Preparing For The 2013 Holiday Season
Tips For Better Performance During The Holidays
The Presenters
Magento Expert Consulting Group

Udi Shamay
Head, Expert Consulting Group
udi@ebay.com

Steve Kukla
Business Solution Architect, Expert Consulting Group
skukla@ebay.com

Alexey Samorukov
Senior System Administrator, Expert Consulting Group
alexey.samorukov@ebay.com

Jeff Cestra
Senior Account Executive, Partnerships, New Relic
jeff@newrelic.com

Preparing For The 2013 Holiday Season – Tips For Better Performance During the Holidays
Today’s agenda

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>⌚️</td>
<td>What Powers Magento Performance?</td>
</tr>
<tr>
<td>⌐️</td>
<td>Dealing With Peak Traffic</td>
</tr>
<tr>
<td>🎁</td>
<td>Holiday Health-check</td>
</tr>
<tr>
<td>🔔</td>
<td>Q&amp;A</td>
</tr>
</tbody>
</table>
What Powers Magento Performance?
The Challenges of Peak Traffic
Normal Traffic versus Peak Traffic

Risks
• Application bottlenecks
• Database overload
• Page load latency

Consequences
• Server failure
• Website downtime
• Poor customer experience
• Loss of business
Indexing
Instead of getting data from multiple tables, indexing reads from a single table that has just the information the system needs.

Delta Indexing
Earlier versions of Magento indexed all data whenever a site was re-indexed. In Enterprise Edition 1.13 most indexers only process delta data.
Mechanisms That Power Magento Performance

**Caching**
Instead of assembling all of the different page elements and objects which make up a page each time it’s loaded, store and load the assembled page itself.

**Changes in 1.13**
Enterprise Edition now features caching validation via cache-tags and a new cache storage adapter for multi-server environments.
Dealing With Peak Traffic
Preparing Your Store For Peak Traffic

Make Room In Your Database

- Remove out-dated products and categories.
- Be mindful of invalid promotions and try to consolidate promotion logic.
- Use mass-actions wherever possible instead of making updates product-by-product.
Preparing Your Store For Peak Traffic

Cron Job Management

- Schedule Magento cron jobs to run during off-business hours.

- Be mindful of resource-heavy actions like reports and mass-updates. Don’t schedule these actions at the same time.
Preparing Your Store For Peak Traffic

Cache and Index Management

- Make sure all cache is enabled.
- Invalidated cache means out-dated content will be shown to your customers.
- If possible, only make catalog updates during off-business hours.
- If you’re on Enterprise Edition 1.12 or lower, consider performing re-indexes in manual mode so cache is not invalidated when products are saved.
Preparing Your Store For Peak Traffic

Promotion and Order Management

- Make sure to review existing promotion rules. Consider deleting inactive promotions.
- Consolidate promotion rules where possible.
- Make sure quote life-times are set to lower values.
- Make sure order archiving is turned off.
Preparing Your Store For Peak Traffic

Zend OpCache

- Performance. Zend OpCache has a consistent performance edge over APC, which, depending on the code, can range between 5 and 20% in terms of requests/second.

- Supported by recent PHP versions beginning with 5.2. Included in PHP 5.5.

- Reliability. OpCache has optional corruption detection capabilities that can prevent a server-wide crash in case of data corruption.
Preparing Your Store For Peak Traffic

Cache Storage

• Default (files) cache backend
• Traditional multi-instance approach: Memcached + MySQL
• Cm_Cache_Backend_Redis officially starting with Enterprise Edition 1.13
• Other possible options
• Benchmarking with magento-cache-benchmark

ECG Expert Articles
http://www.magentocommerce.com/consulting/expert-articles
Preparing Your Store For Peak Traffic

Varnish

- Full Page Caching, with hole-punching via Varnish ESI and/or AJAX, even for logged in visitors.
- Able to generate and apply new Varnish VCLs (configurations) on the fly, without restarting/changing Varnish's config files or flushing the cache.
- Works with Magento Community or Enterprise Editions.
Preparing Your Store For Peak Traffic

CDN

- CDN - A content delivery network (CDN) is a network of servers deployed around the world serving images, files, etc.

- A CDN helps to ensure that content is delivered to clients from a source which is physically closest to them
Preparing Your Store For Peak Traffic

Database Replication

- Database Replication helps reduce load on your primary database server by distributing read requests. This allows your site to serve more visitors at once.

- Replication can also be used for backing up the database without affecting site performance as well as for high availability configurations.
Load testing is the process of putting demand on a system or device and measuring its response.

Load testing is performed to determine a system’s behavior under both normal and anticipated peak load conditions.

Load testing can also be used to catch regressions caused by changes in code.
Preparing Your Store For Peak Traffic

Top Tips

• Know your backup or failover strategy

• Avoid massive updates such as importing/exporting products or database backups during business hours

• Monitor your system and customer activity

• Don’t flush your cache during peak traffic

• When updating your catalog, switch indexes to manual mode

• Make sure you time cron jobs to run after business hours or during periods of low traffic

• Make sure you can scale quickly
Holiday Health-check
ECG Holiday Health-check

ECG and New Relic partner to bring Magento merchants the ultimate holiday offering to help optimize application performance!
ECG Holiday Health-check

Service Benefits

• Provides unique ECG recommendations for faster page response times, optimized queries, optimized resource utilization, scalability and more

• Review of Magento application and database server configuration

• Includes business consultation to understand key vulnerabilities and potential bottlenecks

• Full installation and configuration of the New Relic application performance management tool, plus plug-ins and monitoring

• Load testing which includes graphs and data from New Relic

• Reduced-price New Relic license
Why System Monitoring Is Important

- Know immediately when problems arise
- Reduce downtime and business losses
- Automatically fix problems when they are detected
- Ensure your organization's SLAs are being met
- Metrics collection and graphing helps to diagnose a condition whose existence you have already identified and predict requirements
New Relic Overview

- Availability monitoring, alerting and notification
- Real-user response time, throughput & breakdown by layer
- Code level diagnostics, Transaction tracing and Stack trace details
- Slow SQL and SQL performance details
- Track individual key transactions
Preparing For The 2013 Holiday Season – Tips For Better Performance During the Holidays