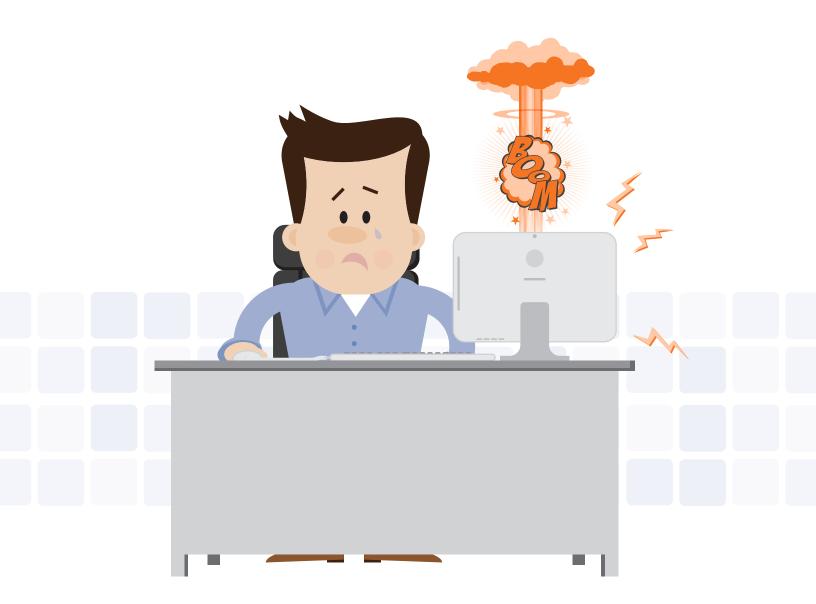






SYNOPSIS

With the continuous emergence of viral trends and social media, retail products can become a phenomenon in the blink of an eye. In this whitepaper we'll discuss how to prepare your eCommerce site for these moments before they happen and turn potential disasters into record-breaking sales. From on-site best practices to cloud hosting optimization to order management infrastructure, we look at the entire eCommerce journey so your team can spend less time dealing with keeping the lights on and more time maximizing your success.



BOOM! Your site just blew up. No, not in the figurative sense so don't worry, your precious code is safe. But maybe you're all over the news right now (in a good way) because of an unexpected "name drop" or viral trend. This type of traffic surge is happening more and more to brands that never see it coming.

ON-SITE BEST PRACTICES

So what can be done to prepare for and to maximize these opportunities? Here are 16 tips to be ready for record eCommerce sales...

- Minimize the amount of data transferred at all costs This should be the main goal for site development and optimization. By creating a site with clean, well-written, and multi-functional code there will be a smaller amount of data transferred from the servers to site visitors.
- 2) Limit the number of external code requests When possible, choose solutions for common page elements and avoid third party code such as marketing and tracking pixels. If you're having issues with JavaScript, load the code on "document ready", or when the code communicates that the page is ready for viewing (i.e. the DOM is fully loaded) rather than directly in your mark-up. If you need to use marketing and tracking pixels, put them at the end of your code so if they fail to load it does not hang up or impact the code preceding it.
- 3) Optimize your site database(s) Only make necessary queries and enable priority indexing for commonly queried database columns. Avoid bloated frameworks and libraries that can create extended query times. Database optimization is important for reducing overall site load speeds as the querying process can result in extensive visit durations. Page load speeds of 1.5 seconds or less are desired by search engines and can boost SEO rankings.
- 4) Enable full page caching Caching, or reusing content and assets on different pages by leveraging code and files stored within a visitor's browser data, is a way to reduce the amount of code that needs to be sent to a visitor. The more things you can cache and repurpose on different pages the better.
- 5) Optimize how images are handled on your site This can be done in several ways including compressing the images to smaller file sizes as well as hosting higher quality images (including product photography) on a less frequently accessed and separate server partition.
- 6) Optimize your code for your server infrastructure The optimization tactics for your code can sometimes be impacted by the capabilities of your server infrastructure. For example, certain server infrastructures rely primarily on their processing power for handling traffic spikes while others rely more on the memory available to support these spikes.

CLOUD HOSTING



- 7) Figure out what hosting elements to test Testing hosting structures for traffic spikes is a critical first step in assessing a hosting solution. There are several things you can test on an eCommerce site so choosing what to test is just as important as how you go about implementing your test. Time and resources are money, so make sure to look at web analytics and other site data to choose the appropriate items to test.
- 8) Don't test without specific goals Running tests to put insane traffic demands on the server infrastructure is great, but what should the end result be? Determine what site response time you deem acceptable and figure out how to get there a good place to start is monitoring which site hardware resources are being used the most.
- 9) Record your test results for later It's easy to take test results and run with them, but will you remember those results months from now? Once you start testing, use software or scripts to analyze, organize, and log your tests. Make sure you include key information such as the day/time, the purpose of the test, how long the test took to complete, and the results. Last but not least, make sure to log the name of the tester this one is easy to forget but can be valuable when looking at results from the past.
- 10) Focus on testing the home and landing pages first These pages generally receive the most traffic and will be a better use of testing time and resources in most situations. Getting these pages right can have a huge financial boon even a one second delay in site response or loading time can lead to a 7% drop in the site conversion rate.

CLOUD HOSTING



- 11) Benchmark your site and compare to others You don't need to have an army of industry friends and secret conversations to compare your website to others. Dynatrace (www.dynatrace.com) has free website benchmarks across an array of industries and can allow brands to compare their results with peers and competitors.
- 12) Channel your inner "hacker" and try to expose weaknesses You don't need to live in your mom's basement to make the most of this tip. By utilizing template scripts you can test your site for a wide array of randomly created scenarios such as visits to certain pages, orders, and account creation. These scripts can test performance limits and expose areas you may not have thought of before.
- 13) Have a plan in place for bigger issues than what you can perceive After all the testing and optimizations, you may be feeling pretty good about the ability of your site to handle traffic spikes. However, one day there just may be a traffic spike so large you didn't acknowledge it as a possibility. Fortunately, there are outsourced hybrid cloud solutions that can launch additional server space only as needed for those major traffic spikes that can support specific pages (such as the index and checkout pages).

ORDER MANAGEMENT INFRASTRUCTURE



- 14) Define what is important to you in an order management system Taking an order is one thing, but getting the order processed and shipped to the consumer is quite different. A basic order management system generally has an array of functionalities, some of which are absolutely necessary while others are less important. More important functionalities include the ability to scale, integration with inventory management software, the means to handle complex business rules and logic, log order history, and a way to create and return pricing estimates.
- 15) Choosing the right technology is not just for eCommerce but for an entire organization Choosing an order management system is bigger than just shipping out orders. Does it integrate well with your payment systems? Can accounting easily access information when needed? Systems like JD Edwards allow for cross-organization functionality within one order management infrastructure.
- 16) In the critical nature of orders, active management is key While other areas of technology can be easily automated during traffic spikes, the way in which an order management system can affect so many areas of an organization demands a more personal touch. Manually triggering additional resources when needed, such as processing power and memory space devoted towards the order management system, can enable the system to handle more orders and prevent conflicts.

RACKSPACE

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PFSweb

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