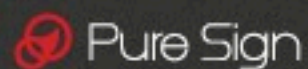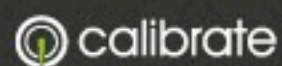# Performance optimizations for large & small sites

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We host (drupal) sites

Servers

CPU / RAM / Storage

Storage

HDD, SSD, SAN, ...

Latency and cost

4

Software

Webserver
Database server
Helpers

5

Live demo

Next up: fail

Setup

Vagrant (virtualbox) - 256 MB RAM
Debian Squeeze
Drupal 7 - 5000 nodes & terms
(Opscode Chef)

LAMP

Apache

Database

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Opcode caching

Script language
Memory

Drupal cache

Default
Memcache
Boost

Varnish

Larger setups
Caches everything

Results

Default: 5 / sec
Xcache: 15 / sec (300%)
Drupal cache: 30 / sec (600%)
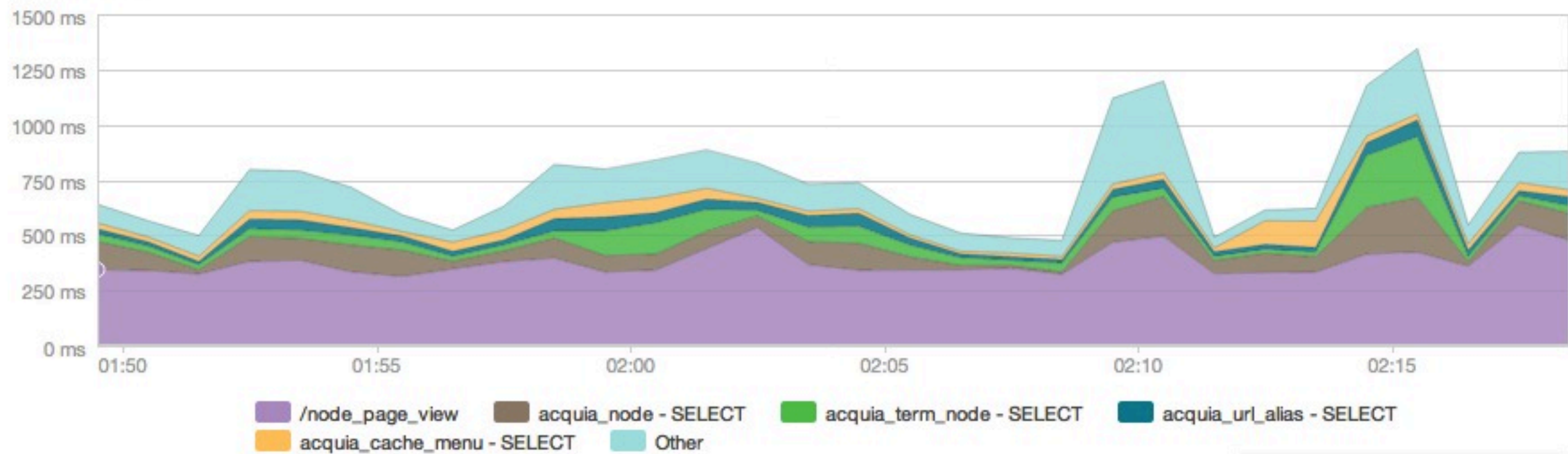Drupal- / Memcache + Xcache: 100 / sec (2000%)
Boost: 430 / sec (8600%)
Varnish: 1400 / sec (28000%)

Find slow pages

Profiling
New Relic

Web transaction breakdown
by component

Legend: /node_page_view   acquia_node - SELECT   acquia_term_node - SELECT   acquia_url_alias - SELECT
acquia_cache_menu - SELECT   Other

✎ Add to note   ⌁ Embed

Summary breakdown

Legend: /node_page_view   acquia_node - SELECT   acquia_term_node - SELECT   acquia_url_alias - SELECT
acquia_cache_menu - SELECT   Other

Category	Segment	% Time	Avg calls (per txn)	Avg time (ms)
WebTransaction	/node_page_view	52.5	1.0	370
Database	acquia_node - SELECT	11.0	21.5	78

Category	Segment	% Time	Avg calls (per txn)	Avg time (ms)
WebTransaction	/node_page_view	52.5	1.0	370
Database	acquia_node - SELECT	11.0	21.5	78
Database	acquia_term_node - SELECT	7.8	9.0	55
Database	acquia_url_alias - SELECT	4.8	115	33.9
Database	acquia_cache_menu - SELECT	4.6	7.1	32.4
Database	acquia_boost_cache_relationships - UPDATE	1.6	0.09	11.3
Database	acquia_locales_source - SELECT	1.5	17.6	10.6
Database	acquia_menu_links - SELECT	1.5	22.8	10.6
Database	acquia_feedapi_node_item - SELECT	1.3	8.0	9.2
Database	acquia_vocabulary - SELECT	1.1	8.1	7.8
Database	acquia_cache - SELECT	1.1	6.8	7.8
Database	acquia_menu_router - SELECT	1.0	11.3	7.1
Database	acquia_term_data - SELECT	0.9	5.3	6.1
Database	acquia_cache_menu - INSERT	0.8	1.7	5.3
Database	acquia_cache_content - SELECT	0.6	8.2	4.1
Database	acquia_system - SELECT	0.6	6.4	4.2
Database	acquia_cache_block - SELECT	0.5	2.0	3.2
Database	acquia_cache_block - INSERT	0.5	0.5	3.5
Database	acquia_files - SELECT	0.5	7.7	3.8

Fail

Anonymous users
Statistics
Access
Watchdog
Expires

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Cloud

Scaling hardware works only so far...

Large sites

Performance optimizations are part of the development

Profiling during development

Take care of your custom modules!

Small sites

Enable caching
Use boost

Soon...

Opcode caching
PHP-FPM
Examine caching
Detect upgrades
Varnish

Feedback & follow-up:
http://drupalcampgent.be/feedback