existent
 - Broken
 - Expensive
- Welcome to the world of closed source software!



+ 4 Awesome Advantages

1. Greater personalization.
2. Create awesome user experiences:
At the moment, differentiation. In the future, standard.
3. Improve enterprise analytics:
Drupal (and you) get the credit you deserve
Prove that Drupal is creating value (GRI: \$1.8m)
4. Enterprise buy-in:
Strengthen Drupal's position in the enterprise





+ Case Studies

Greg: **EDdoor2doc**

Thomas: **Physician's Directory**

Gareth: **CRM + WebForms**



+ The Future

MyFloridaHospital patient portal

Real-time scheduling

Electronic health records

Access from your hospital bed, via **interactive television**

Access from your couch, via **xbox kinect**

Access to all of the above from anywhere, via **mobile**

+ We're Hiring!

If this sounds exciting, come and work for us.

Drupal developers
Themers / Front-end developers
Project managers

Please talk to Gareth Price <gareth.price@flhosp.org>, David Oakley <david.oakley@flhosp.org> or Rick Mann <rick.mann@flhosp.org>