

Web Catalogs at the Alaska Earthquake Center

Matt Gardine

AEC Web Background

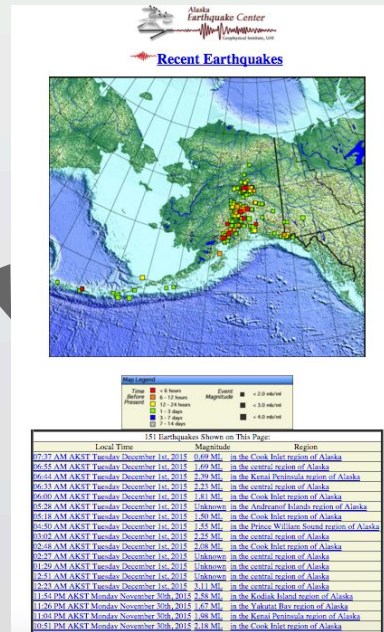
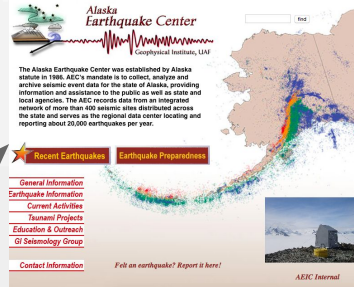
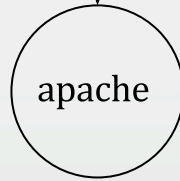
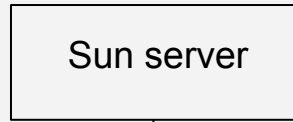


- In mid- 2014, we began a redesign of Earthquake Center website
- Issues:
 - Outdated design
 - Difficulty adding new content
 - Inability to handle high-traffic loads

Old Site Web Technology



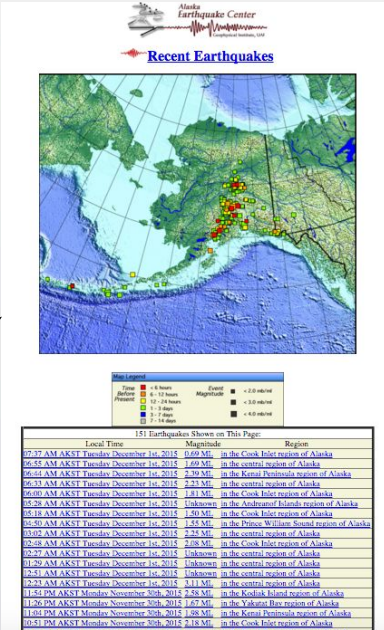
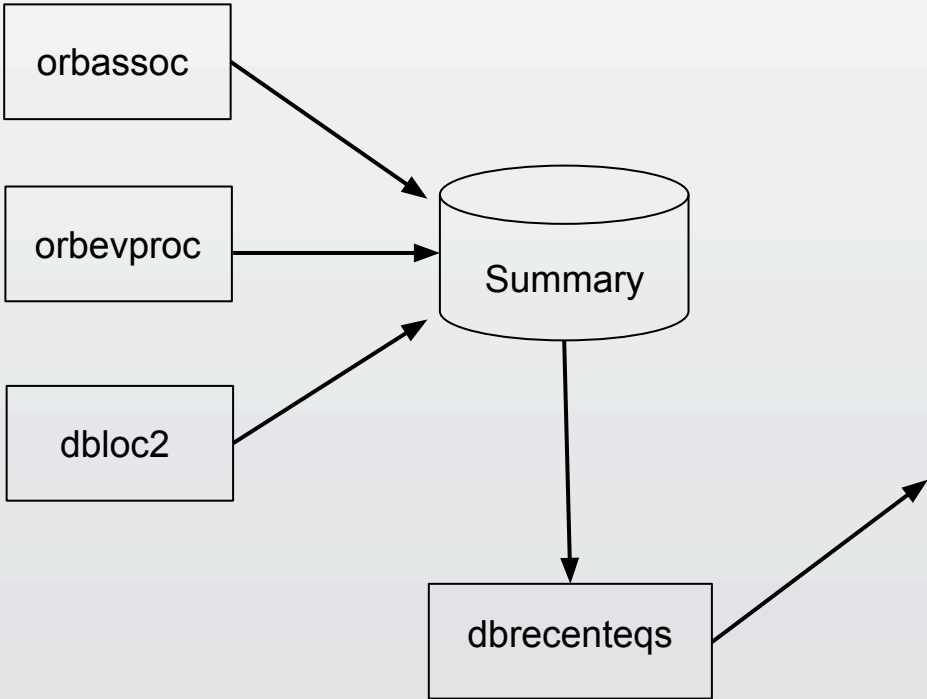
static html pages



Old Site Antelope



Sun server



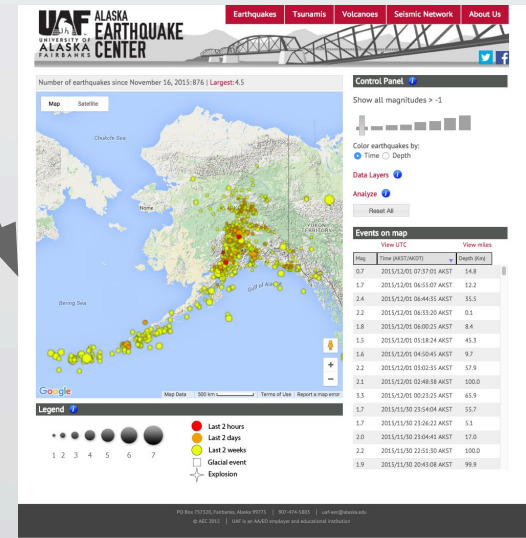
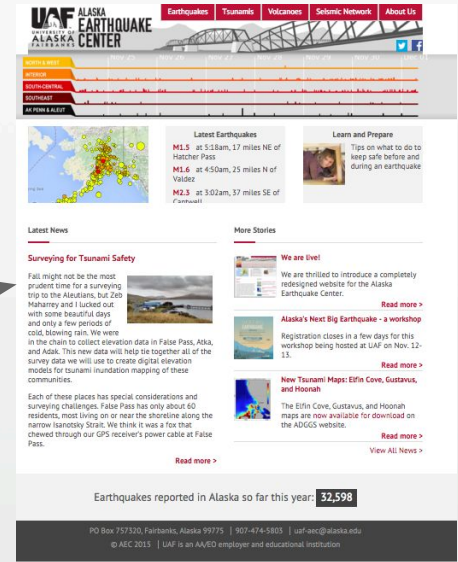
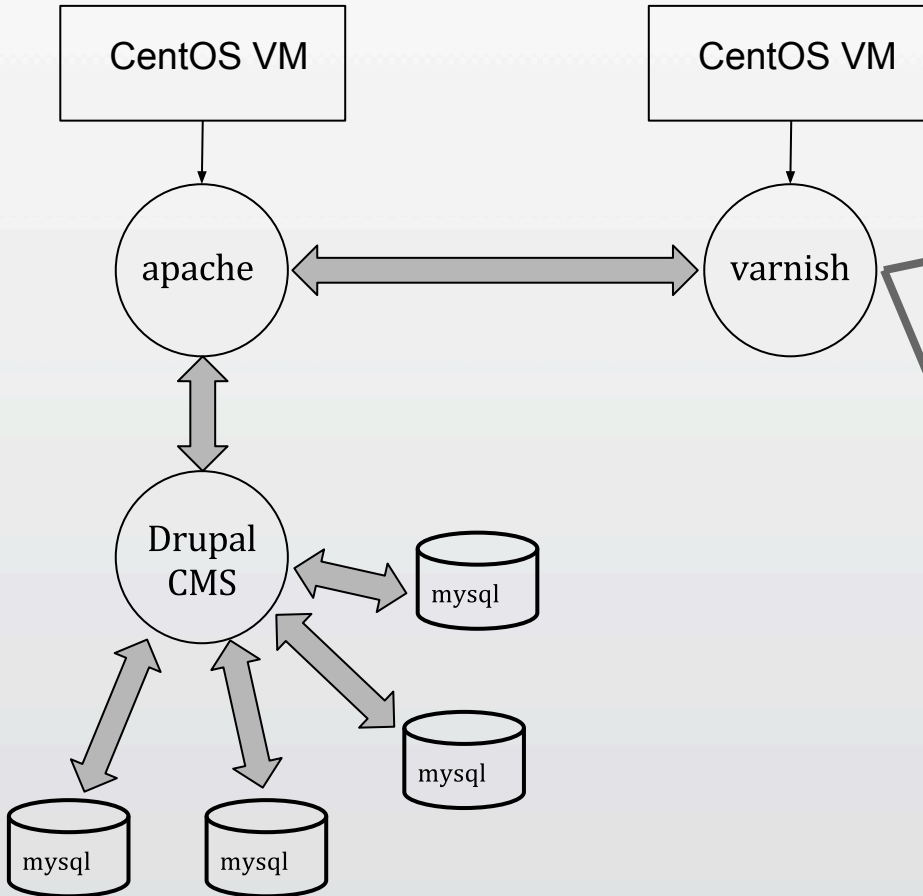
New Site Goals

- Design
 - Modern feel
 - Interactive
 - Responsive
- Technological
 - Easy to add content
 - Sustainable
 - Scalable
 - Handle traffic load
 - Permalinks

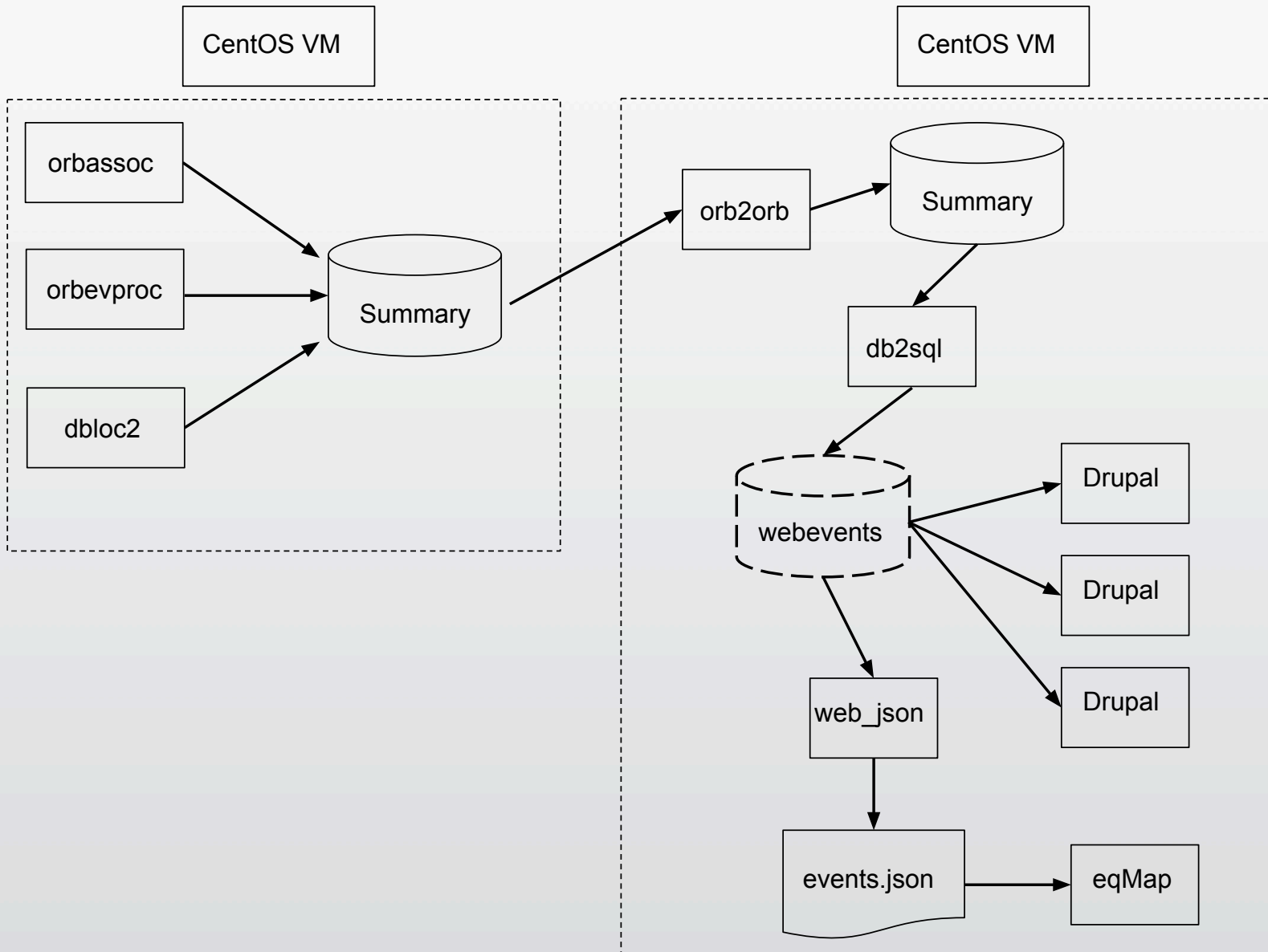
New Site Goals

- Drupal 7 CMS framework
 - In-house experience
- Web database
 - Drupal uses MySQL natively, offers PostgreSQL, SQLite w/modification
 - ShakeMap, Trans-Alaska Pipeline monitoring system also use MySQL
 - Unify our systems onto MySQL for administrative ease

New Site Technology



New Site Antelope



Advantages

- Interface libraries in practically any language (Connector/Python, DBI & DBD::mysql for Perl, etc.)
- Scalability: cloud-based LAMP (Linux, Apache, MySQL, PHP) stack
- GUI tools like phpMyAdmin
- Numerous performance optimizations
- Backup/offsite tools: Master/slave replication

Advantages – Event Page

Event ID

earthquake.alaska.edu/event/13824636

UAF ALASKA EARTHQUAKE CENTER

Earthquakes Tsunamis Volcanoes Seismic Network About Us

Summary Information Release Shakemap Tectonic Setting

Magnitude 4.1 - 19 miles N of Hatcher Pass

Nearest Communities

- 19 miles N of Hatcher Pass
- 29 miles NW of Sutton
- 30 miles SE of Talkeetna
- 30 miles NE of Willow
- 33 miles N of Wasilla
- 33 miles N of Palmer
- 46 miles N of Chugiak
- 51 miles N of Eagle River

Did You Feel It?

August 1, 2016 16:25:01 AKDT
62.0490°N 149.391°W Depth 23.7 miles

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Issues, Considerations



- Relies on Datascope::db2sql, Datascope::dbmon perl modules
- 1:1 replication of Antelope summary database and MySQL webevents database
 - Requires MySQL schema to be same as Antelope schema
 - Antelope database clean-ups are an issue
- Preferred magnitudes
 - We use a logic tree in PHP script on netmag table
 - Original web service to generate JSON file was unwieldy with magnitude logic, requires script + cron
- Database administration

Questions, Discussion

