



Site Review

Prepared on 02 Apr 2015 by jmeredith

How to use this report

We produce this report by examining various aspects of your Drupal site(s) for the most common site-impacting issues. We evaluate Drupal core settings, settings of some of commonly used modules, module selection, and perform a very surface-level review of custom code. Each section of this report identifies an aspect of the site we reviewed. We indicate the desired condition, the condition found on your site(s), and a description of why each condition should be considered. The conditions of your site(s) are highlighted based on their risk as follows:

- Critical conditions appear in white text on red background
- Significant conditions appear in black text on orange background
- Warnings appear in black text on yellow background
- Acceptable conditions appear in black text on green background

Sites Evaluated

- essent.prod.acquia-sites.com

Summary of Availability Risks

This is a summary of the most critical conditions we discovered when reviewing your site. We consider these items to pose serious risks to the availability (i.e. uptime) of your website. If your site has not launched yet, we consider it critical that these conditions are addressed before your site launches.

- **Block cache is disabled**
- **Page cache max-age less than 5m (actual value: 0 seconds)**
- **JS aggregation is disabled**
- **Module Database Logging is enabled.**
- **Memcache is not set as a cache backend in settings.php**

Summary of Risk Remediation

This is a summary of steps which we recommend following to address the most critical conditions affecting your site(s).

- **Enable block caching on Drupal's Performance page**
- **Enable page cache max-age on Drupal's Performance page**
- **Enable JS optimization on Drupal's Performance page**
- **Disable Database Logging on Drupal's module administration page**
- **Add the [Drupal Memcache module](https://docs.acquia.com/cloud/performance/memcached#config) and enable memcache as a cache backend in settings.php (<https://docs.acquia.com/cloud/performance/memcached#config>)**

Code Analysis

Drupal Version

Recommended setting: Using the latest version of Drupal (7.36)

Conditions found on sites:

- essent.prod.acquia-sites.com: Using an outdated version of Drupal (Drupal 7.35)

Keeping the Drupal codebase up to date will help to keep its site(s) more secure while also providing performance enhancements. Keeping up to date will also make the path for applying security fixes in the future much more smooth.

Contributed Modules

Recommended setting: No contributed modules require security updates.

Conditions found on sites:

- essent.prod.acquia-sites.com: better_exposed_filters, password_policy

At a minimum the modules with critical updates should be updated.

Code Security

Recommended setting: No security-impacting conditions detected in code.

Conditions found on sites:

- essent.prod.acquia-sites.com: No security-impacting conditions detected in code.

The following locations have been flagged as potential security flaws. Please verify each item in the list by checking that `$_POST`, `$_GET` and `$_REQUEST` variables are correctly sanitized before they are used. Sanitization can be performed by running the variable through a sanitization function such as `check_plain` or `filter_xss` or could be performed by verifying the variable meets strict criteria such as being an integer. This could be tested using the `is_numeric` function or by using some sort of regular expression. Ensuring that variable are correctly sanitized makes sure that hackers are unable to perform known security breaches such as cross site scripting and sql injection.

Code Performance

Recommended setting: No performance-impacting conditions detected in code.

Conditions found on sites:

- essent.prod.acquia-sites.com: No performance-impacting conditions detected in code.

The following locations have been flagged as potential performance problems. Overusing `cache_clear_all` and `variable_set` (which flushes the variable cache) should be avoided. It is desirable to be able to hold onto caches as long as possible as every cache clear is a performance hit on the site. Overusing these functions can cause caches to become irrelevant and add a massive overhead to page load times.

Theme Queries

Recommended setting: No database queries detected in theme code.

Conditions found on sites:

- essent.prod.acquia-sites.com: No database queries detected in theme code.

It is considered Drupal best practice to have no database queries in the theming layer. The theming layer should be instead reserved for only templating and styling and not data collection. You should consider moving the following queries into a custom module where it can then be called from.

Performance

Drupal Page Cache

Recommended setting: Normal page cache is enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Normal page cache is enabled

Page caching stores rendered versions of your site's pages in a database. With page caching disabled, your website visitors are experiencing noticeably slower page performance, and the server load is increased.

Drupal Block Cache

Recommended setting: Block cache is enabled.

Conditions found on sites:

- essent.prod.acquia-sites.com: Block cache is disabled

Without block caching enabled, your website does not cache the contents of blocks.

Enable block caching on Drupal's Performance page

Page Cache Max-Age

Recommended setting: Page cache max-age of at least 5 minutes

Conditions found on sites:

- essent.prod.acquia-sites.com: Page cache max-age less than 5m (actual value: 0 seconds)

Using Pressflow 6 or 7, with a page cache max age set to less than 5 minutes, the server has to frequently regenerate pages which can decrease your site's performance.

Enable page cache max-age on Drupal's Performance page

Minimum cache lifetime

Recommended setting: Minimum cache lifetime disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Cache lifetime is greater than 0s (actual value: 10 minutes)

The minimum cache lifetime prevents Drupal from clearing page and block caches after changes are made to nodes or blocks for a set period of time. This can cause unexpected behavior when editing content or when an external cache such as Varnish is employed. Therefore, minimum cache lifetime should be used with caution. If you are unsure, leave the minimum cache lifetime set to 0.

Disable cache-lifetime on Drupal's Performance page

CSS Optimization

Recommended setting: CSS Optimization Enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: CSS aggregation is enabled

With CSS optimization disabled, your website visitors are experiencing slower page performance and the server load is increased.

Javascript Optimization

Recommended setting: Javascript optimization enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: JS aggregation is disabled

With JavaScript file aggregation disabled, your website visitors are experiencing slower page loads and the server load is increased.

Enable JS optimization on Drupal's Performance page

Mobile Tools module

Recommended setting: Mobile Tools module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Module mobile_tools is disabled.

The Mobile Tools module uses sessions to store its determination of whether or not a user is using a mobile device. As a result, it causes all of your page loads to bypass any reverse proxy caching (like Varnish). It can also cause all of Drupal's internal page and block caching to be bypassed, forcing Drupal to render all pages from scratch. This means that load on your web servers is considerably higher and page loads will be slower.

Database Logging module

Recommended setting: Database Logging module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module Database Logging is enabled.**

With the Database logging module enabled, website events and issues are saved to your database, which can negatively impact your database server's performance

Disable Database Logging on Drupal's module administration page

Devel module

Recommended setting: Devel module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module devel is disabled.**

With the Devel module enabled, your production site's performance is negatively impacted. Note: If your website is a development or staging site, you can ignore this alert.

SimpleTest module

Recommended setting: SimpleTest module is not enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module simpletest is disabled.**

With the SimpleTest module enabled, your production site's performance is negatively impacted. Note: If your website is a development or staging site, you can ignore this alert.

Fast 404

Recommended setting: Fast 404 is being used.

Conditions found on sites:

- essent.prod.acquia-sites.com: **Fast 404 is not being used.**

The fast_404 module should be installed on the site so that 404 pages do not have to fully bootstrap Drupal in order to be served. This module can help to alleviate stress on the server.

Database with MyISAM Tables

Recommended setting: Database does not contain MyISAM tables.

Conditions found on sites:

- essent.prod.acquia-sites.com: Database contains 0 MyISAM tables.

All of the tables in your application should be using the InnoDB table engine. The main advantage to InnoDB is row level locking. While MyISAM can sometime be faster for reads in older version of MySQL, InnoDB will always outperform MyISAM if there is even a low level of writes to the tables. The other major problem with MyISAM is that it places a lock on the entire table when performing a mysqldump which is used for backups. This effectively renders the site unusable while the database backup is being made. In the most recent version of MySQL, InnoDB outperforms MyISAM in all metrics.

Database with FULLTEXT indexed tables

Recommended setting: Database does not contain FULLTEXT indexed tables.

Conditions found on sites:

- essent.prod.acquia-sites.com: Database does not contain tables with FULLTEXT indexing.

Tables with FULLTEXT indexes cannot currently be converted to InnoDB (a solution for this is in development for MySQL 5.6). Queries involving these tables with FULLTEXT indexing could lead to performance problems.

Theme Registry Rebuild (Zen-derived info files)

Recommended setting: No themes with zen_rebuild_registry enabled.

Conditions found on sites:

- essent.prod.acquia-sites.com: There are 0 themes with zen_rebuild_registry enabled.

The rebuild registry feature is enabled for your theme. This setting is only used during theme development, and can negatively impact site performance.

Memcache configuration

Recommended setting: Memcache set as a cache backend in settings.php

Conditions found on sites:

- essent.prod.acquia-sites.com: Memcache is not set as a cache backend in settings.php

Memcache is a key/value storage daemon that allows you to lighten the load on your MySQL server by putting the contents of all the cache tables into an in-memory storage engine. Using memcache will make your site perform better under load and reduce instances where table locking can occur.

Add the [Drupal Memcache module](#) and enable memcache as a cache backend in settings.php (<https://docs.acquia.com/cloud/performance/memcached#config>)

Time between automatic cron runs on HTTP requests

Recommended setting: Drupal automatic cron run on HTTP requests disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Time between automatic cron runs on HTTP requests is greater than 0s (actual value: 3 hours)

Drupal automatic cron runs on HTTP unnecessarily keeps PHP processes running for a long time. This can cause resource starvation and/or slow performance under some cases. You should trigger Drupal cron via a drush call instead.

Disable Drupal automatic cron run on HTTP requests on Drupal's Administration > Configuration > System > Cron page.

Security

PHP Filter

Recommended setting: PHP Filter module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Module php is disabled.

The PHP filter is enabled for your website. While this does not normally represent a serious concern, it does represent a security vulnerability, in that it can allow bad PHP code to be added to your site. This bad code can cause blank pages to appear instead of your site content.

Drupal Best Practices

Statistics module

Recommended setting: Statistics module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module statistics is disabled.**

The statistics module tracks page views and logs access statistics for your site. Because it is triggered on every page load it can slow sites down. Consider using a client-side analytics solution (such as Google Analytics) instead.

Syslog module

Recommended setting: Syslog module enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module syslog is disabled.**

Use the Syslog module instead of the Database logging module to log events and issues. The Syslog module saves website events to your server's syslog (or Windows eventlog).

Enable syslog on Drupal's module administration page

Views UI module

Recommended setting: Views UI module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: **Module views_ui is enabled.**

The Views UI module is enabled on your website. While this is not a significant concern, it can impose a small performance penalty when enabled, and can allow the essential views required by your website to be modified.

Disable views_ui on Drupal's module administration page

Field UI module

Recommended setting: Field UI module disabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Module field_ui is enabled.

The Field UI module is enabled on your website. While this is not a significant concern, it can impose a small performance penalty when enabled, and can allow the essential field required by your website to be modified.

Disable field_ui on Drupal's module administration page

Boost module

Recommended setting: Boost module is not enabled

Conditions found on sites:

- essent.prod.acquia-sites.com: Module boost is disabled.

On Acquia Cloud the Boost module is unnecessary, provided that Varnish caching is in place.

Acquia Require Line

Recommended setting: Acquia required file is in place.

Conditions found on sites:

- essent.prod.acquia-sites.com: sites/default/settings.php includes the require file

When you import or create your website in Acquia Cloud, you have multiple environments to manage your website, with each environment having its own database. Because of this, your website can have multiple databases associated with it, depending on which environment you're working in. The database include statement causes your site to use a unique database for each site environment. This allows you to use the same settings.php file in each of your Acquia Cloud environments.

PHP Memory Limit

Recommended setting: Do not override PHP Memory Limit

Conditions found on sites:

- essent.prod.acquia-sites.com: sites/default/settings.php does not contain any memory limit overrides.

Php provides the ability to override the memory limit set in the php configuration. The problem with this is that the memory limit has already been specifically tuned to allow for a certain number of processes while still being within the server hardware limits. Overriding this settings puts your site at risk of skip spawning which will result in 503 errors. Under certain circumstances some paths can conditionally have the memory limit increased to stop the page erroring out. This is usually for an admin page that is rarely used. If the memory limit needs to be increased for all pages you should contact support who will be able to permanently have the memory limit increased at the expense of decreasing the number of processes that php will have available to use.

References to AH_ environment variables

Recommended setting: Any references to `$_ENV["AH_*"]` variables should come after Acquia required file.

Conditions found on sites:

- essent.prod.acquia-sites.com: sites/default/settings.php has Acquia required file positioned before any references to `$_ENV["AH_*"]`.

Any references to `$_ENV["AH_*"]` variables should come after Acquia required file so that they are properly set for Drush or other command line runs.

References to AH_ server variables

Recommended setting: Any references to `$_SERVER["AH_*"]` variables should be replaced with `$_ENV["AH_*"]` variables.

Conditions found on sites:

- essent.prod.acquia-sites.com: sites/default/settings.php does not contain use of `$_SERVER["AH_*"]` variables (not populated under Drush).

Any references to `$_SERVER["AH_*"]` variables should be replaced with `$_ENV["AH_*"]` variables and positioned after Acquia required file to ensure the code runs under Drush or other command line runs.

Assignment of an array to the \$conf global

Recommended setting: Any overrides to the global \$conf array should be per-element and not via \$conf = array(...).

Conditions found on sites:

- essent.prod.acquia-sites.com: sites/default/settings.php is not assigning an array() to the \$conf global.

Any overrides to the global \$conf array should be per-element and not via \$conf = array(...), otherwise the site variables can be corrupted.

Database Table Default Collation

Recommended setting: All Drupal database tables use the same default collation.

Conditions found on sites:

- essent.prod.acquia-sites.com: Database does not contain tables that have a different collation than utf8_general_ci.

Your tables should be using a consistent default collation. Although this is strictly not needed it can avoid some of the problems incurred with multi lingual sites.

Database Character Sets

Recommended setting: All Drupal database text columns use the same character set.

Conditions found on sites:

- essent.prod.acquia-sites.com: Database does not contain columns that have a different character_set than utf8.

Your tables should be using a consistent character set across all columns. Although this is strictly not needed it is a good idea to make sure you are using utf8 as your character set as it will avoid some of the problems incurred with multi lingual sites. Additionally using multiple character sets can negatively impact the performance of table joins.

Database Updates

Recommended setting: Required database updates should be applied after updating Drupal core and contrib modules.

Conditions found on sites:

- essent.prod.acquia-sites.com: There are 0 outstanding database updates that need to be applied.

Updates to Drupal core or contrib modules sometimes include important database changes which should be applied after the code updates have been deployed.

Redirects in .htaccess

Recommended setting: There are less than ten 301 redirects in the .htaccess file.

Conditions found on sites:

- essent.prod.acquia-sites.com: There are less than ten 301 redirects in the .htaccess file. (0)

When there are a large number of redirects in the .htaccess file they are all required to be loaded at run time during every request as Apache needs to analyze the contents so that it can make appropriate decisions about how to process the application and incoming requests. Redirect rules should be refactored to take advantage of regular expressions if possible. Otherwise the redirect module should be added to the site and all of the redirects in the .htaccess file should be moved into the Drupal site. Although these redirects will then require a Drupal bootstrap in order to fulfill the request, Varnish will be able to cache the redirect once it has been made once as long as there is a maximum age set on the site.

Missing Modules

Recommended setting: No missing modules in codebase.

Conditions found on sites:

- essent.prod.acquia-sites.com: No missing modules in codebase.

If you have 3rd party modules which are no longer needed, you should first disable the module then uninstall the module. Once you have done those two steps (either through the Drupal UI or via Drush) then you may remove the 3rd party module code. If modules are removed before being disabled and uninstalled your site may experience unexpected behaviors and performance issues.

Error reporting level

Recommended setting: PHP error_reporting setting includes flags critical for troubleshooting.

Conditions found on sites:

- essent.prod.acquia-sites.com: PHP error_reporting setting includes flags critical for troubleshooting.

If the PHP error_reporting setting does not include all error-level flags or is incorrectly set, it can mask important errors with your site.