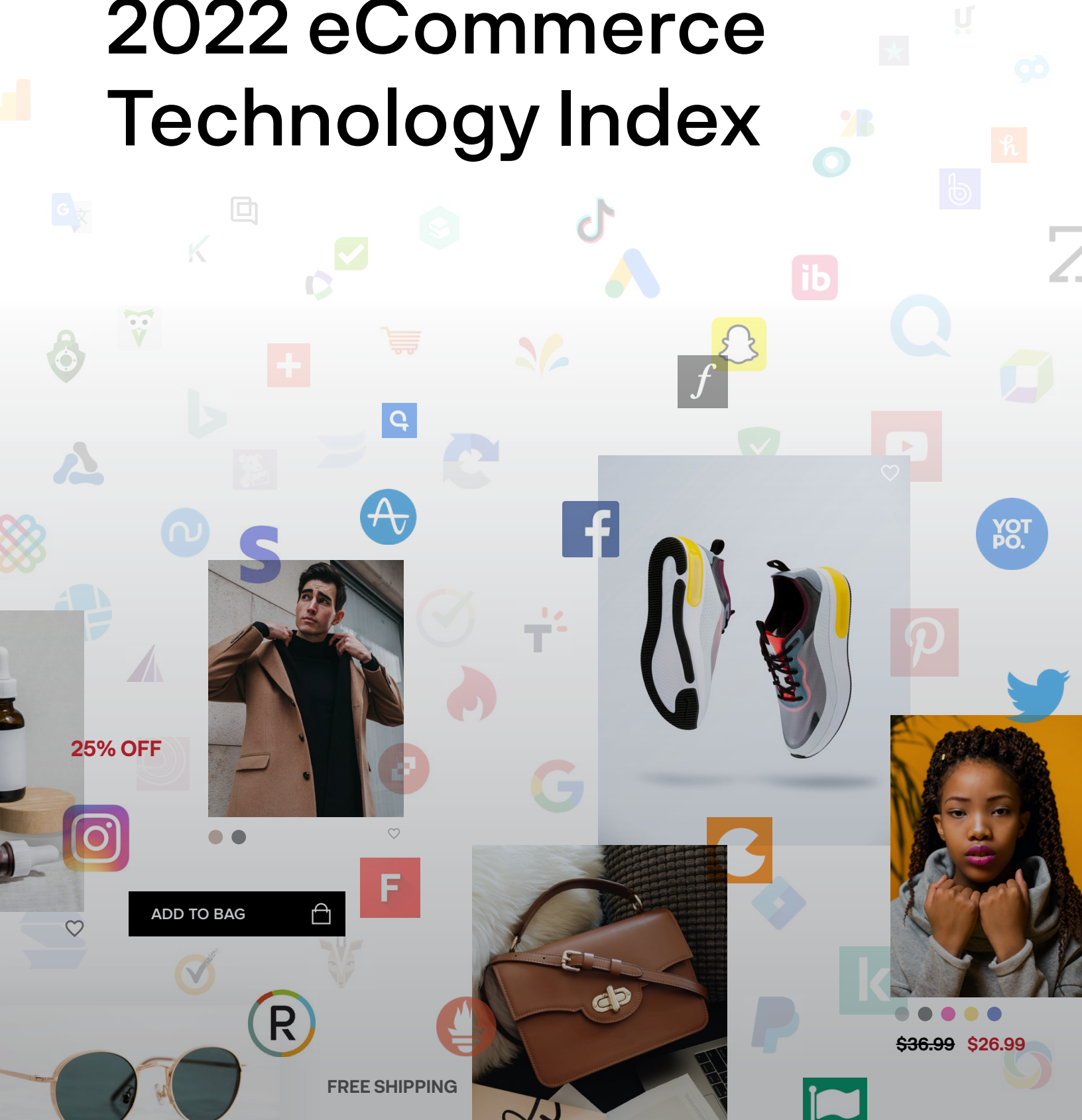




2022 eCommerce Technology Index



25% OFF



ADD TO BAG



F



YOT PO.



\$36.99 \$26.99



FREE SHIPPING



2022 eCommerce Technology Index

The moment for eCommerce technology innovation has arrived. After watching consumer technology thrive with app stores that streamline 3rd party integrations into our hands, eCommerce technology is finally meeting a new era of technology adoption. Accelerated by the rise of digital-only engagement during the last two years, brands and retailers can now turn to innovative, integratable software that provides real benefit to shoppers. Want an automated chat bot on your site? There's an app for that. Back in stock alerts? There's an app for that. Visual search? Product customization? Returns handling? App, app, app.

In the world of eCommerce, these "apps" are 3rd party technologies that brands add to their sites to make them more experiential. And today, there are more incredible, shopper-centric technologies and tools available than ever before. Now, we can integrate more, in far less time, for less cost.

All that innovation does have a cost — beyond the subscription fees, even. When choosing to integrate more technology, brands and retailers see the promise of innovation, the hopes of traffic gains, and conversion spikes. Yet, they also must understand the trade-off: What impact — without optimization — will that 3rd party technology have on the digital experience, and specifically, on site speed and performance?

The eCommerce Technology Index is here to answer that burning question.



"The eCommerce Technology Index is an excellent resource for retailers looking to make informed, data-driven decisions on which 3rd parties to invest in. With both granular and aggregate visibility of 3rd party performance impact, usage data, and violations, eCommerce brands and 3rd party technology vendors alike can lean on this report to help guide improved digital experiences."



Andrew Leibowitz
SVP, Customer Success,
Astound Commerce

About the Report

YOTTAA tracks, monitors, and optimizes the performance of nearly 1,000 3rd parties across 1,500+ eCommerce sites. The eCommerce Technology Index benchmarks the optimized performance of the most adopted 3rd parties across the YOTTAA community. These insights are drawn from eCommerce activity during January 2022, **representing 4 billion page views, and more than 788.2 billion 3rd party resource timing events.**

During this period, the YOTTAA-driven optimization resulted in an average page load savings of 1.5 seconds, or 27% speed improvement, and a reduction in the number of page delay violations by 29.6%.

Each 3rd party in the index earns a **Performance Impact Rating (PIR)** that measures the performance impact of a 3rd party on an eCommerce website.

The PIR is calculated by adding a 3rd party's performance violations and the delay page load violations together and then dividing by the number of page views of the site.

Performance Violations are individual errors that occur when a single 3rd party takes longer than 1 second to load.

Delay Page Load Violations are individual errors that occur when a single 3rd party extends the time it takes for a shopper to be able to interact with a site.

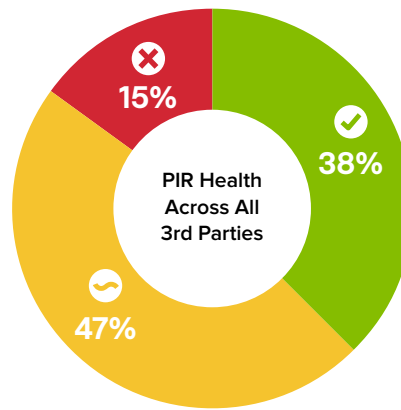
The PIR is the truest measure of a 3rd party's performance impact on site speed, and the shopper experience.

Executive Summary

Performance Impact Rating (PIR) measures the performance impact of 3rd parties across eCommerce sites, assigning a Red, Yellow, or Green color to each technology.

A Red rating indicates a significant negative impact on site performance, and represents 15% of all 3rd parties.

[See the full PIR of individual 3rd parties >](#)



- Represents little or no performance impact
- Represents an inconsistent negative performance impact
- Represents a consistent negative impact on performance

Time to Last Byte

AVERAGE LOAD TIME

377ms

SLOWEST LOAD CATEGORY

664ms

Customer Service Tech

[See the breakdown >](#)

FASTEST LOAD CATEGORY

199ms

Font Management

[See the top performers >](#)

Performance Impact

AVERAGE PERFORMANCE IMPACT

124ms

MOST PERFORMANCE IMPACT

229ms

Tag Management

[See the breakdown >](#)

LEAST PERFORMANCE IMPACT

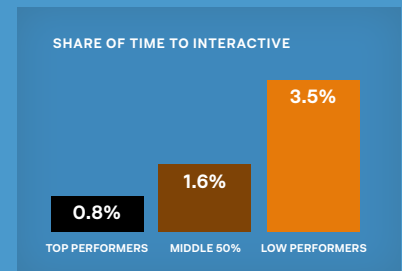
54ms

Loyalty Providers

[See the top performers >](#)

Time to Interactive

A typical 3rd party delays shopper interaction by 124 ms, or 2.1%. The most negatively impactful 3rd parties delay a shopper by nearly 6%.



Total Violations, per page type

3rd parties commit the most violations on these pages:



HOME PAGE

3.1

Violations per load



PRODUCT DETAIL PAGES

3.0

Violations per load



CATEGORY PAGES

2.4

Violations per load

[See how it breaks down >](#)

Usage Data

Google and Facebook tech come in as the most popular 3rd parties. See the full breakdown to learn what other eCommerce brands are using on their sites.

[See the most commonly used 3rd parties >](#)



Violation Share

The most popular pages, PDPs and category pages, see the most performance violations, so the functionality offered by a 3rd party may not even load or become available to shoppers.

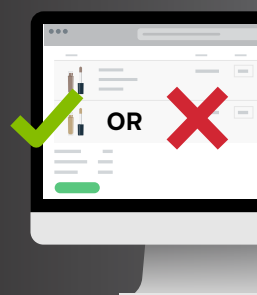
[See how it breaks down >](#)



Checkout Insights

The top 2 technologies that appear on the checkout page are Facebook and Google Ads. The problem is, they shouldn't be. See the full breakdown of 3rd parties found on checkout and whether or not they belong there.

[See full breakdown >](#)



Performance Impact Ratings by Category

eCommerce is officially a grown-up. Brands and retailers have real expectations of their digital stores to contribute a significant share of overall sales and even an outsized share of growth. Alongside, a thriving eCommerce ecosystem has emerged and expanded to deliver innovation across dozens of technology categories covering the entire shopper journey.

But every 3rd party technology is not created equal. While some categories have little impact on a site's performance, others are more demanding. With brands integrating new technologies at a rapid pace, it is imperative to assess performance expectations from each category: will this technology take a sip of load time, or a gulp? Of course, if 3rd parties are sequenced to load optimally through an eCommerce optimization platform, brands are free to pick the right technologies for their sites regardless of the performance impact.

A category's PIR positivity shows the expected performance impact of 3rd parties in a given category. Those categories in the Red are likely to have a significant negative impact on

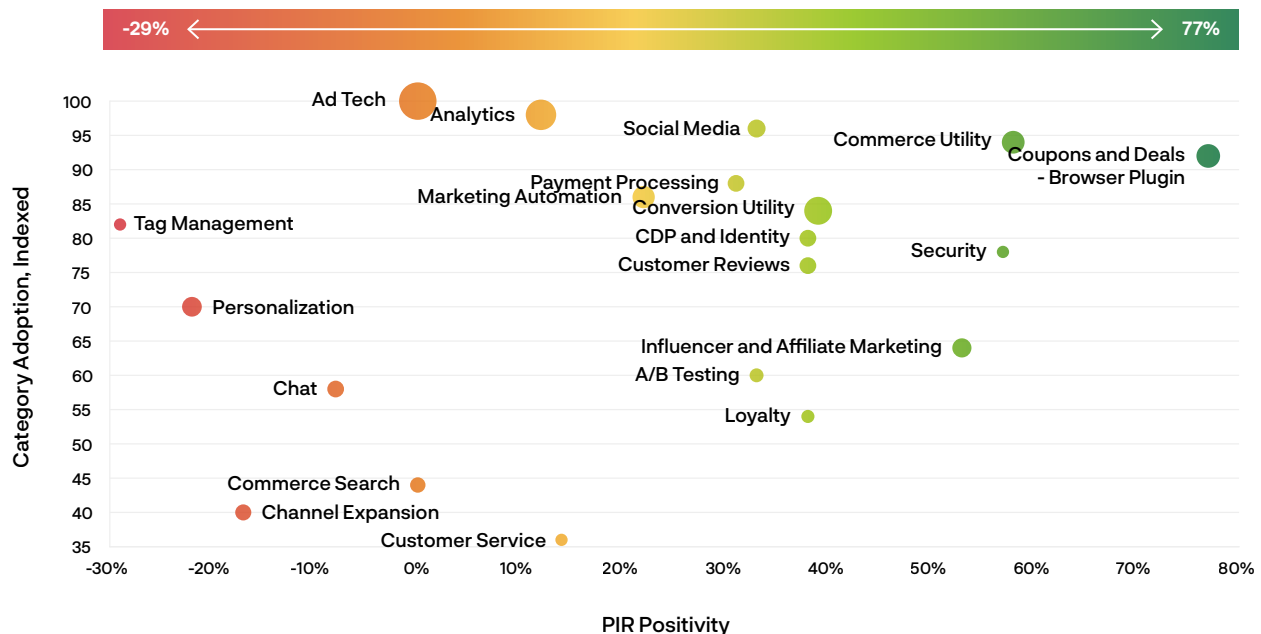
site performance within a category, while those in Green are expected to have less negative impact on site performance.

Those categories in the Red tend to be robust technologies offering sophisticated capabilities, and contributing significant benefit to the shopper experience. The more robust a 3rd party, the more load time it can take up. For example, personalization tech is complex; it's capturing information, it's running queries, it's changing content dynamically on the page. These are not simple tasks and require a ton of data to perform. **The good news is, when 3rd parties are optimized and sequenced for performance, brands can select any 3rd party regardless of performance impact and still achieve a great digital experience.**

Optimizing 3rd party performance helps reduce page load times by 27%

PIR Positivity by Category

Which category's 3rd parties have the most negative performance impact?



Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.

3rd Party Performance Spotlight

Performance impact is dynamic. As 3rd parties add features and functionality, their demands on site performance change, and often grow. A 3rd party's ability to maintain and expand its functionality while balancing performance



needs is paramount to realizing its full potential and benefit to a brand. As the eCommerce benchmark [Site Speed Standard](#) found, 1-second slower page loads increase bounce rates by 12% and reduce conversion by nearly 6% on mobile.

For 3rd parties that have a negative performance impact, the promises of shopper experience gains are softened by detrimental performance. On the other hand, those 3rd parties that deliver performance improvements should be celebrated. Compared to last year, these 3rd parties improved their performance impact ratings:



Red to Green



spotxchange.com



Verizon Media



Yellow to Green



Adobe Test and Target



AvantLink



BackInStock



Centro



Decibel Insight



Digicert



Disqus



Exelator



Freshworks Freshchat



Ghostery



Google Translate



Gorgias



Mark Monitor



Oracle Maxymiser



Owl Carousel

Quantcast

Quantcast



Rollbar



Searchanise



Sentry



Stripe



Symantec



TransUnion



Red to Yellow



BidSwitch



Casale Media



Dash Hudson



GumGum



NeuStar Ad Advisor



OpenX



Oracle BlueKai



Oracle Service Cloud



PubMatic



Salesforce Audience Studio



Scorecard Research



TrustArc



Visa Checkout

Improving site performance impact is not an easy feat, and we congratulate all 3rd parties that were able to do so this year!



"Fast website performance is no longer a "nice to have" metric, but a critical part of your shopper experience. When we found out our chat widget had started negatively impacting our customers' Google Lighthouse scores — an important performance metric — we immediately started searching for a solution.

Live chat is a notoriously resource-intensive category, but we were able to cut our entry point bundle in half, resulting in reduced Lighthouse scores and an improved PIR score from Yellow to Green. Using the eCommerce Technology Index from YOTTA helps technologies and brands understand the role they play in providing the best shopper experiences through optimal site performance."

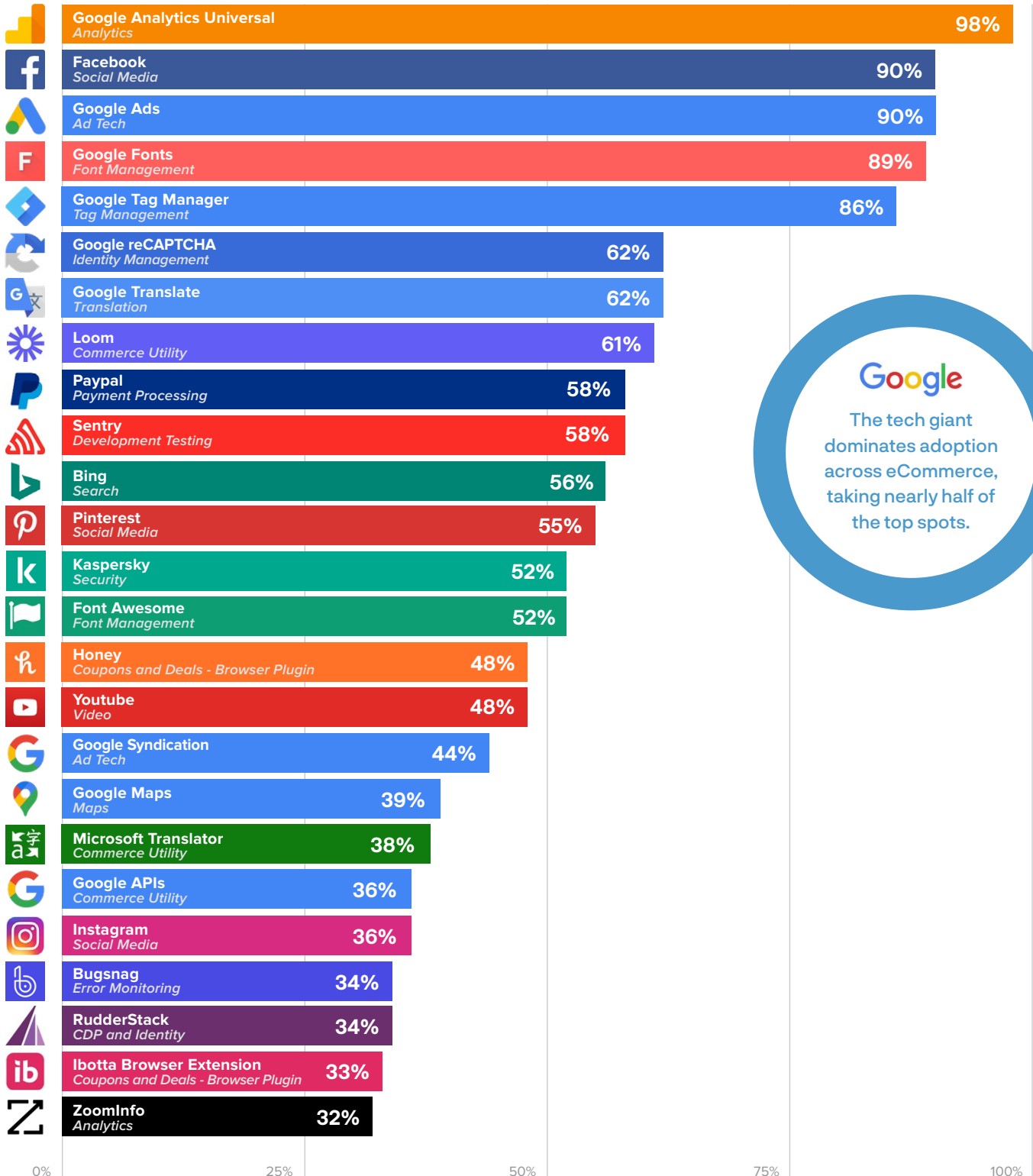


Roman Fayzullin,
Software Engineer, Gorgias



Most Adopted eCommerce Technologies

Looking across the YOTTAA community of enterprise eCommerce sites, a unique collection of the most popular 3rd parties emerges. Drawing on a wide variety of technology categories, here are the most adopted eCommerce technologies:

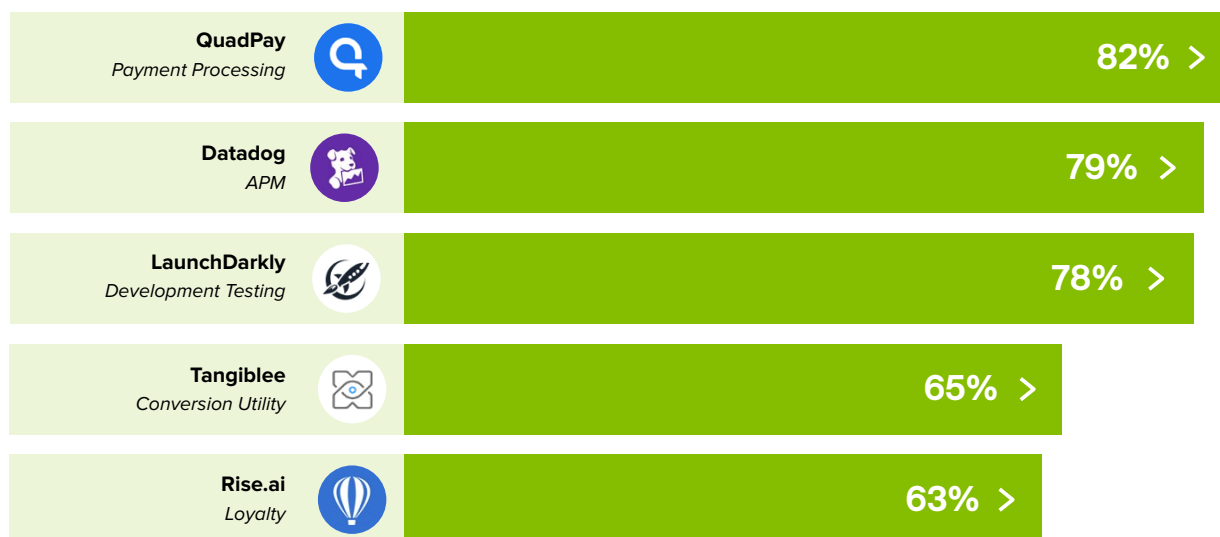


Usage Increase

As the industry becomes more innovative, we like to track the evolving trends around eCommerce technology year-over-year to better understand what brands are finding successful. This technology usage data is great for retailers to have during the decision-making process, so you can see what is working and what's not for your peers.

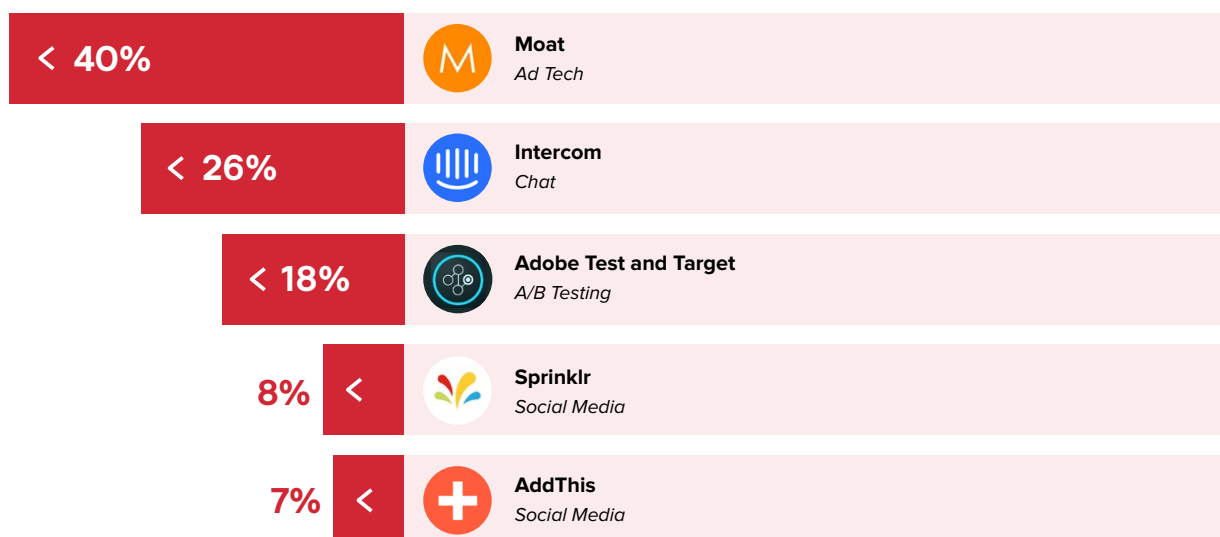
Top Increases

These eCommerce technologies are more adopted across the YOTTA eCommerce community of sites this year than last year.



Top Decreases

These eCommerce technologies are less adopted across the YOTTA eCommerce community of sites this year than last year.



eCommerce Technology - Category Insights

Best-of-breed 3rd party technologies are providing value across the entire shopper journey AND into the retail back office and back room. In order to select technologies that truly have the highest benefit, brands and retailers need to understand the total cost of the technology, which must include the 'tax' levied on the site performance.

This section shares the performance of the most frequently adopted eCommerce technology categories, and the likely impact that a 3rd party within a category will have on three critical measures of site performance:

Don't forget!

If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time or PIR rating. In addition, through optimization you can add a large number of 3rd parties to your site without having to worry about how they might slow down page loads. Many eCommerce sites, such as J. Crew, have hundreds of 3rd parties and still have fast site speed due to optimization.



Time to Last Byte

How long until the 3rd party finishes running on a page?



Performance Impact

How much delay does a 3rd party cause on page load?



Time to Interactive

How long does a 3rd party delay the shopper from interacting with a page?

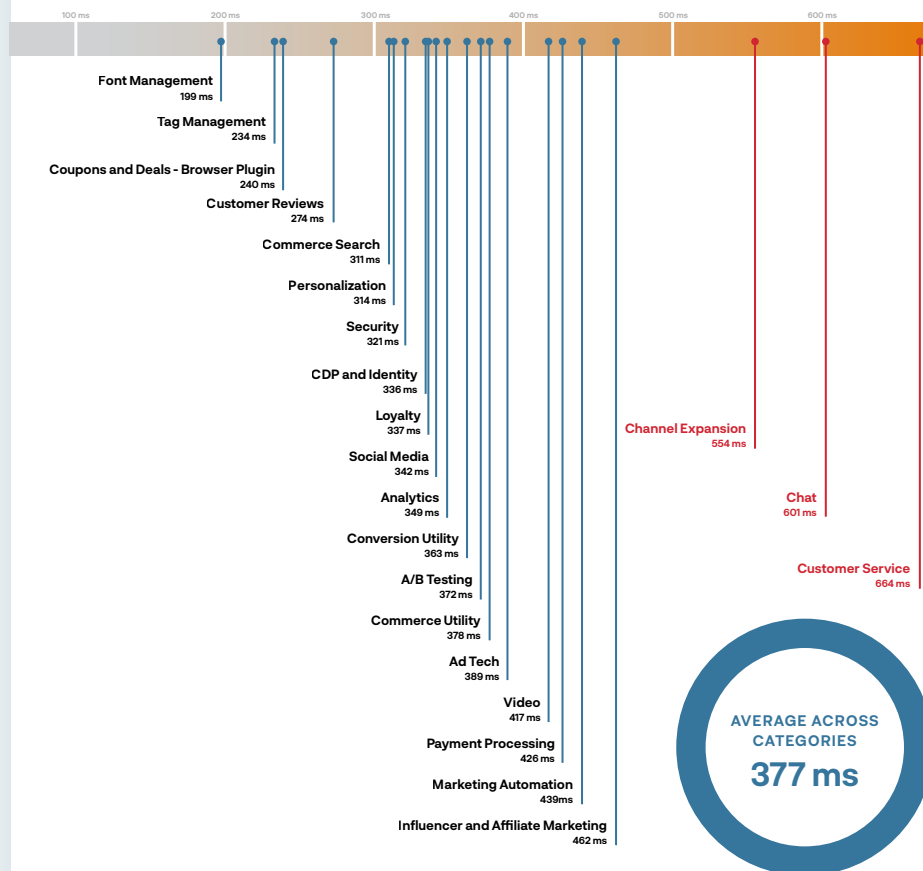


Time to Last Byte

We've all spied the slow loaders — those brief flashes of 3rd party url strings in the bottom left corner of a browser. 3rd parties will continue loading into the shopper's browser until, well, it is finished loading, which may extend far beyond when the rest of the page has been painted. Here are the most adopted eCommerce technology categories and the average time it takes for the last byte to load into the browser.

How long does it take for a 3rd party to finish loading?

Average amount of time it takes for a 3rd party to finish loading, by category.



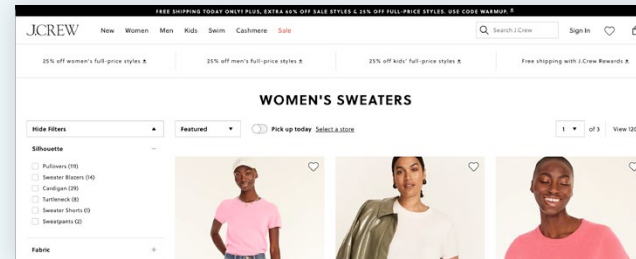
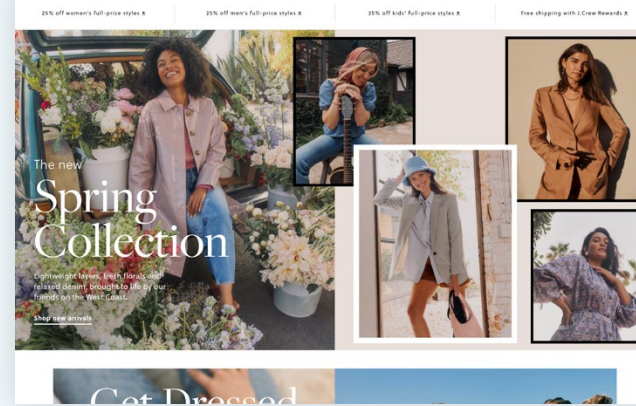
Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.

J.CREW

"To ensure that slow-loading 3rd parties weren't impacting shopper experience, we deployed Yottaa's RAPID CTRL. As a result, our sites are much faster and conversions are way up."



Chris Maliwat, Head of Digital & Customer Experience

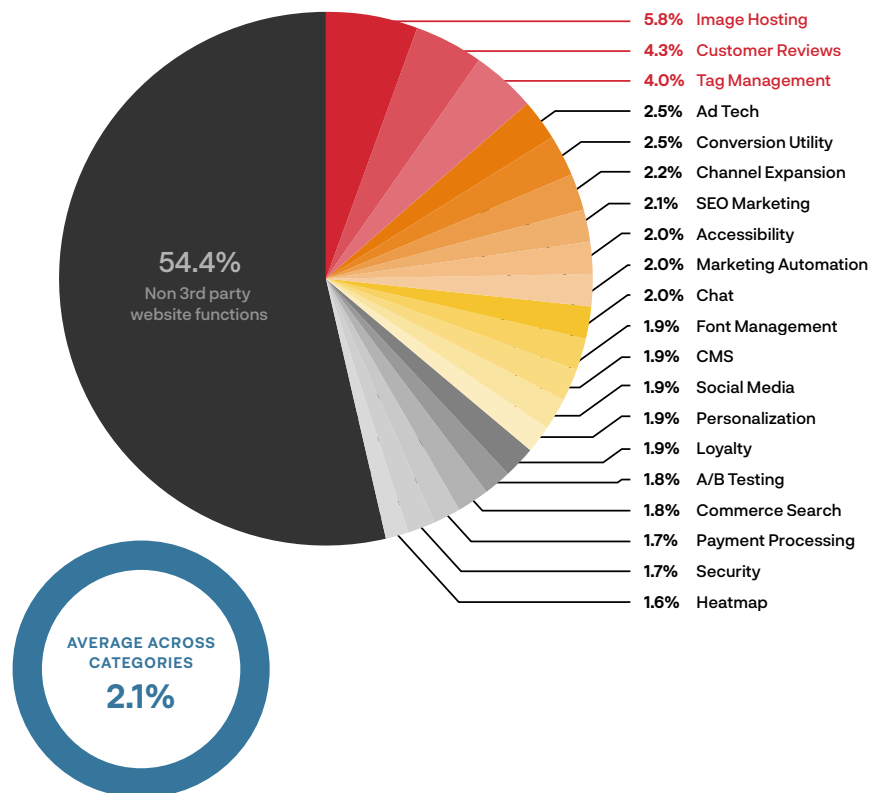


Time to Interactive

Time to Interactive is the 'are we there yet' moment for the shopper. Images paint, 3rd parties load, and scripts run – and finally, the page is ready for the shopper to engage. As they load, 3rd parties can keep the shopper from engaging. Below is the amount of time that a technology category typically delays the shopper interaction, expressed as a percentage of the entire time it takes for a page to be ready to interact.

Expected Page Interactivity Delay by Tech Category

Average share of a page's time to interactive delayed by a 3rd party, by category.



Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.



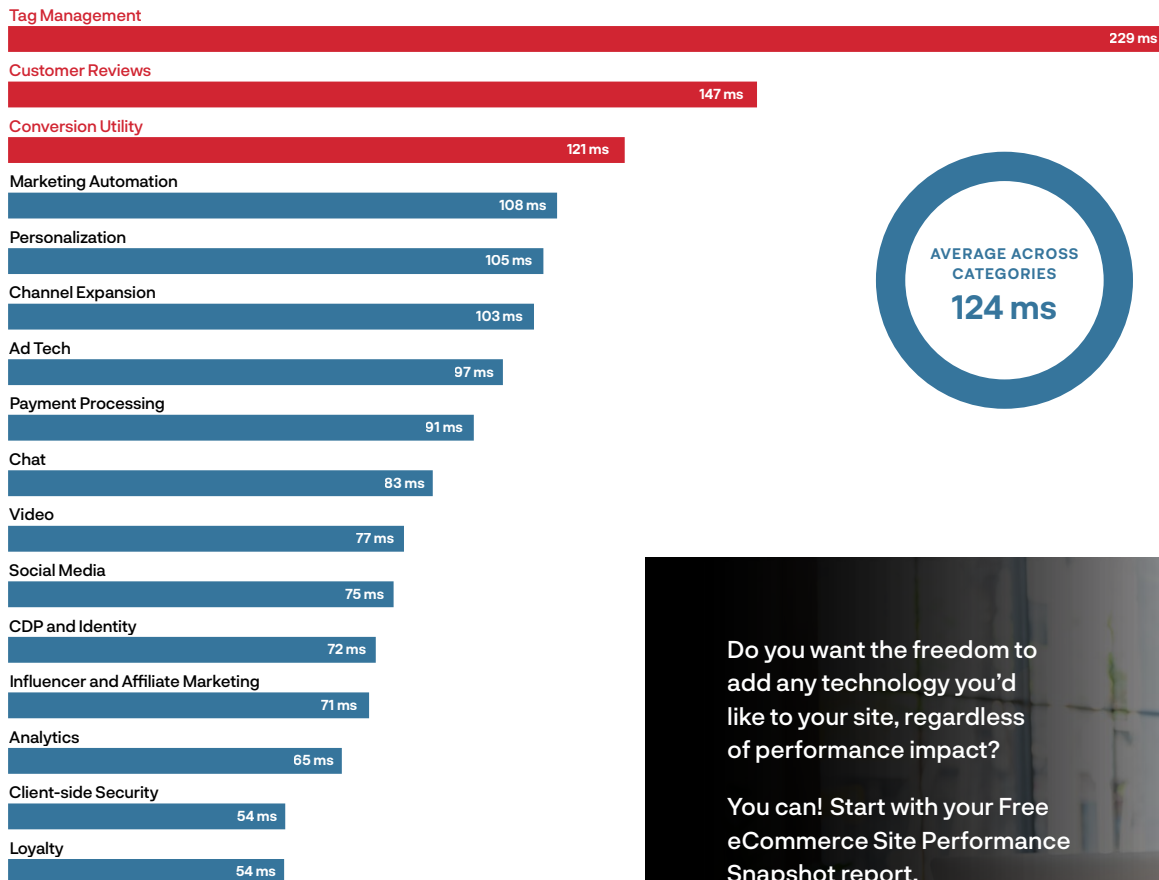
Performance Impact

Brands are conditioned to weigh an important trade-off with 3rd party technologies: the promised experience or operational gains will come at a performance cost. Understanding the potential page load delay is central to this consideration. Here are the average page load delays for the most adopted eCommerce technology categories when optimized.

For sites that are not optimizing for 3rd party performance, load times are 27% slower

Expected Performance Impact by Tech Category

Average amount of time a 3rd party delays a page load, by category



AVERAGE ACROSS CATEGORIES
124 ms

Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.

Want to get more specific? To see the performance of an individual 3rd party, [see the full table >](#)

Do you want the freedom to add any technology you'd like to your site, regardless of performance impact?

You can! Start with your Free eCommerce Site Performance Snapshot report.

[LEARN MORE](#)

Violations

Violations measure the negative impact that a 3rd party has on the site experience. A violation is a material delay caused by a 3rd party that impacts the shopper's experience.

Across the shopper journey, brands and retailers choose which technologies to deploy where. Each 3rd party provides different benefits from page to page. Innovation needed on a product detail page may not be required on a home page, for instance. As such, the experience – and the number of violations – varies from one page to another.

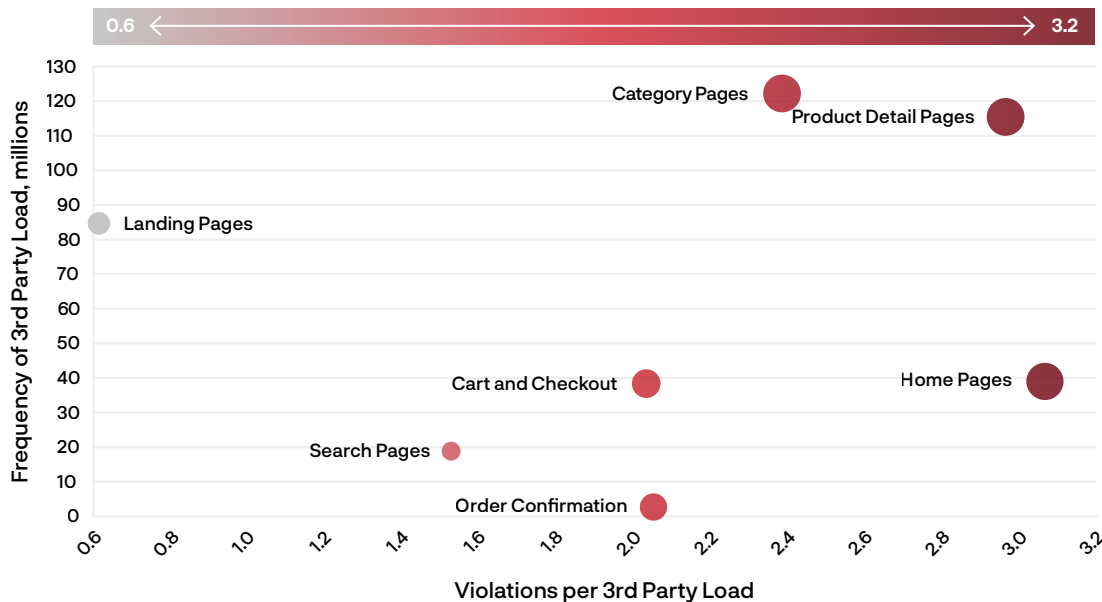
The below tables detail the two leading types of violations that impact the site experience:

Performance Violations are individual errors that occur when a single 3rd party takes longer than one second to load. These performance violations do not affect onload, though they may reduce or restrict access to site or 3rd party functionality

Page Delay Violations are individual errors that occur when a single 3rd party extends the time it takes for a shopper to be able to interact with a site.

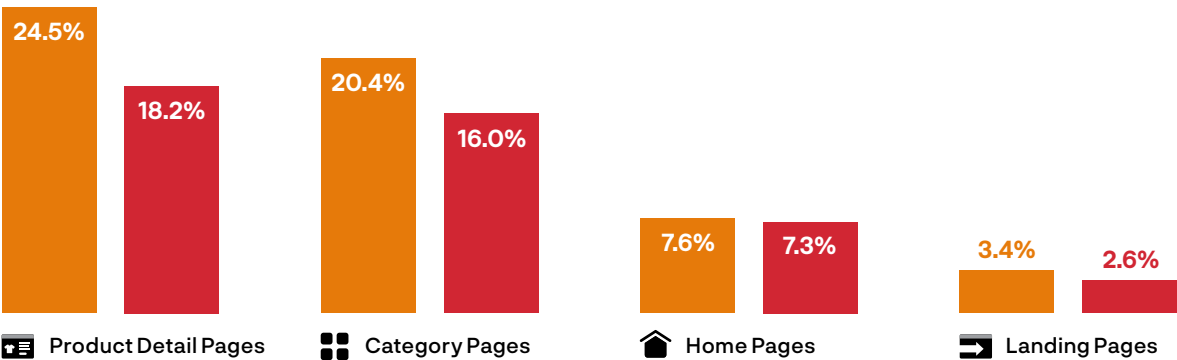
Which pages experience the most violations?

Performance and Page Delay violations per 3rd party load, by page type



Violation share by page

Performance Violations Page Delay Violations



Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.

Highest Offending eCommerce Technology Categories

Different technologies may impact pages differently. From category to category, performance needs vary, and may lead to higher performance impacts. Here are the categories with the highest violation rates.

Page Delay Violators

| Category | Violation Rate | Site Penetration (Percentile) |
|----------------------|----------------|-------------------------------|
| Image Hosting | 16.1 | 16% |
| CMS | 3.4 | 1% |
| Performance | 3.1 | 63% |
| Tag Management | 2.2 | 95% |
| Customer Reviews | 2.2 | 68% |
| Fraud | 1.8 | 37% |
| Payment Processing | 1.8 | 84% |
| Personalization | 1.8 | 53% |
| A/B Testing | 1.6 | 58% |
| Video | 1.2 | 79% |
| Ad Blocking | 1.2 | 21% |
| eCommerce Platform | 1.2 | 5% |
| Client-side Security | 1.0 | 74% |
| Conversion Utility | 1.0 | 26% |
| Security | 0.8 | 90% |
| UGC | 0.8 | 42% |
| Accessibility | 0.7 | 11% |
| Ad Tech | 0.7 | 100% |
| Loyalty | 0.6 | 32% |
| Chat | 0.6 | 47% |

Performance Violators

| Category | Violation Rate | Site Penetration (Percentile) |
|----------------------|----------------|-------------------------------|
| Video API | 3.9 | 5% |
| Image Hosting | 3.6 | 32% |
| Customer Reviews | 3.2 | 68% |
| Chrome Extension | 2.3 | 5% |
| Log Management | 2.1 | 37% |
| Customer Service | 1.8 | 26% |
| Malware/Adware | 1.8 | 21% |
| Ad Tech | 1.7 | 95% |
| Personalization | 1.6 | 63% |
| Channel Expansion | 1.5 | 16% |
| Commerce Utility | 1.5 | 84% |
| Social Media | 1.5 | 100% |
| UGC | 1.5 | 47% |
| Conversion Utility | 1.4 | 42% |
| Chat | 1.3 | 53% |
| Client-side Security | 1.3 | 74% |
| Analytics | 1.3 | 90% |
| Browser | 1.2 | 1% |
| SEO Marketing | 1.1 | 58% |
| Heatmap | 1.1 | 79% |
















Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.

Highest Offending 3rd Parties
















Each 3rd party requires and relies on different resources to perform. For some, the performance may lead to shopper-impacting violations. Remember, if a 3rd party is Red, it's typically a more robust technology doing some heavy lifting. Those technologies are making major changes. This is the perfect use case for sequencing the loading of all 3rd party tech. Let them be Red – it's OK – there will be Reds. What brands should not do is have all Red PIR rating 3rd parties on an unoptimized site. But if brands are optimizing, a healthy mix of Red, Yellow, and Green is great.

Here are the 3rd parties that caused the most violations per load:

Page Delay Violators

| 3rd Party | Violation Rate |
|---|----------------|
|  Instana | 40.9 |
|  WebCollage | 38.5 |
|  Cloudinary | 24.9 |
|  Bing Services | 15.6 |
|  Tangible | 15.5 |
|  Braintree | 13.5 |
|  Adobe Dynamic Media | 9.6 |
|  subwayblaze | 7.0 |
|  Adobe Tag Manager | 7.0 |
|  Linc Global | 6.6 |
|  MpEasyLink | 6.4 |
|  Stylitics | 6.3 |
|  SAP Customer Data Cloud | 5.8 |
|  SheerID | 5.0 |
|  Bazaarvoice | 4.5 |

Performance Violators

| 3rd Party | Violation Rate |
|--|----------------|
|  Pusher | 26.9 |
|  WebCollage | 15.5 |
|  Adobe Dynamic Media | 10.0 |
|  Cloudinary | 10.0 |
|  Linc Global | 9.1 |
|  Instana | 8.0 |
|  Rollbar | 7.7 |
|  Evidon/Crownpeak | 6.6 |
|  Coveo | 6.6 |
|  Bazaarvoice | 6.4 |
|  UTag - Tealium | 5.7 |
|  Oracle Service Cloud | 5.6 |
|  GoInStore | 5.6 |
|  INSIDE | 5.1 |
|  Taboola | 3.7 |

Don't forget: If you're optimizing your site, you can use any 3rd party regardless of its unoptimized load time and PIR rating.



3rd Party Performance Indicator Rating Index

The preceding PIR index listings highlighted the top performing 3rd parties, the top offenders, as well as year-over-year findings. Below is a listing of the top 3rd party technologies (listed in alphabetical order) used in the YOTTAA platform in January 2022.











































Represents a consistent negative impact on performance



























































































































Represents an inconsistent negative performance impact



























































































































Represents little or no performance impact
















































| | 3rd Party | Category | PIR | % of sites |
|---|------------------------|----------------------|---|------------|
|  | 4Cite | CDP and Identity |  | 5% |
|  | A3Cloud | Ad Tech |  | 2% |
|  | accentuate.io | Commerce Utility |  | 3% |
|  | accessiBe | Accessibility |  | 8% |
|  | AcuityAds | Ad Tech |  | 1% |
|  | Adacado | Ad Tech |  | 1% |
|  | Addshoppers | Ad Tech |  | 1% |
|  | AddThis | Social Media |  | 10% |
|  | Adform | Ad Tech |  | 3% |
|  | Adguard | Ad Blocking |  | 16% |
|  | Adobe Analytics | Analytics |  | 15% |
|  | Adobe Analytics Beacon | Analytics |  | 9% |
|  | Adobe Dynamic Media | Image Hosting |  | 11% |
|  | Adobe Fonts | Font Management |  | 20% |
|  | Adobe Marketing Cloud | Marketing Automation |  | 28% |
|  | Adobe Tag Manager | Tag Management |  | 14% |
|  | Adobe Test and Target | A/B Testing |  | 2% |
|  | Adroll | Ad Tech |  | 7% |
|  | AdXcel | Ad Tech |  | 3% |
|  | Adyen | Payment Processing |  | 7% |





























































| | 3rd Party | Category | PIR | % of sites |
|---|--|------------------------------------|---|------------|
|  | Affirm | Payment Processing |  | 8% |
|  | AfterPay | Payment Processing |  | 13% |
|  | Aftership | Returns and Tracking |  | 1% |
|  | AgileOne | CDP and Identity |  | 1% |
|  | Akamai mPulse | Rum Analytics |  | 8% |
|  | Akamai Stats | Analytics |  | 12% |
|  | Algolia | Commerce Search |  | 4% |
|  | Amazon Advertising | Ad Tech |  | 9% |
|  | Amazon Pay | Payment Processing |  | 17% |
|  | American List Council | Analytics |  | 2% |
|  | Amobee | Ad Tech |  | 5% |
|  | AMP Project | Performance |  | 2% |
|  | Amplience | CMS |  | 2% |
|  | Amplitude | Analytics |  | 19% |
|  | App Link | SEO Marketing |  | 1% |
|  | AppDynamics | APM |  | 1% |
|  | AppMate Wishlist King | Conversion Utility |  | 2% |
|  | AppSolute | Conversion Utility |  | 1% |
|  | Attentive | Marketing Automation |  | 21% |
|  | AudioEye | Accessibility |  | 2% |
|  | Automatic Coupons | Coupons and Deals - Browser Plugin |  | 1% |
|  | Automizely | Commerce Utility |  | 2% |
|  | AvantLink | Influencer and Affiliate Marketing |  | 3% |
|  | Avast SafePrice Comparison, deals, coupons | Coupons and Deals - Browser Plugin |  | 5% |
|  | AVG SafePrice Comparison, deals, coupons | Coupons and Deals - Browser Plugin |  | 3% |
|  | BabyList | Conversion Utility |  | 3% |
|  | BackInStock | Conversion Utility |  | 9% |
|  | Bazaarvoice | Customer Reviews |  | 24% |
|  | Beeswax | Ad Tech |  | 2% |
|  | BidSwitch | Ad Tech |  | 2% |





























































| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  Biddtellect | Ad Tech |  | 2% |
|  Bing | Search Engine |  | 56% |
|  Bing Services | Search Engine |  | 23% |
|  Bizrate Insights | Analytics |  | 7% |
|  Bloomreach | Commerce Search |  | 4% |
|  Blue Triangle | Rum Analytics |  | 3% |
|  Bluecore | Marketing Automation |  | 7% |
|  Bold Commerce | Conversion Utility |  | 7% |
|  Bold360 | Chat |  | 2% |
|  Borderfree | Channel Expansion |  | 3% |
|  Braintree | Payment Processing |  | 7% |
|  Branch.io | Ad Tech |  | 1% |
|  BrandLock | Coupons and Deals - Browser Plugin |  | 1% |
|  Brightcove | Video |  | 6% |
|  Brightedge | SEO Marketing |  | 3% |
|  Bronto | Marketing Automation |  | 8% |
|  Bugsnag | Error Monitoring |  | 34% |
|  Capital One Shopping | Coupons and Deals - Browser Plugin |  | 5% |
|  Cardinal Commerce | Payment Processing |  | 5% |
|  Carro | Influencer and Affiliate Marketing |  | 3% |
|  Cartful Solutions | Conversion Utility |  | 1% |
|  Casale Media | Ad Tech |  | 7% |
|  Cently (Coupons at Checkout) | Coupons and Deals - Browser Plugin |  | 7% |
|  Centro | Ad Tech |  | 2% |
|  Certona | Personalization |  | 6% |
|  ChannelAdvisor | Channel Expansion |  | 3% |
|  Chatra | Chat |  | 1% |
|  Cheetah Digital | Marketing Automation |  | 2% |
|  Ciuvo | Coupons and Deals - Browser Plugin |  | 13% |
|  Clearbit | Analytics |  | 2% |




























































| 3rd Party | Category | PIR | % of sites |
|---|------------------------------------|---|------------|
|  ClickMeter | Analytics |  | 1% |
|  Clicktale | Analytics |  | 1% |
|  Cloudinary | Image Hosting |  | 8% |
|  Cloudsponge | Influencer and Affiliate Marketing |  | 2% |
|  CNET Content Solutions | Channel Expansion |  | 1% |
|  Co-op commerce | Channel Expansion |  | 1% |
|  Code Blackbelt | Conversion Utility |  | 3% |
|  Conductor.com | SEO Marketing |  | 2% |
|  Confirmit | Analytics |  | 2% |
|  Content Square | Analytics |  | 9% |
|  Conversant | Loyalty |  | 15% |
|  Convert | A/B Testing |  | 2% |
|  CookieBot | Security |  | 1% |
|  CookiePro | Security |  | 3% |
|  Cordial | Marketing Automation |  | 4% |
|  CoreMedia | CMS |  | 1% |
|  Coupert - Automatic Coupon Finder | Coupons and Deals - Browser Plugin |  | 19% |
|  Coupon Cabin | Coupons and Deals - Browser Plugin |  | 9% |
|  Coupon Follow | Coupons and Deals - Browser Plugin |  | 3% |
|  Coveo | Personalization |  | 2% |
|  Crazyegg | Analytics |  | 9% |
|  Criteo | Ad Tech |  | 29% |
|  Cross Sell | Personalization |  | 2% |
|  Curalate | UGC |  | 11% |
|  CustomerFields | Personalization |  | 1% |
|  Custora | CDP and Identity |  | 1% |
|  CyberAgent AI Tech Studio | Ad Tech |  | 1% |
|  Dash Hudson | Influencer and Affiliate Marketing |  | 2% |
|  Datadog | APM |  | 6% |
|  DataStream.io | Analytics |  | 2% |





























































| | 3rd Party | Category | PIR | % of sites |
|---|----------------------------|------------------------------------|---|------------|
|  | dataxu | Ad Tech |  | 2% |
|  | DealFinder by VoucherCodes | Coupons and Deals - Browser Plugin |  | 2% |
|  | Decibel Insight | Analytics |  | 2% |
|  | Digicert | Commerce Utility |  | 3% |
|  | Disqus | Customer Reviews |  | 2% |
|  | Dynamic Yield | Personalization |  | 9% |
|  | Elevar | Analytics |  | 4% |
|  | Elfsight | Conversion Utility |  | 2% |
|  | Emojis | Commerce Utility |  | 2% |
|  | EMX Digital | Ad Tech |  | 3% |
|  | Ensignten | Tag Management |  | 3% |
|  | EqualWeb | Accessibility |  | 2% |
|  | Everest Tech | Development Testing |  | 17% |
|  | Evergage | Personalization |  | 5% |
|  | Evidon/Crownpeak | Commerce Utility |  | 2% |
|  | Exelator | Ad Tech |  | 1% |
|  | Exponea | CDP and Identity |  | 2% |
|  | Extole | Influencer and Affiliate Marketing |  | 2% |
|  | Eyeota | Ad Tech |  | 3% |
|  | Facebook | Social Media |  | 90% |
|  | Facebook Business | Ad Tech |  | 1% |
|  | FAN Communications | Influencer and Affiliate Marketing |  | 2% |
|  | Feefo | Customer Reviews |  | 1% |
|  | Five9 | Chat |  | 1% |
|  | Flash Talking | Ad Tech |  | 5% |
|  | Flow | Channel Expansion |  | 2% |
|  | Font Awesome | Font Management |  | 52% |
|  | Fonts by Hoefler & Co | Font Management |  | 3% |
|  | Fonts.com | Font Management |  | 11% |
|  | Foresee | Analytics |  | 2% |





























































| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  FormStack | Commerce Utility |  | 2% |
|  Forter | Client-side Security |  | 8% |
|  FourSixty | Social Media |  | 5% |
|  Freakarcade | Image Hosting |  | 2% |
|  FreeWheel | Ad Tech |  | 3% |
|  Freshworks Freshchat | Customer Service |  | 1% |
|  FriendBuy | Influencer and Affiliate Marketing |  | 1% |
|  Fullstory | Analytics |  | 7% |
|  Ghostery | Tag Management |  | 2% |
|  GitHub | Other |  | 3% |
|  Gladly | Customer Service |  | 4% |
|  Global-e | Channel Expansion |  | 4% |
|  GoInStore | Conversion Utility |  | 4% |
|  Google Ads | Ad Tech |  | 90% |
|  Google AMP | Performance |  | 2% |
|  Google Analytics Classic | Analytics |  | 30% |
|  Google Analytics Universal | Analytics |  | 98% |
|  Google APIs | Commerce Utility |  | 36% |
|  Google Cloud | Ecommerce Platform |  | 7% |
|  Google Customer Reviews | Customer Reviews |  | 6% |
|  Google Fonts | Font Management |  | 89% |
|  Google Maps | Maps |  | 39% |
|  Google Optimize | A/B Testing |  | 8% |
|  Google Pay | Payment Processing |  | 22% |
|  Google Plus | Social Media |  | 2% |
|  Google reCAPTCHA | Client-side Security |  | 62% |
|  Google Syndication | Ad Tech |  | 44% |
|  Google Tag Manager | Tag Management |  | 86% |
|  Google Translate | Commerce Utility |  | 62% |
|  Google Web Font Loader | Font Management |  | 11% |




























































| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  Gorgias | Customer Service |  | 6% |
|  Gravatar | Commerce Utility |  | 6% |
|  GroupBy | Commerce Search |  | 2% |
|  GumGum | Analytics |  | 1% |
|  Heap | Analytics |  | 4% |
|  HERO | Conversion Utility |  | 3% |
|  Hextom | Conversion Utility |  | 6% |
|  HiConversion | A/B Testing |  | 1% |
|  Hivewyre | Ad Tech |  | 2% |
|  Honey | Coupons and Deals - Browser Plugin |  | 48% |
|  Hotjar | Analytics |  | 28% |
|  IBM Core Metrics | Analytics |  | 2% |
|  IBM WCS | Ecommerce Platform |  | 4% |
|  Ibotta browser extension | Coupons and Deals - Browser Plugin |  | 33% |
|  Icon Finder | Commerce Utility |  | 2% |
|  iFrames | Commerce Utility |  | 12% |
|  ImgIX | Image Hosting |  | 6% |
|  INSIDE | Chat |  | 2% |
|  Instagram | Social Media |  | 36% |
|  Instana | APM |  | 4% |
|  InstantSearch+ | Commerce Search |  | 3% |
|  Integral Ad Science | Ad Tech |  | 1% |
|  Intercom | Chat |  | 1% |
|  InvisibleHand | Coupons and Deals - Browser Plugin |  | 4% |
|  ipify | Commerce Utility |  | 4% |
|  iSpot.tv | Analytics |  | 1% |
|  Jivox | Personalization |  | 2% |
|  Joinhoney | Coupons and Deals - Browser Plugin |  | 11% |
|  JotForm | Commerce Utility |  | 1% |
|  JudgeMe | Customer Reviews |  | 5% |



























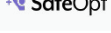



| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  Justuno | Conversion Utility |  | 4% |
|  Kaltura | Conversion Utility |  | 5% |
|  Karmanow | Coupons and Deals - Browser Plugin |  | 10% |
|  Karte | Analytics |  | 2% |
|  Kaspersky | Security |  | 52% |
|  Keen | Event Analytics |  | 5% |
|  Kenshoo | SEO Marketing |  | 4% |
|  Klarna | Payment Processing |  | 15% |
|  Klaviyo | Marketing Automation |  | 28% |
|  Klevu | Commerce Search |  | 2% |
|  Koala Inspector | Analytics |  | 13% |
|  Kustomer | Customer Service |  | 3% |
|  LaunchDarkly | Development Testing |  | 6% |
|  LeadProfit | Commerce Utility |  | 2% |
|  Lightbox | Conversion Utility |  | 1% |
|  Linc Global | Marketing Automation |  | 2% |
|  LinkedIn | Social Media |  | 10% |
|  LinkedIn Marketing Solutions | Social Media |  | 2% |
|  Listrak | Marketing Automation |  | 7% |
|  Littledata | Analytics |  | 2% |
|  Live Chat, Inc. | Chat |  | 2% |
|  LiveClicker | Marketing Automation |  | 1% |
|  LiveIntent | Ad Tech |  | 4% |
|  LivePerson | Chat |  | 7% |
|  LiveRamp | CDP and Identity |  | 6% |
|  Locally | Channel Expansion |  | 2% |
|  Loggly | Log Management |  | 10% |
|  loom | Commerce Utility |  | 61% |
|  Loox | Customer Reviews |  | 2% |
|  Lotame | Ad Tech |  | 5% |





























































| 3rd Party | Category | PIR | % of sites |
|---|------------------------------------|---|------------|
|  LoyaltyLion | Loyalty |  | 3% |
|  Lucky Orange - Settings | Analytics |  | 5% |
|  Magic Toolbox Magic Zoom Plus | Conversion Utility |  | 2% |
|  Mailchimp | Marketing Automation |  | 7% |
|  Mapbox | Maps |  | 3% |
|  Mapdirectionsfor | Maps |  | 19% |
|  Mark Monitor | A/B Testing |  | 26% |
|  Marketo | Marketing Automation |  | 3% |
|  Material Design Icons | Commerce Utility |  | 1% |
|  Maxmind | Conversion Utility |  | 1% |
|  McAfee SECURE | Client-side Security |  | 4% |
|  Medallia | Chat |  | 8% |
|  Media.net | Ad Tech |  | 9% |
| MediaMath | Ad Tech |  | 3% |
|  Mention Me | Influencer and Affiliate Marketing |  | 1% |
|  Merkle Search | Commerce Search |  | 2% |
|  Miaprova | A/B Testing |  | 3% |
|  MicroAd | Ad Tech |  | 1% |
|  Microsoft Translator | Commerce Utility |  | 38% |
|  MixPanel | Analytics |  | 15% |
|  Moat | Ad Tech |  | 1% |
|  Modesens | Conversion Utility |  | 11% |
|  Monetate | Personalization |  | 9% |
|  Moovweb | Ecommerce Platform |  | 1% |
|  Mouseflow | Analytics |  | 2% |
|  Moveable Ink | Personalization |  | 8% |
|  Moxie | Chat |  | 2% |
|  Moz | SEO Marketing |  | 19% |
|  MpEasyLink | Analytics |  | 2% |
|  Microsoft Clarity | Heatmap |  | 32% |





























































| | 3rd Party | Category | PIR | % of sites |
|---|----------------------------|------------------------------------|---|------------|
|  | MSN | Browser |  | 1% |
|  | MyRegistry.com | Conversion Utility |  | 2% |
|  | MyUS Shopping | Coupons and Deals - Browser Plugin |  | 2% |
|  | Narrativ | Personalization |  | 1% |
|  | Narvar | Customer Service |  | 3% |
|  | NaviStone | Marketing Automation |  | 1% |
|  | Netlify | Development Testing |  | 1% |
|  | NeuStar Ad Advisor | Ad Tech |  | 9% |
|  | New Relic | APM |  | 13% |
|  | Nextopia | Commerce Search |  | 1% |
|  | Noibu | Error Monitoring |  | 2% |
|  | Nosto | Personalization |  | 5% |
|  | ojrq.net | Malware/Adware |  | 6% |
|  | Okendo | Customer Reviews |  | 3% |
|  | Olapic | UGC |  | 2% |
|  | Olark | Chat |  | 1% |
|  | Omega Theme | Commerce Utility |  | 1% |
|  | One Signal | Push Marketing |  | 3% |
|  | OneTrust | Security |  | 30% |
|  | Opentok | Video API |  | 3% |
|  | OpenX | Ad Tech |  | 6% |
|  | Optimizely | A/B Testing |  | 6% |
|  | Optimonk | Conversion Utility |  | 1% |
|  | OptinMonster | Marketing Automation |  | 1% |
|  | Oracle BlueKai | Ad Tech |  | 6% |
|  | Oracle Eloqua | Marketing Automation |  | 1% |
|  | Oracle Engagement Services | CDP and Identity |  | 3% |
|  | Oracle Marketing | Marketing Automation |  | 1% |
|  | Oracle Maxymiser | A/B Testing |  | 1% |
|  | Oracle Responsys | Marketing Automation |  | 3% |













































| 3rd Party | Category | PIR | % of sites |
|---|------------------------------------|---|------------|
|  Oracle Service Cloud | Customer Service |  | 3% |
|  OrderGroove | Conversion Utility |  | 2% |
|  Oribi | Analytics |  | 1% |
|  Outbrain | Ad Tech |  | 5% |
|  Owl Carousel | Conversion Utility |  | 1% |
|  OwnerIQ | Ad Tech |  | 2% |
|  Oxi Social Login | Commerce Utility |  | 2% |
|  Pagemonitor | Error Monitoring |  | 1% |
|  pagespeed-mod.com | Performance |  | 28% |
|  Paypal | Payment Processing |  | 58% |
|  PCA Predict | Client-side Security |  | 5% |
|  Pebble Post | Direct Marketing |  | 5% |
|  Pepperjam | Influencer and Affiliate Marketing |  | 8% |
|  PerimeterX | Client-side Security |  | 8% |
|  Piggy - Automatic Coupons | Coupons and Deals - Browser Plugin |  | 20% |
|  Pingdom | APM |  | 3% |
|  Pinterest | Social Media |  | 55% |
|  Pixlee | UGC |  | 6% |
|  Placeholder | Image Hosting |  | 2% |
|  Podsights | Analytics |  | 4% |
|  Polyfill.io | Commerce Utility |  | 18% |
|  Postie | Direct Marketing |  | 1% |
|  Power Reviews | Customer Reviews |  | 8% |
|  Powr.io | Conversion Utility |  | 5% |
|  PriceBlink | Coupons and Deals - Browser Plugin |  | 17% |
|  PriceSpider | Coupons and Deals - Browser Plugin |  | 2% |
|  PrintDirections | Maps |  | 6% |
|  Privy | Conversion Utility |  | 7% |
|  Profile Engine | Social Media |  | 3% |
|  Publitas | Conversion Utility |  | 2% |

| | 3rd Party | Category | PIR | % of sites |
|---|-------------------------------------|------------------------------------|---|------------|
|  | PubMatic | Ad Tech |  | 5% |
|  | PulsePoint | Analytics |  | 5% |
|  | Push Owl | Push Marketing |  | 4% |
|  | Pushcrew | Push Marketing |  | 1% |
|  | Pusher | Push Marketing |  | 12% |
|  | Qikify | Conversion Utility |  | 3% |
|  | QuadPay | Payment Processing |  | 21% |
|  | Qualaroo | Analytics |  | 2% |
|  | Qualtrics | Analytics |  | 5% |
| Quantcast | Quantcast | Ad Tech |  | 9% |
|  | Quantum Metric | Analytics |  | 6% |
|  | Radial | Channel Expansion |  | 2% |
|  | Rakuten Marketing | Ad Tech |  | 14% |
|  | Rakuten: Get Cash Back For Shopping | Coupons and Deals - Browser Plugin |  | 7% |
|  | Rapleaf - Towerdata | Ad Tech |  | 14% |
|  | Rapsio | Ad Tech |  | 1% |
|  | Re:amaze | Customer Service |  | 2% |
|  | Rebuy | Conversion Utility |  | 3% |
|  | Reddit | Social Media |  | 5% |
|  | Refersion | Influencer and Affiliate Marketing |  | 4% |
|  | Reflektion | Personalization |  | 3% |
|  | Resonate | Ad Tech |  | 1% |
|  | RetailMeNot Deal Finder | Coupons and Deals - Browser Plugin |  | 20% |
|  | RewardStyle | Influencer and Affiliate Marketing |  | 9% |
|  | RhythmOne | Ad Tech |  | 4% |
|  | Rich Relevance | Personalization |  | 2% |
|  | Rise.ai | Loyalty |  | 5% |
|  | Riskified | Fraud |  | 4% |
|  | Roboturk | Commerce Utility |  | 2% |
|  | RockerBox | Marketing Automation |  | 1% |



























| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|-----|------------|
|  Roirevolution | Ad Tech | ✓ | 1% |
|  Rollbar | Error Monitoring | ✓ | 6% |
|  Route | Other | ✓ | 3% |
|  Rubicon Project | Ad Tech | ✗ | 5% |
|  RudderStack | CDP and Identity | ✓ | 34% |
|  SailThru | Marketing Automation | ⚡ | 2% |
|  SaleCycle | Conversion Utility | ⚡ | 1% |
|  Salesforce - Email Studio | Marketing Automation | ✓ | 2% |
|  Salesforce Audience Studio | Ad Tech | ⚡ | 9% |
|  Salesforce Commerce Cloud CQuotient | Personalization | ✗ | 18% |
|  Salesforce IGoDigital | Personalization | ⚡ | 8% |
|  Salesforce Live Agent | Chat | ✗ | 7% |
|  SAP Customer Data Cloud | CDP and Identity | ⚡ | 2% |
|  Scarab Research | Analytics | ⚡ | 3% |
|  Scorecard Research | Analytics | ⚡ | 4% |
|  Searchanise | Commerce Search | ✓ | 4% |
|  Searchingincognito | Browser | ✓ | 2% |
|  SearchSpring | Commerce Search | ⚡ | 3% |
|  Segment | CDP and Identity | ⚡ | 19% |
|  Sentry | Development Testing | ✓ | 58% |
|  SessionCam | Analytics | ✗ | 3% |
|  ShareASale | Influencer and Affiliate Marketing | ✓ | 3% |
|  Sharethis | Social Media | ⚡ | 13% |
|  ShareThrough | Ad Tech | ⚡ | 3% |
|  SheerID | Loyalty | ✓ | 2% |
|  Shogun Website Builder | Conversion Utility | ✓ | 9% |
|  SafeOpt | Price Comparison | ✓ | 3% |
|  Shopper Approved | Customer Reviews | ⚡ | 1% |
|  Shoprunner | Channel Expansion | ✗ | 5% |
|  Shoptagr - Your New Shopping Assistant | Coupons and Deals - Browser Plugin | ✓ | 11% |





























| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  Sidecar | Personalization |  | 2% |
|  Signal | Tag Management |  | 1% |
|  SignifyD | Fraud |  | 9% |
|  Simez | Ad Tech |  | 4% |
|  Simon Data | CDP and Identity |  | 2% |
|  Sitelab | Analytics |  | 6% |
|  SkimLinks | Influencer and Affiliate Marketing |  | 1% |
|  SLI Search | Commerce Search |  | 1% |
|  SmartAdServer | Ad Tech |  | 3% |
|  Smarter Remarketer | Ad Tech |  | 4% |
|  SmartGift | Loyalty |  | 1% |
|  smile.io | Loyalty |  | 3% |
|  Smsbump | Marketing Automation |  | 2% |
|  Snapchat | Social Media |  | 25% |
|  Sociomantic | Ad Tech |  | 1% |
|  Sovrn Commerce | Influencer and Affiliate Marketing |  | 1% |
|  Spectrum | Personalization |  | 1% |
|  spotxchange.com | Ad Tech |  | 3% |
|  Sprinklr | Social Media |  | 1% |
|  StackAdapt | Ad Tech |  | 4% |
|  Stamped IO | Customer Reviews |  | 7% |
|  Steelhouse | Ad Tech |  | 7% |
|  Stockist | Maps |  | 1% |
|  StoreMapper | Maps |  | 2% |
|  Stripe | Payment Processing |  | 5% |
|  Student Beans | Coupons and Deals - Browser Plugin |  | 2% |
|  Stylitics | Conversion Utility |  | 2% |
|  subwayblaze | Malware |  | 6% |
|  SuppleApps | Conversion Utility |  | 2% |
|  Swell Rewards | Loyalty |  | 3% |





























| 3rd Party | Category | PIR | % of sites |
|--|------------------------------------|---|------------|
|  Symantec | Security |  | 1% |
|  Syndigo | Channel Expansion |  | 1% |
|  Syte | Conversion Utility |  | 2% |
|  Taboola | Ad Tech |  | 8% |
|  Tailwind App | Influencer and Affiliate Marketing |  | 22% |
|  Talkable | Influencer and Affiliate Marketing |  | 5% |
|  Tangible | Conversion Utility |  | 3% |
|  Tapad | CDP and Identity |  | 3% |
|  Teads | Ad Tech |  | 3% |
|  TextUs | Marketing Automation |  | 3% |
|  The Trade Desk | Ad Tech |  | 25% |
|  TikTok | Social Media |  | 25% |
|  TokenEx | Security |  | 1% |
|  TotalAV | Commerce Utility |  | 27% |
|  Transportr | SEO Marketing |  | 2% |
|  TransUnion | CDP and Identity |  | 18% |
|  Traverse | Channel Expansion |  | 2% |
|  Trendmicro | Malware |  | 24% |
|  TrueFit | Conversion Utility |  | 10% |
|  TrustArc | Tag Management |  | 4% |
|  Trustedsite | Security |  | 3% |
|  TrustPilot | Customer Reviews |  | 3% |
|  Turnto | Customer Reviews |  | 6% |
|  TVPage | Video |  | 1% |
|  Twitter | Social Media |  | 21% |
|  Unboxd | Commerce Search |  | 2% |
|  Upsellit | Conversion Utility |  | 5% |
|  UsableNet | Accessibility |  | 3% |
|  UTag - Tealium | Tag Management |  | 15% |
|  Verizon Media | Ad Tech |  | 13% |





























| | 3rd Party | Category | PIR | % of sites |
|---|-------------------------------|------------------------------------|---|------------|
|  | Vibes | Influencer and Affiliate Marketing |  | 2% |
|  | VideoJS | Video |  | 7% |
|  | Vimeo | Video |  | 21% |
|  | VIR | Loyalty |  | 2% |
|  | Visa Checkout | Payment Processing |  | 2% |
|  | Visual Website Optimizer | A/B Testing |  | 5% |
|  | W3trends | Conversion Utility |  | 1% |
|  | WatchNewsNow | Chrome Extension |  | 6% |
|  | WebCollage | Ad Tech |  | 2% |
|  | Weglot | Commerce Utility |  | 2% |
|  | WisePops | Conversion Utility |  | 2% |
|  | Wistia | Video |  | 2% |
|  | Wufoo | Commerce Utility |  | 2% |
|  | Wunderkind (formerly BounceX) | Ad Tech |  | 15% |
|  | Xandr | Ad Tech |  | 17% |
|  | Yahoo Analytics | Ad Tech |  | 14% |
|  | Yandex | Search Engine |  | 17% |
|  | Yieldify | Personalization |  | 1% |
|  | Yotpo | Customer Reviews |  | 22% |
|  | Youtube | Video |  | 48% |
|  | Zaius | CDP and Identity |  | 1% |
|  | Zendesk | Chat |  | 12% |
|  | Zeta | Marketing Automation |  | 1% |
|  | ZMags | CMS |  | 3% |
|  | Zonos | Channel Expansion |  | 1% |
|  | ZoomInfo | Analytics |  | 32% |
|  | Zopim | Chat |  | 2% |





























Checkout 3rd Party Breakdown





























| | 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|------------------------|----------------------|--|----------------------------|
|  | 4Cite | CDP and Identity | 3% | NO |
|  | A3Cloud | Ad Tech | 1% | NO |
|  | accentuate.io | Commerce Utility | 1% | YES |
|  | accessiBe | Accessibility | 3% | YES |
|  | AcuityAds | Ad Tech | 0% | NO |
|  | Adacado | Ad Tech | 0% | NO |
|  | Addshoppers | Ad Tech | 0% | NO |
|  | AddThis | Social Media | 1% | NO |
|  | Adform | Ad Tech | 0% | NO |
|  | Adguard | Ad Blocking | 2% | NO |
|  | Adobe Analytics | Analytics | 6% | YES |
|  | Adobe Analytics Beacon | Analytics | 4% | YES |
|  | Adobe Dynamic Media | Image Hosting | 3% | YES |
|  | Adobe Fonts | Font Management | 7% | YES |
|  | Adobe Marketing Cloud | Marketing Automation | 12% | NO |
|  | Adobe Tag Manager | Tag Management | 6% | YES |
|  | Adobe Test and Target | A/B Testing | 0% | YES |
|  | Adroll | Ad Tech | 3% | NO |
|  | AdXcel | Ad Tech | 1% | NO |
|  | Adyen | Payment Processing | 4% | YES |
|  | Affirm | Payment Processing | 4% | YES |
|  | AfterPay | Payment Processing | 5% | YES |
|  | Aftership | Returns and Tracking | 0% | YES |
|  | AgileOne | CDP and Identity | 0% | NO |
|  | Akamai mPulse | Rum Analytics | 3% | YES |
|  | Akamai Stats | Analytics | 6% | YES |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  Algolia | Commerce Search | 1% | NO |
|  Amazon Advertising | Ad Tech | 3% | NO |
|  Amazon Pay | Payment Processing | 5% | YES |
|  American List Council | Analytics | 0% | YES |
|  Amobee | Ad Tech | 1% | NO |
|  AMP Project | Performance | 0% | YES |
|  Amplience | CMS | 1% | YES |
|  Amplitude | Analytics | 2% | YES |
|  App Link | SEO Marketing | 1% | NO |
|  AppDynamics | APM | 1% | YES |
|  AppMate Wishlist King | Conversion Utility | 1% | YES |
|  AppSolute | Conversion Utility | 1% | YES |
|  Attentive | Marketing Automation | 10% | NO |
|  AudioEye | Accessibility | 1% | YES |
|  Automatic Coupons | Coupons and Deals - Browser | 0% | NO |
|  Automizely | Commerce Utility | 0% | YES |
|  AvantLink | Influencer and Affiliate Marketing | 2% | NO |
|  Avast SafePrice Comparison, deals, cou- | Coupons and Deals - Browser | 0% | NO |
|  AVG SafePrice Comparison, deals, coupons | Coupons and Deals - Browser | 0% | NO |
|  BabyList | Conversion Utility | 0% | YES |
|  BackInStock | Conversion Utility | 3% | YES |
|  Bazaarvoice | Customer Reviews | 8% | NO |
|  Beeswax | Ad Tech | 1% | NO |
|  BidSwitch | Ad Tech | 1% | NO |
|  Bidtellect | Ad Tech | 0% | NO |
|  Bing | Search Engine | 24% | NO |
|  Bing Services | Search Engine | 12% | NO |
|  Bizrate Insights | Analytics | 2% | YES |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  Bloomreach | Commerce Search | 2% | NO |
|  Blue Triangle | Rum Analytics | 1% | YES |
|  Bluecore | Marketing Automation | 3% | NO |
|  Bold Commerce | Conversion Utility | 2% | YES |
|  Bold360 | Chat | 1% | YES |
|  Borderfree | Channel Expansion | 2% | NO |
|  Braintree | Payment Processing | 4% | YES |
|  Branch.io | Ad Tech | 1% | NO |
|  BrandLock | Coupons and Deals - Browser | 1% | NO |
|  Brightcove | Video | 1% | YES |
|  Brightedge | SEO Marketing | 1% | NO |
|  Bronto | Marketing Automation | 3% | NO |
|  bugsnag | Error Monitoring | 8% | YES |
|  Capital One Shopping | Coupons and Deals - Browser | 2% | NO |
|  Cardinal Commerce | Payment Processing | 1% | YES |
|  Carro | Influencer and Affiliate Marketing | 1% | NO |
|  Cartful Solutions | Conversion Utility | 0% | YES |
|  Casale Media | Ad Tech | 2% | NO |
|  Cently (Coupons at Checkout) | Coupons and Deals - Browser | 1% | NO |
|  centro | Ad Tech | 0% | NO |
|  Certona | Personalization | 2% | NO |
|  ChannelAdvisor | Channel Expansion | 1% | NO |
|  Chatra | Chat | 0% | YES |
|  Cheetah Digital | Marketing Automation | 0% | NO |
|  Ciuvo | Coupons and Deals - Browser | 1% | NO |
|  Clearbit | Analytics | 0% | YES |
|  ClickMeter | Analytics | 0% | YES |
|  Clicktale | Analytics | 0% | YES |




























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|------------------------------------|--|----------------------------|
|  Cloudinary | Image Hosting | 1% | YES |
|  Cloudsponge | Influencer and Affiliate Marketing | 1% | NO |
|  CNET Content Solutions | Channel Expansion | 0% | NO |
|  Co-op commerce | Channel Expansion | 0% | NO |
|  Code Blackbelt | Conversion Utility | 0% | YES |
|  Conductor.com | SEO Marketing | 1% | NO |
|  Confirmit | Analytics | 0% | YES |
|  Content Square | Analytics | 6% | YES |
|  Conversant | Loyalty | 5% | YES |
|  Convert | A/B Testing | 0% | YES |
|  CookieBot | Security | 1% | YES |
|  CookiePro | Security | 2% | YES |
|  Cordial | Marketing Automation | 1% | NO |
|  CoreMedia | CMS | 1% | YES |
|  Coupert - Automatic Coupon Finder | Coupons and Deals - Browser | 2% | NO |
|  Coupon Cabin | Coupons and Deals - Browser | 3% | NO |
|  Coupon Follow | Coupons and Deals - Browser | 1% | NO |
|  Coveo | Personalization | 2% | NO |
|  Crazyegg | Analytics | 3% | YES |
|  Criteo | Ad Tech | 11% | NO |
|  Cross Sell | Personalization | 1% | NO |
|  Curalate | UGC | 4% | NO |
|  CustomerFields | Personalization | 0% | NO |
|  Custora | CDP and Identity | 1% | NO |
|  Dash Hudson | Influencer and Affiliate Marketing | 0% | NO |
|  Datadog | APM | 2% | YES |
|  DataStream.io | Analytics | 1% | YES |
|  dataxu | Ad Tech | 1% | NO |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  DealFinder by VoucherCodes | Coupons and Deals - Browser | 0% | NO |
|  Decibel Insight | Analytics | 1% | YES |
|  Digicert | Commerce Utility | 1% | YES |
|  Disqus | Customer Reviews | 0% | NO |
|  Dynamic Yield | Personalization | 4% | NO |
|  Elevar | Analytics | 1% | YES |
|  Elfsight | Conversion Utility | 0% | YES |
|  Emojiis | Commerce Utility | 0% | YES |
|  EMX Digital | Ad Tech | 1% | NO |
|  Ensigniten | Tag Management | 2% | YES |
|  EqualWeb | Accessibility | 0% | YES |
|  Everest Tech | Development Testing | 5% | YES |
|  Evergage | Personalization | 1% | NO |
|  Evidon/Crownpeak | Commerce Utility | 0% | YES |
|  Exelator | Ad Tech | 0% | NO |
|  Exponea | CDP and Identity | 0% | NO |
|  Extole | Influencer and Affiliate Marketing | 1% | NO |
|  Eyeota | Ad Tech | 1% | NO |
|  Facebook | Social Media | 32% | NO |
|  Facebook Business | Ad Tech | 0% | NO |
|  Feefo | Customer Reviews | 0% | NO |
|  Five9 | Chat | 1% | YES |
|  Flash Talking | Ad Tech | 1% | NO |
|  Flow | Channel Expansion | 1% | NO |
|  Font Awesome | Font Management | 14% | YES |
|  Fonts by Hoefler & Co | Font Management | 1% | YES |
|  Fonts.com | Font Management | 5% | YES |
|  Foresee | Analytics | 0% | YES |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  FormStack | Commerce Utility | 0% | YES |
|  Forter | Client-side Security | 5% | YES |
|  FourSixty | Social Media | 1% | NO |
|  Freakarcade | Image Hosting | 0% | YES |
|  FreeWheel | Ad Tech | 1% | NO |
|  Freshworks Freshchat | Customer Service | 0% | YES |
|  FriendBuy | Influencer and Affiliate Marketing | 1% | NO |
|  Fullstory | Analytics | 3% | YES |
|  Ghostery | Tag Management | 0% | YES |
|  GitHub | Other | 0% | NO |
|  Gladly | Customer Service | 3% | YES |
|  Global-e | Channel Expansion | 2% | NO |
|  GoInStore | Conversion Utility | 1% | YES |
|  Google Ads | Ad Tech | 32% | NO |
|  Google AMP | Performance | 1% | YES |
|  Google Analytics Classic | Analytics | 5% | YES |
|  Google Analytics Universal | Analytics | 31% | YES |
|  Google APIs | Commerce Utility | 10% | YES |
|  Google Cloud | Ecommerce Platform | 2% | YES |
|  Google Customer Reviews | Customer Reviews | 2% | NO |
|  Google Fonts | Font Management | 29% | YES |
|  Google Maps | Maps | 11% | NO |
|  Google Optimize | A/B Testing | 3% | YES |
|  Google Pay | Payment Processing | 7% | YES |
|  Google Plus | Social Media | 0% | NO |
|  Google reCAPTCHA | Client-side Security | 14% | YES |
|  Google Syndication | Ad Tech | 10% | NO |
|  Google Tag Manager | Tag Management | 32% | YES |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|-----------------------------|--|----------------------------|
|  Google Translate | Commerce Utility | 15% | YES |
|  Google Web Font Loader | Font Management | 3% | YES |
|  Gorgias | Customer Service | 2% | YES |
|  Gravatar | Commerce Utility | 0% | YES |
|  GroupBy | Commerce Search | 2% | NO |
|  GumGum | Analytics | 0% | YES |
|  Heap | Analytics | 1% | YES |
|  HERO | Conversion Utility | 1% | YES |
|  Hextom | Conversion Utility | 1% | YES |
|  HiConversion | A/B Testing | 0% | YES |
|  Hivewyre | Ad Tech | 1% | NO |
|  Honey | Coupons and Deals - Browser | 16% | NO |
|  Hotjar | Analytics | 9% | YES |
|  IBM Core Metrics | Analytics | 1% | YES |
|  IBM WCS | Ecommerce Platform | 0% | YES |
|  Ibotta browser extension | Coupons and Deals - Browser | 11% | NO |
|  Icon Finder | Commerce Utility | 0% | YES |
|  iFrames | Commerce Utility | 2% | YES |
|  ImgIX | Image Hosting | 1% | YES |
|  INSIDE | Chat | 0% | YES |
|  Instagram | Social Media | 5% | NO |
|  InstantSearch+ | Commerce Search | 1% | NO |
|  Integral Ad Science | Ad Tech | 0% | NO |
|  Intercom | Chat | 0% | YES |
|  InvisibleHand | Coupons and Deals - Browser | 1% | NO |
|  ipify | Commerce Utility | 2% | YES |
|  iSpot.tv | Analytics | 0% | YES |
|  Jivox | Personalization | 1% | NO |





























| | 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|------------------------------|-----------------------------|--|----------------------------|
|  | Joinhoney | Coupons and Deals - Browser | 5% | NO |
|  | JotForm | Commerce Utility | 0% | YES |
|  | JudgeMe | Customer Reviews | 1% | NO |
|  | Justuno | Conversion Utility | 1% | YES |
|  | Kaltura | Conversion Utility | 0% | YES |
|  | Karmanow | Coupons and Deals - Browser | 2% | NO |
|  | Karte | Analytics | 0% | YES |
|  | Kaspersky | Security | 14% | YES |
|  | Keen | Event Analytics | 0% | YES |
|  | Kenshoo | SEO Marketing | 2% | NO |
|  | Klarna | Payment Processing | 7% | YES |
|  | Klaviyo | Marketing Automation | 10% | NO |
|  | Klevu | Commerce Search | 1% | NO |
|  | Koala Inspector | Analytics | 1% | YES |
|  | Kustomer | Customer Service | 1% | YES |
|  | LaunchDarkly | Development Testing | 1% | YES |
|  | LeadProfit | Commerce Utility | 0% | YES |
|  | Lightbox | Conversion Utility | 0% | YES |
|  | Linc Global | Marketing Automation | 1% | NO |
|  | LinkedIn | Social Media | 3% | NO |
|  | LinkedIn Marketing Solutions | Social Media | 0% | NO |
|  | Listrak | Marketing Automation | 2% | NO |
|  | Littledata | Analytics | 0% | YES |
|  | Live Chat, Inc. | Chat | 1% | YES |
|  | Liveclicker | Marketing Automation | 0% | NO |
|  | LiveIntent | Ad Tech | 2% | NO |
|  | LivePerson | Chat | 3% | YES |
|  | LiveRamp | CDP and Identity | 1% | NO |





























| | 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|-------------------------------|------------------------------------|--|----------------------------|
|  | Locally | Channel Expansion | 0% | NO |
|  | Loggly | Log Management | 4% | YES |
|  | loom | Commerce Utility | 16% | YES |
|  | Loox | Customer Reviews | 0% | NO |
|  | Lotame | Ad Tech | 1% | NO |
|  | LoyaltyLion | Loyalty | 1% | YES |
|  | Lucky Orange - Settings | Analytics | 1% | YES |
|  | Magic Toolbox Magic Zoom Plus | Conversion Utility | 0% | YES |
|  | Mailchimp | Marketing Automation | 1% | NO |
|  | Mapbox | Maps | 0% | NO |
|  | MapDirectionsFor | Maps | 3% | NO |
|  | Mark Monitor | A/B Testing | 1% | YES |
|  | Marketo | Marketing Automation | 0% | NO |
|  | Material Design Icons | Commerce Utility | 1% | YES |
|  | Maxmind | Conversion Utility | 0% | YES |
|  | McAfee SECURE | Client-side Security | 1% | YES |
|  | Medallia | Chat | 4% | YES |
|  | Media.net | Ad Tech | 4% | NO |
| MediaMath | MediaMath | Ad Tech | 1% | NO |
|  | Mention Me | Influencer and Affiliate Marketing | 0% | NO |
|  | Merkle Search | Commerce Search | 1% | NO |
|  | Miaprova | A/B Testing | 0% | YES |
|  | MicroAd | Ad Tech | 0% | NO |
|  | Microsoft Translator | Commerce Utility | 5% | YES |
|  | MixPanel | Analytics | 3% | YES |
|  | Moat | Ad Tech | 0% | NO |
|  | Modesens | Conversion Utility | 2% | YES |
|  | Monetate | Personalization | 5% | NO |





























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|-----------------------------|--|----------------------------|
|  Moovweb | Ecommerce Platform | 0% | YES |
|  Mouseflow | Analytics | 1% | YES |
|  Moveable Ink | Personalization | 4% | NO |
|  Moxie | Chat | 0% | YES |
|  Moz | SEO Marketing | 2% | NO |
|  MpEasyLink | Analytics | 0% | YES |
|  MS Clarity | Heatmap | 16% | YES |
|  MSN | Browser | 0% | NO |
|  MyRegistry.com | Conversion Utility | 0% | YES |
|  MyUS Shopping | Coupons and Deals - Browser | 0% | NO |
|  Narrativ | Personalization | 1% | NO |
|  Narvar | Customer Service | 0% | YES |
|  NaviStone | Marketing Automation | 0% | NO |
|  Netlify | Development Testing | 0% | YES |
|  NeuStar Ad Advisor | Ad Tech | 3% | NO |
|  New Relic | APM | 6% | YES |
|  Nextopia | Commerce Search | 0% | NO |
|  Noibu | Error Monitoring | 1% | YES |
|  Nosto | Personalization | 1% | NO |
|  ojrq.net | Malware/Adware | 2% | YES |
|  Okendo | Customer Reviews | 0% | NO |
|  Olapic | UGC | 0% | NO |
|  Olark | Chat | 0% | YES |
|  Omega Theme | Commerce Utility | 0% | YES |
|  One Signal | Push Marketing | 0% | NO |
|  OneTrust | Security | 10% | YES |
|  Opentok | Video API | 1% | YES |
|  OpenX | Ad Tech | 2% | NO |
























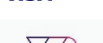




| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|------------------------------------|--|----------------------------|
|  Optimizely | A/B Testing | 2% | YES |
|  Optimonk | Conversion Utility | 0% | YES |
|  OptinMonster | Marketing Automation | 0% | NO |
|  Oracle BlueKai | Ad Tech | 3% | NO |
|  Oracle Eloqua | Marketing Automation | 0% | NO |
|  Oracle Engagement Services | CDP and Identity | 1% | NO |
|  Oracle Marketing | Marketing Automation | 0% | NO |
|  Oracle Maxymiser | A/B Testing | 1% | YES |
|  Oracle Responsys | Marketing Automation | 1% | NO |
|  Oracle Service Cloud | Customer Service | 1% | YES |
|  OrderGroove | Conversion Utility | 1% | YES |
|  Oribi | Analytics | 0% | YES |
|  Outbrain | Ad Tech | 2% | NO |
|  Owl Carousel | Conversion Utility | 0% | YES |
|  OwnerIQ | Ad Tech | 1% | NO |
|  Oxi Social Login | Commerce Utility | 1% | YES |
|  Pagemonitor | Error Monitoring | 0% | YES |
|  pagespeed-mod.com | Performance | 4% | YES |
|  Paypal | Payment Processing | 22% | YES |
|  PCA Predict | Client-side Security | 1% | YES |
|  Pebble Post | Direct Marketing | 2% | NO |
|  Pepperjam | Influencer and Affiliate Marketing | 4% | NO |
|  PerimeterX | Client-side Security | 4% | YES |
|  Piggy - Automatic Coupons | Coupons and Deals - Browser | 3% | NO |
|  Pingdom | APM | 1% | YES |
|  Pinterest | Social Media | 20% | NO |
|  Pixlee | UGC | 2% | NO |
|  Placeholder | Image Hosting | 0% | YES |



















| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|-----------------------------|--|----------------------------|
|  Podsigns | Analytics | 2% | YES |
|  Polyfill.io | Commerce Utility | 6% | YES |
|  Postie | Direct Marketing | 1% | NO |
|  Power Reviews | Customer Reviews | 2% | NO |
|  Powr.io | Conversion Utility | 1% | YES |
|  PriceBlink | Coupons and Deals - Browser | 4% | NO |
|  PriceSpider | Coupons and Deals - Browser | 0% | NO |
|  PrintDirections | Maps | 0% | NO |
|  Privy | Conversion Utility | 1% | YES |
|  Profile Engine | Social Media | 0% | NO |
|  Publitas | Conversion Utility | 0% | YES |
|  PubMatic | Ad Tech | 2% | NO |
|  PulsePoint | Analytics | 1% | YES |
|  Push Owl | Push Marketing | 1% | NO |
|  Pushcrew | Push Marketing | 0% | NO |
|  Pusher | Push Marketing | 0% | NO |
|  Qikify | Conversion Utility | 0% | YES |
|  QuadPay | Payment Processing | 6% | YES |
|  Qualaroo | Analytics | 1% | YES |
|  Qualtrics | Analytics | 3% | YES |
|  Quantcast | Ad Tech | 3% | NO |
|  Quantum Metric | Analytics | 3% | YES |
|  Radial | Channel Expansion | 0% | NO |
|  Rakuten Marketing | Ad Tech | 7% | NO |
|  Rakuten | Coupons and Deals - Browser | 1% | NO |
|  towerdata | Ad Tech | 7% | NO |
|  Rapsio | Ad Tech | 0% | NO |
|  Re:amaze | Customer Service | 1% | YES |

| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  Rebuy | Conversion Utility | 1% | YES |
|  Reddit | Social Media | 3% | NO |
|  Refersion | Influencer and Affiliate Marketing | 1% | NO |
|  Reflektion | Personalization | 1% | NO |
|  Resonate | Ad Tech | 0% | NO |
|  RetailMeNot Deal Finder | Coupons and Deals - Browser | 4% | NO |
|  RewardStyle | Influencer and Affiliate Marketing | 0% | NO |
|  RhythmOne | Ad Tech | 1% | NO |
|  Rich Relevance | Personalization | 1% | NO |
|  Rise.ai | Loyalty | 1% | YES |
|  Riskified | Fraud | 2% | YES |
|  RoboTurk | Commerce Utility | 0% | YES |
|  RockerBox | Marketing Automation | 0% | NO |
|  Roirevolution | Ad Tech | 0% | NO |
|  Rollbar | Error Monitoring | 1% | YES |
|  ROUTE for MERCHANTS | Other | 1% | NO |
|  rubicon PROJECT | Ad Tech | 1% | NO |
|  RudderStack | CDP and Identity | 7% | NO |
|  SAIL THRU | Marketing Automation | 1% | NO |
|  SaleCycle | Conversion Utility | 1% | YES |
|  salesforce | Marketing Automation | 0% | NO |
|  salesforce | Ad Tech | 2% | NO |
|  salesforce commerce cloud | Personalization | 10% | NO |
|  salesforce | Personalization | 6% | NO |
|  salesforce | Chat | 3% | YES |
|  SAP | SAP Customer Data Cloud | 1% | NO |
|  Scarab Research | Analytics | 1% | YES |
|  Scorecard Research | Analytics | 0% | YES |



























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  Searchanise | Commerce Search | 1% | NO |
|  Searchingincognito | Browser | 0% | NO |
|  SearchSpring | Commerce Search | 1% | NO |
|  Segment | CDP and Identity | 2% | NO |
|  Sentry | Development Testing | 22% | YES |
|  SessionCam | Analytics | 1% | YES |
|  ShareASale | Influencer and Affiliate Marketing | 0% | NO |
|  Sharethis | Social Media | 2% | NO |
|  ShareThrough | Ad Tech | 1% | NO |
|  SheerID | Loyalty | 0% | YES |
|  Shogun Website Builder | Conversion Utility | 3% | YES |
|  SafeOpt | Price Comparison | 1% | NO |
|  Shopper Approved | Customer Reviews | 0% | NO |
|  Shopranner | Channel Expansion | 2% | NO |
|  Shoptagr - Your New Shopping Assistant | Coupons and Deals - Browser | 1% | NO |
|  Sidecar | Personalization | 0% | NO |
|  Signal | Tag Management | 0% | YES |
|  SignifyD | Fraud | 4% | YES |
|  Simez | Ad Tech | 1% | NO |
|  Simon Data | CDP and Identity | 1% | NO |
|  Sitelab | Analytics | 2% | YES |
|  SkimLinks | Influencer and Affiliate Marketing | 0% | NO |
|  SLI Search | Commerce Search | 1% | NO |
|  SmartAdServer | Ad Tech | 0% | NO |
|  Smarter Remarketer | Ad Tech | 2% | NO |
|  SmartGift | Loyalty | 0% | YES |
|  smile.io | Loyalty | 1% | YES |
|  Smsbump | Marketing Automation | 1% | NO |






























| 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|--|------------------------------------|--|----------------------------|
|  Snapchat | Social Media | 11% | NO |
|  Sociomantic | Ad Tech | 0% | NO |
|  Sovrn Commerce | Influencer and Affiliate Marketing | 0% | NO |
|  Spectrum | Personalization | 0% | NO |
|  spotxchange.com | Ad Tech | 1% | NO |
|  Sprinklr | Social Media | 0% | NO |
|  StackAdapt | Ad Tech | 2% | NO |
|  Stamped IO | Customer Reviews | 2% | NO |
|  Steelhouse | Ad Tech | 3% | NO |
|  Stockist | Maps | 0% | NO |
|  StoreMapper | Maps | 0% | NO |
|  Stripe | Payment Processing | 1% | YES |
|  Student Beans | Coupons and Deals - Browser | 0% | NO |
|  Stylitics | Conversion Utility | 1% | YES |
|  subwayblaze | Malware | 1% | YES |
|  SuppleApps | Conversion Utility | 0% | YES |
|  Swell Rewards | Loyalty | 1% | YES |
|  Symantec | Security | 1% | YES |
|  Syndigo | Channel Expansion | 0% | NO |
|  Syte | Conversion Utility | 1% | YES |
|  Taboola | Ad Tech | 2% | NO |
|  Tailwind App | Influencer and Affiliate Marketing | 1% | NO |
|  Talkable | Influencer and Affiliate Marketing | 2% | NO |
|  Tangible | Conversion Utility | 0% | YES |
|  Tapad | CDP and Identity | 0% | NO |
|  Teads | Ad Tech | 1% | NO |
|  TextUs | Marketing Automation | 1% | NO |
|  The Trade Desk | Ad Tech | 11% | NO |






























| | 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|--------------------------|------------------------------------|--|----------------------------|
|  | TikTok | Social Media | 11% | NO |
|  | TokenEx | Security | 0% | YES |
|  | TotalAV | Commerce Utility | 5% | YES |
|  | Transportr | SEO Marketing | 0% | NO |
|  | TransUnion | CDP and Identity | 2% | NO |
|  | Traverse | Channel Expansion | 1% | NO |
|  | Trendmicro | Malware | 5% | YES |
|  | TrueFit | Conversion Utility | 4% | YES |
|  | Trust Arc | Tag Management | 3% | YES |
|  | Trustedsite | Security | 1% | YES |
|  | TrustPilot | Customer Reviews | 1% | NO |
|  | Turnto | Customer Reviews | 2% | NO |
|  | TVPage | Video | 0% | YES |
|  | Twitter | Social Media | 5% | NO |
|  | Unbxd | Commerce Search | 1% | NO |
|  | Upsellit | Conversion Utility | 1% | YES |
|  | UsableNet | Accessibility | 2% | YES |
|  | UTag - Tealium | Tag Management | 7% | YES |
|  | Verizon Media | Ad Tech | 2% | NO |
|  | Vibes | Influencer and Affiliate Marketing | 1% | NO |
|  | VideoJS | Video | 1% | YES |
|  | Vimeo | Video | 1% | YES |
|  | VIR | Loyalty | 1% | YES |
|  | Visa Checkout | Payment Processing | 1% | YES |
|  | Visual Website Optimizer | A/B Testing | 2% | YES |
|  | W3trends | Conversion Utility | 0% | YES |
|  | WatchNewsNow | Chrome Extension | 1% | NO |
|  | WebCollage | Ad Tech | 0% | NO |





























| | 3rd Party | Category | % of sites with this 3rd party on checkout | Should appear on checkout? |
|---|-------------------------------|----------------------|--|----------------------------|
|  | Weglot | Commerce Utility | 0% | YES |
|  | WisePops | Conversion Utility | 1% | YES |
|  | Wistia | Video | 0% | YES |
|  | Wufoo | Commerce Utility | 0% | YES |
|  | Wunderkind (formerly BounceX) | Ad Tech | 7% | NO |
|  | Xandr | Ad Tech | 6% | NO |
|  | Yahoo Analytics | Ad Tech | 6% | NO |
|  | Yandex | Search Engine | 2% | NO |
|  | Yieldify | Personalization | 0% | NO |
|  | Yotpo | Customer Reviews | 8% | NO |
|  | Youtube | Video | 4% | YES |
|  | Zaius | CDP and Identity | 0% | NO |
|  | Zendesk | Chat | 5% | YES |
|  | Zeta | Marketing Automation | 1% | NO |
|  | ZMags | CMS | 1% | YES |
|  | Zonos | Channel Expansion | 1% | NO |
|  | ZoomInfo | Analytics | 6% | YES |
|  | Zopim | Chat | 0% | YES |






























3rd Party Data Deep Dive






























| | 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|------------------------|----------------------|---------------------------------|-----------------------|---|
|  | 4Cite | CDP and Identity | 67 | 308 | 88% |
|  | accentuate.io | Commerce Utility | 121 | 468 | 48% |
|  | AddThis | Social Media | 26 | 438 | 4% |
|  | Adobe Analytics | Analytics | 26 | 244 | 84% |
|  | Adobe Analytics Beacon | Analytics | 12 | 243 | 90% |
|  | Adobe Dynamic Media | Image Hosting | 224 | 366 | 60% |
|  | Adobe Fonts | Font Management | 168 | 206 | 77% |
|  | Adobe Marketing Cloud | Marketing Automation | 38 | 418 | 46% |
|  | Adobe Tag Manager | Tag Management | 286 | 210 | 96% |
|  | Adroll | Ad Tech | 180 | 293 | 53% |
|  | Adyen | Payment Processing | 57 | 852 | 4% |
|  | Affirm | Payment Processing | 85 | 305 | 63% |
|  | AfterPay | Payment Processing | 63 | 502 | 58% |
|  | Akamai mPulse | Rum Analytics | 84 | 1081 | 89% |
|  | Akamai Stats | Analytics | 35 | 392 | 69% |
|  | Amazon Pay | Payment Processing | 70 | 374 | 30% |
|  | Amobee | Ad Tech | 65 | 604 | 39% |
|  | Amplience | CMS | 208 | 409 | 53% |
|  | Attentive | Marketing Automation | 110 | 297 | 87% |
|  | AudioEye | Accessibility | 62 | 151 | 98% |
|  | Bazaarvoice | Customer Reviews | 170 | 260 | 52% |
|  | Bidtellect | Ad Tech | 99 | 269 | 79% |
|  | Bing | Search Engine | 78 | 241 | 84% |
|  | Bing Services | Search Engine | 89 | 1974 | 1% |
|  | Bizrate Insights | Analytics | 82 | 1172 | 15% |
|  | Bluecore | Marketing Automation | 92 | 359 | 83% |

| 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|--------------------------|---------------------------------|-----------------------|---|
|  Borderfree | Channel Expansion | 60 | 421 | 71% |
|  Braintree | Payment Processing | 195 | 266 | 27% |
|  Branch.io | Ad Tech | 32 | 244 | 89% |
|  Brightcove | Video | 76 | 458 | 19% |
|  Brightedge | SEO Marketing | 91 | 176 | 82% |
|  Bronto | Marketing Automation | 197 | 1192 | 66% |
|  Cardinal Commerce | Payment Processing | 48 | 332 | 2% |
|  Cloudinary | Image Hosting | 773 | 370 | 47% |
|  Confirmit | Analytics | 46 | 304 | 92% |
|  Content Square | Analytics | 72 | 438 | 82% |
|  Conversant | Loyalty | 62 | 306 | 55% |
|  CoreMedia | CMS | 68 | 185 | 99% |
|  Coveo | Personalization | 42 | 452 | 76% |
|  Crazyegg | Analytics | 51 | 411 | 79% |
|  Criteo | Ad Tech | 84 | 471 | 70% |
|  Curalate | UGC | 73 | 431 | 70% |
|  DH Dash Hudson | Influencer and Affiliate | 117 | 1327 | 3% |
|  Dynamic Yield | Personalization | 185 | 256 | 95% |
|  Elevar | Analytics | 96 | 254 | 99% |
|  ENSIGHTEN Ensign | Tag Management | 210 | 202 | 77% |
|  Evergage | Personalization | 70 | 417 | 68% |
|  EVIDON Evidon/Crownpeak | Commerce Utility | 82 | 666 | 93% |
|  Extol | Influencer and Affiliate | 10 | 513 | 80% |
|  Facebook | Social Media | 78 | 233 | 87% |
|  Font Awesome | Font Management | 119 | 245 | 72% |
|  fonts.com | Font Management | 299 | 171 | 55% |
|  FORESEE Foresee | Analytics | 92 | 216 | 94% |
|  Forter | Client-side Security | 59 | 374 | 92% |
|  FOURSIXTY FourSixty | Social Media | 65 | 284 | 28% |

| 3rd Party | | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|----------------------------|----------------------|---------------------------------|-----------------------|---|
|  | Fullstory | Analytics | 60 | 576 | 63% |
|  | Gladly | Customer Service | 43 | 162 | 83% |
|  | Global-e | Channel Expansion | 147 | 145 | 79% |
|  | GoInStore | Conversion Utility | 68 | 342 | 57% |
|  | Google Ads | Ad Tech | 120 | 278 | 90% |
|  | Google Analytics Classic | Analytics | 80 | 406 | 41% |
|  | Google Analytics Universal | Analytics | 71 | 202 | 91% |
|  | Google APIs | Commerce Utility | 81 | 418 | 65% |
|  | Google Customer Reviews | Customer Reviews | 43 | 129 | 79% |
|  | Google Fonts | Font Management | 89 | 182 | 64% |
|  | Google Maps | Maps | 64 | 532 | 15% |
|  | Google Pay | Payment Processing | 46 | 373 | 21% |
|  | Google reCAPTCHA | Client-side Security | 44 | 373 | 31% |
|  | Google Syndication | Ad Tech | 22 | 223 | 20% |
|  | Google Tag Manager | Tag Management | 60 | 262 | 91% |
|  | Google Translate | Commerce Utility | 35 | 309 | 1% |
|  | Gorgias | Customer Service | 48 | 519 | 76% |
|  | Heap | Analytics | 54 | 241 | 93% |
|  | HERO | Conversion Utility | 55 | 573 | 81% |
|  | Hivewyre | Ad Tech | 58 | 475 | 69% |
|  | Honey | Coupons and Deals - | 41 | 216 | 2% |
|  | Hotjar | Analytics | 68 | 322 | 85% |
|  | ImgIX | Image Hosting | 876 | 460 | 34% |
|  | INSIDE | Chat | 34 | 549 | 90% |
|  | Instagram | Social Media | 75 | 530 | 41% |
|  | Justuno | Conversion Utility | 77 | 362 | 71% |
|  | Karte | Analytics | 49 | 866 | 55% |
|  | Kaspersky | Security | 27 | 424 | 1% |
|  | Kenshoo | SEO Marketing | 82 | 506 | 75% |

| | 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|----------------------------|--------------------------|---------------------------------|-----------------------|---|
|  | Klarna | Payment Processing | 70 | 421 | 50% |
|  | Klaviyo | Marketing Automation | 152 | 555 | 84% |
|  | Kustomer | Customer Service | 67 | 173 | 93% |
|  | Linc Global | Marketing Automation | 47 | 597 | 63% |
|  | Listrak | Marketing Automation | 48 | 277 | 97% |
|  | LiveIntent | Ad Tech | 63 | 309 | 82% |
|  | LivePerson | Chat | 74 | 945 | 67% |
|  | Locally | Channel Expansion | 78 | 3212 | 18% |
|  | Mark Monitor | A/B Testing | 87 | 450 | 8% |
|  | Marketo | Marketing Automation | 38 | 370 | 77% |
|  | McAfee SECURE | Client-side Security | 79 | 361 | 84% |
|  | Medallia | Chat | 77 | 223 | 85% |
|  | Media.net | Ad Tech | 86 | 663 | 44% |
| MediaMath | MediaMath | Ad Tech | 36 | 311 | 61% |
|  | Mention Me | Influencer and Affiliate | 84 | 205 | 7% |
|  | MixPanel | Analytics | 27 | 412 | 31% |
|  | Monetate | Personalization | 101 | 235 | 85% |
|  | Moveable Ink | Personalization | 40 | 437 | 79% |
|  | Moxie | Chat | 59 | 758 | 76% |
|  | MS Clarity | Heatmap | 71 | 495 | 65% |
|  | Narrativ | Personalization | 61 | 332 | 71% |
|  | New Relic | APM | 59 | 1448 | 87% |
|  | Nosto | Personalization | 105 | 229 | 93% |
|  | Olapic | UGC | 128 | 423 | 32% |
|  | One Signal | Push Marketing | 67 | 292 | 69% |
|  | OneTrust | Security | 128 | 133 | 93% |
|  | Optimizely | A/B Testing | 120 | 378 | 78% |
|  | Oracle Engagement Services | CDP and Identity | 57 | 392 | 31% |
|  | Oracle Responsys | Marketing Automation | 69 | 295 | 77% |

| | 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|---------------------------------------|------------------------------------|---------------------------------|-----------------------|---|
|  | Oracle Service Cloud | Customer Service | 166 | 656 | 42% |
|  | OrderGroove | Conversion Utility | 102 | 293 | 75% |
|  | Outbrain | Ad Tech | 41 | 507 | 78% |
|  | OwnerIQ | Ad Tech | 67 | 280 | 72.28% |
|  | Paypal | Payment Processing | 98 | 430 | 23.32% |
|  | PCA Predict | Client-side Security | 50 | 582 | 2.66% |
|  | Pebble Post | Direct Marketing | 46 | 239 | 82.38% |
|  | Pepperjam | Influencer and Affiliate Marketing | 34 | 369 | 79.88% |
|  | PerimeterX | Client-side Security | 42 | 287 | 88.14% |
|  | Pinterest | Social Media | 77 | 299 | 79.76% |
|  | Pixlee | UGC | 43 | 236 | 45.94% |
|  | Power Reviews | Customer Reviews | 104 | 261 | 51.64% |
|  | QuadPay | Payment Processing | 65 | 228 | 69.49% |
|  | Qualtrics | Analytics | 140 | 150 | 63.00% |
|  | Quantum Metric | Analytics | 46 | 500 | 82.29% |
|  | Rakuten Marketing | Ad Tech | 54 | 362 | 83.75% |
|  | Reflektion | Personalization | 67 | 292 | 97.34% |
|  | RhythmOne | Ad Tech | 4 | 223 | 11.28% |
|  | Rich Relevance | Personalization | 29 | 348 | 74.24% |
|  | Rise.ai | Loyalty | 29 | 287 | 93.54% |
|  | Riskified | Fraud | 1 | 294 | 63.83% |
|  | SailThru | Marketing Automation | 61 | 283 | 91.72% |
|  | Salesforce Audience Studio | Ad Tech | 44 | 421 | 27.77% |
|  | Salesforce Commerce Cloud CQuotient | Personalization | 70 | 278 | 98.62% |
|  | SalesForce IGoDigital | Personalization | 73 | 252 | 87.05% |
|  | Salesforce Live Agent | Chat | 124 | 1164 | 75.49% |
|  | Scarab Research | Analytics | 239 | 286 | 84.67% |
|  | SearchSpring | Commerce Search | 135 | 210 | 95.97% |
|  | Sentry | Development Testing | 21 | 312 | 8.48% |

| | 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|------------------------|--------------------|---------------------------------|-----------------------|---|
|  | SessionCam | Analytics | 68 | 389 | 64.50% |
|  | Shogun Website Builder | Conversion Utility | 150 | 227 | 91.14% |
|  | Shoprunner | Channel Expansion | 109 | 259 | 49.82% |
|  | Signal | Tag Management | 50 | 212 | 77.21% |
|  | SignifyD | Fraud | 54 | 367 | 85.75% |
|  | Simon Data | CDP and Identity | 51 | 327 | 94.54% |
|  | Sitelab | Analytics | 1 | 527 | 65.91% |
|  | Smarter Remarketer | Ad Tech | 12 | 346 | 76.43% |
|  | SmartGift | Loyalty | 45 | 103 | 84.09% |
|  | Snapchat | Social Media | 60 | 394 | 81.24% |
|  | Spectrum | Personalization | 154 | 610 | 3.22% |
|  | StackAdapt | Ad Tech | 49 | 243 | 92.36% |
|  | Stamped IO | Customer Reviews | 170 | 471 | 92.11% |
|  | Steelhouse | Ad Tech | 42 | 556 | 81.36% |
|  | Stylitics | Conversion Utility | 79 | 431 | 36.32% |
|  | Symantec | Security | 58 | 158 | 21.91% |
|  | Syte | Conversion Utility | 943 | 252 | 88.92% |
|  | Taboola | Ad Tech | 100 | 252 | 81.70% |
|  | Tangible | Conversion Utility | 63 | 580 | 29.30% |
|  | Teads | Ad Tech | 73 | 505 | 81.43% |
|  | The Trade Desk | Ad Tech | 70 | 248 | 70.40% |
|  | TikTok | Social Media | 76 | 437 | 84.64% |
|  | TrueFit | Conversion Utility | 101 | 203 | 42.87% |
|  | Trust Arc | Tag Management | 127 | 229 | 58.78% |
|  | Turnto | Customer Reviews | 89 | 172 | 77.79% |
|  | Twitter | Social Media | 76 | 457 | 57.75% |
|  | Unbxid | Commerce Search | 87 | 357 | 68.68% |
|  | Upsellit | Conversion Utility | 56 | 351 | 79.24% |
|  | UsableNet | Accessibility | 36 | 250 | 97.90% |

| 3rd Party | Category | Average Performance Impact (ms) | Finished Running (ms) | % of the site pages with this 3rd party |
|---|----------------------|---------------------------------|-----------------------|---|
|  UTag - Tealium | Tag Management | 328 | 178 | 90.44% |
|  Vimeo | Video | 69 | 773 | 35.63% |
|  Visa Checkout | Payment Processing | 31 | 263 | 4.09% |
|  Visual Website Optimizer | A/B Testing | 133 | 373 | 86.87% |
|  Wistia | Video | 104 | 272 | 53.11% |
|  Wunderkind (formerly BounceX) | Ad Tech | 76 | 301 | 80.30% |
|  Xandr | Ad Tech | 24 | 475 | 49.49% |
|  Yotpo | Customer Reviews | 199 | 380 | 79.01% |
|  Youtube | Video | 76 | 345 | 42.71% |
|  Zendesk | Chat | 82 | 203 | 88.53% |
|  Zeta | Marketing Automation | 49 | 251 | 70.50% |
|  ZMags | CMS | 137 | 789 | 39.58% |
|  Zonos | Channel Expansion | 72 | 321 | 73.58% |

Do you want the freedom to add any technology you'd like to your site, regardless of performance impact?

You can! Start with your Free eCommerce Site Performance Snapshot report.

[LEARN MORE](#)

Conclusion

Brands and retailers have been conditioned to trade-off site performance for innovation. There is a better way. By optimizing for digital experience, including site speed and performance, eCommerce sites can deliver rich AND fast shopper experiences. And, every second matters – a one second improvement in page load delivers 5.7% increase in conversion.

Leading brands and retailers turn to YOTTAA to make their sites load fast. YOTTAA's acceleration solutions are purpose-built to improve the performance of sophisticated eCommerce sites by optimizing the sequencing and loading of 3rd party technologies. With YOTTAA, brands and retailers make every shopping experience fast.

Don't trade-off innovation for performance. Get the strength of innovation at the speed of the shopper. As a result, your shoppers will get a better experience and you will see bounces drop and conversions go up.

YOTTAA

If you have built a website that includes many of the 3rd party technologies listed in this report, then you are already ahead of the game. But don't accept slower page load times as the forced "reality" of innovation... implement a fast, consistent, and scalable site.

Contact YOTTAA today to conduct a free trial of our eCommerce acceleration solutions, and find out how you can deliver an exceptionally fast eCommerce site, increased online conversions, and the best shopper experience possible.