



2019 eCOMMERCE LEADERS SURVEY

# Site Performance & Innovation Trends



# “Most retailers’ mobile performance is nothing short of *embarrassingly slow*.”

– Retail Systems Research (RSR)

The 2nd annual eCommerce Leaders Survey Report on Site Performance examines key online retail trends based on interviews with over 140 eCommerce executives from some of the industry’s biggest brands. Here are some of the key findings from this year’s report:



92% believe  
faster sites  
lead to higher  
conversion

## WEBSITE SPEED

- 92% believe a faster site leads to increased conversion
- 54% cite website speed & performance as a key initiative in 2019

## 3RD PARTY TECHNOLOGIES

- Retailers are planning to add 3-5 3rd parties to their sites in 2019
- 70% are planning on swapping out 3rd parties

## 2019 STRATEGIES

- 56% of retailers are planning to replatform in 2019
- 35% have a “desktop first” strategy



35% have a  
“desktop first”  
strategy

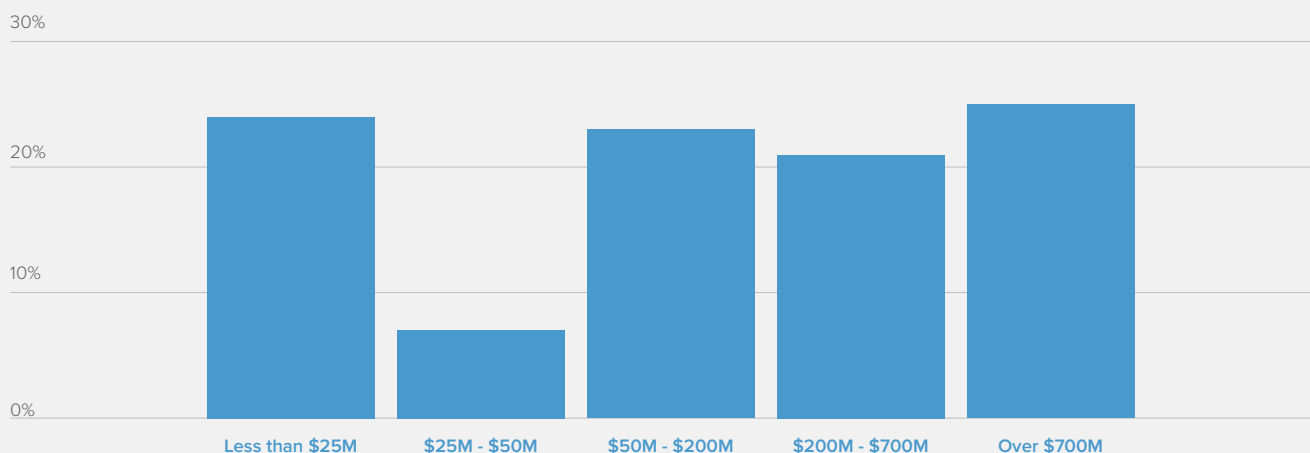
Similar to last year, the 2019 eCommerce Leaders Survey Report combines primary research data gathered from online retail executives with findings from a Retail Systems Research (RSR) report, “2018 eCommerce Website Performance: The Stakes Are Increasing But Are Retailers Falling Behind?” The report also includes data from the “eCommerce 3rd Party Technology Index”, published in October of 2018.

## Methodology

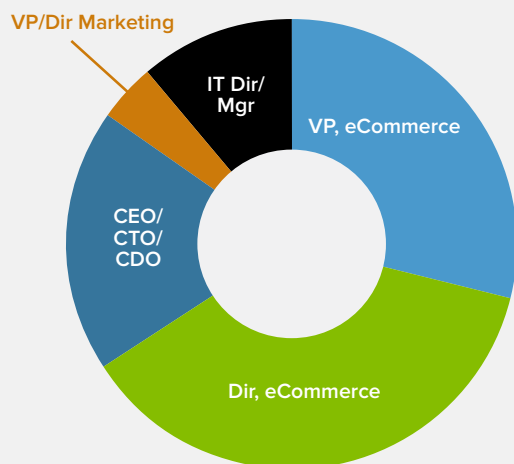
For this research report Yottaa interviewed **141** leaders from a wide range of eCommerce sites - from niche retailers all the way up to some of the biggest names in the industry. In order to measure the direct impact that performance has on the bottom line, we focused on executive titles from the line of business, such as Vice President of eCommerce, rather than IT executives. The research was collected both online and via telephone during a two week period in November of 2018.

### RESPONDENT DEMOGRAPHICS

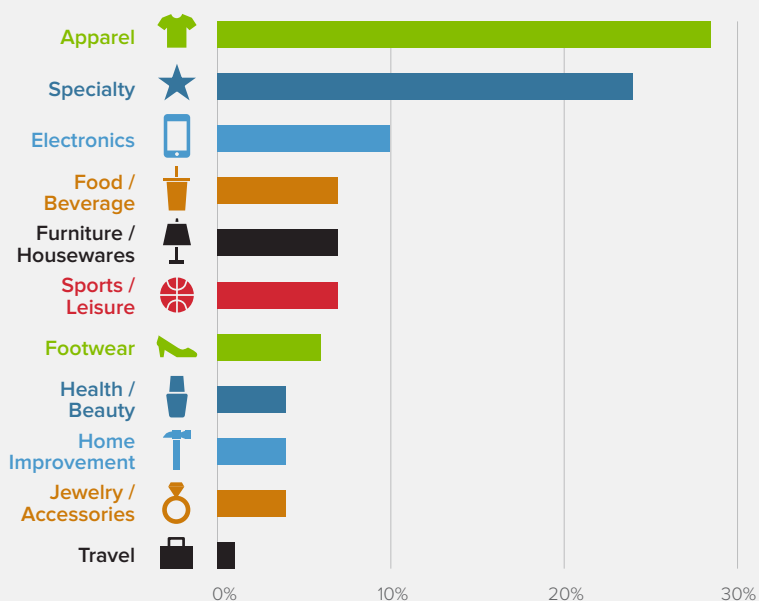
#### ONLINE REVENUE



#### TITLES



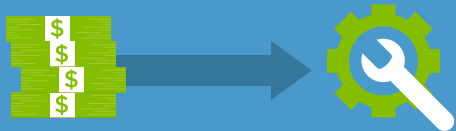
#### RETAIL SEGMENTS



# The 2019 eCommerce Leaders Survey: Summary of Findings



## Speed - Actions Speak Louder Than Words



**\$704,250**

is the average spend on custom performance tuning



## 3rd Parties Have Come Home to Roost

Retailers are embracing 3rd party technologies as the best route to innovation



average investment in 3rd party technologies with an average of 3 new 3rd parties in 2019



Some retailers stated site speed is not a problem, yet 100% of them are investing in fixing site performance in 2019

82% of large retailers are swapping out 3rd parties



## Replatforming & Other Key 2019 Initiatives

2019 will see increased eCommerce competition and innovation



**56%**

of retailers are planning to replatform in 2019



## 2018 Holiday: What Did We Learn?

Holiday often accounts for over 30% of annual eCommerce revenue



**70%**

tune site performance for the holiday

Top online retail initiative: mobile optimization



2018 Cyber Holiday saw over 20 eCommerce sites crash

# 1 Site Speed: Actions Speak Louder Than Words

While some survey respondents stated they felt that their websites were performing “fast enough,” more than half listed site speed improvement as a key initiative for 2019. Clearly, improving page load speed is top of mind and retailers are taking action to make their sites faster. Why? 92% believe a fast site leads to increased conversion and 74% believe shoppers will only wait 2-3 seconds for a page to load before bouncing to another site.



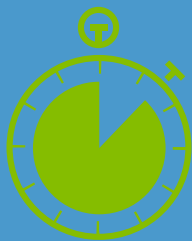
67%

have low conversions due to poor site performance



62%

say shoppers don't convert due to slow page load times



74%

say shoppers will only wait 2-3 seconds for a page to load or they will leave



92%

believe a faster site leads to increased conversion

## Everyone's in agreement - slow performance is a conversion killer

Almost everyone surveyed agreed that speed = conversion. And if slow performance happens during peak periods retailers can face serious bottom-line consequences. For example, during the 2018 holiday shopping season more than 20 retailers experienced either site outages or performance delays which cost them an estimated \$100 million in revenue. But slow performance can impact conversion on any day of the year, with a 7% loss in conversion for every second of site load latency.

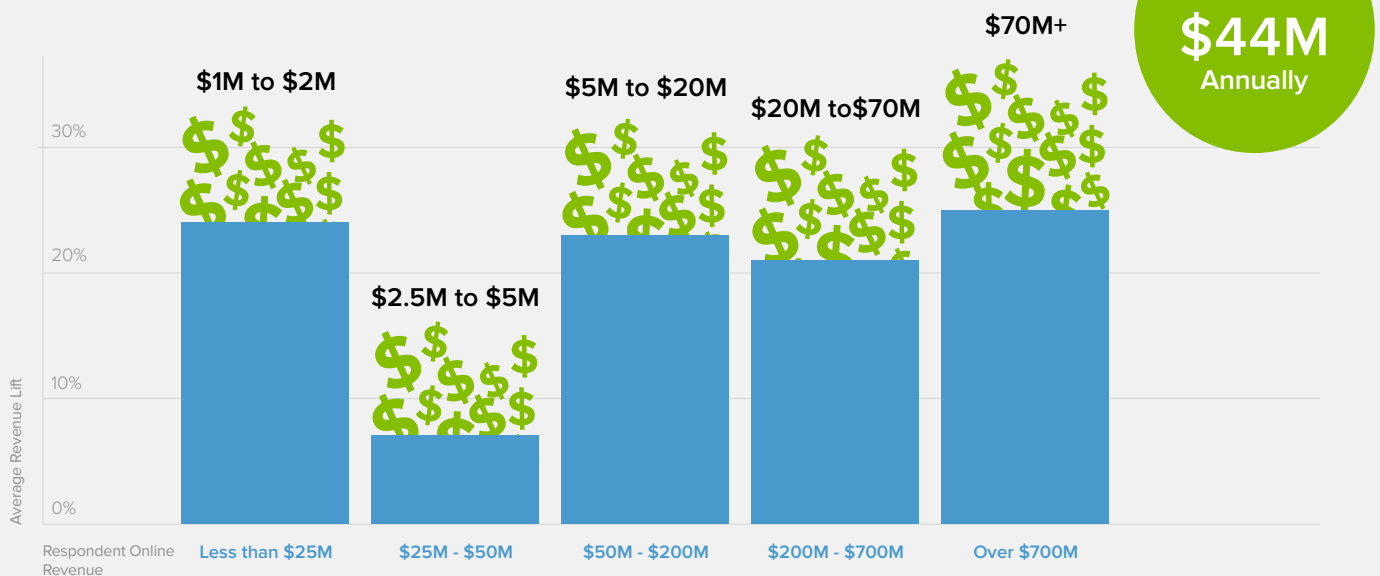


92% say slow sites don't convert

## What's in it for me? How does site performance impact my conversions?

eCommerce sites that are optimized for fast performance typically see a 10% lift in conversion. Below is a quick snapshot of conversion gains retailers can receive by optimizing site performance.

### REVENUE GAINS FROM SITE PERFORMANCE OPTIMIZATION



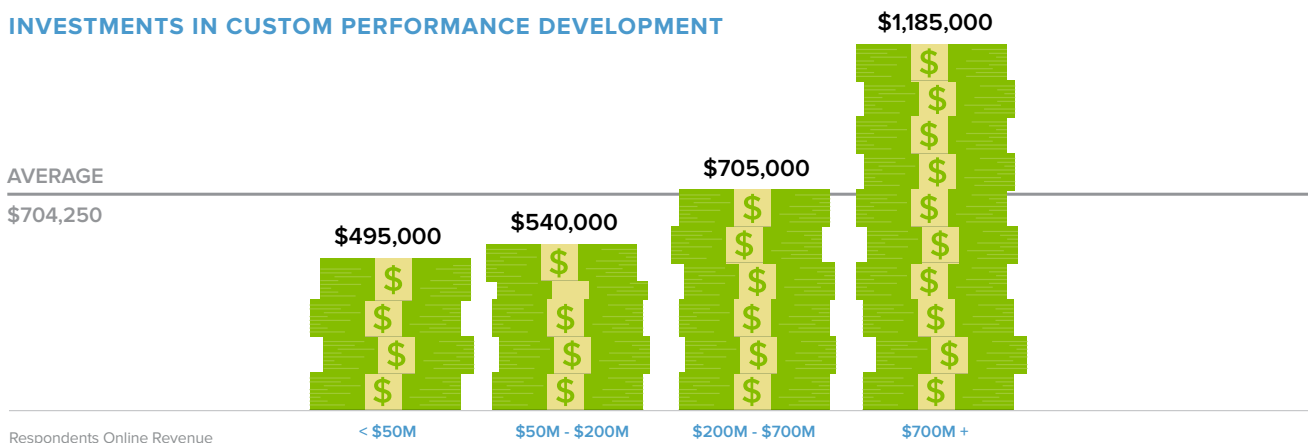
\*Assumes 10% conversion lift (for example, 2% to 2.2%) for survey respondents

## eCommerce leaders keep spending \$\$\$ on new technologies while increasing their focus on performance

In order to keep pace in a very competitive landscape, eCommerce leaders continue to make heavy investments to optimize sales. Areas of investment include Search Engine Optimization (SEO), third party technologies, and custom performance development. According to Retail Systems Research (RSR), the average retail website now uses between 40 to 60 third party technologies to create engaging online experiences. These findings were validated in our survey, with retailers investing \$1.4 million (average) on new technologies last year.




Alongside this investment in new technologies, over 80 survey respondents stated that website performance is a key initiative in 2019. This demonstrates that eCommerce leaders recognize the tie between new technologies and website performance: new features won't increase revenue if they are delaying pages from loading and driving shoppers away.

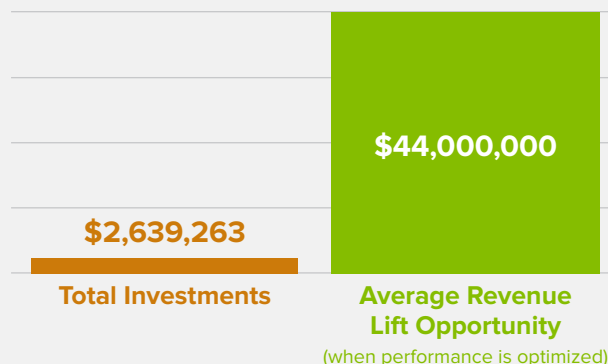
### INVESTMENTS IN CUSTOM PERFORMANCE DEVELOPMENT



## Where's the beef? Slow speed impacts eCommerce investment ROI

### AVERAGE INVESTMENT IMPACTED BY SLOW SITE PERFORMANCE

 Custom Performance Development	\$704,250
 SEO/Paid Search	\$522,340
 3rd Party Technologies	\$1,405,763
<b>Total Investments</b>	<b>\$2,639,263</b>



## When it comes to speed, size matters

Amazon and retailers in the Internet Retailer 500 often get the headlines in terms of online revenue and market share, while smaller retailers struggle to keep up. With smaller budgets and less technical resources at their disposal, retailers with less than \$200 million in online revenue are finding it hard to keep pace with the retail giants in terms of site performance.

### Retailers with **less than \$200m** in online revenue



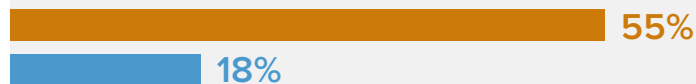
### Retailers with **greater than \$200m** in online revenue



Website not  
fast enough



Shoppers leave site  
due to slow page loads



Shoppers leave site  
after 3 seconds



Have 4 or more  
developers focused  
on performance



## Desperately seeking speed

The 2019 data revealed one group of respondents that are desperate to improve the performance of their site. They have a slow website, know they are losing shoppers after 2-3 seconds, and believe speed leads to higher conversion rates. Here's who fell into this group:

### We Need A Faster Website



do less than \$200M in online sales



55%

are specialty retailers

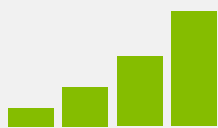


Use fewer 3rd party technologies  
but want to add more



Less tech resources  
to optimize site performance

### Are You Fast Enough or Way Too Slow?



Believes site  
could be better



Health & Beauty



Jewelry



Electronics



Believes site  
is fast enough



Apparel



Food & Beverage



Footwear

## Everyone knows the earth is round. Some still claim it's flat.

In spite of all the evidence to the contrary (from sources like Google, Amazon, Walmart, and many more), 5% of respondents still stubbornly contend that site speed has no direct impact on conversion. They also don't believe that shoppers will leave a site if it doesn't load in 2-3 seconds. They think their site speed is just fine. We call the people who fell into this group "flat earthers" and, while they may enjoy going against the grain, they are leaving money on the table by not fully addressing site performance. We also saw that they are not being completely honest, as 100% of them have site optimization

### Flat Earthers: "I don't believe in speed"



#### Less Innovative

Add fewer 3rd parties  
to their sites



#### Protected

IT restricts adding  
site technology



#### Desktop Centric

Less than 50% mobile  
transactions



## Hidden Secret

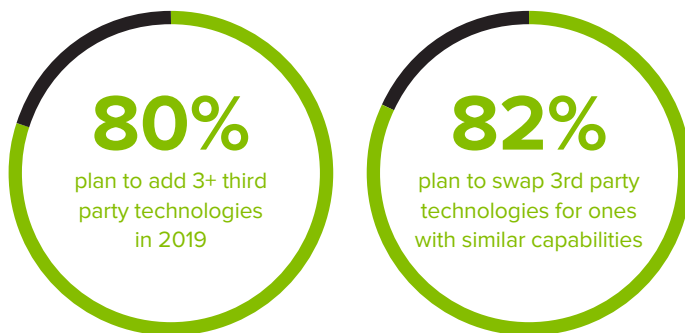
100% list site performance  
as a 2019 initiative

## 2 Third Parties Have Come Home To Roost

2018 saw retailers spending more and more on 3rd party technologies to improve online experiences for their shoppers. As stated previously, the average number of 3rd party technologies for an eCommerce site is now between 40-60. And the retail leaders we surveyed for this report indicated that they are adding even more 3rd parties to their sites.

### Large Retailers Embrace 3rd Parties

**LARGE RETAILERS (\$200M+) PLAN TO FILL THEIR FEATURE GAPS WITH 3RD PARTIES**



2018 was also the year that clearly demonstrated the significant impact a single 3rd party can have on site performance. A three hour outage of Google's DoubleClick ad technology caused many retail sites to take over a minute to load. The end result? These retailers lost over \$150 million in revenue as shoppers grew frustrated and left to shop at competing sites. Similarly, IBM CoreMetrics caused site outages for many retailers right in the middle of the peak 2018 holiday shopping season, which resulted in over \$100 million in lost revenue.

### Who Spends the Most/Least on 3rd Party Technologies?

#### \$3M - \$1.5M



Food/Beverage



Apparel



Home Improvement

#### \$1.5M - \$1M



Furniture/  
Housewares



Electronics



Footwear

#### \$1M - \$0.5M



Specialty



Jewelry/  
Accessories



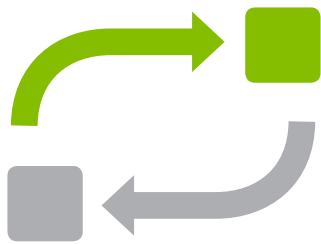
Sports/Leisure



Health/Beauty

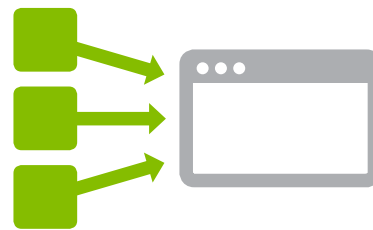
## 2019: Out with the old, in with the new

70% of respondents plan on swapping out 3rd parties in 2019 for similar offerings from other vendors. Additionally, 61% believe they have multiple 3rd parties doing the same thing and this is impacting both spend and performance. Based on these stats one thing is clear: retailers will be spending many cycles in 2019 evaluating and changing their mix of 3rd parties. But how will they know which 3rd parties are the best option, both in terms of functionality and site performance? Hundreds of retailers in the Internet Retailer 500 are using the [2018 eCommerce 3rd Party Technology Index](#) to discover and rate the performance impact of the top 200 eCommerce 3rd parties.



**70%**

plan to swap 3rd parties



**53%**

plan to add at least three 3rd parties to their site this year

## Average Investment in 3rd Party Technologies

**>\$1,000,000**

Spend over \$1 million per year on 3rd party features



Add three new 3rd party technologies to their eCommerce site annually

## eCommerce challenge: balancing site speed and shopper experience

As demonstrated by the fact that improving page load speed is a top priority in 2019 for 54% of the eCommerce leaders surveyed, it is clear that site performance is a major problem for retail websites. On the other hand, online shoppers demand the features and innovation offered by 3rd party technologies, which have been proven to slow down sites.

As shoppers continue shifting to mobile devices, their expectation for fast and personalized experiences will only increase. Retailers need to find ways to deliver these great 3rd party powered experiences without driving shoppers away with slow loading pages.



Retailers that take a “Mobile First” development approach spend more on 3rd parties than “Desktop First”



### No 3rd Parties Past this Point

# 58%

of eCommerce IT teams restrict the use of 3rd party technologies and rich content

In last year's report we talked about the 3rd party tug of war between the lines of business and IT. Not only does this tug of war continue, it has escalated with a 10% year-over-year increase in respondents stating that IT teams restrict the use of 3rd parties and content. The key takeaway here is that IT has caught on that 3rd parties are a big risk to performance and uptime. However, retailers need to find a way to end the tug of war so they can add all the 3rd parties needed to provide shoppers with engaging online experience while still having a fast site.

# 3 Re-Platforming, Mobile and Future Initiatives

## Re-platforming will define 2019 for large retailers

If you talk to an online retailer long enough, their development plans will eventually include the most dreaded term in eCommerce: “replatform.” In 2019 replatforming will be front and center for many retailers as more than half of the survey respondents indicated that they had plans to change eCommerce platforms in the next twelve months.

What’s driving all the replatforming? Here are some of the trends we gathered from our survey respondents.



## Large retailers are focused on innovation

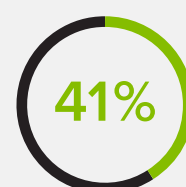
The largest retailers continue to lead the pack in terms of technology innovation. Not only are many of them in the process of replatforming, but many are working hard to fill feature gaps. Among replatforming retailers with over \$200M in annual online sales:



plan to add 3 or more  
3rd party features  
next year



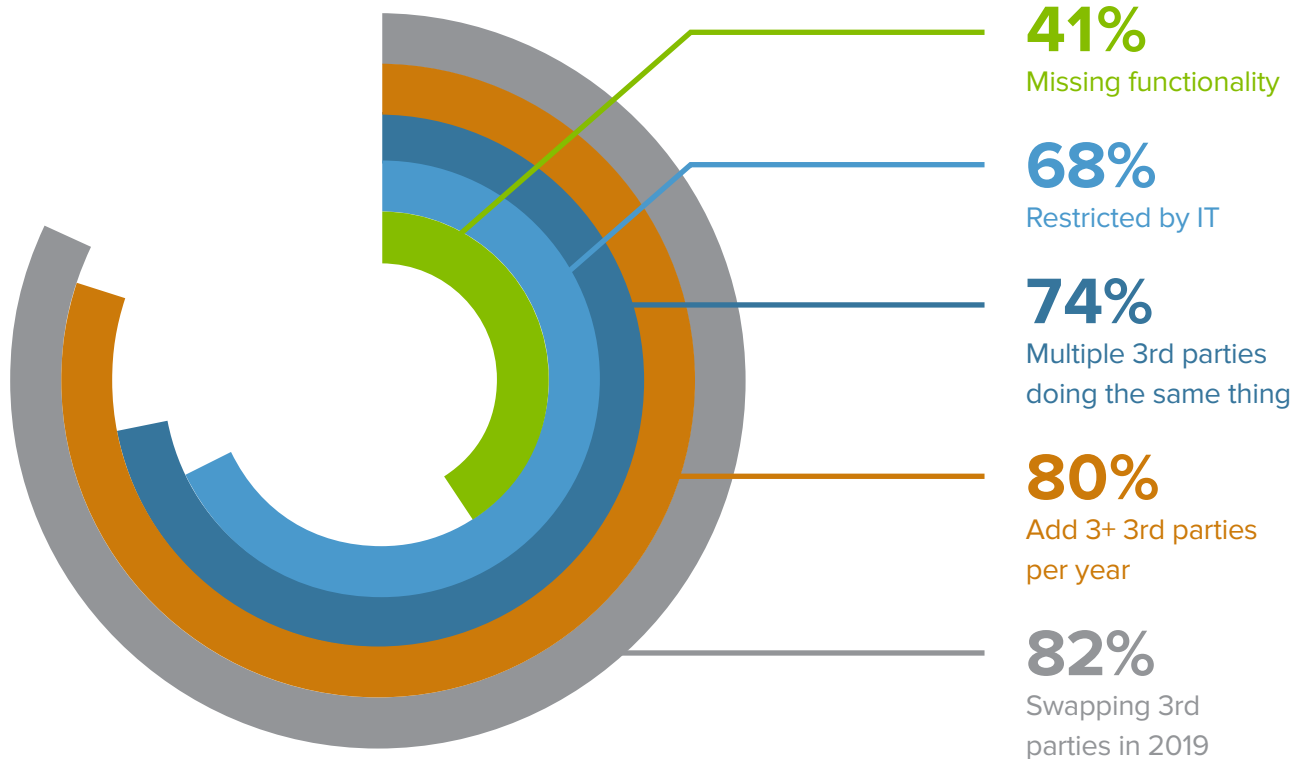
plan to swap 3rd party  
technologies for ones with  
similar capabilities



say they are still missing  
key features for shopper  
engagement

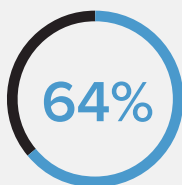
By changing platforms and adding more features, these retailers are hoping to gain more technology flexibility so they can deliver better online experiences for their shoppers. For example, 67% of respondents in this group stated they are looking for microservices ecommerce technologies to drive this flexibility. And 68% are hoping these changes will result in IT removing current restrictions on adding 3rd parties to their sites.

## Trends at the largest retailers



## Smaller retailers are replatforming with performance in mind

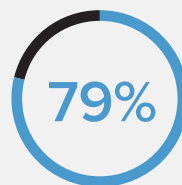
Retailers with less than \$200M in annual sales are re-platforming for different reasons. Site performance is a big concern as it is losing them shoppers and sales.



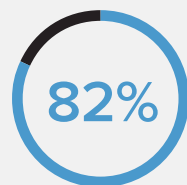
say their website is too slow



say shoppers leave their site because it's too slow



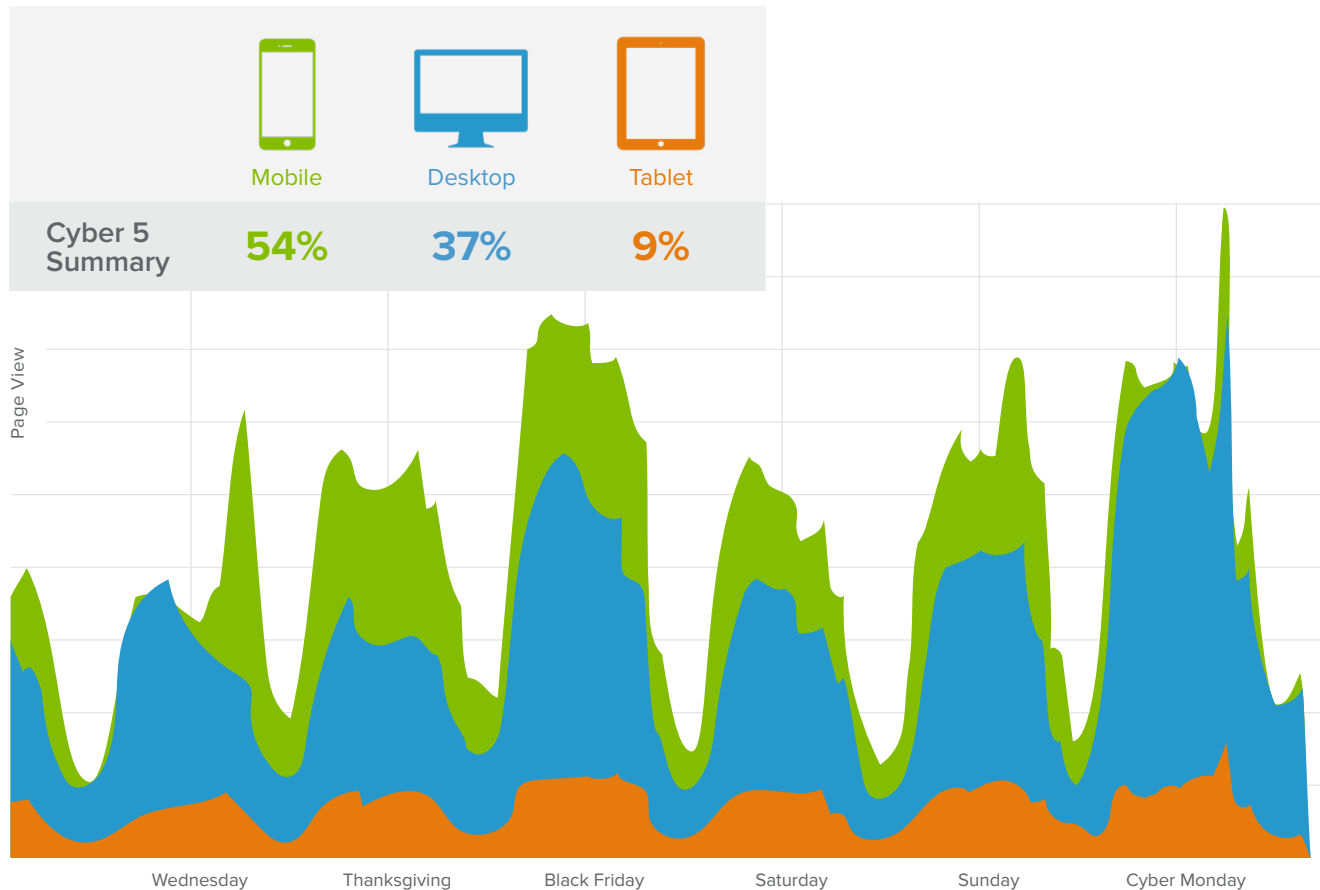
feel they need to be more innovative to compete



want to leave an outdated monolithic platform

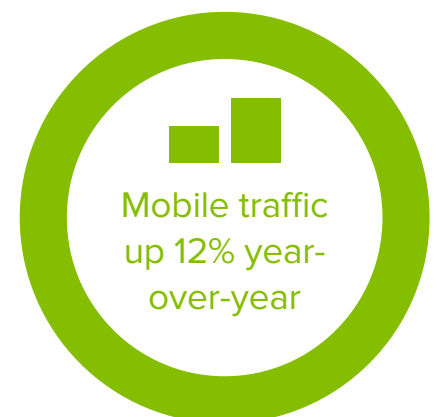
## Mobile at forefront of eCommerce strategy

Mobile continues to grow into the most important channel for online retailers with more than 46% of retailers surveyed stating that the majority of their annual sales are now from mobile devices. The most recent proofpoint of mobile's increasing dominance was the recent holiday shopping season where mobile traffic hit 54%, a 12% increase over 2017. With these kinds of metrics, it won't be long before mobile is the primary channel for all online retailers.



## “Mobile first” retailers have the most speed sensitive shoppers

For those retailers that do focus on mobile shoppers, speed and performance is a topic they take seriously. Mobile First retailers have shoppers that are more likely to leave due to poor website performance, and 75% believe shoppers will leave their site after waiting 2-3 seconds for a page to load.



## Shockingly, desktop is still the focus of over 1/3 of retailers

Not all retailers have put mobile as the centerpoint of their online strategy. In fact, a whopping **35% still have a “desktop first” strategy**. What makes this even more dumbfounding is that 10% of these retailers have mobile traffic over 50%. Will these retailers continue to prioritize desktop as mobile conversions skyrocket for the rest of the industry?

## Other innovation initiatives planned for 2019

Although re-platforming will dominate the plans of most in 2019, retailers have many other initiatives planned for the coming year. The common denominator? Website speed with 84% of respondents listing initiatives designed to make the shopping experience faster.

### Top Retail Initiatives



## Innovation is driving online revenue

What's driving all this eCommerce innovation? With more and more physical stores closing, multi-channel retailers are looking to their online channels to make up lost revenue with 52% of respondents saying they are feeling this pressure. And innovation in the shopping experience is key to making up that revenue and remaining competitive in the market. In fact, 63% feel they must continue to innovate on their site to effectively compete with other brands.

At the same time, eCommerce executives can't innovate as fast as they want. More than half are preparing to kick their eCommerce platform to the curb, and 58% say their IT teams actively limit their ability to add new technologies due to concerns over website performance.



### The 3 Second Rule

After waiting 3 seconds for a page to load, 66% of shoppers will leave the site.

According to Walmart and Amazon, every second after the 3 second mark costs retailers up to 7% in conversion.



Are PWAs the right investment?



Take more than a year to complete



Don't support all shopping features



Require separate mobile & desktop code bases



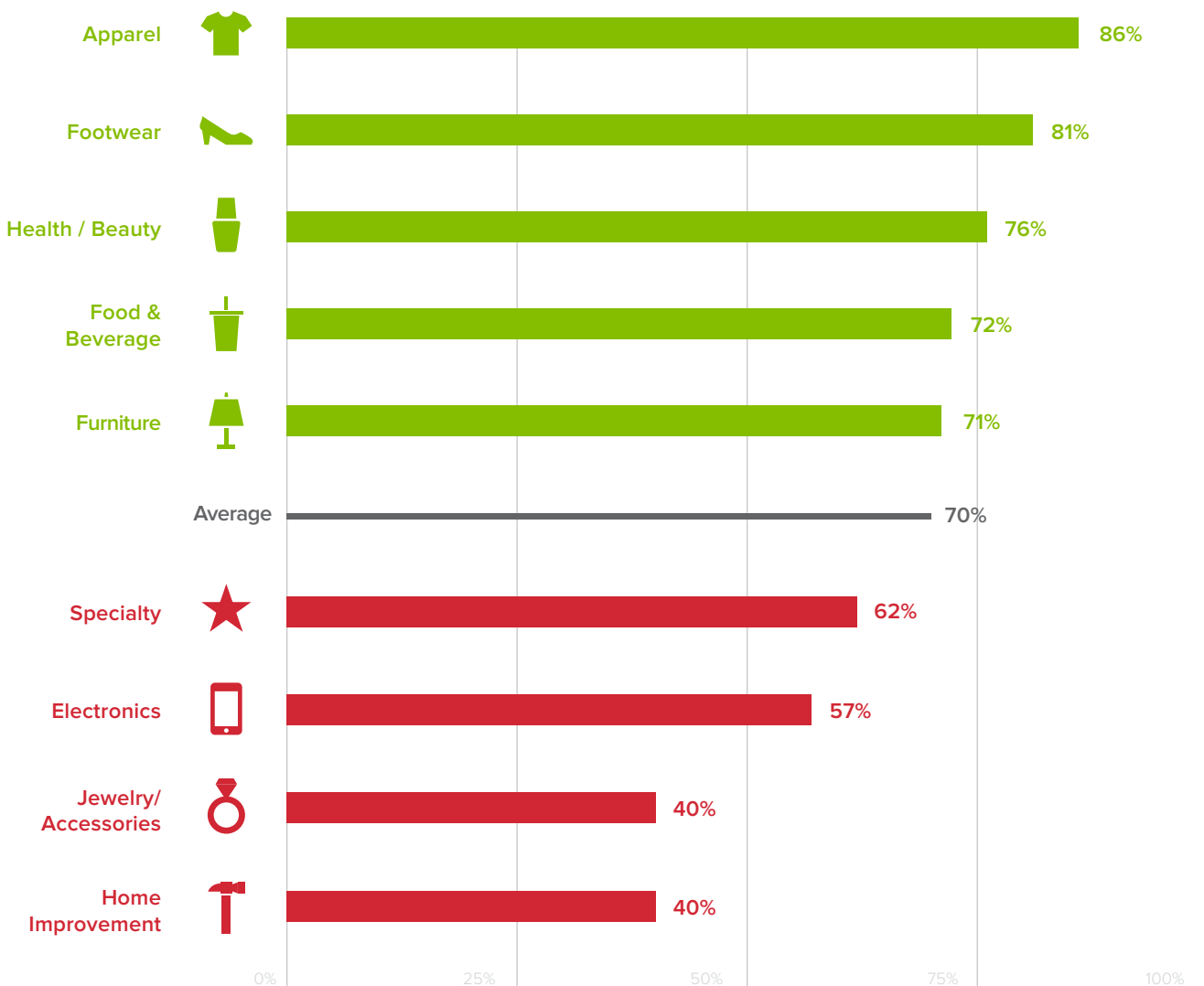
Very expensive



Caused numerous crashed sites during 2018 Cyber 5

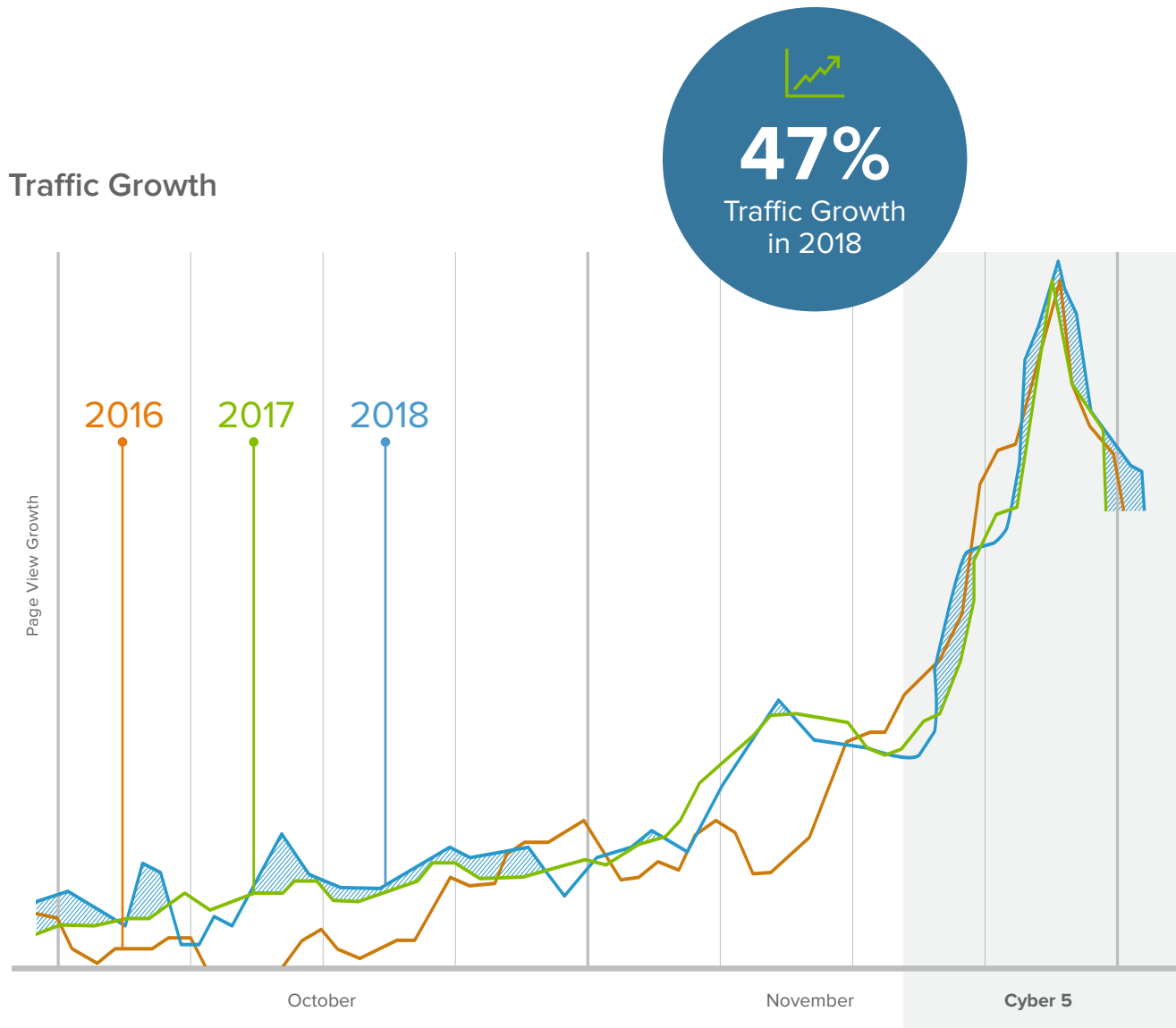
# 4 2018 Holiday Shopping Season - A Look Back

According to the National Retail Federation (NRF), for some retailers the holiday season can represent as much as 30% of annual sales. So it is not surprising that over 70% of eCommerce leaders reported that they tune their sites for performance prior to the holidays in order to maximize conversions. Here's a look at which retail segments tuned their sites prior to the 2018 holiday shopping season.



## 2018 Cyber 5 traffic: started earlier with higher overall growth

As we saw in 2017, retail website traffic for the 2018 Cyber 5 (Thanksgiving Day to Cyber Monday) started much earlier due to retailers racing each other to get the first sales promotions to the market. This resulted in a smoothing of traffic while traffic growth remained mostly consistent year-over-year with growth throughout the entire 5 day period. Overall, traffic during the Cyber 5 increased a whopping 47% year-over-year.





## Retailers favorite holiday present? Conversions

The graphic below shows the year-over-year conversion break-out for the 2018 Cyber 5 for both mobile and all devices. Mobile conversions grew an additional 40.2% over 2017 and mobile revenue increased by 38%. However, while the increase in conversion and revenue continued, the average conversion rate was still down year-over-year. This was due to shoppers waiting for better deals because sales kept going on and on. We expect this trend to continue for the 2019 holiday shopping season.



### Cyber 5 Conversion/Revenue

	 Mobile		 All Devices	
	2017	2018	2017	2018
Conversion Growth	34.7%	40.2%	17.9%	22.3%
Increase in Revenue	41.6%	38.1%	17.2%	10.1%
Average Conversion Rate	3.3%	3.1%	4.9%	3.9%

## Flawless holiday execution or #CYBER5FAIL

With Amazon gaining more and more market share, in 2018 it was critical for retailers that sell direct to consumers to make sure their holiday plans were executed flawlessly. In the past, retailers that have had site outages during peak periods treated an outage as a badge of honor with a rationale that their brand was so popular, shopper demand crashed their site. This is a failing mentality that costs retailers millions in revenue. With today's advanced technology there is no excuse for a site to crash during the Cyber 5.

That said, every year the industry sees two or three retailers that have significant site performance issues during the Cyber 5. During the 2018 Cyber 5 over 20 eCommerce sites had issues and this might be the result of retailers adding more and more 3rd party technologies to their sites (see section 2).

Below are retailers that experienced site outages/delays during the 2018 Cyber 5 as indicated from media articles and/or social media posts from their shoppers.

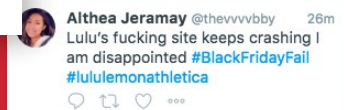
Barneys NY  
Express  
Fabletics  
Finish Line  
Forever 21

Game Stop  
Garage Clothing  
H&M  
Hollister Co  
J Crew

JustFab  
LL Bean  
Lowe's  
Lululemon  
Men's Wearhouse

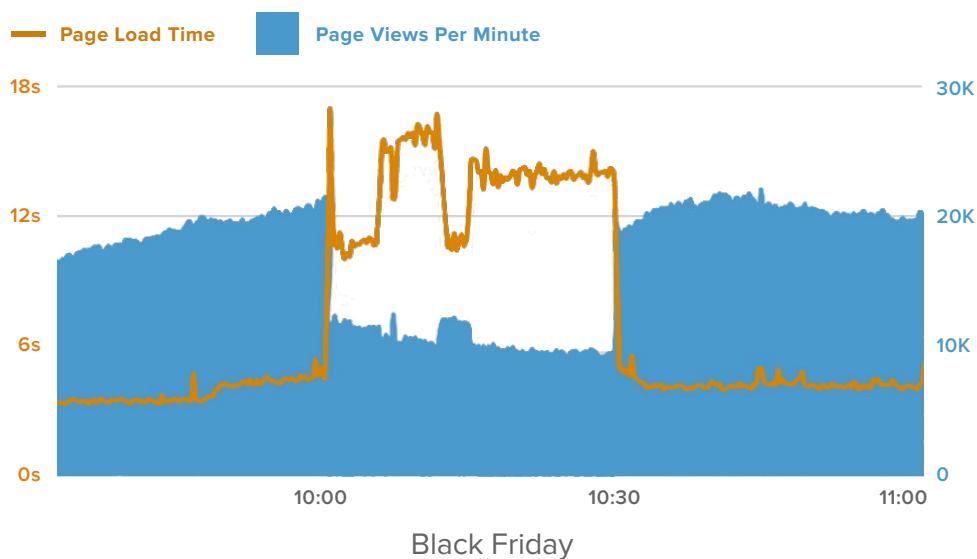
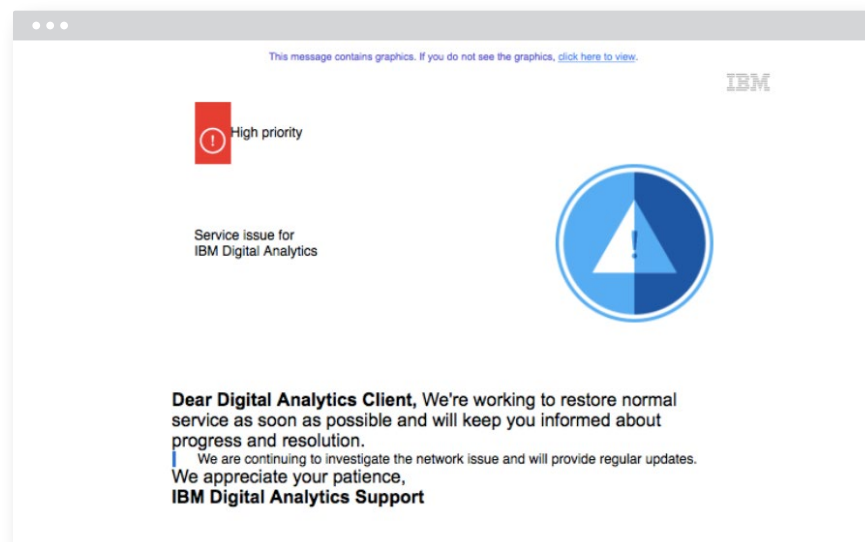
Monsoon UK  
Office Depot  
Pottery Barn  
Royal Caribbean  
ShoeDazzle

Target  
Ulta  
Uniglo  
Walmart



## Spotlight: Black Friday Fail

For many retailers, the 2018 holiday shopping season was not executed flawlessly. There were many fails. For example, on Black Friday some retailers were greeted with an email from IBM stating that analytics from IBM's Core metrics 3rd party were down and they had no estimated resolution time. For these retail sites traffic dropped by 50% instantly with shoppers assuming the site had crashed. Meanwhile, shoppers that remained on the site likely lost their carts. During the Core metrics outage, page load time jumped from 3-5 seconds to well over 12 seconds (see below), resulting in lost revenue as droves of shoppers bounced off retail sites with Core metrics to go shop other sites. And as discussed earlier, over 80% of retail leaders plan to add 3+ third party technologies in 2019. How can these retailers ensure that a 3rd party fail will not happen to them?



# Conclusion



In order to drive more revenue and be more competitive, retailers are increasing spending on innovative technology for their eCommerce sites. This is especially true for omni-channel retailers who are feeling pressured to drive more online revenue and make up for revenue lost from scores of brick and mortar store closings. And while innovative 3rd party eCommerce technologies can help improve shopper experience and increase online sales, when they are not performing optimally they can actually drive shoppers away. If there was one clear takeaway from this year's eCommerce Leaders Survey it is that retailers are still struggling to balance online innovation and revenue.

## Retailers will innovate in 2019

One of the surprising findings from this year's survey was how dissatisfied retailers are with their current technologies. This was supported by the fact that an incredible 56% of retailers are replatforming this year. And when you combine this with the fact that 70% of all retailers surveyed are planning on swapping out 3rd parties for new vendors in 2019, it becomes clear that these retailers are not just sitting on their hands and hoping for higher online conversions. They are taking action by moving to new eCommerce platforms, adding new 3rd parties to their sites, or changing the 3rd parties they currently have in favor of ones they feel will be more effective. In short, retailers are betting that their 2019 innovation investments will pay off with faster, higher converting sites that offer their shoppers engaging online experiences.

## Common denominator: site performance

If there was one thing nearly all retailers agreed on it is the importance of site performance with 92% believing a faster site leads to increased conversion. This was further backed up by the fact that nearly 60% of all survey respondents cited website speed and performance as a key initiative in 2019. But while retail leaders are taking steps to make their sites faster, they are, on average, also looking to add 3 to 5 new 3rd party technologies to their sites. This might sabotage their performance efforts as 3rd parties have been proven to slow down site speed.

## Solving the balancing act

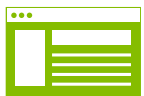
And this leads to the balancing act retailers must complete in 2019. As we stated in last year's report eCommerce leaders face a tug of war when it comes to site performance and shopper experience. Unfortunately, this tug of war continues today as retailers are both working to make their sites faster AND also racing to add page heavy 3rd party technologies to creating feature-rich online experiences for shoppers. But with a 10% year-over-year increase in respondents stating IT teams restrict them from using 3rd parties and content due to their impact on site performance, adding new 3rd party features and keeping the site fast is only getting harder and harder to accomplish.

## What Can You Do?

Given that 92% of survey respondents believe a faster site leads to increased conversion it is pretty clear that site performance has a direct correlation to online sales. And this has been supported by industry research studies that have measured the impact of site performance, showing that when an eCommerce website doesn't load within 3 seconds, 57% of shoppers will leave. After 5 seconds, 85% of shoppers will leave. And every second of additional page load time results in a 7% loss in conversion.

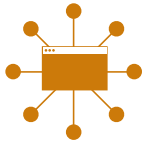
### **You don't have to live with these results.**

*Yottaa's eCommerce Acceleration Platform* enables online retailers to significantly improve website speed and performance across all devices, resulting in higher conversions and more engaging shopper experiences. The cloud-based platform optimizes and sequences all your website assets:



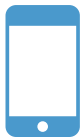
### Static & Dynamic Content

In today's fast-paced eCommerce market, retailers must deliver rich and engaging content as quickly as possible to their shoppers or risk losing sales to competing sites. [Yottaa's InstantOn](#) allows for "instant" shopper engagement by automatically identifying, optimizing, and caching static content, while at the same time decoupling dynamic content, which Yottaa then injects into the browser once it's available. The end result: rich, engaging pages that load instantly.



## 3rd Parties

The average eCommerce site has between 40-60 third party technologies to provide richer experiences for their shoppers. These applications, such as live chat, personalization, recommendations, adtech, and social media channels are essential in terms of building brand loyalty and engaging customers. While these applications provide better shopper experiences, they also significantly impact the performance of eCommerce websites. The average retail web page makes 300 calls to 100 servers for every page view, each representing a possible point of failure. [Yottaa's Application Sequencing](#) enables sites to optimally manage the execution of 1st and 3rd party assets, so even the most engaging (and 3rd party heavy) pages load quickly and are instantly interactive.



## Mobile

More and more shoppers on eCommerce sites are coming from mobile devices, but most do not convert to a purchase. Slow load times on responsive-designed (RWD) mobile sites is a leading cause of low mobile conversions. Yottaa accelerates website content across all devices resulting in significantly increased page load speeds on mobile devices and ensuring that RWD does not impact mobile performance. This enables online retailers to complete the evolution from mobile commerce as a secondary channel to the primary driver of more robust retail revenues.



## Images

Images greatly enhance online experiences by providing multi-angle, high-resolution views of products shoppers are seeking. But they also significantly impact page load times due to their larger size. Yottaa's Content Transformation provides eCommerce companies with the ability to control how web page content is rendered through lazy loading, compression, and transcoding of images with no code change. This allows retailers to keep their content-rich site as is, while rendering it smarter and faster within the browser.